ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

ANTIGUA AND BARBUDA

Overview

The Zero Waste in the Caribbean Initiative, under the theme New Ways, New Waves supports 16 CARIFORUM countries with the establishment of enabling frameworks and instruments to facilitate investment and sustainable financing of waste management. This factsheet was prepared with the objective of sharing information with financing partners on the waste management situation in the project countries. Also highlighted are their needs for financial support and technical assistance. This would be a catalyst for the development of Waste Management and associated Circular Economy Initiatives. All project activities advance the Sustainable Development Goals as highlighted below.

Country Information

Antigua and Barbuda forms part of the Leeward Islands and is located in the north-eastern heart of the Caribbean archipelago. This dual island nation consists of the two main inhabited islands, Antigua and Barbuda, and three smaller uninhabited islands. Barbuda is located 40 kilometers north of Antigua and has a total land area of 161 km². Antigua, the most populated island, has a total land area of 281 km² (Government of Antigua and Barbuda, 2024).

KEY INDICATORS

SIZE	**442 KM²**
POPULATION (2018)	**96,286 PEOPLE**
GDP (2023)	**2.3 BILLION USD**
GDP PER CAPITA (WB)	**21,560.2 USD**
CURRENCY	**EASTERN CARIBBEAN DOLLAR**

Waste Management Analysis

In 2019 IUCN carried out a waste study that highlighted the impact of marine plastics in Antigua and Barbuda (Asia Pacific Waste Consultants, 2021). During the year, 131,944 tonnes of mixed waste was deposited at the landfill (NSWMA, 2020). Of this, bulk waste such as end-of-life vehicles and white goods accounted for 50,072 tonnes (38%) of the waste composition. Commingled household waste accounts for 24,162 thousand tonnes (18%), commercial waste 11,275 tonnes (8.5%) and cruise ships 1,023 tonnes (1%).

Two different plastic accumulation scenarios were considered to estimate the stock and flow of marine plastics in the region, specifically on the shoreline and the Exclusive Economic Zone of Antigua and Barbuda. The study focused on the impact of marine plastics on the fisheries and tourism sectors. For the fisheries sector, the impact on revenue caused by marine plastics was estimated. Besides, the study calculated the costs of completely cleaning up all plastics ending up on the coastline to prevent further accumulation of plastics and potentially impacting the tourism sector through a reduction in visitors in the future. The estimated costs for coastal clean-ups in 2019 ranged from XCD 12,868,519 ($4.762.590 USD) to XCD 37,657,395 ($13.936.860 USD) depending on the plastic accumulation scenario (Government of Antigua and Barbuda, 2024).

Antigua & Barbuda Waste Recycling Corporation (ABWREC) is a non-profit organization and collects materials, shred, package and ship this material for recycling in other countries. Two of the seven polymer types identified during the waste audit enter this recovery and ship process in Antigua. The system does not currently extend to Barbuda. The plastic materials recovered include PET and HDPE bottles and containers. However, the recovery of these materials only account for 2.6% and 2.2% respectively of plastics imported annually (ABWREC, 2023).

Governance Structure

A number of multilateral environmental agreements (MEAs) (conventions and protocols), relevant to waste management; have been ratified by Antigua and Barbuda. For effective recycling of materials, Antigua and Barbuda need to be able to collect, compact and move material within the region and internationally. This is when the MEAs come into play.

In 1988 Antigua and Barbuda became signatory for the International Convention for the Prevention of Pollution from Ships (MARPOL). In 2012, the country entered the Global Partnership on Marine Litter, increasing its commitment to reduce plastic pollution. Antigua and Barbuda is also signatory for the Basel Convention, Control on Transboundary Movement of Hazardous Wastes and their Disposal. In 2020, Antigua and Barbuda also ratified the Litter Control Act No.3 and Amendment to Annex II, VIII and IX to the Basel Convention.

Policy Landscape

The Antigua and Barbuda solid waste management system in its current form exists as an indirect result of the Solid Waste Management Act passed by the legislature in 1995 (Parliament of Antigua and Barbuda, 1995). In 1999, the Central Board of Health (CBH), which was then fully responsible for solid waste management services, was divided and the National Solid Waste Management Authority (NSWMA) was formed as an independent statutory body. NSWMA assumed responsibility for all solid waste management services except street sweeping and drain cleaning. These functions remained the responsibility of CBH. With the separation of responsibility, the personnel involved with solid waste management were transferred to the new organization while those associated with street sweeping and drain cleaning remained with CBH. This arrangement results in 84% (311 out of 372) of the total personnel associated with solid waste services being employed by CBH (Government of Antigua and Barbuda, 2024).

