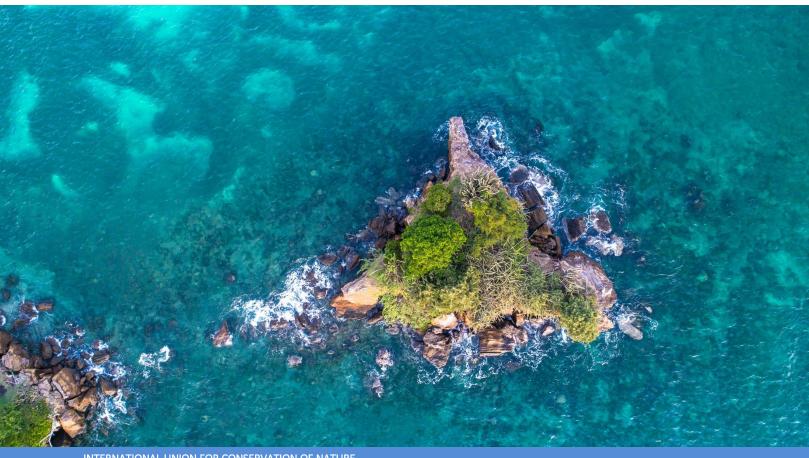


Policy analysis and development of policy recommendations to reduce plastic waste in Grenada

Final report



INTERNATIONAL UNION FOR CONSERVATION OF NATURE



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ACRONYMS

ALDFG - Abandoned, lost, or otherwise discarded fishing gear

CBD – The Convention on Biological Diversity

CBD - Caribbean Development Bank

CROP - Caribbean Regional Oceanscape Project

GCF - Green Climate Fund

GEF - Global Environment Facility

GoG - Government of Grenada

GHTA - Grenada Hotel and Tourism Authority

GIZ - Federated Ministry of Economic Cooperation and Development of Germany

GSWMA - The Grenada Solid Waste Management Authority

GTA - Grenada Tourism Authority

GPWM - Global Partnership on Waste Management

HDPE - High-Density Polyethylene

LDPE - Low-Density Polyethylene

PET - Polyethylene Terephthalate

PP - Polypropylene

PS - Polystyrene

PWFI - Plastic Waste Free Islands

PVC - Polyvinyl chloride

IMO - International Maritime Organization

IUCN - International Union for the Conservation of Nature

OECS - Organization of Eastern Caribbean States

MoECR - Ministry of Environment and Climate Resilience

MARPOL - The International Convention for the Prevention of Pollution from Ships

NBWCA 2018 - Non-Biodegradable Waste Control Act of 2018

SIDS - Small Island Developing States

UN Environment - UN Environment Programme

UNEA - The United Nations Assembly

UNDP - United Nations Development Programme

UNFCCC - United Nations Framework Convention on Climate Change

EXECUTIVE SUMMARY

To support the work of The Plastic Waste Free Islands (PWFI) within the Caribbean region, this report assesses the status of plastic waste management in Grenada, including reviewing key international, regional and national policy instruments and initiatives, evaluating the extent of plastic waste leakage within the Tourism, Waste Management and Fisheries Sector and identifying key gaps in progress toward ensuring improved waste management in Grenada. While there is no single international policy framework on plastic waste management, several key international conventions across waste management, pollution, climate, biodiversity and sustainable development include supportive language and targets that call for the reduction of plastic leakage, including harmful and hazardous plastic products within natural environments, particularly our global Oceans. Some international agreements like the 2030 Agenda for Sustainable Development include targets and milestones while others acknowledge the growing concern of accumulated and unrecycled virgin plastic.

Regional policy on plastic waste is often in the form of weak declarations or frameworks without strong and anchoring legal mandates and unlike some international agreements do not have set targets or milestones to support urgent action. Small Island Developing States (SIDS), like Grenada, have been the recipient of several initiatives that drive much needed policy action and implementation. However, in the case of Grenada despite its recent improvements in plastic waste legislation through the adoption of plastic bans on, like most SIDS, Grenada does not have a long term and comprehensive plan in place to drive integrated plastic waste management across all its economic sectors, including tourism and fisheries. While Grenada's waste management system covers the entirety of the island, the country does not have a strategic plan of action to adequately manage and reduce plastic waste entering its landfills and plastic litter, nor has it identified a long-term sustainable financing mechanism to support the execution of such a strategic plan.

By adjusting its policy and legislative framework and solid waste management operations, Grenada would better improve its management of plastic waste. Further, the commercial, tourism and fisheries sectors in Grenada can play and influential role in ensuring that the country improves ownership over plastic waste management strategies including mind set and behaviour changes and reduces its dependence on imported plastic products.

PROJECT BACKGROUND

The PWFI project, funded by the Norwegian Agency for Development Cooperation (NORAD) and implemented by IUCN, seeks to make a significant, quantified reduction in plastic waste generation and leakage within the planned project timeframe of three years. This is a global initiative targeting the Pacific and Caribbean Small Island Developing States (SIDS). In the Caribbean region, the project will work in collaboration with the Governments of Antigua and Barbuda, Grenada, and Saint Lucia, as well as regional partner, the Organisation of Eastern Caribbean States (OECS). PWFI is part of the IUCN global "Close the Plastic Tap" programme.

Project Objective

With support from the PWFI develop policy and legislation implementation and solutions targeted at reducing the plastic waste stream in Grenada.

Project Outputs

Output 1: Current plastic waste management instruments review, including national, regional, and international instruments, as well as a review of international organisations.

Output 2: Plastics leakage reduction measures, plastics waste management measures, action plans or policy recommendations, specific to Grenada, to improve plastic waste management.

Project Components	Targeted Stakeholders	Targeted Sectors
Assessing the quantity and quality of the wastes produced	Government private sector	Tourism Fisheries
Identifying the best available technology to dispose of plastics	civil society	Waste Management
Developing policy recommendations targeted at reducing the plastic waste stream		
4. Assessing economic implications of this policy		

COUNTRY BACKGROUND

The Government of Grenada (GoG) has improved efforts to mitigate the impacts of plastic pollution on its terrestrial and marine environments through collaboration with international and regional partners to advance policy development, implementation of viable solutions and leveraging of innovative approaches. Grenada has designed and implemented national policy and legislation to advance its waste management strategies. Notably, spurred by action taken by the GoG to advance the country's transition to a Blue Economy, since 2018 several new approaches to augment marine and coastal management, improve marine ecosystem health and accelerate climate resilience, and address plastic pollution have been identified and implemented assisting the country in meeting its goals under ratified international conventions including the Cartagena Convention, Agenda 2030, and the Paris Accord.

The recently adopted Non-Biodegradable Waste Control Act of 2018 (NBWCA 2018) directly supports the development of policies aimed at decreasing plastic contamination is expected to improve the welfare of coastal communities with indirect positive public health impacts. NBWCA 2018 also supports a ban on Styrofoam food containers, plastic bags, and other disposable plastic items, not adequately disposed of

which often ends up polluting watersheds, coastal areas, and the marine environment. These actions to mitigate plastic pollution are expected to contribute to improved conditions for ecosystem restoration, rehabilitation and recovery in Grenada and also help improve the quality of the marine environment and reduce the potential for vector-borne diseases like Dengue fever and Zika¹. Further these actions align with international policy and action on plastic pollution².

Further through the Caribbean Regional Oceanscape Project (CROP), a regional project funded by the Global Environment Facility (GEF) and implemented by the World Bank and Organization of Eastern Caribbean States (OECS), a proposed Coastal Master Plan and Marine Spatial Plan guided by foundational elements of integrating approaches to marine and coastal planning includes Waste Management, Sustainable Tourism and Managed Fisheries as integral elements to support the delivery of Grenada's sustainable Blue Economy³. Thus, the outcomes of this PWFI project strongly aligns to the government's national development approaches to sustainable development, in particular the advancement of its vision for the Blue Economy and the enhancement of its current approaches to waste management.

1. PLASTIC WASTE MANAGEMENT INSTRUMENTS

1.1.Introduction

In 2015, The United Nations adopted the 2030 Agenda for Sustainable Development, an international convention which comprises 17 important sustainable development goals (SDGs) to guide the globe's transformation to a more practical and balanced approach to socioeconomic development by 2030. Underpinning this global convention is strong science, which acknowledged that growing unsustainable anthropogenic impacts posed a substantial threat to the balance of the planet's ecological and sociological systems⁴. The SDGs, adopted by both developing and developed countries, are guided by a set of subindicators and targets. SDG goals 11, 12 and 14 speak specifically to the need to reduce, recycle and sustainably manage waste and pollution. Particularly SDG 14, Life Below Water, emphasizes the need to reduce the impact of plastic pollution on Ocean biodiversity as significant. Agenda 2030 initiated implementation of its SDGs in 2016 and was integral in raising global awareness on the need to improve waste management systems, particularly to address the disposal and handling of inorganic and hazardous waste products, particularly plastics⁵.

The highlighting of plastic waste as a focus of great concern within Agenda 2030 has spurred private sector interest, in particular, retailers eager to leverage less environmentally impactful production models and model new approaches to sustainable production⁶. As a result, particularly for the management of plastic waste, where there is no universally endorsed viable organic alternative, the circular economy model has increased in popularity. This model focuses on ensuring that the life cycle of plastics allows for its reuse within supply chains, with the goal to reduce the volume of virgin plastic that end up as waste products and as well as the volume of virgin plastic manufactured⁷. Though the circular economy model has its criticisms it at least

¹ World Bank, First Fiscal Resilience and Blue Growth Development Policy Credit Program Document, GoG, 2018

² Report on Assessing Alternatives to Plastic Utensils, GoG 2019

³ Grenada CMSP Main Report Draft, GoG 2020

⁴ https://sdgs.un.org/2030agenda

⁵ https://www.worldbank.org/en/news/press-release/2018/09/20/global-waste-to-grow-by-70-percent-by-2050-unless-urgent-action-is-taken-world-bank-report

 $^{^6~}https://www.reutersevents.com/sustainability/companies-arent-moving-fast-enough-circular-economy$

⁷ J. M. Rodriguez-Anton, L. Rubio-Andrada, M. S. Celemín-Pedroche & M. D. M. Alonso-Almeida (2019) Analysis of the relations between circular economy and sustainable development goals, International Journal of Sustainable Development & World Ecology, 26:8,708-720, DOI: 10.1080/13504509.2019.1666754

offers the globe an opportunity to catalyze innovation around solutions to further improve plastic waste management systems8.

This section of the report will explore current plastic waste management instruments review, including national, regional and international instruments, as well as a review of international organisations. The findings will be presented in the following order:

- International legal binding/non- binding agreements/conventions and organisations and international bodies involved with waste, hazardous waste; and, logistics, handling, disposal, trade, export, and import of waste.
- Regional legal instruments, including regional policies, and the financing and implementation of these instruments.
- National legal instruments, including national policies or prevention/mitigation
- strategies and the financing (including monetary incentives) and implementation of these instruments.

1.2.International Instruments and Campaigns

At the global public policy level there are several legally binding conventions, non-binding agreements and strategic campaigns in place that capture policy and implementation targets to support the enhanced management of plastic waste⁹. Legally binding conventions typically are enforced at the regional and national scale with regulatory bodies and institutions in place to achieve the convention's objectives, within those countries that are 'party' or endorsers of that convention showing their support through the ratification of the agreement. Non-binding agreements are often managed by a leading body or agency responsible for coordination, monitoring and reporting. Oftentimes campaigns are launched as a supplementary non-legislative action to support awareness raising and encourage mind-set and behavioral change.

As of 2021, there is no individual global convention that addresses the mitigation and management of plastic waste. However, several important conventions that provide legal and non-binding guidance on the global management of waste, pollution, biodiversity, climate and sustainable development capture supportive language, text and legislative approaches that aim to enhance plastic waste management and encourage reduction measures. There are key international organizations and groups that lead the implementation of these policy actions and tools, in particular, organizations developed under the United Nations including the UN Environment Programme (UN Environment), the United Nations Assembly (UNEA), and the International Maritime Organization (IMO). These key organizations often collaborate with other international agencies to achieve the objectives of these international instruments.

Utilizing current international legislative instruments, global campaigns and non-binding strategies, this report categorizes and explores international policy approaches to plastic waste management within these three (3) mains categories: (i) waste management, (ii) pollution, and (iii) biodiversity, climate and sustainable development (Table 1). The report considers all relevant overarching conventions and agreements (both legally binding and non-legally binding) as well as sub-agreements and appropriate convention amendments ratified by the GoG and the fundamental international bodies involved in their implementation. Also considered are relevant implementation strategies and campaigns that supplement the work of these conventions and agreements aiding in the achievement of its goals.

1.2.1. KEY INTERNATIONAL ORGANIZATIONS

⁸ Owais Khan, Tiberio Daddi, Hendrik Slabbinck, Kerstin Kleinhans, Diego Vazquez-Brust, Steven De Meester, Assessing the determinants of intentions and behaviours of organizations towards a circular economy for plastics, Resources, Conservation and Recycling, Volume 163, 2020,105069, ISSN 0921-3449, https://doi.org/10.1016/j.resconrec.2020.105069.

⁹ https://www.pnas.org/content/pnas/114/38/9994.full.pdf

High Level decisions on environmental policy and management of the environment are captured within the United Nations which provides the platform, infrastructure and guidance to support international policy negotiations between governments. A convention or agreement is adopted once consensus is attained. Governments then utilize these conventions to inform regional and national policy development and implementation. To support the global management of waste including hazardous waste and plastics, the following international organizations are essential in the policy making and implementation process.

- UN Environment: The United Nations Environment Programme established in 1972 is the international environmental authority responsible for setting the global environmental agenda including promoting the implementation of the environmental segments of the sustainable development agenda. UN Environment houses the secretariats of several multilateral environmental agreements and research bodies including the Convention on Biological Diversity, and the Basel, Rotterdam and Stockholm Conventions¹⁰.
- The International Maritime Organization (IMO): This organization established in 1948 is a specialized agency under the United Nations with the responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. The IMO supported the execution of Agenda 2030¹¹. The IMO receives funding through a variety of mechanisms including the Technical Cooperation Fund (TC Fund), seven different multi-donor trust funds, bilateral arrangements with donor governments and organizations and in kind and voluntary one-off contributions¹².
- The United Nations Environment Assembly (UNEA): This international body comprises membership of 193 Member States and is the highest-level decision-making body on the environment and the governing body of the UN Environment Program. UNEA contributes to the execution of Agenda 2030¹³.
- Global Environment Facility (GEF): Established at the 1992 the United Nations Conference on Environment and Development (Rio Summit), the GEF has contributed \$21.1 billion USD in grants and leveraged an additional \$114 billion in co-financing to support the implementation of over 5000 projects in 170 countries across the globe¹⁴. This facility focuses on supporting the protection of and sustainable development of the global environment. It serves as the financing mechanism for the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) (Stockholm Convention), the UN Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC)¹⁵¹⁶. The GEF International Waters program supports the conservation and sustainable management of marine and freshwater ecosystems and provides specific financial support to small island developing states (SIDS), including to mitigate pollution¹⁷.
- GEF Agencies: There are 18 institutions that comprise the GEF Agencies that provide project development and implementation support. These agencies include Asian Development Bank (ADB), African Development Bank (AfDB), European Bank for Reconstruction and Development (EBRD, Food and Agriculture Organization (FAO) of the UN, Inter-American Development Bank (IDB), UN Environment, United Nations Development Program (UNDP), UN Industrial Development Organization (UNIDO), The World Bank Group, Conservation International (CI), Development Bank

¹⁰ https://www.unep.org/about-un-environment

¹¹ https://www.imo.org/en/About/Pages/Default.aspx

¹² https://www.imo.org/en/OurWork/PartnershipsProjects/Pages/Funding.aspx

¹³ https://www.unep.org/environmentassembly/

¹⁴ https://www.thegef.org/about-us

¹⁵ https://unfccc.int/topics/climate-finance/funds-entities-bodies/global-environment-facility

¹⁶ https://www.thegef.org/our-work

¹⁷ https://www.thegef.org/topics/international-waters

of Latin America (CAF), Development Bank of South Africa (DBSA), Ministry of Environmental Protection of China (FECO), Brazilian Biodiversity Fund (FUNBIO), International Union of the Conservation of Nature (IUCN), West African Development Bank (BOAD) and the World Wildlife Fund (WWF US)¹⁸.

 Green Climate Fund (GCF): This fund serves as the finance arm of the UNFCCC and has contributed over 7.2 billion USD to support projects, including waste management initiatives, in 117 developing countries. Its mandate focuses on helping developing countries achieve low emissions and climate resilient pathways¹⁹.

Table 1 also lists those international organizations that play donor, coordination, implementing and executing roles to support the implementation of international instruments and relevant campaigns that target waste management, including plastic waste management.

¹⁸ https://www.thegef.org/partners/gef-agencies

¹⁹ https://www.greenclimate.fund/publications

1.3. Table 1: International Management Strategies That Address Waste Including Plastic Waste Management Broken Down Into Three Categories

International Policy Focus	Conventions, Initiatives and Campaigns	International bodies involved in implementation	Plastic Waste Management Targets
1. Waste Management	The Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade The Stockholm Convention on Persistent Organic Pollutants (POPs) UNEP Global Partnership on Waste Management (GPWM)	UN Environment Programme (UN Environment) United Nations Environment Assembly (UNEA) Global Environment Facility (GEF) GEF Agencies	Grenada is not a party to the Basel, Rotterdam and Stockholm Conventions In 2019 the legally binding Basel Convention adopted regulations that required countries to monitor the movement of plastic shipped outside their jurisdiction placing the sole responsibility on plastic producing countries for the environmentally sound disposal of plastic waste produced. The Basel, Rotterdam and Stockholm Conventions also expanded their list of hazardous plastic waste products, to include additional plastic wastes products including those plastic waste products that contain harmful POPS. The international community has supported this amendment as a triumphant step in moving toward legally binding management strategies to mitigate the impacts of plastic waste. The GPWM is open-ended, voluntary and collaborative relationship between various international stakeholders to enhance international cooperation and tackle adverse impacts of waste management ²⁰ .
2. Pollution	The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (The London Convention) The International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL)	 International Maritime Organization (IMO) UN Environment UNEA GEF GEF Agencies 	Grenada is a party to the IMO and MARPOL Annex V of the MARPOL Convention strictly bans the discharge of all plastic waste generated during the ship's operation into any waters including synthetic ropes, fishing gear, garbage bags and ashes from incineration. The GPA was adopted by 108 governments in 1995 and acts as an intergovernmental mechanism that supports collaborative partnerships on marine litter, nutrient, and wastewater management to ensure that governments adequately address land-based sources of pollution (LBS) ²² .

https://www.itu.int/en/ITU-T/climatechange/201303/Documents/Presentations-EN/Jordi_Pon_s5_E.pdf
 https://www.unep.org/explore-topics/oceans-seas/what-we-do/addressing-land-based-pollution/governing-global-programme

	UN Environment Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-Based Activities		The UNEA Resolutions were created to catalyze action on mitigating marine litter. Recent discussions in 2020 discussed the following response actions: • strengthening the existing international framework; • strengthening regional frameworks; • ensuring and enhancing global design standards;
	UNEA Resolutions on marine litter, marine plastic litter microplastics, plastic debris, and single use plastic products ²¹		 establishing a new international framework; and strengthening national microplastics strategies²³. The G20 Framework supports the implementation of an action plan encouraging their members to make take voluntary actions ²⁴ .
	G20 Implementation Framework for Actions on Marine Plastic Litter		The Honolulu Strategy is a Framework document that provides guidance on strategies to reduce the ecological, human health and economic impacts of marine litter ²⁵ .
	UN Environment Honolulu Strategy		The Regional Seas Campaign targets the mitigation of marine litter and reduction of LBS plastic through the implementation of action plans ²⁶ .
	UN Environment Regional Seas and Clean Seas Campaign		IUCN supports implementation and policy development strategies in countries.
	IUCN Marine Plastics and Coastal Communities initiative		
3. Biodiversity, Climate and Sustainable Development	The Convention on Biological Diversity (CBD) The United Nations Convention on the Law of the Sea (UNCLOS)	 UNEA UN Environment GEF Agencies GEF Green Climate Fund (GCF) FAO 	Grenada is party to CBD, UNCLOS the Paris Accord, the 2030 Agenda and the UN Fish Stocks Agreement. The CBD, UNCLOS and Paris Accord are 3 major international Conventions that provide guidelines to governments on ways to sustainably manage and conserve biodiversity and ecosystems, provide guidance on law and order on Oceans and Seas, and exhaust efforts to mitigate global warming keeping global temperature rise to higher than 2-degree C respectively. The CBD is a legally binding agreement ^{28,29,30} .

 $^{^{21}\} https://wedocs.unep.org/bitstream/handle/20.500.11822/34931/Marine_EN.pdf?sequence=1\&isAllowed=yallowe$

²³ https://www.unep.org/environmentassembly/

²⁴ https://www.mofa.go.jp/policy/economy/g20_summit/osaka19/pdf/documents/en/annex_14.pdf

²⁵ https://www.unep.org/resources/report/honolulu-strategy

 $^{^{26} \} https://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes$

²⁸ https://www.cbd.int

²⁹ https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

³⁰ https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

•	The United Nations Framework
	Convention on Climate Change
	(the Paris Accord)

- 2030 Agenda for Sustainable Development
- The <u>Ramsar Convention</u> on Wetlands of International Importance Especially as Waterfowl Habitat
- SIDS Accelerated Modalities of Action (S.A.M.O.A) Pathway
- Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of SIDS
- UN Fish Stocks Agreement²⁷

The 2030 Agenda presents 17 SDGs. SDG goals 11, 12 and 14 speak specifically to the need to reduce, recycle and sustainably manage waste and pollution. Particularly SDG 14, Life Below Water, emphasizes the need to reduce the impact of plastic pollution on Ocean biodiversity as significant³¹.

The Ramsar Convention is an intergovernmental treaty recognized by the UN. In 2019 the convention acknowledged between plastic pollution and environmental degradation³².

The SAMOA Pathway and the Mauritius Strategy are SIDS focused agreements that work to catalyze action, financing, and technical assistance for SIDS to tackle a range of issues including pollution^{33,34}.

The UN Fish Stocks Agreement was adopted on August 4^{th} , 1995 and currently has 59 signatories. It outlines the duties of flag States including those related to registration and records of vessels, authorizations, certifications and compliance and enforcement. The agreement also reiterates the obligation of flag States to control the fishing activities of their vessels in international waters and requires them to minimize pollution, waste, and fish discards 35 .

²⁷ The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks

³¹ https://sdgs.un.org/goals

³² https://www.ramsar.org

³³ https://sustainabledevelopment.un.org/samoapathway.html

³⁴ http://www.unesco.org/new/en/natural-sciences/priority-areas/sids/sids-conferences/mauritius-conference-2005/documents/mauritius-strategy/

³⁵ https://www.un.org/Depts/los/convention_agreements/convention_overview_fish_stocks.htm

1.3.1. MANAGING HAZARDOUS WASTE: THE BASEL, ROTTERDAM AND STOCKHOLM CONVENTIONS

There are three crucial legally - binding international conventions in place to guide the management of hazardous waste: the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal (the Basel Convention), the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (the Rotterdam Convention) and the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention) (See Table 1 in Annex 1). The common focus of all three conventions is to protect human health and the environment from hazardous waste and chemicals³⁶.

The Basel Convention, as the most comprehensive global agreement on hazardous waste and other wastes (such as plastic waste), puts in place measures to protect human health and environment from any adverse impact associated with the generation, transboundary movement, and management of hazardous waste and other wastes³⁷. The Convention is endorsed by 187 signatories including several small island developing states (SIDS)³⁸. The Rotterdam Convention and the Stockholm Convention puts in place measures to facilitate informed decision making with respect the trade of hazardous chemicals between countries³⁹ and measures to protect human health and the environment from persistent organic pollutants (POPs⁴⁰) respectively. Each convention is guided by a specific workplan of action and governed by decisions made within their individual Conference or Parties (COPs).

Since 2002, governing bodies of all three conventions have partnered to address the growing concern of global plastic pollution. In 2002, the Basel Convention provided technical guidance on the identification and environmentally sound management of plastic wastes and their disposal⁴¹ and in 2016, a small working group on marine litter was created between the regional Centres of the Basel and Stockholm Conventions. Through the development of initiatives like the Household Waste Plastic Initiative founded in 2018 and the Plastics Waste Partnership formed in 2019, the Basel and Stockholm Conventions have initiated important processes to inform global policy change toward the mitigation of plastics waste. In particular, accounting for the major challenges experienced by SIDS that, the Household Waste Plastic Initiative sought to implement integrated approaches and environmentally sound management of land-based sources of pollution through collection, separation, transport, storage, treatment, processing, recycling and disposal approaches⁴².

While the primary focus of the Basel Convention including much of the dialogue within international negotiations has focused on transboundary movement of hazardous waste and chemicals, in 2018 experts noted the significant opportunity the Convention's legally binding nature could play in addressing the global movement of plastics waste. Particularly, utilizing the existing legislative language within the Basel and Stockholm Conventions, substantial limitations, such as the treatment of 'mismanaged' plastic waste and the 'hazard potential' of plastic products throughout their lifecycle could be addressed⁴³.

In May 2019, responding to the growing concern by the international community to address the issue of plastic pollution, in particular, the mismanagement of plastic waste, the Basel Convention adopted the Plastic Waste Amendment which added new plastic waste entries to its hazardous waste list, including plastic waste containing POPs as considered by the Stockholm Convention. Further, the Convention adopted language that

42 http://www.basel.int/Implementation/HouseholdWastePartnership/Overview/tabid/5082/Default.aspx

 $^{^{36} \} https://unitar.org/sustainable-development-goals/planet/our-portfolio/basel-rotterdam-stockholm-conventions$

 $^{^{37}\} https://www.unep.org/resources/report/basel-convention-control-transboundary-movements-hazardous-wastes$

 $^{^{38}\} https://www.oas.org/dsd/reia/Documents/Limits and Potential of Waste to Energy.pdf$

 $^{^{39}}$ https://www.state.gov/key-topics-office-of-environmental-quality-and-transboundary-issues/rotterdam-convention-on-the-prior-informed-consent-procedure-for-certain-hazardous-chemicals-and-pesticides-in-international-trade/

⁴⁰ Persistent Organic Pollutants (POPs) are organic chemical substances, that is, they are carbon-based and are toxic to both humans and wildlife.

⁴¹ https://digitallibrary.un.org/record/474806?ln=en

⁴³https://reader.elsevier.com/reader/sd/pii/S0308597X17305146?token=3A29FD95A025933732EE802FB22385CBAE5E22A8F6C8DA5CFD3 A602F89B26BD7937AE91882792CCB871CF219D5CC655D

would significantly restrict international trade in plastic scrap (recyclables) and waste through regulation and control measure to help address the improper disposal and leakage of plastic waste into the environment.

Additional information on the Basel, Rotterdam, and Stockholm Conventions can be found in Annex A.

1.3.2. ASSESSING FUNDING OF WASTE MANAGEMENT INITIATIVES

A 2016 report prepared by the GPWM found that a total of 188 waste management projects were implemented by 20 international organizations globally between 2012 and 2016. At the time of the report, 69 projects were finalized, 60 were ongoing, and 59 were still being implemented. Many of the completed initiatives targeted municipal solid waste and hazardous waste with plastic waste management being the least targeted area⁴⁴. The GEF was the largest donor accounting for facilitating the implementation of 84 projects (with most of the projects focused within the African region). Within the assessment, the world bank was the only donor to support the implementation of a plastic waste management project. Other waste management categories funded included: E-waste, Healthcare waste, organic waste, waste agricultural biomass, and wastewater. The other funding agencies include the following: AfDB, ADB, EBRD, FAO, IDB, German Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), International Finance Corporation (IFC), UN Habitat, UN Development Programme (UNDP), and UNEP.

1.3.3. LOGISTICS, HANDLING AND DISPOSAL OF WASTE

The organizations involved in the logistics, handling and disposal of waste are typical solid waste management agencies. Regulations that guide the national management of solid waste are imposed by regional and international conventions. There are several categories of waste management including residential, industrial, commercial, institutional, construction and demolition, municipal, processing, medical and agriculture. The process for managing solid waste differs by income level of countries with low income and middle countries having access to less effective management approaches than higher income countries⁴⁵.

Waste composition is also affected by regional income disparities as well as culture, climate and energy sources. The most common approaches to disposing of waste is through landfilling or thermal treatment (incineration). It is known that low-income countries employ 'open dumping' waste manage approaches due to non-existent landfills and middle-income countries utilize 'controlled dumping' because their landfills are often poorly managed. Higher income countries tend to employ more integrated waste management strategies when compared to lower and middle-income countries with their solid waste institutions including waste reduction, recycling, composting and incineration strategies. As a result, while middle income and low-income countries usually rely on one key agency to manage the holistic waste management lifecycle, higher income countries have multiple structures and institutions in place to effectively manage waste⁴⁶⁴⁷.

The solid waste management industry is anticipated as a lucrative growth stream as more efficient technologies are onboarded and awareness on the impacts of mismanaged waste on human health increases⁴⁸.

1.3.4. TRADE, EXPORT AND IMPORT OF WASTE

⁴⁴ https://wedocs.unep.org/bitstream/handle/20.500.11822/27368/IWMP.pdf?sequence=1&isAllowed=y

 $^{^{45}\} https://openknowledge.worldbank.org/handle/10986/17388$

⁴⁶ https://openknowledge.worldbank.org/handle/10986/17388

⁴⁷ https://digitalcommons.bucknell.edu/cgi/viewcontent.cgi?article=1710&context=fac_journ

⁴⁸ https://www.globenewswire.com/news-release/2020/12/08/2141028/0/en/Solid-Waste-Management-Market-To-Be-Worth-USD-1-193-88 Billion-by-2027-Emergen-Research.html

Governments are responsible for developing legislation to regulate the trade, in particular, the export and import of waste products. The trade and transboundary movement of waste products that are deemed hazardous or harmful to human health and the environment are regulated by international conventions discussed earlier in the report. Creating economic incentives to support the disposal of waste is a strategy utilized globally. However, oftentimes, as in the case of plastic waste management, circular economy methods drive the illegal trade of plastics, in particular those plastics waste containing substances deemed hazardous or harmful to human health and the environment as stipulated within the Basel and Stockholm conventions⁴⁹. The ports of entry within countries are the first level of vetting for waste imports and exports with officials trained to ensure that hazardous and harmful waste are properly managed. The Rotterdam Convention's PIC approach puts in place guidelines to ensure that parties to the convention implement the necessary due diligence needed to ensure hazardous and harmful waste is properly treated. The problem arises when countries that are not parties to the convention utilize strategies inconsistent with the PIC process. Such inconsistencies can lead to improper and illegal trade of hazardous waste⁵⁰.

1.3.5. MANAGING POLLUTION: APPROACHES TO PLASTIC WASTE MANAGEMENT

The globe converged on the need to address the impacts of dumping and subsequent pollution of the marine environment through international management with the adoption of the Convention of Marine Pollution by Dumping of Wastes and Other Matter (the London Convention) in 1972. Entered into force in 1975, it is one of the first global conventions to target marine management and put in place measure to protect the marine environment from the impacts of increasing anthropogenic activity. The London Protocol was introduced to the Convention in 1996 and entered into force in 2006⁵¹. The convention and protocol have put in place regulatory measures on dumping and prohibited the dumping of specific industrial waste, including radioactive waste⁵².

The legally binding International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL), is the convention that governs the prevention of operational or accidental pollution from ships. The Convention was adopted in 1973 at the International Maritime Organization (IMO). In 1978 the convention was consequently absorbed by the MARPOL Protocol. The parent convention has not entered into force. However, the MARPOL Protocol (which combines language of the protocol and convention) was entered into force in 1983 with subsequent amendments made in 1997 and those amendment which include measures to prevent sewage and air pollution from ships entered into force in 2005⁵³. Additionally, the Protocol includes six Annexes that provide regulations to prevent pollution from oil, noxious liquid, harmful substances carried by sea, and garbage. MARPOL regulations are enforced by participating countries as part of their national legislative process and includes the establishment and operationalization of regulatory and enforcement bodies.

MARPOL's Annex V which was entered into force in 1988 and endorsed by 150 signatories addresses plastic pollution. This regulation strictly bans the discharge of all plastic waste generated during the ship's operation into any waters including synthetic ropes, fishing gear, garbage bags and ashes from incineration ⁵⁴. Regulations force ships and vessels to deposit waste, including plastic waste at appropriate facilities on shore. All garbage deposits made onshore must be accurately logged. There are often severe penalties associated with violating these terms. The Wider Caribbean Region (including the Gulf of Mexico) was designated a Special Area under Annex V in 2011 ⁵⁵. To support this international policy approach, the IMO has also implemented Marine Litter Campaigns, including adopting the IMO Action Plan to address marine litter from ships in 2018 and the GloLitter Partnerships Project to tackle plastic litter from shipping and

⁴⁹ https://link.springer.com/article/10.1007/s10784-020-09479-3

⁵⁰ https://link.springer.com/article/10.1007/s10784-020-09479-3

⁵¹ https://www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx

 $^{^{52}\,}https://dredging.org/documents/ceda/downloads/lc-lpbrochure.pdf$

⁵³ https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx

⁵⁴ https://www.imo.org/en/MediaCentre/HotTopics/Pages/marinelitter-default.aspx

⁵⁵ Marine Pollution in the Caribbean Not a Minute to Waste 2018

fisheries in 2019, including supporting transition to a low-plastics future⁵⁶. The IMO Action Plan will focus efforts on achieving specific objective (See Annex B) under the leadership of the IMO Marine Protection Committee.

1.3.6. BIODIVERSITY, CLIMATE AND SUSTAINABLE DEVELOPMENT LEGISLATION TARGETING PLASTICS

Captured within international conventions and agreements on biodiversity, climate and sustainable development are specific actions and strategies that support catalysing action on plastic waste management. The CBD convention through the work of its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) has adopted recommendations to address impacts of marine debris on marine and coastal biodiversity⁵⁷. These recommendations supplement the efforts of Parties in achieving the Aichi Biodiversity Targets 6, 8 and 11 (Action targets within the CBD Convention) on marine and coastal biodiversity. The zero draft of the post 2020 Biodiversity Framework recently proposed by the CBD Secretariat include suggested text that supports a reduction target for plastic waste within Aichi Target 6⁵⁸.