Legislation

The Environmental Levy Act, No. 22 of 2002 provides a levy, collected by Customs and administered by the National Solid Waste Management Authority on a number of items to aid in environmental protection and in encouragement of limiting imports in items including all plastic containers and empty containers of solid glass, steel or plastic (Government of Antigua and Barbuda, 2022).

The Customs (Control and Management) Act, 2013 and related orders regulate the import of goods. The act provides that any goods which are imported, landed or unloaded contrary to any prohibition or restriction in any other law will be liable to forfeiture (Government of Antigua and Barbuda, 2013).

The External Trade (shopping plastic bags prohibition) order of 2017 prohibits the importation, distribution, sale and use of shopping plastic bags is after the 30th June, 2016 (with some exceptions) (Ministry of Trade, Commerce & Industry, Sports, Culture and National Festivals, 2017).

Awareness Amongst Civil Society & Private Sector

Within the country, there are several Non Governmental Organizations (NGOs) and other organizations active, such as the Adopt a Coastline and the Environmental Awareness Group (EAG), both organisations operate regular beach clean-up activities and motivate and promote civil society participation in environmental decision-making and management.

Moreover, numerous projects are going on to support the country with waste management challenges:

- GEF/BCRC/CDB GEF ISLANDS Project – Project to address the management of waste including hazardous and plastic waste in nine Caribbean Countries (source).
- UNEP-CEP Plastic Pollution and Marine Litter Management in Caribbean States. This project seeks to further support development and implementation of new projects and activities within the framework of a new Regional Marine Litter Strategy under development.
- ReMLIT Project; Building Resilience in the Eastern Caribbean through the Reduction in Marine Litter (ReMLIT) is a $3 million USD project implemented under the OECS Ocean Governance and Fisheries Programme. The project is funded by the Government of Norway. ReMLIT aims to reduce and control marine pollution in the Eastern Caribbean through strengthening legal frameworks (OECS.org) (current?).

Financial Aspects

Currently, the operating cost of the general waste management system is allocated through the Ministry of Health, Wellness and Environment budget forecast, however it is unclear where the funding originates. The 2019 Antigua and Barbuda budget allocated a total of $14.560.000 EC for environmental health risk reduction and sanitation, or 13% of the total budget for the Ministry. Eighty-two per cent (82%) or $12 million EC was allocated for grants to the NSWMA and corporations, 10% ($1.5 million EC) to waste removal costs for example collecting derelict cars and 4% ($500.000 EC) to garbage disposal costs. The estimated amount is XCD 110.3 ($41 USD) per tonne of waste (Asia Pacific Waste Consultants, 2021, p. 23).

NWSMA controls its own budgeting process with budgets prepared by the Finance Section and reviewed by the NWSMA Board of Directors. The budgets as approved by the Board are submitted to the Minister of Health. The budgets are not submitted for approval but are rather simply tabled in the Legislature. In 2003, the environmental levy portion of the NSWMA budget was projected as 42% of the total budget with the direct payment portion making up the remaining 58%. Originally (circa 1991) (Government of Antigua and Barbuda, 2024).

In July 2015, the cabinet of Antigua and Barbuda agreed to reduce the importation of plastic bags and invested $25.000 USD to ensure every citizen, resident, and household had reusable bags to replace plastic shopping bags prior to an aggressive educational campaign. The Government of Antigua and Barbuda had researched and recommended alternatives; however, the private sector had to incur the cost of procuring those alternatives. Antigua and Barbuda introduced tax incentives for the importation of reusable (non-plastic) bags to aid enforcement of the ban. The Cabinet waived duties and other taxes, inclusive of the Antigua and Barbuda sales tax and the revenue recovery charge on the importation of reusable shopping bags, making the bags affordable (Government of Antigua and Barbuda, 2024).

Financing & Investments Needs

The main landfill has surpassed its lifetime therefore the Ministry of Health, Wellness and the Environment is investigating different technologies for solid waste management that are more circular, effective and sustainable that grasps the value in the waste using the 3 Rs System (Recycle, Reduce, Reuse). Similarly, different financing structures are also being explored.

COUNTRY FACTSHEET **ANTIGUA AND BARBUDA**

ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

In 2023 the Parliament of Antigua and Barbuda passed the Environmental Protection and Levy (Amendment) Act, 2023. This act authorizes the Director of the Department of Environment to collect the prescribed levy amount from manufacturers of goods outlined in Part III of the Schedule. The funds will be deposited into an account overseen by the Sustainable Island Resource Framework (SIRF) Fund Board, which will be established to provide support for the Container Deposit Recycling Programme (CDRP). Notably, prior to this amendment, only the Comptroller of Customs held the authority to collect this levy, which was set at a rate of 25 cents per container (Government of Antigua and Barbuda, 2024).