The current and ongoing intergovernmental conference negotiations at the UN to adopt a legal mandate for the management of on Marine Biodiversity of I Areas Beyond National Jurisdiction (BBNJ) will undoubtedly have implications on strategies to manage plastic waste. Further, the 2030 Agenda will update its current targets that reference waste mitigation goals to align with the newly proposed CBD targets to be negotiated at the upcoming CBD Conference of Parties (COP) in October 2020. These conventions therefore provide much needed opportunities to accelerate actions on plastic waste management.

1.4.Regional Waste Management Instruments and Campaigns

The Wider Caribbean region comprised of 28 island and continental countries including insular and coastal states and territories has relied on the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Area (Cartagena Convention) to drive management of waste, in particular the management of land-based sources of pollution within the region⁵⁹.

The legally binding Cartagena Convention ratified by 26 UN members in the Wider Caribbean region also comprises protocols that target protection measures for areas of biological significance and biodiversity. Compared to the international conventions previously explored in this report, this convention acknowledges the importance of converging protection and conservation measures, as well as waste management strategies under one legally binding agreement with the responsibility for its executed falling under just one regional institution. This allows regional policy to streamline implementation approaches that considers pollution mitigation approaches as essential to conserving the function of important ecosystems. The Cartagena Convention is considered the most important regional legal framework to support legislation, regulation, and policy responses to marine litter in the Wider Caribbean 60. The Convention considers scientific and environmental impacts of marine litter on aesthetic, economies, social well-being and human health and safety. The implementing body for the Cartagena Convention is UN Environment Caribbean Environment Programme (CEP) which acts as the Convention's Secretariat of 1. Further, governments look to assistance from regional integration and implementation groups to close gaps in waste operations (see below).

There is no overarching regional policy that dictates plastic waste management in the Wider Caribbean. However, in 2019 at the 40th Meeting of Heads of Government of the CARICOM, Heads of Government

⁵⁶ https://www.imo.org/en/MediaCentre/HotTopics/Pages/marinelitter-default.aspx

⁵⁷ https://www.cbd.int/doc/publications/cbd-ts-67-en.pdf

 $^{^{58} \} https://www.cbd.int/doc/c/3064/749a/0f65ac7f9def86707f4eaefa/post2020-prep-02-01-en.pdf$

⁵⁹ https://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/wider

⁶⁰ https://www.unep.org/cep/es/node/1552%2Fsolid-waste-and-marine-litter=

⁶¹ https://www.unep.org/cep/who-we-are/cartagena-convention

present adopted the St. John's Declaration, the first regional declaration of its kind that acknowledges the potential adverse impacts of increasing levels of plastics and microplastics within the Caribbean Sea and Atlantic Ocean and challenges governments to support a holistic approach to solid waste and plastics management (ANNEX C).

The Wider Caribbean has implemented several programs and initiatives with support from international agencies and donor governments to drive the execution of waste management strategies. Several of these initiatives are guided by integrated management strategies that serve to build on the region's commitment to advancing sustainable development. This section of the report introduces regional instruments, initiatives and campaigns that support the management of plastics waste under 3 key categories: Waste Management, Pollution, Biodiversity, Climate and Sustainable Development (Table 2) and discusses financing of regional waste management strategies.

1.4.1. KEY REGIONAL ORGANIZATIONS

Grenada falls within the Eastern Caribbean group of countries which comprise the <u>Organization of Eastern Caribbean States</u> (OECS), a regional integration group that advances economic, trade and sustainable development cooperation between 11 member states and observers. The OECS Commission is responsible for executing the mandate of the OECS which includes environmental sustainability and human and social pillars. The OECS with support of its development partners; Complete Caribbean, New Zealand Foreign Affairs and Trade, UNDP, the Caribbean Development Bank (CDB), the UK Government Department for Internal Development, the World Bank, the European Union, United States Agency for International Development (USAID), and the United Nations has assisted in catalysing regional efforts to improve waste management including plastics waste and combat marine litter⁶². OECS works with its members to develop and execute regional policy that aligns with collective national priorities of its members. Recently the Commission has led intergovernmental dialogue within the region to advance discussions on executing a long-term Ocean Governance strategy that considers elements of Blue Economy Development, including integrated waste management strategies ⁶³.

The Caribbean Community (CARICOM) is a leading regional integration group within the Caribbean that comprises 15 members states and 5 associate members. The mandate of this group includes 4 key pillars of work: economic integration, foreign policy coordination, human and social development, and security. Within the United Nations, CARICOM participates in the negotiation of conventions, frameworks and agreements including those mentioned earlier in the report as a collective body ensuring to capture the unique circumstances of Caribbean islands within the determination of management strategies. CARICOM, like OECS, is responsible for the development of regional policy that guides national policy action and implementation including ensuring that strategies and international convention are implemented.

The <u>Caribbean Development Bank</u> is a regional financial institution that provides support toward to economic and social transformation in the Caribbean. It comprises 28 member countries including 19 borrowing members⁶⁴. The CBD has supported several projects and initiatives that target building climate resilience and integrated waste management strategies⁶⁵.

<u>The Inter-American Development Bank (IDB)</u> is a regional financial institution provides technical and financial resources to Latin America and the Caribbean to reduce poverty, inequality, health and education and support transition to sustainable and climate resilient development⁶⁶. The IDB in recent years has focused on supporting the growth, scaling and development of the Blue Economy in the Caribbean region including

63 https://www.oecs.org/en/ocean-governance-eastern-caribbean-crop

⁶² https://www.oecs.org/en/

⁶⁴ https://www.caribank.org/our-work

⁶⁵ https://www.caribank.org/newsroom/news-and-events/turks-and-caicos-islands-working-towards-improving-solid-waste-management-cdb-assistance

⁶⁶ https://www.iadb.org/en/about-us/overview

providing support to build sectors of the Blue Economy in countries. In May 2019, IDB established the first marine waste reception and processing facility in the Bahamas to combat the impacts of marine litter and pollution⁶⁷.

<u>UN Environment CEP</u> is the implementing body for the Cartagena Protocol in the region⁶⁸.

The Caribbean Environmental Health Unit (CEHI), the Caribbean Alliance for Sustainable Tourism (CAST) and the Pan American Health Organization (PAHO) have also been identified as key regional organizations that play a role in supporting the implementation of regional waste management strategies⁶⁹.

1.4.2. FINANCING OF REGIONAL WASTE MANAGEMENT STRATEGIES

Within the Wider Caribbean individual governments are primarily responsible for financing the waste management strategies within their jurisdiction. Services can either be public or privately contracted. If publicly contracted the public sector takes on the entire responsibility for operations and if privately contracted, the entire operation is outsourced to a private entity in contract with Government⁷⁰. Caribbean countries each have in place an agency responsible for executing country-wide waste management such as the solid waste management authority (or agency). The agency is often an independent government agency that falls under the overarching management of a specific Ministry. Typically, the Ministry of Health or the Environment or the Ministry of Implement bears that responsibility. However, this classification differs by country.

As part of its national budgeting processing, specific funds are allocated yearly to ensure that the waste management authority or agency is kept operational. To support the financing of these agencies and authorities, governments may impose collection schemes including tax, tariff or levy on retailers, manufacturers and importers of products⁷¹. Governments also often rely on loans or a combination of grants and loans in the form of development aid to supplement national financing strategies to meet waste management goals, including ensure that enabling conditions, institutions and infrastructure are in place⁷².

Despite the waste collection coverage in Latin America and Caribbean (LAC) counties outperforming the global average, most fall within the low- and middle-income categorization, and suffer any significant shortfalls in their waste management strategies including, mismanaged waste, improper disposal, inadequate landfilling operations, lack of or non-existent recycling and composting, inadequate collection⁷³. Further, in some jurisdictions hazardous and medical waste are mismanaged deviating from international safety standards and compliance mechanisms. Agencies responsible for enforcement are often inadequate and ineffective⁷⁴.

As a result, several regional efforts funded by international donors, including donor governments and financial institutions, like the Caribbean Development Bank and the World Bank, and implemented by regional integration groups and their partners organizations, supplement the waste management strategies of regional governments and ensure that governments achieve the objectives of the conventions that govern waste management in the region.

69 Preliminary Baseline Solid Waste Management Study, GSWMA 2018

⁶⁷ https://bidlab.org/en/news/1385/idb-announces-approval-first-caribbean-marine-waste-reception-and-processing-facility

⁶⁸ https://www.unep.org/cep/

 $^{^{70}\} https://publications.iadb.org/publications/english/document/Solid-Waste-Management-in-the-Caribbean-Proceedings-from-the-Caribbean-Solid-Waste-Conference.pdf$

⁷¹ https://publications.iadb.org/publications/english/document/Solid-Waste-Management-in-the-Caribbean-Proceedings-from-the-Caribbean-Solid-Waste-Conference.pdf

⁷² https://openknowledge.worldbank.org/handle/10986/10639

⁷³ Hettiarachchi, H.; Ryu, S.; Caucci, S.; Silva, R. Municipal Solid Waste Management in Latin America and the Caribbean: Issues and Potential Solutions from the Governance Perspective. Recycling 2018, 3, 19. https://doi.org/10.3390/recycling3020019

⁷⁴ https://www.oas.org/dsd/reia/Documents/LimitsandPotentialofWastetoEnergy.pdf

1.4.3. REGIONAL DONOR AGENCIES

In recent years agencies and governments that have supported regional initiatives that target improved waste management and marine litter mitigation strategies include the following: UN Environment, The World Bank, GEF, the Japan International Cooperation Agency (JICA), the Government of Norway, and IUCN. JICA committed funding in 2013 to improve waste management strategies, including targeting plastics waste, in the Dominican Republic and Jamaica⁷⁵.

 $^{75}\ https://www.jica.go.jp/jamaica/english/office/topics/170621.html$

Regional Policy Focus	Conventions, Initiatives and Campaigns	Regional Institutions involved in implementation	Plastic Waste Management Targets
Waste Management	GEF Caribbean Regional Fund for Wastewater Management (CReW)	GEFGEF Agencies	CReW targets the reduction of LBS of wastewater in the Caribbean through the provision of capacity and institutional and infrastructure development ⁷⁶ .
• Pollution	 The Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Area (The Cartagena Convention) The Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (ISLANDS) program The 2014 Regional Action Plan for Marine Litter (RAPMaLi) for the Wider Caribbean Region 	UN Environment UN Environment CEP GEF	The Cartagena Convention is a legally binding environmental Convention adopted on 24 March 1983 and entered into force on 11 October 1986 which targeting the Wider Caribbean includes protocols that support cooperation to manage oil spills, specially protected areas and wildlife and land-based sources (LBS) of pollution. The LBS protocol was adopted on 6 October 1999 and entered into force on 11 July 2010. Plastics is recognized as an LBS source within the convention. The Protocol works to support other global conventions and agreements referenced in this report including: The CBD and the RAMSAR Convention on Wetlands The Stockholm Convention Basel Convention MARPOL Convention MARPOL Convention Barbados Small Island Developing States (SIDS) Programme of Action Samoa Outcome for Small Island Developing States (SIDS) Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA) The 2030 Agenda ⁷⁷ The ISLANDS program targets the implementation of the Basel and Stockholm Conventions specifically in SIDS ⁷⁸ .

⁷⁶ https://www.gefcrew.org

https://www.unep.org/cep/who-we-are/cartagena-convention
 https://www.thegef.org/project/implementing-sustainable-low-and-non-chemical-development-sids-islands

Regional Policy Focus	Conventions, Initiatives and Campaigns	Regional Institutions involved in implementation	Plastic Waste Management Targets
			The RAPMaLi plan offers perspective on actions the Caribbean Region to reduce marine litter, including improving solid waste management and adopting plastic waste management strategies ⁷⁹ .
Biodiversity, Climate and Sustainable Development	 Barbados Programme of Action for the Sustainable Development of SIDS (BPOA) Caribbean Regional Oceanscape Programme (CROP) The Caribbean Large Marine Ecosystem and Adjacent Regions (CLME+) The Caribbean Community (CARICOM) Draft Environment and Natural Resources Policy Framework The St. John's Declaration The GEF project Integrating Water, Land, and Ecosystems Management in Caribbean SIDS (IWEco) The Caribbean Challenge Initiative Declaration (CCI) 	 Caribbean Sea Commission OECS Commission CLME++ GEF The Nature Conservancy (TNC) Caribbean CARICOM Secretariat The Caribbean Biodiversity Fund (CBF) UNDP 	These agreements and initiatives collectively support advancing and implementing action on effectively managing waste and reducing marine litter through conservation and sustainable management efforts and the execution of the Cartagena Convention. BPOA was established under UN General Assembly resolution 47/189 and is identifies 14 priority areas and specific actions necessary for addressing the special challenges faced by SIDS including management of waste 80. CLME+ is A regional, collaborative platform promoting healthy marine environments within the Caribbean and North Brazil Shelf Large Marine Ecosystems81. The CROP Initiative is funded by the World Bank and implemented by the OECS within member countries. It focuses on expanding Blue Economy sectors including improving waste management facilities, including plastic waste management82. The St. John's Declaration is the first intergovernmental agreement endorsed by CARICOM that specifically targets addressing the unsustainable use and disposal of plastic products, including by significantly reducing single-use plastic products by 2030 at the regional level. The CARICOM Environment and Natural Resources Policy Framework provides guidance toward a regional approach to the sustainable management of the environmental and natural resources of CARICOM and its Member States83. The CCI is a regional platform that promotes the creation and management of marine protected areas in the region and IWEco is a regional project that focuses on improving coastal water resources84,85.

 $^{^{79}}$ https://www.cbd.int/doc/meetings/mar/mcbem-2014-03/other/mcbem-2014-03-115-en.pdf 80 https://sustainabledevelopment.un.org/conferences/bpoa1994

⁸¹ https://clmeplus.org

⁸² https://oecs.org/en/crop
83 https://oldsite.caricom.org/caricom-environment-policy/
84 https://www.caribbeanchallengeinitiative.org/documents-materials

⁸⁵ https://www.iweco.org

Regional Policy Conventions, Initiatives and Campaigns		Regional	Plastic Waste Management Targets
Focus		Institutions	
		involved in	
		implementation	
	Caribbean Tourism Organization (CTO)		The CTO's Tourism Policy Framework provides guidelines for the
	Caribbean Sustainable Tourism Policy		sustainable development of tourism in the Caribbean including ensuring the
	Framework		sustainable use of the natural environment ⁸⁶ .

 $^{^{86}\} https://caricom.org/documents/10910-cbbnsustainable tour is mpolicy framework.pdf$

Policy Focus	Legal Instrument	Grenada's Status	Relevance to Plastics Waste Management	Implementation Status (Grenada)
1. Waste Management	International Basel, Rotterdam and Stockholm Conventions	Not Ratified	These agreements combined have regulations in place for countries to monitor the movement of plastic shipped outside their jurisdiction, as well, as identifies those plastic products and materials consider harmful and hazardous. Particularly the Basel Convention places the sole responsibility on plastic producing countries for the environmentally sound disposal of plastic waste produced	Not Enforced or Implemented Grenada is not a party to these conventions and thus is not required to abide by its governing legislation. However, as a party to the regional Cartagena Convention, Grenada agrees to work in support of the Basel and Stockholm Conventions. Taking responsibility for the disposal and processing of plastic waste is an approach that could benefit Grenada as part of a long-term management strategy for plastic waste.
	Regional	NA	NA NA	Aside from the regional Cartagena Convention whose regulations explicitly target land-based sources (LBS) of pollution, there is no regional waste management convention to guide management of waste in the regional Caribbean. There are, however, regional initiatives that support the implementation of waste management strategies including the GEF Caribbean Regional Fund for Wastewater Management (CReW). Grenada has also worked with GCF and the CDB to improve waste management strategies.
2. Pollution	International The London and MARPOL	Ratified	Strictly bans plastic discharge from ships including synthetic ropes and fishing gear	Not Enforced Grenada does not enforce this within its waters. The onus is on the fishermen to properly dispose of fishing gear. The Fisheries Act does not explicitly include language that aligns with the MARPOL Convention's language on plastic.

Policy Focus	Legal Instrument	Grenada's Status	Relevance to Plastics Waste Management	Implementation Status (Grenada)
	Regional The Cartagena Convention and its Protocols	Ratified (Convention, SPAW and LBS Protocols)	Supports the implementation of key international waste management, pollution and biodiversity, climate and sustainable development conventions within the Wider Caribbean region and explicitly includes a protocol that addresses mitigating land-based sources of pollution.	Grenada has taken measures to demarcate and protect natural resources and wildlife, including endangered and critically endangered species. Further, Grenada recognizes the importance of mitigating LBS. However, governance, capacity and financial gaps are major roadblocks to implementation and progress.
3. Biodiversity, Climate and Sustainable Development	4. The Convention on Biological Diversity (CBD) 5. The United Nations Convention on the Law of the Sea (UNCLOS) 6. The United Nations Framework Convention on Climate Change (the Paris Accord) 7. 2030 Agenda for Sustainable Development 8. UN Fish Stocks	Ratified all agreements	 The CBD supports enhanced management of biodiversity and sets global protected area targets and through the work of its Scientific and Technical Advisory Committee provides policy recommendations to address the impacts of marine debris and plastic⁸⁷. UNCLOS provides a comprehensive legal framework for the protection of the marine environment but does not provide a framework to address plastic pollution. However, there is an opportunity to address international policy on plastic pollution via UNCLOS. The Paris Accord focuses on management of global warming and sets targets for mitigation approaches parties can take to reduce CO₂ emissions. Reducing the production of virgin plastic contributes to CO₂ reduction. 	The CBD, Paris Accord, 2030 Agenda and UN Fish Stocks are collectively enforced in Grenada however, progress is challenging as capacity, governance and financing are large barriers to achieving targets. Grenada has agreed nationally to a 25% marine protection target and actively participates in CBD negotiations. As part of the CARICOM negotiating Alliance within the UN, Grenada is currently negotiating a legal instrument to support management of High Seas (Areas Beyond National Jurisdiction) that could have implications for global management of pollution including plastic pollution. Grenada has actively advocated internationally as a leading SIDS within the UN SDG 14 (Ocean) Conference promoting inclusion of Blue Economy Approaches. Grenada has worked closely with FAO for several years to better improve fisheries management and
	8. UN Fish Stocks Agreement		contributes to CO ₂ reduction.	blue economy approaches. However, much still needs to be done to better align ambitious language on

⁸⁷ https://www.cbd.int/doc/publications/cbd-ts-83-en.pdf

Policy Focus	Legal Instrument	Grenada's Status	Relevance to Plastics Waste Management	Implementation Status (Grenada)
			The 2030 Agenda within its SDG Goal 14 sets targets for marine pollution reduction.	pollution mitigation captured within international fisheries conventions and initiatives to national legislation.
			 The UN Fish Stocks Agreement encourages its parties to minimize pollution within international waters. 	
	Regional The Cartagena Convention and its Protocols	Ratified (Convention, SPAW and LBS Protocols)	(See above)	While there is no overarching regional convention in place to guide national policy and implementation, Grenada engages in the international reporting process of biodiversity, sustainable development and climate conventions. Grenada submits national reports to the CBD and FAO. Grenada has in place a climate change committee and has developed and submitted its national climate policy and National Determined Contribution report to the UNFCCC.
				These efforts supplement and support Grenada's Blue Economy and sustainable development assisting in outing in place legislation and targets to mitigate harmful impacts of pollution.

1.7. National Approaches to Plastic Waste Management

The Government of Grenada (GoG) adopted its Solid Waste Management Act in 1995 and its Waste Management Act in 2001. In 2015, the country adopted its Abatement of Litter Act with additional regulations 1 and 5 added in 2019 and in 2018 adopted the Non-Biodegradable Waste Control Act (NBWCA 2018) with additional regulations 18, 19 and 30 added in 2019. As part of its new integrated management strategy the GoG with support from the CBD implemented a multi-year project to enhance landfill infrastructure, strengthen institutional arrangements including the country's policy, regulatory and legal frameworks, enhance capacity building and advance public awareness and educational campaigns. This CBD project also supported efforts to integrate composting approaches into the country's waste management structure however, it does not target plastic waste management. In 2018, Grenada introduced new legislation through support from the World Bank that targeted enhancement of plastic waste management which is captured in the NBWCA 2019 Act⁸⁸. Currently Grenada's waste management efforts provide employment for 210 persons including operational staff, collection contractors, street cleaners and liquid waste managers⁸⁹. There are 14 main stakeholder bodies involved in supporting the country's waste management practices (Annex D)⁹⁰.

1.7.1. CURRENT WASTE MANAGEMENT LEGISLATION AND ADMINISTRATIVE BODIES

The GoG carries the primary responsibility of managing all solid waste, including all plastic waste, in Grenada under the Solid Waste Management Act. The Grenada Solid Waste Management Authority (GSWM as the mandated authority to execute country wide waste management is responsible for the operation of Grenada's 2 functional landfills:

- <u>Perseverance Landfill</u> located on the main island which manages the majority of the solid waste generated in Grenada; and
- Dumfries Landfill located on Grenada's sister island of Carriacou.

A 2019 census revealed that Carriacou currently has a population of just 9,595 persons compared to the country total of approximately 112, 500 persons⁹¹. The Dumfries landfill therefore serves just about 8% of the population of Grenada with the Perseverance landfill tasked to manage waste for the remaining 92%.

The GoG currently has in place five pieces of legislation that currently govern solid waste management and management of litter in Grenada (Table 3). The two key pieces of waste management legislation include the Grenada Solid Waste Management Act No11 of 1995 amended (Act No. 30 of 1995) and the Waste Management Act No 16 of 2001. Both pieces of legislation identify the primary management authority (GWSMA) through the Ministry of Health (MoH) as well as mandates all requirements for waste management services, including provisions for the management of hazardous waste (Grenada is not a signatory to either the MARPOL or LONDON Convention)⁹².

The Waste Management Act stipulates the preparation of the National Waste Management Strategy (NWMS) and its review every 5 years. There are 3 additional pieces of legislation: The Environmental Levy Act 5 of 1997, amended (Act No. 12 of 2000 and Act 13 of 2007), the Abatement of Litter Act No. 24 of 2015 and the Non-Biodegradable Waste Control Act No. 9 of 2018⁹³ that make specific provisions for plastic waste management. While these legislations do not comprise a more comprehensive approach to

⁸⁸ World Bank, First Fiscal Resilience and Blue Growth Development Policy Credit Program Document, Government of Grenada, 2018

 $^{^{89}}$ Preliminary Baseline Solid Waste Management Study, GSWMA 2018

⁹⁰ Preliminary Baseline Solid Waste Management Study, GSWMA 2018

⁹¹ https://gov.gd/carriacou

⁹² Preliminary Baseline Solid Waste Management Study, GSWMA 2018

⁹³ See Annex 7

plastic waste management, they are the first pieces of legislation in the country's history to account for urgency to reduce plastics waste and litter.	the

1.8.Table 4: NATIONAL LEGISLATION AND ADMINISTRATION SUPPORTING PLASTIC WASTE MANAGEMENT IN GRENADA

Legislation	Objective	Responsible Bodies	Status	Relevance to Plastic Waste Management
The Grenada Solid Waste Management Act No. 11 of 1995, amended (Act No. 30 of 1995)	This act established the Grenada Solid Waste Management Authority (GSWMA) and mandates the Authority with the responsibility for the operation of disposal sites for all non-hazardous waste. ⁹⁴	Responsible Ministry: Ministry of Health (MoH) Implementing Authorities: GSWMA	Enforced	Dictates the governance structure and authority for waste management, including plastic waste in Grenada
The Waste Management Act No. 16 of 2001 ⁹⁵	This Act mandates the requirements for waste management service providers, including waste haulers and waste disposal facility operators. In addition to also authorising the preparation and review of a 5-year cycle for the National Waste Management Strategy (NWMS) that guides the sustainable management of waste in Grenada, this Act also makes provisions for the issuance of waste management licenses, waste haulage permits and the management of hazardous waste ⁹⁶ .	,	Enforced	Establishes a strategic framework to guide all waste management operations in Grenada
The Environmental Levy Act No. 5 of 1997, amended (Act No. 12 of 2000 and Act 13 of 2007) ⁹⁷	This Act stipulates provisions for imposing an environmental levy on persons, goods and services. Currently an environmental levy is applied to imported fully blown/formed beverage containers (plastic and glass) and to households whose electricity consumption is exceeds 100 Kilowatt hours (kWh) per month	Responsible Ministry: MoH Implementing Agencies: GSWMA, Grenada Port Authority (GPA), Grenada Electrical Company (GRENLEC)	Enforced	Establishes financial incentives to support the proper disposal of imported plastic and glass waste.

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⁹⁴ Caribbean Development Bank, Appraisal Report on Integrated Solid Waste Management Project, Grenada, 2014

⁹⁵ Caribbean Development Bank, Appraisal Report on Integrated Solid Waste Management Project, Grenada, 2014

[%] Caribbean Development Bank, Appraisal Report on Integrated Solid Waste Management Project, Grenada, 2014

⁹⁷ Roberts, Diane; Country Analysis on Plastic Waste Management Grenada as part of the Study on the Applicability and Effects of Selected Instruments to Reduce the Input of Plastic Litter into the Oceans; September 2015

Legislation	Objective	Responsible Bodies	Status	Relevance to Plastic Waste Management
The Abatement of Litter Act No. 24 of 2015 98	The amended Act makes provision for management of littering in public places, including enforcement and punishment for those not in compliance. Regulations and Amendments: Regulation 1: An update was made to this Act in 2019 - 2019. 7. Abatement of Litter Act (Commencement) SRO No.1 of 2019. Regulation 5: Another update was made to this Act in 2019 - 2019. Abatement of Litter Act (Amendment of First Schedule) SRO No.5 of 2019.	Responsible Ministry: Ministry of Environment and Climate Resilience (MoECR) Implementing Agencies: N/A	Not Enforced	Establishes anti-littering regulation and enforcement approaches.
The Non-Biodegradable Waste Control Act No. 9 of 2018 ⁹⁹ (NBWCA 2018)	NBWCA 2018 mandates a total ban on Styrofoam food containers ¹⁰⁰ ; plastic shopping handle bags ¹⁰¹ (single use bags), and disposable plastic plates, spoons, and forks, with a view to facilitating optimal conditions for ecosystem restoration, rehabilitation and recovery and improving the quality of the marine environment. Regulations and Amendments: • Regulation 18: Non-Biodegradable Waste Control (Plastic Bags) Order SRO No. 18 of 2018 focused solely on supporting a ban on Styrofoam and Expanded Polystyrene	Responsible Ministry: MoECR) Implementing Agencies: GPA	Enforced	Establishes a ban on some non-compostable single use plastic products including Styrofoam, plastic handle bags and plastic utensils

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⁹⁸ Roberts, Diane; Country Analysis on Plastic Waste Management Grenada as part of the Study on the Applicability and Effects of Selected Instruments to Reduce the Input of Plastic Litter into the Oceans; September 2015

⁹⁹ See Annex 7

 $^{^{\}rm 100}$ Styrofoam is foam made from polystyrene (PS) a type of plastic.

¹⁰¹ This should include reusable woven bags made from recycled plastic of plastic bases such as polypropylene (PP) utilized in fabrics and reusable shopping bags and polyethylene (PE) utilized in single use plastic shopping bags, plastic film and plastic packaging.

Legislation	Objective	Responsible Bodies	Status	Relevance to Plastic Waste Management
	 Regulation 19: Non-Biodegradable Waste Control (Plastic Bags) Order SRO No. 19 of 2018 focused solely on supporting a plastic ban on single use plastic handle bags Regulation 30: Non-Biodegradable Waste Control (Plastic Food Products) Order SRO No. 30 of 2019 focused solely on supporting a plastic ban on single use plastic utensils 			
The Fisheries Act (1986)	This Act provides for the development and management of fisheries in Grenada's waters. Regulations and Amendments • Fisheries (Marine Protected Areas) Order (Cap. 108) - declares the marine areas to be Marine Protected Areas (Marine Protected Area and Multi-Zone Management System including marine parks, a marine reserves, marine sanctuaries or marine historical sites or a combination of any of those). It guides composition of the Management Authority for Marine Protected Areas and the Management Committee for Marine Protected Areas • Fisheries (Amendment) Act, 2014 (No. 12 of 2014) - amends the Fisheries Act in section	Responsible Ministry: Ministry of Fisheries Implementing Agencies: Ministry of Fisheries, MPA Committee	Enforced	Establishes marine protected area governance, management and regulation. It's a good start to including approaches to reduce the impact of pollution, including plastic pollution, on coastal protected area spaces.
	8 which prohibits the use of a foreign vessel for fishing or related activities in the fishery waters without a valid foreign fishing license. Where a fishing vessel is used in contravention of this requirement or of any			

Legislation	Objective	Responsible Bodies	Status	Relevance to Plastic Waste Management
	condition of a foreign fishing license the master, owner and charterer of that vessel are each guilty of an offence and liable, on summary conviction, to a fine as prescribed by this amendment ¹⁰² .			
The Physical Planning and Development Control Act No 25 (2002)	Provides for the control of physical development, requires the preparation of physical plans for Grenada and protects the natural and cultural heritage ¹⁰³ .	Responsible Ministry: Ministry of Implementing Agencies: Physical Planning Unit, Planning and Development Authority	Enforced	Establishes a framework to support the protection of natural spaces, including zoning approaches to better manage the impact of pollution on the natural environment.
Integrated Coastal Zone Management Act 2019	Establishes the enabling framework to facilitate the integrated management of the coastal resources of the State of Grenada, for the conservation and enhancement of those resources ¹⁰⁴ .	Responsible Ministry: MoECR Implementing Agencies: MoECR, Coastal Zone Management Unit	Enforced	Establishes a framework to better manage and protect coastal ecosystems including managing the impact of pollution.
Grenada National Land Policy 2019	Provides for Sustainable Land Management and Ecosystem Resilience in Grenada ¹⁰⁵ .	Responsible Ministry: Ministry of Agriculture Implementing Agencies: Ministry of Agriculture		Establishes a framework to improve sustainable land use including decreasing the impact of land-based sources of pollution.

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 $^{^{102}\,}https://www.ecolex.org/details/legislation/grenada-fisheries-act-1986-cap-108-lex-faoc129300/$

¹⁰³ https://observatoriop10.cepal.org/en/instruments/physical-planning-and-development-control-act-no-25-2002

 $^{^{104}\} https://climatefinance.gov.gd/wp-content/uploads/2019/10/Act-No.-8-of-2019-Integrated-Coastal-one-Management-Bill-2019.pdf$

 $^{^{105}\} https://gov.gd/sites/moal/files/docs/Documents/Grenada\%20National\%20Land\%20Policy\%20(Final).pdf$

1.8.1. STRATEGIES TO SUPPORT THE IMPLEMENTATION OF PLASTICS WASTE LEGISLATION

Currently the GoG has in place import, sale, retail, and consumption bans for the following plastic products mandated by the NBWCA 2018 Act:

- Styrofoam or Expanded Polystyrene and plastic food products
- Plastic handle bags
- Plastic utensils

Noncompliance with NBWCA 2018 results in fines between Eastern Caribbean Dollars (XCD) \$4,500 and XCD \$25,000 (USD \$1,665 - USD\$9,251). Based on the NBWCA 2018 stipulation, all fines will be collected by the Comptroller of Customs. The Customs and Excise division is mandated to support the reduction of plastic waste in Grenada and ensures that all banned items do not leave the port of entry (and are seized) if imported.

Currently Grenada does not have a ban on PET bottles. PET bottles are imported in the country as fully blown bottles (which are levied) or as preforms (which are not levied). While the levy provides incentive for importers to redeem 80% of the levy charged to their imported stock, once they can provide environmentally sound disposal of their imported stock, most retailers fail to take advantage of this incentive, instead leaving the management and adequate disposal of plastic to GWSMA.

Further the GSWMA's public relation division develops educational campaigns to include outreach to the public, schools, and communities. GSWMA produces a regular radio program that is broadcasted across seven different radio stations and works with 56 schools per year to execute the Environmentally Friendly School Initiative that allows student in primary, primary and secondary schools to develop projects around waste and litter management, waste reduction and public education 106.

The Grenada Tourism Authority (GTA), formed by Act of Parliament #42 of 2013 and mandated to develop Grenada's tourism industry manages the 'Pure Grenada the Spice of the Caribbean" brand which engages all stakeholders to support sustaining the health of Grenada's environment. GTA takes primary responsibility for the development of Grenada's tourism industry working directly with the Ministry of Tourism and key stakeholders like the Grenada Hotel and Tourism Association (GHTA). GTA's Tourism Awareness campaign supports educational efforts that target plastic waste reduction primarily through anti-littering messages recognizing the efforts of several local partner groups including Ariza Credit Union, the Royal Grenada Police Force, Grenada Green Group, Grenada Hotel and Tourism Association and The Nature Conservancy for their collaborative contribution to GTA's campaign. GTA acknowledges the importance of enhanced plastic waste management including integrating Grenada's 5 R approaches (refuse, reduce, reuse, repurpose and recycle) into a circular economy approach to eliminate waste and advance continual use of waste resources. e. GTA works collaboratively with Grenada's Ministry of Tourism to enhance public outreach efforts, including the recently implemented Anti-Litter Campaign that ran from August 2019 through March 2020. GHTA also acknowledges the importance of enhancing plastic waste management in country sharing that key to the success of these efforts is advancing the reduction of plastic importation, and reuse and recycling of plastic wherever possible.

During the latter part of 2019 and in 2020, Grenada's Ministry of Climate Resilience and the Environment worked in close collaboration with representatives of the World Bank to launch a communications campaign

¹⁰⁶ GIZ; Reducing the input of plastic litter into the ocean around Grenada: Applicability and effects of selected instruments, 2015

in support of the adoption of regulation 30 of the NBWCA 2018 including stakeholder outreach and development of communications material. Both GTA and the Ministry of Tourism worked closely with the Ministry to execute the communications campaigns.