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FOR MORE COUNTRY INFORMATION:

Organization: National Solid Waste Management Authority
Address: Lower Long and High Street St John's, Antigua
Telephone: +1 (268) 562-2021
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Web: www.health.gov.ag/departments/national-solid-waste-management-authority
Social Media: https://www.facebook.com/investingforwellness/

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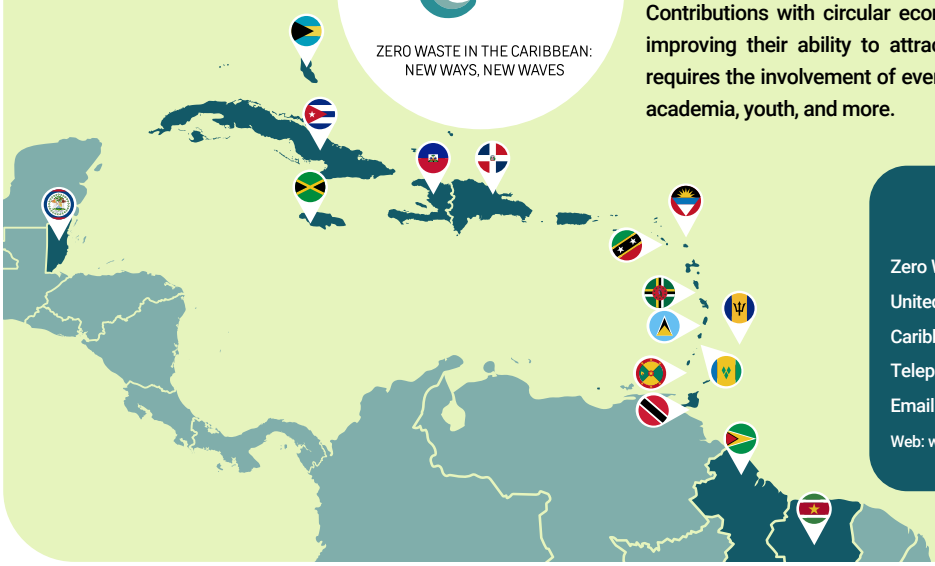
NEW WAYS, NEW WAVES



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FOR MORE PROJECT INFORMATION:

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Web: www.unep.org/zero-waste-caribbean-new-ways-new-waves

Funded by the European Union
In collaboration with: CARIFORUM
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In partnership with: OECS; RECYCLE OECS; circular caribbean

ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

THE BAHAMAS

Overview

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Country Information

The Bahamas is a number of islands about 1220 kilometers north-west from the coast of Florida and similarly distanced to Haiti from the south-east. The group consists of 700 islands and 2,400 cays. Thirty of the islands are inhabited. Ninety percent (90%) of the total population lives in New Providence, Grand Bahama and Abaco, and 10.3 % are scattered on the remaining islands and are inhabited.

KEY INDICATORS

SIZE	**13,878 KM²**
POPULATION (2022)	**415,223 PEOPLE**
GDP (2022)	**14.34 MILLION USD**
GDP PER CAPITA (2022)	**30,061.70 USD**
CURRENCY	**BAHAMIAN DOLLAR**

Waste Management Analysis

The government has contracted the collection of household waste in New Providence to private collectors. There are some 40 contracted waste collectors. The collection is conducted based on political constituencies with each contractor responsible for the collection of a specific number of houses at least once per week at $2.75 USD per house. As of September 1, 2018, collection will not be provided to premises in excess of a triplex. Additionally, collection was increased to twice per week. All collectors will be required to complete their assigned routes within five hours and on the days specified in their contracts.

To augment residential waste collection a Bulk waste collection service was added. Bulk waste is collected throughout the island of New Providence twice weekly by persons contracted by the Department of Environmental Health Service (EHS).

At present, approximately 1500 tonnes of waste is collected per day and disposed of at the New Providence Landfill. The Sanitary Landfill was constructed in 1998 to operate by the North American standard and is being managed by a private contractor- New Providence Ecology Park. The life span was to be 30 years. Presently, there is only a separation of construction and demolition waste from household waste. In total, there are 57 official dumpsites/landfills in 15 of the family islands.

A waste composition Characterization study was never done.

Policy Landscape

The Department of Environmental Health Services has the responsibility for, inter alia, investigating problems and instituting preventive and remedial measures for environmental pollution (The Government of the Bahamas, 1987). Moreover, the EHS is responsible for waste collection and falls under the Ministry of The Environment & Natural Resources.

Legislation

The Environmental Health Services Act, 1987, contains provisions that relate to the management and disposal of solid, liquid and gaseous wastes and general sanitation.