1.8.2. FINANCIAL INCENTIVES TO SUPPORT THE IMPLEMENTATION OF PLASTICS WASTE LEGISLATION

The GoG has captured within waste management legislation different financial incentives to enhance waste management efforts, in particular supporting the proper disposal of important plastic waste and incentivizing importers and retailers to import environmentally friendly plastic alternatives to food product containers, single use plastic handle bags and plastic utensils. However as previously noted, these financial incentives contribute little to ensuring the implementation of a robust, long-term, and comprehensive plastic waste management strategy.

- The Environmental Levy Act makes provision for the imposition of an environmental levy on beverage containers (this includes beverage containers made from fully blown glass, PET plastic or 'other' but not PET preforms¹⁰⁷). An XCD \$0.25 (USD\$0.093) is imposed per fully blown PET bottle and paid by the importer directly to the Comptroller of Customs. As stipulated by the Act, within 30 days of collection, the proceeds of the levies are paid to GSWMA. The Act also makes additional concessions in favour of the importer where the importer may redeem a refund of 80% of the levies if they are able to satisfy the following conditions:
 - o re-export the beverage container; or
 - o dispose of it in a manner acceptable to the GSWMA.

GSWMA keeps the remaining 20% of the levies collected to support its operation. Environmental levies provide a steady source of income to supplement the operations of GSWMA. In addition to the levy on imported fully blown beverage containers, a one-off levy of XCD \$4.05 (USD \$1.50) is charged to stay over, airline and marine visitors arriving in Grenada. Between the period 2012 - 2014, a total of XCD \$2.2 million (USD \$814,045) in levies were collected for imported plastic bottles. Further, between 2010 and 2014 up to XCD \$2 million (USD \$740,0041) in levies were collected annually from stay over, airline and marine visitors to Grenada.

Levies are also collected from residential households whose electricity usage exceeds 100 kWh per month. A \$5 charge is added monthly to the bills of households that exceed 100kWh and a \$10 charge to those households that exceed 150 kWh per month. The electricity levy is collected directly by the Grenada Electricity Services Co. Ltd (GRENLEC) and disbursed directly to GSWMA. Data from 2015 noted that the electricity consumption of 55% of residential households in Grenada exceeded 100 kWh monthly, specifically 35% (or 14,000 households) exceeded 150kWh and 20% (or 8,000 households) consumed between 100KWh and 150kWh¹⁰⁸. In 2015, on average, levies collected by excessive energy consumption provided GSWMA an income of \$180,000 XCD (\$66,604 USD) monthly. Levies are the GSWMA's primary source of income with income generated from imports of goods, including PET beverage containers, being the largest contributor¹⁰⁹. Proceeds

¹⁰⁷ Preform is to form a product to a preliminary shape and size where the material is moulded to a specific shape which is then afterwards blown into a bottle using a special machine.

¹⁰⁸ Roberts, Diane; Country Analysis on Plastic Waste Management Grenada as part of the Study on the Applicability and Effects of Selected Instruments to Reduce the Input of Plastic Litter into the Oceans; September 2015

¹⁰⁹ GIZ; Reducing the input of plastic litter into the ocean around Grenada: Applicability and effects of selected instruments, 2015

from levies also go towards supporting GWSMA's educational initiatives on plastic litter management and disposal¹¹⁰.

- Tipping fees are mandated under the Waste Management Act, however compared to the Environmental Levy, it is not enforced for fear of encouraging illegal dumping by private waste contractors looking to avoid the cost of landfill dumping altogether. Therefore, while acknowledged as a revenue generating financial incentive to support operations of the GWSMA under the Act, it is ineffective.111 Per the Act, the commercial sector is exempted from public waste collection and as a result does not pay a waste levy.
- The NBWCA 2018 provides financial incentives to support buy-in from importers and suppliers on the phase in of appropriate alternatives to Styrofoam food containers, plastic shopping handle bags and single use and disposal plastic utensils. Importers will not be charged Value Added Tax (VAT) and will be provided with a waiver of the Customs Service Charge (CSC) for 1 year following the implementation of each of ban on all imported and appropriate alternatives. In an internal assessment study completed in 2019 by the World Bank that looked at assessing alternatives to plastic utensils in Grenada noted that this financial incentive was not effectively implemented in 2018 and 2019. Data on imported alternatives to single use plastic items collected by customs during 2018 and 2019 indicate that the combined financial incentive of 0% VAT and CSC waiver was applied only on 8 occasions and on 7 additional occasions only the 0% VAT was applied. Therefore, of the 131 imports (of varying quantities) listed as alternative plastic products, only 13 of those imports benefited from the financial incentive in place to support the phase in of plastic alternative.

Based on stakeholder consultations, it was clear that not all stakeholders, in particular some suppliers, were aware of the fiscal incentives. Those that were aware were unsure of the exact nature of the incentive (whether it was combined VAT and CSC waivers or just VAT or CSC separately). Further, it was stated by some suppliers that it was very apparent within their interactions with ports and customs representatives that the representatives themselves were not aware of the application of the fiscal incentives. Based on this assessment report, it was recommended that adequate training for ports and customs officials and stakeholders is needed¹¹².

1.8.3. ADDITIONAL PLASTIC WASTE MANAGEMENT INSTRUMENTS

Currently, the GoG leads plastic waste management efforts in Grenada. GSWMA with support of funding received from the OECS worked to install a single granulator in Carriacou to produce plastic granules which are then processed into eco-blocks. Private efforts include small and micro recycling plants. In 2013, Spice Isle Recycling (SIR), a recycling facility on the main island exported 36 tonnes of PET plastic bottles collected from private businesses, including hotels and bottling companies, and the main landfill, Perseverance, in Grenada. In addition to SIR, GSWMA also noted that Woodlands Recycling Center formerly collected and recycled plastic waste¹¹³. With SIR and Woodlands Recycling no longer recycling plastic and PET products, currently the only existing non-governmental plastic waste management instrument is a small recycling facility in Grenada's sister isle of Carriacou managed by the 'No to Single Use Association' (NUSPA). Residents of Carriacou are encouraged to dispose of all plastic at a separate receptacle within Carriacou's Dumfries landfill¹¹⁴. Plastic waste collected at the Dumfries landfill is shredded using a small plastic shredding machine and then upcycled into products such as plastic building blocks and pots. None of the plastic collected or

¹¹⁰ Roberts, Diane; Country Analysis on Plastic Waste Management Grenada as part of the Study on the Applicability and Effects of Selected Instruments to Reduce the Input of Plastic Litter into the Oceans; September 2015

¹¹¹ GIZ; Reducing the input of plastic litter into the ocean around Grenada: Applicability and effects of selected instruments, 2015

¹¹² Report on Assessing Alternatives to Plastic Utensils, Prepared for the Government of Grenada, World Bank 2019

¹¹³ Preliminary Baseline Solid Waste Management Study, GSWMA 2018

¹¹⁴ Draft plastic waste national level quantification and sectorial material flow analysis in Grenada, PWFI 2021

shredded at this recycling facility is exported out of the country¹¹⁵. Private efforts include on site recycling and upcycling efforts by hotels and marinas in Grenada, including Le Phare Bleu and True-Blue Bay Resorts¹¹⁶.

In 2015 an analysis by the Federated Ministry of Economic Cooperation and Development of Germany (GIZ) recommended the utilization of a deposit – refund system to significantly reduce the volume of plastic waste entering the country's Perseverance landfill and create socioeconomic advantages, such as new jobs and incomes. However, this scheme would derive most of its operational income from the current Environmental Levy placed on imported fully blown PET and glass (and on household whose electricity usage exceeds 100kWp) on which the full operation of GSWMA depends and assumes that the levy would be extended to cover imported preforms (which currently are not covered under the levy but comprise the largest portion of imported PET into the country). The study also suggests that that this proposed deposit refund management strategy on its own will not put an end to marine litter 117.

2016, the GoG signed a Memorandum of Understanding with Parley for the Oceans, a New York based NGO, currently operational in the country of Maldives where plastic waste is intercepted prior to reaching the main landfill and processed at recycling facilities in Asia. The processed plastic is then upcycled into products for the global retailer Adidas. The MOU between Parley for the Oceans and Grenada supported a programme of work to execute an action plan to significantly reduce the volume of plastic waste reaching Grenada's main Perseverance landfill. The plan included installing plastic waste collection sites to be included as part of the current GWSMA waste collection system and building a plastic waste management facility at the Perseverance landfill to sort and process recycled waste. However, the implementation of the plan was put on hold following the decision by China in 2018 to ban the import plastic waste into the country¹¹⁸.

2. PLASTIC LEAKAGE REDUCTION AND WASTE MEASURES

The GoG has initiated stakeholder coordination and policy development efforts to advance its work to enhance plastic waste management. In 2018 the GoG established the Non-Biodegradable Waste Control Act No. 9 of 2018 (NBWCA 2018) and its additional 3 regulations that ban the import, retail, sale, and consumption of plastic food products such as Styrofoam and Extended Polystyrene, single use handle bags and utensils and worked alongside partners to identify new and scalable approaches to mitigating plastic litter. However, still needed is a comprehensive and long-term strategic action plan that targets reduction practices in the key sectors including Waste, Tourism and Fisheries. To support the identification of approaches in Grenada to mitigate plastic litter and improve the management of plastic waste, PWFl carried out a material flow analysis study of plastic waste in Grenada in 2020 working with numerous stakeholders within the Waste, Fisheries and Tourism sectors, to assess household, commercial, tourism and fisheries waste flows.

This section of the report will discuss the results of the material flow assessment and analyse existing gaps in policy and legislation, waste management and implementation utilizing findings from the 2021 PWFI Plastic Waste National Level Quantification and Sectorial Material Flow Analysis in Grenada and stakeholder feedback from stakeholders engaged during the consultancy.

2.1.Status of Plastic Waste Management in Grenada

¹¹⁵ Draft plastic waste national level quantification and sectorial material flow analysis in Grenada, PWFI 2021

¹¹⁶ GIZ; Reducing the input of plastic litter into the ocean around Grenada: Applicability and effects of selected instruments, 2015

¹¹⁷ GIZ; Reducing the input of plastic litter into the ocean around Grenada: Applicability and effects of selected instruments, 2015

¹¹⁸ https://www.parley.tv/updates/2016/5/16/parley-x-grenada-blue-week-2016

The GoG does not have a long-term framework or strategy in place to support its efforts to reduce the impacts of managed and unmanaged plastic waste on the environment and people of Grenada. Despite recent policy action to support enhanced plastic waste management, missing is a robust and long-term plastics management strategy integrated into the current solid waste management strategy that would work to reduce the volume of plastics at the landfill and the volume of plastic waste that ends up as litter.

2.1.1. HOUSEHOLD AND COMMERCIAL WASTE OPERATIONS

All solid waste in Grenada is collected via a curb side collection system that spans roughly 98% of the island. GSWMA outsources contractors to cover collection and street cleaning responsibilities utilizing haulers, compactor trucks and skip trucks to collect and transport waste to the island's main landfills. Collection routes are determined by parish and population size and haulage distance. Typically, residential waste is collected twice per week and as much as three times per week in more densely populated neighbourhoods. Waste collection in the heavily trafficked St. George's parish, Grenada's tourism and economic belt is collected at least once a day. Waste collection from main towns take place at least once per day or twice per day in larger towns¹¹⁹. While GSWMA is only mandated to manage the operations of residential waste, it was determined in a 2021 study that small to mid-sized hotels, guest houses and other commercial businesses place their waste into residential waste receptacles. Of the 38 registered hotels and guest houses in Grenada, only 17 delivered waste to the Perseverance landfill¹²⁰.

Currently, plastic waste collected by the GSWMA as part of its waste collection operations is neither recycled, sorted, or upcycled and financial incentives attached to the solid waste management act have failed to alleviate the volume of managed and unmanaged plastic¹²¹.

2.1.2. Tourism Waste Operations

While hotels and guest houses which in combination provide a total of 2873 rooms in Grenada (including Carriacou and petite Martinique) are responsible for incurring the costs of transporting and depositing their produced waste at the landfill, as noted previously a 2021 study revealed that of the 38 registered hotels and guest houses in Grenada, only 17 delivered waste to the Perseverance landfill¹². Key tourist-drawing festival events like Grenada's 'Spicemas' Carnival which typically occurs annually in August produce a significant volume of waste during a short period including large amounts of plastic litter. Spicemas can attract up to 13,000 attendees during its 4 days duration. For planned these planned events GSWMA contracted street cleaners assume responsibility for waste collection, however unplanned events that occur during carnival typically do not have planned waste management following their execution.

The Grenada Airport Authority (GAA) manages waste produced by airline tourism and waste generated during terminal operations. This waste is collected several times a week and taken to the country's landfills. Airline generated waste is quite minimal in comparison to land and sea-based waste.

Grenada has 11 ports and marinas of which only 1 deep water port can accommodate cruise ships while the others typically accommodate fishing vessels, sailing vessels, mega yachts, and motorboats. Of the eleven ports and marinas, 2 are based in Carriacou. Waste from the ports in Carriacou is taken directly to Dumfries at no cost to the owners of the vessels. On the mainland, the cost of waste collection from ports and marinas

120 Allison R. Elgie, Simron Jit Singh, John N. Telesford, You can't manage what you can't measure: The potential for circularity in Grenada's waste

¹¹⁹ Preliminary Baseline Solid Waste Management Study, GSWMA 2018

management system, Resources, Conservation and Recycling, Elsevier Volume 164, 2021, 105170, ISSN 0921-3449 121 Roberts, Diane; Country Analysis on Plastic Waste Management Grenada as part of the Study on the Applicability and Effects of Selected

Instruments to Reduce the Input of Plastic Litter into the Oceans; September 2015

¹²² Allison R. Elgie, Simron Jit Singh, John N. Telesford, You can't manage what you can't measure: The potential for circularity in Grenada's waste management system, Resources, Conservation and Recycling, Elsevier Volume 164, 2021, 105170, ISSN 0921-3449

is carried over to the vessel owners and, in some cases, included in the port usage and dockage fee. Grenada is a popular stop for yacht owners and supports a thriving yachting community. Yachts typically dispose of their waste at their port of dockage which is then taken to the country's landfills. Cruise ships can deposit their waste at onshore facilities managed by GPA for an associated cost.

2.1.3. Fisheries Waste Operations

Grenada's fishing industry has transitioned away from artisanal fishery to a more commercialized multispecies industry. Grenada boasts a total of 3,500 fishers and 900 fishing boats of which 90% are motorized. Fishers utilize a variety of measures to catch fish including Fish Aggregating Devices (FADS), fish traps, fish pots, bottom gillnets and longlines, handlining and diving. Grenada has 45 fish landing sites than span the country's coastline and sister islands of which 8 are considered primary landing sites with fish markets and port facilities. Primary fishing sites are utilized by over 100 boats, secondary fishing sites service between 11-100 boats and tertiary fishing sites, of which there are 7 in Grenada, service 3-10 boats. Grand Mal tertiary landing site also includes 4 fish processing plants. These sites generally have inadequate or negligible facilities to support repairing or disposing of fishing nets¹²³.

2.1.4. Landfill Operations

The 2021 PWFI assessment study also evaluated the viability of Grenada's 2 main landfills, Perseverance (located on the main island) and Dumpfries (located on the sister island of Carriacou) and found that plastic separation and recycling only occurs at the Dumfries site. While noting the importance of the CBD project to help enhance infrastructure and waste management conditions at the Perseverance landfill, the study also highlights concern about the proximity of the landfill to the coastline (approx. 200m from the ocean) and the economic and health implications of uncontrolled fires due to methane gas build up at the site. The CBD project will work to bring the Perseverance landfill up to engineering quality and standards as, like the Dumpfries landfill, it was built without adequate and appropriate technical guidance. The Government plans to close the landfill in 2021 and identify a more suitable landfill site to serve the main island. 124

A 2018 review of Grenada's National Waste Management Strategy noted the following weaknesses:

- Responsibility for the enforcement of the Waste Management Act is still unclear. Despite the multiple
 operational responsibilities attached to GSWMA, an organizational chart has not been agreed on.
- The exclusion of businesses from the application of the Environmental Levy
- Lack of follow up to ensure that the National Waste Management Strategy is successfully executed.
- Grenada is not a signatory to the MARPOL or LONDON Conventions
- Tipping fees are not enforced

While the report noted several issues related to improper waste management in Grenada, including burning of garbage, illegal dumping of material and construction material and littering, it did not note the prevalence of plastic litter or unmanaged plastic wastes. The report also identified that waste collected from ships, including recyclable waste, are baled onboard all landed ships, and taken to the landfills in bales. Any separation that happens prior to baling is often not maintained at Grenada's landfills¹²⁵.

The 2015 Marine Litter report by GIZ noted the following possible reasons for the Grenadian public's inconsistence with the country's waste management approaches based on in depth stakeholder consultations with diverse groups including representatives from the following sectors: waste, marine management, and tourism:

¹²³ Draft plastic waste national level quantification and sectorial material flow analysis in Grenada, PWFI 2021

¹²⁴ Preliminary Baseline Solid Waste Management Study, GSWMA 2018

¹²⁵ Preliminary Baseline Solid Waste Management Study, GSWMA 2018

- Inadequate respect for the natural environment
- Culturally ingrained habits and standards
- Inadequate number of garbage bins especially in highly frequent areas or areas highly trafficked during special festivities
- Lack of street cleaning in highly commercial and trafficked areas, in particular, Grand Anse in St. George's¹²⁶.

2.2. Sources and Types of Plastic Waste

The PWFI Material Flow analysis teams revealed:

- Households in Grenada contributed 48.3% (22,782 tonnes) of waste disposed of in Grenada of which plastic waste accounts for 10.3% (2,353 tonnes) per year
- Commercial waste contributes 45.42% (21, 438 tonnes) of the waste disposed of in Grenada of which plastic waste accounts for 4.9% (1,050 tonnes).
- The tourism sector contributes 14% of plastic waste generated in Grenada.
- Yachts contributed more than 16 times waste of residents per day.
- In 2019, the fisheries sector in Grenada disposed of or 0.3% (151 tonnes) of Grenada's overall waste.
- Plastic represented 25% of fisheries waste disposal (19.4% PET, 9.4% HDPE and 2% PP).
- Grenada fishing fleet shed 900 kgs of microplastics per year.
- Plastic waste comprised of PET, HDPE, PVC, LDPE, PP, PS and other¹²⁷.

A 2013 plastic waste assessment noted that Grenada generated almost 4 million kg (4409 tonnes) of plastic packaging waste (PPW) and imports of PET based preform units into Grenada increased precipitously from 2012 imports by 691% (approx. 27.9 million preforms) compared to just 5.14 million units imported fully blown plastic bottles. Of the 4 million kg of plastic waste generated, roughly 25% comprised plastic bottles (equivalent to 33 million bottles). The assessment also estimated that 70% of plastic bottle waste and 75% of PPW were landfilled while the remaining 30% and 25% respectively were classed as unmanaged (or as plastic litter). The report also revealed that plastic waste is not recycled, incinerated, or utilized for energy recovery on island and less than 4% of plastic bottle waste is exported for recycling 128.

In 2015, plastics accounted for 16.4% of the waste disposed of at the Perseverance landfill, the third largest form of waste disposed of on the main island. The precipitous increase of PET based preform importation in 2012 was attributed to increased water bottle retailers in the country as well as the local bottling factory switching from usage of glass bottles to disposal single use bottles¹²⁹.

The 2021 PWFI Assessment analysed plastic waste material, by polymer type, within the household, commercial, tourism and fisheries sector, particularly assessing the flowing types of plastic polymers:

- Polyethylene Terephthalate (PET) water beverage containers, and other non-water beverage containers, e.g., carbonated and non-carbonated drinks and cooking oil
- High-Density Polyethylene (HDPE) Includes light shopping bags, cleaning agent products, home care product containers, food containers and hair and body wash product containers

¹²⁶ GIZ; Reducing the input of plastic litter into the ocean around Grenada: Applicability and effects of selected instruments, 2015

¹²⁷ Draft plastic waste national level quantification and sectorial material flow analysis in Grenada, PWFI 2021

¹²⁸ Roberts, Diane; Country Analysis on Plastic Waste Management Grenada as part of the Study on the Applicability and Effects of Selected Instruments to Reduce the Input of Plastic Litter into the Oceans; September 2015

¹²⁹ GIZ; Reducing the input of plastic litter into the ocean around Grenada: Applicability and effects of selected instruments, 2015

- Low-Density Polyethylene (LDPE) soft plastic packaging, light shopping bags, cling wrap, bubble wrap, and glossy shopping bags
- Polypropylene (PP) container lids, and semi rigid food containers
- Polystyrene (PS) single use plastic cutlery
- Polyvinyl chloride (PVC) piping
- Other hard plastics and other plastics that do not fall into the previous categories

2.2.1. HOUSEHOLD AND COMMERCIAL PLASTIC SOURCES AND TYPES

In Grenada, the PWFI assessment found that households and commercial businesses dispose of 66.33% (2,353 tonnes) and 29.6% (1,050 tonnes) of plastic waste respectively. Within the household sector, plastic comprised 10.3% of overall household waste much higher than the 4.9% volume it comprises within commercial waste. PET plastic comprised the largest volume of plastic waste within both the household and commercial waste sector, followed by HDPE and LDPE.

Plastics that could not be categorized were labelled as 'other' and comprised a higher volume than LDPE from both household and commercial waste. The composition of plastic waste from households included lightweight shopping bags, soft plastic packaging, and PET bottles (water, oil, and other drinks), glossy shopping bags, cleaning and home care containers, and hair care and body wash containers. Plastic waste from commercial businesses consisted mainly of food containers, soft plastic packaging, PET drink bottles, cling and bubble wraps, and semi rigid food containers.

2.2.2. TOURISM PLASTIC SOURCES AND TYPES

With the main activities of incoming tourists primarily carried out within the marine environment, the PWFl assessment analysed the material flow of land-based tourism, water-based tourism, and air travel tourism. Grenada received a total of 529, 985 tourists in 2019. The average length of stay of visitors was 9 days. Air transportation accounted for 160, 970 visitors and yacht and cruise transportation accounted for 25, 406 and 342,000 visitors respectively. Sea-based tourism is comprised of yacht, fishing and cruise generated tourism.

Annually, land-based tourism accounted for 89% (2, 516 tonnes) of all tourism generated waste with yachts generating 243 tonnes of which 16.5% is plastic waste and airlines generating 73 tonnes of which 13.4% is plastic waste. The PWFI study found that during its assessment period there was no waste generated by cruise ships. Land based tourism was responsible for generating 53% of plastic waste generated from tourism followed by yachts at 38% and airlines at 9.2%.

2.2.3. Fisheries Plastic Sources and Types

Abandoned, lost, or otherwise discarded fishing gear (ALDFG) comprise most of the plastic waste in Grenada's waters. The study revealed that fisheries waste contributed to 1.07 % (38 tonnes) of all plastic disposed of in Grenada of which 1.24% constituted of total leaked plastic. Approximately 26% of the plastic produced in this sector was leaked. Plastic produced and leaked comprised of PET, HDPE, LDPE, PP, PVC, PS and 'other'. Similarly, to land-based tourism, 'Other' dominated plastic leakage from the fishing sector.

2.3. Plastic Leakage: Types and Avenues of Plastic Leakage

The 2020 assessment by the PWFI Material Flow analysis teams revealed that:

- Household and commercial leaked plastic (unmanaged plastic) accounted for 95.9% of all plastic leaked in Grenada with household leakage accounting for 67% of total country leakage and commercial leakage accounting for 29%
- 10.3% household waste is comprised of plastic waste of which 37% is leaked (does not make it to the landfill or ends up as litter)
- 4.9% of commercial waste is comprised of plastic waste of which 36% is leaked.
- The largest category of plastic leaked by household and commercial facilities was 'other'.
- Tourism plastic leakage represented 3% of all plastic leaked in Grenada
- 41% of plastics disposed of in the Tourism sector were leaked.

2.3.1. HOUSEHOLD AND COMMERCIAL LEAKAGE

Household and commercial leaked plastic (unmanaged plastic) accounted for 95.9% of all plastic leaked in Grenada with household leakage accounting for 67% of total country leakage and commercial leakage accounting for 29%. Households in Grenada leaked a similar percentage of the plastic waste than commercial businesses (Households=27%, Commercial = 36%). Of the leaked plastic, 'Other' comprised the largest plastic type followed by PS, HDPE, LDPE, PP, PET and PVC of household leakage. Commercial leakage was also dominated by 'Other' followed by PS, PET, HDPE, PP, LDPE, and PVC. The report ascertained that the combined total volume of PET, HDPE and PP comprised a significant percentage of leaked plastic from households. The study assessed a total of 243 household samples, 28 commercial samples and 7 landfill waste samples. A total number of 202 interviews within the residential sector and 28 interviews within the commercial sector were completed.

2.3.2. TOURISM LEAKAGE

51% of plastic waste within the tourism sector was leaked or incinerated. The most leaked plastic within this sector was PET followed by PVC, LDPE, PS, HDPE, and PP.

2.3.3. Fisheries Leakage

In 2019, across all three sectors a total of 3547 tonnes of plastic was produced of which 36.5% (1294 tonnes) was leaked into the environment. Households and commercial businesses contributed 24.4% (867 tonnes) and 10.5% (374 tonnes) of leaked plastic respectively. The tourism and fisheries sector contributed minimally at 1.07% (38 tonnes) and 0.45% (16 tonnes) respectively. Plastic that could not be categorized contributed to 27% of plastic leaked while PS, HDPE, PP, LDPE, and PET each contributed between 13 – 16% of leaked plastic. PVC accounted for the lowest percentage of leaked plastic at 2%.

2.4. Proposed Leakage Reduction Strategies for Grenada

To enhance Grenada's plastic waste management, it is important that a long-term strategy which includes policy interventions considers sustainable management of plastic waste and which stimulates consumer behaviour change, is developed. This strategy should consider approaches that:

- · Prevents plastic waste from negatively affecting the environment and people
- Recycles all plastic polymers that can be reused
- Intercepts plastic waste from entering unmanaged and ineffective landfills

- Supports anti-littering behaviour
- Encourages less consumption of plastic products
- Phases out the use of unnecessary single use plastic products.¹³⁰

Based on the PWFI Analysis, several reduction strategies could be utilized in Grenada to mitigate and reduce plastic leakage within the three targeted sectors. This report recommends the following reduction measures:

- 1. <u>Prevent plastic littering</u> through the enforcement of anti-litter regulation and legislation and the inclusion of plastic waste management into the current waste management framework.
- 2. <u>Improve plastic waste collection, handling and disposal</u> through policy reform, deposit and return collection schemes, recycling at disposal and landfill sites, annual plastic waste collection targets and introduction of community-based collection systems.
- 3. <u>Improve disposal and landfill sites</u> to ensure adequate standards and reduce the volume of plastic waste entering.
- 4. <u>Introduce source separation approaches</u>, including sorting, recycling particularly for plastic polymers that can be recycled.
- 5. <u>Establish economically viable plastic recovery</u> and processing approaches such as upcycling and circular economy methods to ensure to reduce the volume of plastic entering the waste stream.
- 6. Identify and implement appropriate technologies for eco-friendly plastic waste treatment
- 7. Continue to identify and implement long-term sustainable strategies such as additional plastic bans and phase outs, particularly in single use plastic products, reduction of use of virgin plastic and standardizing labelling on products to raise awareness and encourage proper disposal and usage¹³¹.

2.4.1. GAP ANALYSIS

The PWFI study revealed that approximately 27% of plastic imported into Grenada was leaked, mismanaged, or held in long-term reservoirs away from the landfill similarly to assessments completed in 2015 which assumed the probability of mismanaged plastics or plastic waste produced in country that did not make it to landfill, at roughly 30%. PET beverage bottles, according to the study accounted for 80% of PET waste and PET personal care and cooking bottles and HDPE bottles counted for 16% and 18% of plastic waste generated respectively. The study also explored gaps and provided sectoral recommendations based on its analysis of plastic material flow in each of the explored sectors.

This report provides a gap analysis based on current policy and legislative structures, waste management approaches and implementation strategies within the Waste Management, Tourism and Fisheries sectors in Grenada (Table 4).

 $^{^{130}\} https://wedocs.unep.org/bitstream/handle/20.500.11822/31555/Marine_Plastic_Pollution.pdf?sequence=1\&isAllowed=yallowed=$

¹³¹ https://wedocs.unep.org/bitstream/handle/20.500.11822/31555/Marine_Plastic_Pollution.pdf?sequence=1&isAllowed=y

Sector	Policy and Legislative Gaps	Implementation Gaps
Waste	International and Regional Policy Gaps	Regional Implementation Gaps
Management	Grenada has not endorsed the London and MARPOL Conventions that strictly bans the discharge of ship generated waste and supports collaborative partnerships that advance waste management strategies.	Regional governance is lacking as governments struggle to access much needed technical and financial capacity to meet their basic waste management needs, including ensuring adequate waste and landfill infrastructure and functioning.
	Although a benefactor of the Regional Seas program under UN Environment and the Cartagena Convention, Grenada has not achieved a comprehensive action plan to target marine litter and reduce LBS sources of	 The St. John's Declaration does not support regional policy incentives to encourage improved regional scale plastic waste management and lacks urgency.
	plastic as mandated by the program.	National Implementation Gaps
	Grenada's draft Coastal Master Plan and Marine Spatial Plan highlights the need to develop and implement a comprehensive marine pollution strategy and action plan, however, it is listed as Medium priority action to be undertaken from 2016 – 2030	 Long term management of plastic pollution in Grenada is not included within the country's integrated solid waste management practices. It's unclear how Grenada's coastal zone masterplan's suggested
	and not a short-term priority.	marine pollution strategy and action plan could support the relocation and improvement of the country's 2 main landfills.
	The regional St John's Declaration policy endorsed by heads of Government of CARICOM does not mandate governments to collaboratively support a regional plan of action to address the impacts of plastic	Without suitable landfill space identified it is difficult to ascertain if the Perseverance landfill will be closed.
	pollution and simply implies action. National Policy Gaps	 GSWMA's collection services do not extend to businesses and trash receptacles installed in heavily trafficked areas or busy commercial and economic zones cannot adequately handle high volumes of trash.
	The Abatement of Litter Act proposed in 2015 has yet to be adopted.	
	to be adopted.	GSWMA's operational needs are mostly dependent on income derived by the Environmental Levy yet inadequate work is done to address plastic waste and litter. A more sustainable and long term source of financing must be identified and executed.
		long-term source of financing must be identified and executed.

- National Waste Management Strategy (NWMS) is not consistently reviewed to ensure its success in meeting key waste management targets.
- The Waste Management Act and its supplemental NWMS does not identify and support execution of waste segregation within the residential, commercial, tourism and fisheries sectors.
- The Environment Levy fails in its mandate as:
 - o imported pre-forms are not levied
 - the levy is not extended to commercial businesses who utilize residential waste facilities for disposal.
 - GWSMA has failed to reprioritize levy income toward strengthening plastic waste management in country
- Tipping fees are currently not enforced for fear of retaliatory illegal dumping responses from commercial businesses.
- Grenada's Integrated Solid Waste Management Plan lacks a long-term strategic approach to managing plastic waste. The recent CBD financed initiative focused on a plan of action to better manage organic waste however failed to identify mechanisms to reduce the volume of plastic waste that ends up at the landfill.
- The NWBCA 2018 Act does not reflect measures that support strategies to reuse, recycle, repurpose, upcycle, and further reduce plastic waste, including having provisions to incentivize importers of PET bottles to support circular economy measures.
- NWBCA 2018 Act is not fully enforced, and additional stakeholder consultations are needed to

- The collection and deposit approach proposed by GIZ is anchored on <u>proposed</u> changes to the Levy. While a collection and deposit scheme could be effective (based on the success of a similar initiative culturally accepted by Grenadians), without a lucrative export market for plastic or a demanding domestic (or regional) market for recycled plastic product it could prove difficult to implement.
- The Grenada Parley for the Oceans MOU remains unexecuted. The MOU identified a collection system that targeted an approach at plastic waste collection to intercept most of the plastic ending up at Grenada's landfills. Aside from the usage of the Environmental Levy to cover costs, no additional sustainable financing model was proposed to ensure that GSWMA maintain its current operations while expanding its portfolio to support waste separation, collection, and management.
- The Customs and Excise Department of the Grenada Ports Authority has no system in place for identifying individual product alternatives or appropriate product alternatives that comply with the NBWCA 2018. Items imported into Grenada are identified only by their HS codes. Plastic alternatives whose material bases have corresponding international HS codes are categorized by these codes. However, alternatives whose material base Customs officers are unable to accurately identified are simply listed as 'Other'.
- Current port storage facilities and storage duration for seized products is inadequate.

	 ensure its effectiveness as it relates to the identification and importation of alternatives and the management and handling of seized products. There is currently no policy regulation that addresses the mitigation of household plastic waste which currently accounts for most of the plastic leakage on island. 	
Tourism	 National Policy Gaps Current policy does not penalize land-based tourism businesses such as hotels and guest houses for utilizing residential trash receptacles for commercial waste. Current plastic waste management legislation does not fully align with the 'Pure Grenada' branding vision which supports anti-littering and sustainability messaging. Current policy does not incentivize the reduction of plastic litter within the tourism industry, in particular it does a poor job at targeting those tourism sectors that generate the most plastic waste such as land-based tourism and yachts. Grenada's draft Coastal Master Plan does not make clear how sustainable tourism considers the management of plastic waste within Grenada as part of the country's Blue Economy development. 	Rational Implementation Gaps GWSMA collection management does not account for the high volume of plastic waste generated following unplanned activities during peak carnival season. Anti- plastic litter education and communication campaigns are inconsistent and not implemented island wide. Current waste management incentives do not support job creation within the tourism industry. There is no plan of action or long-term strategy to support the reduction of plastic waste within the tourism sector.
Fisheries	International Policy Gaps As a party to the UN Fish Stocks Agreement and MARPOL, Grenada has not identified a plan in place to recover ALDFG or plastic waste generated from fishing activities.	National Implementation Gaps There is no long-term waste management strategy or plan of action developed specifically for the Fisheries sector.

National F	olicy	Gaps
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- The Fisheries Act nor the Coastal Zone Management Act do not include guidelines on management of plastic pollution or marine generated plastic waste within Grenada's waters, including within the country's protected areas.
- It is unclear how Grenada's draft Coastal Master Plan could support the transition to sustainable fisheries including strategies to tackle the reduction of fisheries generated plastic waste.

- There is no mandated gear ID process or monitoring system that guides proper usage and disposal of plastic based gear within the country's fishing industry.
- Not all ports are adequately outfitted with receptacles for placement of ALDFG or fisheries generated plastic waste.
- There is a general lack of education and knowledge of the impacts of plastic waste on the marine environment and Fisheries sector.

3. RECOMMENDATIONS TO IMPROVE PLASTIC WASTE MANAGEMENT

3.1. Overview of current policy situation in Grenada

The GoG has taken important steps to initiate action on plastics waste management in recent years. In 2015, the Abatement of Litter Act was drafted and although still unadopted provides a solid foundation to support much needed efforts to curb plastic litter and further improve the way in which plastic waste is currently managed in country. Further, recent policy changes that enforce the banning of importation, retail and use of some single use plastic products such as Styrofoam, single use plastic handle bags and single use plastic utensils and which also encourages the use and importation of less harmful alternative single use plastic products is a solid start towards enhancing plastic waste management efforts in Grenada. However, Grenada must address current gaps within a long- term strategy to address plastic waste management more effectively and efficiently,

The three targeted sectors, Waste Management, Tourism and Fisheries identified within this project were assessed and a gap analysis developed to identify where current legislative and implementation gaps exists. Based on this analysis, including recommendations made within the PWFI National Level Quantification and Sectorial Material Flow Analysis assessment and feedback from key stakeholders engaged, this project makes the following recommendations to improve plastic waste management.

3.1.1. WASTE MANAGEMENT IMPROVEMENTS

The GoG has key pieces of legislative in place to support its current solid waste management operations. In recent years the Government has sought to improve landfill operations, infrastructure and conditions in Grenada's 2 main landfills. These improvements include ensuring that both landfills are up to technical, environmental and safety standards. Further, in identifying key approaches to enhance coastal zone management, solid waste management and develop its Blue Economy, the GoG is considering closing the Perseverance landfill and transition its main landfill operations to a more suitable space. Waste collection in Grenada provides excellent island wide coverage, however, the collection system is fraught with operational errors that can be resolved, including providing improved garbage collection receptacles as well as increasing the number of collection receptacles in heavily trafficked areas and high economic zones. The GoG is currently transitioning to a more integrated solid waste management structure to improve its handling of waste, in particular organic waste, however plastic waste management is still lacking or negligible. The following recommendations are proposed to guide a long-term strategy to support improved plastic waste management in Grenada:

- Recommendation 1: Increase the operational capacity of GSWMA to ensure that plastic waste management is implemented in the long-term. GSWMA currently does not have a long-term management strategy in place or the additional capacity to execute on this strategy despite collecting income to ensure adequate management of imported plastic bottles. The Levy has failed to incentive businesses to take ownership over the responsible disposal of imported plastic stock instead leaving full responsibility of its disposal to GSWMA. An improvement in GSWMA's capacity would be helpful in identifying and closing gaps and implementing improved plastic waste management activities. Identifying a source of long-term and sustainable financing is integral to ensuring the success of GSWMA plastic waste management operations.
- Recommendation 2: The GoG must improve the Environment Levy legislation to ensure that it
 adequately meets its key objective. The GSWMA derives a substantial portion of its operational
 income from an Environment Levy. However, the current operations are not aligned with adequate

and safe disposal of plastic waste, in particular, PET bottles. The Levy could be improved in the following ways:

- imported pre-forms should be levied as the additional income gained from this would offset costs needed to implement enhanced plastic waste management.
- The environmental levy should be extended to commercial businesses who utilize
 residential waste facilities for disposal, should GSWMA take on the full responsibility for
 disposal and management of plastic waste.
- The environment levy should also be extended to 'Other' or uncategorized plastic that
 often dominate the volume of leaked plastic in Grenada.
- Recommendation 3: GSWMA should develop and implement a long-term plastic management strategy as part of its integrated waste management operations. GSWMA should identify and execute on a plastic waste management strategy utilizing its existing waste management infrastructure. During stakeholder consultations with Parley for the Ocean, GSWMA identified a collection system that focused on separating plastic within the household and commercial sector, collecting separated plastic waste and exporting all plastic waste to adequate recycling and upcycling facilities off island. Based on this, long term plastic waste management could include the following:
 - O Separation of plastic waste within the household and commercial sectors.
 - A separate collection system for plastic waste including specific plastic waste trash receptacles installed at collection sites.
 - A separate facility to sort and process plastic waste.
 - O Identification of suitable export markets for plastic waste
 - Strategies to reduce imported and produced plastic waste
 - Utilization of circular economy strategies where relevant (See recommendation 4)
- Recommendation 4: GoG should improve its current legislative to reflect a more robust approach to plastics waste management, including mandating reduction strategies such as circular economy, recycling, reuse, repurposing and reduction of additional imported single use plastic items. Current plastic ban legislative is simply not enough as it only targets a small selection of imported plastic items. The PWFI assessment noted that a diversity of plastic types comprised leaked plastic in Grenada, of which some types, such as PET, can be recycled, reused and repurposed. Integrating plastic waste reduction strategies could go a long way to reducing plastic litter and plastic waste in the country's landfills.
- Recommendation 5: GoG should look to improve the capacity and operations of the port authority to improve their enforcement of the NWBCA 2018 Act. A review of the port authority's handling of the current plastic bans reveals that port officers encounter difficulty and inconsistency in categorization of banned imported plastic and plastic alternatives. In addition, storage facilities for seized products are inadequate as banned good are in storage for long periods. The GoG could carry out a series of training and capacity development workshops, as well as complete an assessment to identify a suitable strategy to manage seized products.
- Recommendation 6: GoG should put in place an initiative that supports the identification of imported uncategorized plastic. The PWFI assessment noted that while PS, HDPE, PP, LDPE, and PET are leaked into the environment, the largest contributor towards plastic leakage is uncategorized plastic. Without understanding the type of plastic and its impact on the environment and health, it's difficult to make policy recommendations on its management.

- Recommendation 7: GoG should immediately enforce the Abatement of Litter Act. A policy tool
 like the Abatement of Litter Act should be executed to support behaviour and mindset change toward
 litter.
- <u>Recommendation 8:</u> GoG should look to enforcing tipping fees. Given the current financial roadblocks to ensuring sound waste management, tipping fees should be utilized to incentive improved behaviour. Enforcement of tipping fees would be successful if done together with the adoption and enforcement of the Abatement of Litter Act.
- Recommendation 9: GoG should support the strengthening of regional policy on plastic waste management as a tool to attract much needed capacity, technical resources and financing models. Current regional policies and initiative are insufficient without a legal mandate. While countries in the region have initiated action to manage plastic waste, currently there is no regional policy in existence that mandates countries to reduce plastic waste and little. There are several international funding agencies that provide funding towards improving solid waste management approaches. A strengthening of regional policy could ensure the consistent delivery of funding to support national and regional action.

3.1.2. TOURISM AND FISHERIES IMPROVEMENTS

Plastic leakage from the tourism and fisheries sector is minimal compared to plastic leakage from the residential and commercial sectors. However, given the importance of the tourism industry to Grenada and its impact and influence on behaviour change, plastic waste management strategies can be implemented within this sector to support overall improvement of plastic waste management in country. As Grenada looks to advancing its sustainable development effort, within both sectors, reducing the plastic leakage from these two important sectors is crucial to the country's future development, as well as its current 'Pure Grenada' brand. The following recommendations are proposed

- Recommendation 1: Develop and execute a long-term strategy to reduce plastic waste within the tourism sector. Thus, ensures that tourism-based business make eco-friendly and environmentally sound choices and support the promotion of this ethos within their brand. This strategy could include the following:
 - Penalize businesses for improper disposal of plastic products (adopting the Abatement of litter Act)
 - Mandate businesses to adopt reduction strategies such as circular economy, recycling, reuse, repurposing and reduction of imported single use plastic items that are currently not banned. This can be done through a certification process.
 - Encourage businesses to align to the anti-litter and sustainable mission of the Pure Grenada brand. This can also be executed utilizing a certification system.
 - Encourage businesses to utilize anti-littering messaging and install and promote impactful communication materials.
 - Extend GSWMA collection costs to businesses. Given the propensity for businesses to utilize
 residential waste receptacles, waste management legislation could be improved to tackle
 this practice.
- Recommendation 2: Support consistent dialogue between GSWMA and the tourism and fisheries
 sectors to identify and execute on areas of collaboration. Consistent communication and dialogue
 between solid waste managers and tourism representatives can support the timely and streamlined
 execution of plastic waste management strategies.

- Recommendation 3: Update current Fisheries and Coastal Zone Management legislative to reflect strategies to support the reduction of plastic waste being disposed within Grenada's waters, in particular, within the country's coastal and marine protected areas. There are currently no provisions within Fisheries and Coastal Zone legislation to tackle the issue of plastic waste. Given the urgency to ensure that LBS source of pollution, such as plastic, is reduced, it's important for GoG to consider advancing effective strategies with supportive legislation.
- Recommendation 4: Develop and execute on a strategy to tackle the reduction of ALDFG within the Fisheries sector. This strategy could include the following:
 - o A mandated process to ID fishing gear.
 - A monitoring system monitoring that guides proper usage and disposal of plastic based gear within the country's waters.
 - A mandate that all ports are adequately outfitted with receptacles for placement of ALDFG,
 fisheries generated plastic waste or other plastic waste.
 - Education and knowledge workshops to support dialogue and knowledge transfer on the impacts of plastic waste on the marine environment and Fisheries sector.
 - Communications strategy focused on reducing plastic litter within the country's waters.
- Recommendation 5: GoG to support a series of training and knowledge workshops within the
 Tourism and Fisheries sectors focused on improving overall ownership of plastics waste
 reduction within these 2 sectors. Capacity building and knowledge acquisition is key to supporting
 the improvement of plastics waste management.

3.2.Table 6: Suggested Implementation Timeline For Recommendations

Sector	Recommendation	Policy & implementation Gap Addressed	Proposed Implementation Timeline (Short, Medium, Long Term)
Waste Management	Recommendation 1: Increase the operational capacity of GSWMA to ensure that plastic waste management is implemented in the long-term	 National Waste Management Strategy (NWMS) is not consistently reviewed to ensure its success in meeting key waste management targets. Implementation Gap: Long term management of plastic pollution in Grenada is not included within the country's integrated solid waste management practices. GSWMA's collection services do not extend to businesses and trash receptacles installed in heavily trafficked areas or busy commercial and economic zones cannot adequately handle high volumes of trash. Without suitable landfill space identified it is difficult to ascertain if the Perseverance landfill will be closed. 	Short Term
	Recommendation 2: The GoG must improve the Environment Levy legislation to ensure that it adequately meets its key objective	Policy Gap: The Waste Management Act and its supplemental NWMS do not identify and support execution of waste segregation	Short Term

	within the residential, commercial, tourism and fisheries sectors. The Environment Levy fails in its mandate as: imported pre-forms are not levied the levy is not extended to commercial businesses who utilize residential waste facilities for disposal. GWSMA has failed to reprioritize levy income toward strengthening plastic waste management in country Implementation Gap: GSWMA's operational needs are mostly dependent on income derived by the Environmental Levy yet inadequate work is done to address plastic waste and litter. A more sustainable and long-term source of financing must be identified and executed.	
Recommendation 3: GSWMA should develop and implement a long-term plastic management strategy as part of its integrated waste management operations	 Grenada has not endorsed the London and MARPOL Conventions that strictly bans the discharge of ship generated waste and supports collaborative partnerships that advance waste management strategies. Grenada's draft Coastal Master Plan and Marine Spatial Plan highlights the need to develop and implement a comprehensive marine pollution strategy and action plan, however, it is listed as Medium priority action to be undertaken from 2016 – 2030 and not a short-term priority. 	Medium Term

- Grenada's Integrated Solid Waste
 Management Plan lacks a long-term strategic
 approach to managing plastic waste. The
 recent CBD financed initiative focused on a
 plan of action to better manage organic
 waste however failed to identify mechanisms
 to reduce the volume of plastic waste that
 ends up at the landfill.
- There is currently no policy regulation that addresses the mitigation of household plastic waste which currently accounts for most of the plastic leakage on island.

Implementation Gap:

- Long term management of plastic pollution in Grenada is not included within the country's integrated solid waste management practices.
- The collection and deposit approach proposed by GIZ is anchored on proposed changes to the Levy to ensure that GSWMA's operations do not suffer from reallocation of Levy monies to supporting the scheme and the opportunity for international demand for plastic waste. While a collection and deposit scheme could be effective (based on the success of a similar initiative culturally accepted by Grenadians), without a lucrative export market for plastic, a demanding domestic (or regional) market for recycled plastic product it could prove difficult to implement.
- The Grenada Parley for the Oceans MOU remains unexecuted. The MOU identified a collection system that targeted an approach at plastic waste collection to intercept most of

	the plastic ending up at Grenada's landfills. Aside from the usage of the Environmental Levy to cover costs, no additional sustainable financing model was proposed to ensure that GSWMA maintain its current operations while expanding its portfolio to support waste separation, collection, and management. It's unclear how Grenada's coastal zone masterplan's suggested marine pollution strategy and action plan could support the relocation and improvement of the country's 2 main landfills.	
 Recommendation 4: GoG should improve its current legislative to reflect a more robust approach to plastics waste management, including mandating reduction strategies such as circular economy, recycling, reuse, repurposing and reduction of additional imported single use plastic items 	Policy Gap: The NWBCA 2018 Act does not reflect measures that support strategies to reuse, recycle, repurpose, upcycle, and further reduce plastic waste, including having provisions to incentivize importers of PET bottles to support circular economy measures. Implementation Gap:	Medium Term
	 The Grenada - Parley for the Oceans MOU remains unexecuted. The MOU identified a collection system that targeted an approach at plastic waste collection to intercept most of the plastic ending up at Grenada's landfills. Aside from the usage of the Environmental Levy to cover costs, no additional sustainable financing model was proposed to ensure that GSWMA maintain its current operations while expanding its portfolio to support waste separation, collection, and management. 	

Recommendation 5: GoG should look to improve the capacity and operations of the port authority to improve their enforcement of the NWBCA 2018 Act	NWBCA 2018 Act is not fully enforced, and additional stakeholder consultations are needed to ensure its effectiveness as it relates to the identification and importation of alternatives and the management and handling of seized products. Implementation Gap: Current port storage facilities and storage	
Recommendation 6: GoG should put in place an initiative that supports the identification of imported uncategorized plastic.	Policy Gap: NWBCA 2018 Act is not fully enforced, and additional stakeholder consultations are needed to ensure its effectiveness as it relates to the identification and importation of alternatives and the management and handling of seized products. Implementation Gap: The Customs and Excise Department of the Grenada Ports Authority has no system in place for identifying individual product alternatives or appropriate product alternatives that comply with the NBWCA 2018. Items imported into Grenada are identified only by their HS codes. Plastic alternatives whose material bases have corresponding international HS codes are categorized by these codes. However, alternatives whose material base Customs officers are unable to accurately identified are simply listed as 'Other'.	Short Term

Recommendation 8: GoG should look to enforcing tipping fees	olicy Gap:	Medium Term
•	Tipping fees are currently not enforced for fear of retaliatory illegal dumping responses from commercial businesses.	
the strengthening of regional policy on plastic waste management as a tool to attract much needed capacity, technical resources and financing models Imple Imple R G In the strengthening of regional policy on plastic waste management as a tool to attract much needed capacity, technical resources and financing models Imple R G In the strengthening of regional policy on plastic waste management as a tool to attract much needed capacity, technical resources and financing models	Although a benefactor of the Regional Seas program under UN Environment and the Cartagena Convention, Grenada has not achieved a comprehensive action plan to target marine litter and reduce LBS sources of plastic as mandated by the program. The regional St John's Declaration policy endorsed by heads of Government of CARICOM does not mandate governments to collaboratively support a regional plan of action to address the impacts of plastic pollution and simply implies action. Regional governance is lacking as governments struggle to access much needed technical and financial capacity to meet their basic waste management needs, including ensuring adequate waste and landfill infrastructure and functioning. The St. John's Declaration does not support	Long Term

		improved regional scale plastic waste management and lacks urgency.	
Tourism and Fisheries	Recommendation 1: Develop and execute a long-term strategy to reduce plastic waste within the tourism sector	Policy Gap: Current policy does not incentivize the reduction of plastic litter within the tourism industry, in particular it does a poor job at targeting those tourism sectors that generate the most plastic waste such as land-based tourism and yachts. Current policy does not penalize land-based tourism businesses such as hotels and guest houses for utilizing residential trash receptacles for commercial waste. Current plastic waste management legislation does not fully align with the 'Pure Grenada' branding vision which supports anti-littering and sustainability messaging. Implementation Gap: GWSMA collection management does not account for the high volume of plastic waste generated following unplanned activities during peak carnival season. Anti- plastic litter education and communication campaigns are inconsistent and not implemented island wide.	Medium Term
		Current waste management incentives do not support job creation within the tourism industry.	
		 There is no plan of action or long-term strategy to support the reduction of plastic waste within the tourism sector. 	

Recommendation 2: Support consistent dialogue between GSWMA and the tourism and fisheries sectors to identify and execute on areas of collaboration.	Policy Gap: • Current policy does not incentivize the reduction of plastic litter within the tourism industry, in particular it does a poor job at targeting those tourism sectors that generate the most plastic waste such as land-based tourism and yachts.	Short Term
	 The Fisheries Act nor the Coastal Zone Management Act do not include guidelines on management of plastic pollution or marine generated plastic waste within Grenada's waters, including within the country's protected areas. 	
	Implementation Gap:	
	 There is no long-term waste management strategy or plan of action developed specifically for the Fisheries sector. 	
	 There is no plan of action or long-term strategy to support the reduction of plastic waste within the tourism sector. 	
	 There is a general lack of education and knowledge of the impacts of plastic waste on the marine environment and Fisheries sector. 	
Recommendation 3: Update current Fisheries and Coastal Zone Management legislative to reflect strategies to support the reduction of plastic waste being disposed within Grenada's waters within the country's coastal and marine protected areas.	Grenada's draft Coastal Master Plan does not make clear how sustainable tourism and fisheries considers the management of plastic	Medium Term

		waste within Grenada as part of the country's Blue Economy development. • The Fisheries Act nor the Coastal Zone Management Act do not include guidelines on management of plastic pollution or marine generated plastic waste within Grenada's waters, including within the country's protected areas. • It is unclear how Grenada's draft Coastal Master Plan could support the transition to sustainable fisheries including strategies to tackle the reduction of fisheries generated plastic waste. Implementation Gap: • There is no long-term waste management strategy or plan of action developed specifically for the Fisheries sector.	
a str	ommendation 4: Develop and execute on trategy to tackle the reduction of ALDFG nin the Fisheries sector.	As a party to the UN Fish Stocks Agreement and MARPOL, Grenada has not identified a plan in place to recover ALDFG or plastic waste generated from fishing activities. Implementation Gap: There is no long-term waste management strategy or plan of action developed specifically for the Fisheries sector. Not all ports are adequately outfitted with receptacles for placement of ALDFG or fisheries generated plastic waste.	Medium Term

		 There is no mandated gear ID process or monitoring system that guides proper usage and disposal of plastic based gear within the country's fishing industry. 	
of To in	Recommendation 5: GoG to support a series of training and knowledge workshops within the fourism and Fisheries sectors focused on improving overall ownership of plastics waste reduction within these 2 sectors.	 Current policy does not incentivize the reduction of plastic litter within the tourism industry, in particular it does a poor job at targeting those tourism sectors that generate the most plastic waste such as land-based tourism and yachts. The Fisheries Act nor the Coastal Zone Management Act do not include guidelines on management of plastic pollution or marine generated plastic waste within Grenada's waters, including within the country's protected areas. Implementation Gap: There is a general lack of education and knowledge of the impacts of plastic waste on the marine environment and Fisheries sector. 	Short Term

4. CONCLUSION

The GoG is well on its way to advancing its work on plastic waste management. However, a long-term plastics waste management strategy that puts in place an integrated and comprehensive plan of action that targets the reduction of plastic waste across key sectors, such as Tourism, Waste Management and Fisheries, including combating plastic leakage and litter is needed to ensure that country stays on track with is sustainable development objectives and avoids negative socioeconomic impacts associated with plastic litter and plastic waste leakage. The current legislation adopted in 2018 and 2019 is a strong start, however, its primarily focused on reduction of specific plastic products at import and does not provide a plan of action to manage plastics once in country, including those plastic products manufactured domestically. The recommendations provided within this report will work towards closing key progress gaps and guide the advancement of strategies to improve Grenada's plastics waste management and reduce the country's plastic litter.

4.1.ANNEX A

Although Grenada has not ratified The Basel, Rotterdam and Stockholm conventions, as a party to the Cartagena Convention, Grenada supports the implementation of these conventions. Table 1 and Table 2 provide information on the key focus of each of the conventions as well as their treatment of plastic waste.

Table 1: Multilateral Conventions - Hazardous Waste Management

Convention	Summary	Objective
The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention)	 This legally binding convention was adopted on March 22nd, 1989 and entered into force on May 5th, 1992. The Basel Amendment was signed on September 22nd, 1995 and the Protocol on Liability and Compensation included and signed on December 10, 1999.¹³² The Basel Convention Plastic Waste Amendment was adopted in May 2019 and effected in January 2021. 	The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as "hazardous wastes" based on their origin and/or composition and their characteristics, as well as two types of wastes defined as "other wastes" - household waste and incinerator ash. The provisions of the Convention include: o the reduction of hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal; o the restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management; and o a regulatory system applying to cases where transboundary movements are permissible. 133 The Plastic Waste Amendments do not imply a ban on the import, transit or export of plastic waste but rather a clarification of when and how the Convention applies to such waste.
The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention)	This legally binding convention was adopted on 10 th September 1998 and entered into force on 24 th February 2004.	The objectives of the Convention are: o to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm; o to contribute to the environmentally sound use of those hazardous chemicals, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.

¹³² https://pubs.acs.org/doi/pdf/10.1021/es101373n

¹³³ http://www.basel.int/TheConvention/Overview/tabid/1271/Default.aspx

Convention	Summary	Objective
		The Convention creates legally binding obligations for the implementation of the Prior Informed Consent (PIC) procedure. It built on the voluntary PIC procedure, initiated by UNEP and FAO in 1989 and ceased on 24 February 2006. The Caribbean and Latin America is included as a PIC region. 134
The Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention)	This legally binding instrument was adopted 22 nd May 2001 and entered into force on 17 th , May 2004.	The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants (POPs) ¹³⁵ . The provisions of the Convention include: O Prohibit, restrict, reduce and/or eliminate the production and use, as well as the import and export, of the intentionally produced POPs listed within the Convention. O Ensure that stockpiles and wastes consisting of, containing or contaminated with
		POPs are managed safely and in an environmentally sound manner. To target additional POPs Support and enhance the development of implementation plans including, public information, awareness and education, research, development and monitoring, technical assistance, financial resources and mechanisms, reporting, effectiveness evaluation and non-compliance 136.

Table 2: Hazardous Waste Management Convention - Treatment of Plastic Waste

Convention	Management of Plastic Waste Notes	
Basel Convention	Prior to 1 January 2021, plastic waste fell under the scope of the Basel Convention provided they are classified as either:	The Household Waste Partnership was established under the Basel Convention to address this important issue and to provide technical assistance worldwide, assisting all countries to benefit
	Hazardous wastes, namely wastes that belong to any category contained in Annex I (e.g., plastic wastes containing lead or halogenated organic compounds), unless they do not possess any of the characteristics (e.g., ecotoxic) contained in Annex III; and	from already available solutions for environmentally sound management, including issues such as separation at source, collection, transport, storage, recycling, energy recovery and final disposal ¹³⁸¹³⁹ . A first meeting was held in May 2018 ¹⁴⁰ .

¹³⁴ http://www.pic.int/TheConvention/Overview/Howitworks/tabid/1046/language/en-US/Default.aspx

¹³⁵ http://www.austlii.edu.au/au/other/dfat/treaties/2004/23.html

¹³⁶ http://www.pops.int/TheConvention/Overview/tabid/3351/Default.aspx

¹³⁸ http://www.basel.int/Implementation/HouseholdWastePartnership/Overview/tabid/5082/Default.aspx

¹³⁹ http://www.brsmeas.org/?tabid=4332&blogId=5166

¹⁴⁰ http://www.basel.int/Implementation/HouseholdWastePartnership/Meetings/1stHWPMay2018/tabid/6298/Default.aspx

Convention	Management of Plastic Waste	Notes
	(b) wastes that are not covered under (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit; or "Other wastes", which include wastes collected from households or residues arising from the incineration of household wastes. As of 1 January 2021, the new plastic waste entries clarify the scope of control under the Basel Convention for other types of plastic waste and mixtures of plastic waste and the specific conditions under which plastic waste is subject to the PIC procedure. Plastic waste classified as hazardous waste includes plastic waste, including mixtures of such waste, containing or contaminated with lead compounds (used as heat or light stabilisers) and organohalogen compounds (e.g., halogenated organic compounds used as flame retardants. Plastic waste requiring special consideration such as polyvinyl chloride is also considered. The following plastic waste will not be subject to the PIC procedure, provided it is destined for recycling in an environmentally sound manner and almost free from contamination and other types of wastes: Plastic waste almost exclusively consisting of one non-halogenated polymer. Such polymers include commonly used ones like polyethylene, polypropylene and polyethylene terephthalate (PET). Plastic waste almost exclusively consisting of one cured resin or condensation product. Such resins include urea formaldehyde resins and epoxy resins. Plastic waste almost exclusively consisting of one of the following fluorinated polymers: Plastic waste almost exclusively consisting of one of the following fluorinated polymers: Plastic waste almost exclusively consisting of one of the following fluorinated polymers: Perfluoroethylene/propylene (FEP) Perfluoroethylene/perfluoroalkyl vinyl ether (PFA)	A Plastic Waste Partnership (PWP) was established under the Basel Convention to mobilize business, government, academic and civil society resources, interests and expertise to improve and promote the environmentally sound management of plastic waste at the global, regional and national levels and to prevent and minimize its generation. The PWP was formed in 2019 ¹⁴¹ . The tasks of the Partnership include: to collect information and undertake analysis on environmental, economic and social impacts of national and regional policy frameworks and strategies relevant to plastic waste prevention and management to inform stakeholders about the development of policy, regulation and strategies on the prevention and minimization of plastic wastes; and to transfer knowledge, experiences and information ¹⁴² .

 $^{^{141}\} http://www.basel.int/Implementation/Plasticwaste/PlasticWasteAmendments/FAQs/tabid/8427/Default.aspx$

 $^{^{142}\,}http://sdg.iisd.org/news/basel-cop-considers-partnership-on-plastic-wastes/$

Convention	Management of Plastic Waste	Notes
	 Tetrafluoroethylene/perfluoromethyl vinyl ether (MFA) Polyvinyl fluoride (PVF) Polyvinylidene fluoride (PVDF) 	
	The following mixtures of plastic waste <u>will also not be subject to the PIC</u> procedure:	
	Mixtures of plastic waste, consisting of polyethylene (PE), polypropylene (PP) and/or polyethylene terephthalate (PET), provided they are destined for separate recycling of each material and in an environmentally sound manner, and almost free from contamination and other types of wastes. ¹³⁷	
Stockholm	The Stockholm Convention aims to manage plastic waste that contain	
Convention	POPs.	
	As of 2018, the Convention controls 28 POPs, including those which have been used as additives, flame retardants or plasticizers in plastics such as:	
	Brominated diphenyl ethers;	
	Hexabromocyclododecane;	
	 Perfluorooctane sulfonic acid, its salts and Perfluorooctane sulfonyl fluoride; 	
	Short-chain chlorinated paraffins.	
	Plastics may contain hazardous substances including POPs, e.g., some plasticizers and flame retardants which may be slowly released into the sea. Plastics can also adsorb POPs such as PCB, DDT and dioxins and these are frequently detected in marine plastic litter.	
	 In 2016 – a small working group on marine litter was created between the regional Centres of the Basel and Stockholm Conventions¹⁴³. 	

 $^{^{137} \} http://www.basel.int/Implementation/Plasticwaste/PlasticWasteAmendments/FAQs/tabid/8427/Default.aspx \\ ^{143} \ http://www.basel.int/Default.aspx?tabid=7994$

4.2.ANNEX B

The IMO's Action Plan launched in 2018 will focus on achieving the following activities:

- a proposed study on marine plastic litter from ships
- looking into the availability and adequacy of port reception facilities
- consideration of making marking of fishing gear mandatory, in cooperation with the Food and Agriculture Organization (FAO)
- promoting reporting the loss of fishing gear
- facilitating the delivery of retrieved fishing gear to shore facilities
- reviewing provisions related to the training of fishing vessel personnel and familiarization of seafarers to ensure awareness of the impact of marine plastic litter
- consideration of the establishment of a compulsory mechanism to declare loss of containers at sea and identify number of losses
- enhancing public awareness; and
- strengthening international cooperation, in particular FAO and UN Environment¹⁴⁴

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 $^{^{144}\,}https://www.imo.org/en/MediaCentre/HotTopics/Pages/marinelitter-default.aspx$

The St. John's Declaration

Heads of Government:

- Remain concerned with the high levels of plastics and microplastics within the Caribbean Sea, Atlantic
 Ocean and their adverse effect on our human health, marine environment, our ecosystems and on
 our overall economies.
- 2. Recall the various CARICOM declarations on the Environment, Climate Change and Oceans.
- 3. Welcome the steps taken by many of our Member States to reduce or eliminate the use of single use plastics and other similar packaging materials and encourage those Member States that have not yet introduced such measures to reduce and/or eliminate the use of single use plastics to take the necessary steps to do so.
- 4. Commit to address the damage to our ecosystems caused by the unsustainable use and disposal of plastic products, including by significantly reducing single-use plastic products by 2030 and to work with the private sector to find affordable, sustainable and environmentally friendly alternatives;
- 5. Reiterate our commitment to the UN Agenda 2030 and its Sustainable Development Goals, and in particular to, Goal 14 'Conserve and sustainably use the oceans, seas and marine resources for sustainable development' and its target to significantly reduce all forms of marine pollution by 2025.
- 6. Emphasize that prevention and reduction of plastic litter and microplastics in the environment from both land and sea-based sources constitute an essential contribution to achieving the Sustainable Development Goals for Member States and the long-term ambition of elimination of pollution of the Caribbean Sea and the Atlantic Ocean.
- 7. Recognize that effective implementation of these actions requires enabling and coherent policy, legislative and regulatory frameworks, good governance and effective enforcement at the global, regional, national and local levels.
- 8. Encourage development partners and the private sector to contribute financial and technical assistance, capacity-building initiatives including the transfer of technology in order to enable Member States to address the whole lifecycle of plastics in order to prevent plastic litter from landand sea-based sources from entering the Caribbean Sea and Atlantic Ocean and to enable a holistic approach to solid waste and plastics management.
- 9. Recall the relevant United Nations resolutions on pollution, plastics, microplastics, and marine litter, and reiterate our commitment to support its implementation.
- 10. Reaffirms the need to improve national resource management strategies in order to achieve resource-efficient and low-carbon economies, as well as advance sustainable consumption and production patterns.
- 11. Encourage other regional and sub regional groups of countries to take similar measures to eliminate discharge of plastic litter and microplastics to wells, rivers, seas and oceans.
- 12. Recognize Norway's global leadership on this issue and its commitment to addressing plastic and microplastics pollution of the marine environment. We therefore welcome further collaboration between Norway and CARICOM that can further strengthen protection of the Caribbean Sea and Atlantic Ocean from plastics and microplastics pollution.
- 13. Emphasize that this is a global issue and global action is urgently needed to prevent further plastics pollution, and its damage to human health and marine life.
- 14. Underscore the urgent need for a global agreement to address plastics and microplastic pollution and in this regard recall resolution 3/7 of the United Nations Environment Assembly, held in Kenya in March 2019 and the long-term ambition to eliminate discharges of litter and microplastics to the oceans.
- 15. Welcome the United Nations Environment Assembly resolution 4/7 on 'Marine Litter and Microplastics' including the extension of the mandate of the Ad Hoc Open-Ended Expert Group to examine options to combat marine plastics litter and microplastics from all sources, and through global legally binding mechanisms and commit to engage actively in the Expert Group.

- 16. Call upon governments and other actors at local, national, regional and international levels, private sector, civil society, academia, and other stakeholders to address the problem of marine litter and microplastics, prioritizing resource efficiency building on appropriate existing initiatives and instruments, and supported by and grounded in science, international cooperation, and multi-stakeholder engagement.
- 17. Commit ourselves to continue to be global advocates on the harmful effects of marine plastics litter and microplastics.

4.4.ANNEX D

Stakeholder bodies involved in supporting Grenada's waste management practices

Organisations	Focus / Sector
Grenada Bureau of Standards (GBS)	Private Sector
Grenada Chamber of Industry and Commerce	Private Sector
Grenada Hotel & Tourism Association (GHTA)	Tourism
Grenada Ports Authority	Ports Management
Grenada Solid Waste Management Authority (GSWMA)	Waste Management
Grenada Sustainable Development Committee	Sustainable Development Education
Grenada Tourism Authority (GTA)	Tourism
GSWMA Collection Contractors	Waste Management
Ministry of Agriculture and the Environment (MOA)	Agriculture and Environment
Ministry of Communication, Works, and Transportation (MOW)	Transportation
Ministry of Education (MOE)	Education
Ministry of Finance (MOF)	Finance
Ministry of Health (MOH)	Health
National Water and Sewerage Authority (NAWASA)	Waste Management
Physical Planning Unit (PPU)	Land Management
The National Waste Management Strategy	Waste Management



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