The Environmental Health Services (Collection and Disposal of Waste) Regulations, 2004, sets out detailed rules regarding the collection and disposal of solid waste. They cover domestic, industrial, medical, yard, construction and demolition, commercial and bulky wastes. Regulation 6 deals with the separation of commercial and domestic waste from yard waste when placed out for collection. These regulations also address the duty of collectors, private collection contracts and the construction of waste management facilities (The Government of the Bahamas, 2004).

The Environmental Protection (Control of Plastic Pollution) Act, 2019, seeks to, inter alia, prohibit single-use plastic food ware and non-biodegradable, oxo-biodegradable and biodegradable single-use plastic bags, prohibit the release of balloons and regulate the use of compostable single-use plastic bags (The Government of the Bahamas, 2019).

The Environmental Planning and Protection Act, 2019, provides for, inter alia, the establishment of the Department of Environmental Planning and Protection, the prevention or control of pollution, the regulation of activities and the administration, conservation and sustainable use of the environment (The Government of the Bahamas, 2019).

Financial Aspects

All expense of solid waste is funded by the Bahamas Government. This includes the contracts for residential waste collection, bulk waste collection, and sanitary landfill operation and maintenance on all the islands.

Financing & Investments Needs

The Bahamas comprises several islands, at present, there are only landfills on two islands and modified landfills on another two. All the other islands mostly dump and bury waste. This practice has been ongoing for quite a while, as most of these island populations are well under 2000.

As a result, there is a need for the construction of proper garbage disposal sites across islands. A definitive research study and financial assistance are needed to document the needs and facilitate the construction of well-structured disposal sites.

A national recycling program is also a present need that must be fulfilled. Presently, The Bahamas recycles on a small scale. Waste items such as glass bottles are recycled via the brewery and aluminum cans are recycled via the Cans for Kids Program. A single-use plastic ban was instituted in the Bahamas on January 1, 2020.

FOR MORE COUNTRY INFORMATION:

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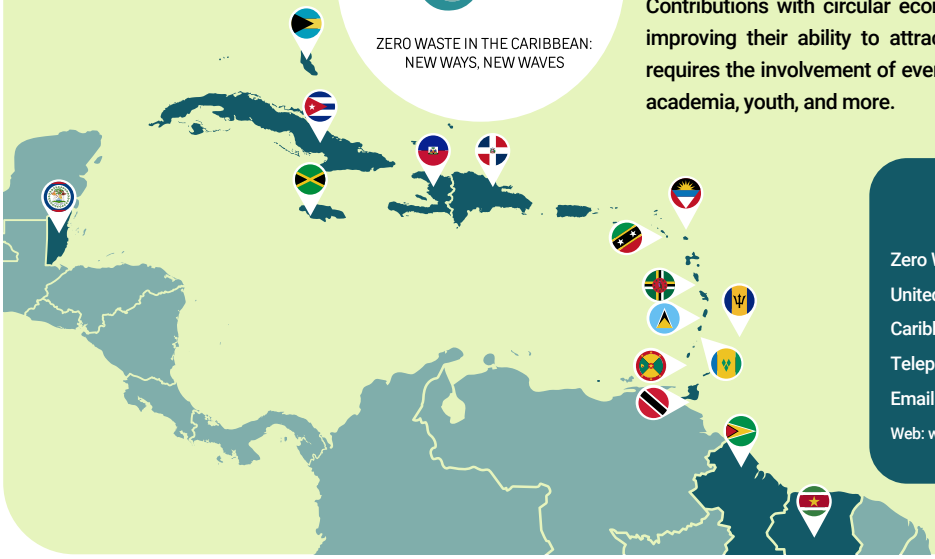
Web: www.bahamas.gov.bs/
Social Media: https://www.facebook.com/dehsnp/

ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES



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NEW WAYS, NEW WAVES

BARBADOS

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Country Information

Barbados is an island country in the southeastern Caribbean with a population of around 281,200 people (Barbados Statistical Service, 2022). Barbados is a high-income service economy. However, the country's economic achievements remain vulnerable due to its small size, heavy dependence on tourism at 17 % of GDP, and considerable exposure to climate change risks (World Bank, 2021).

KEY INDICATORS

SIZE	439 KM²
POPULATION (2022)	281,635 PEOPLE
GDP (2022)	5.64 BILLION USD
GDP PER CAPITA (2022)	20, 238.78 USD
CURRENCY	BARBADOS DOLLAR

Waste Management Analysis

Based on the **Waste Characterization Study** (WCS) conducted in 2015, it was concluded that the total amount of waste generated in Barbados is approximately 1,132.014 tonnes per day. This amount includes Construction & Demolition waste, tires, E-waste, and others. Municipality waste represents 66% of the waste collected (Ministry of Environment and Drainage, 2015, p. 22). Municipal solid waste is taken to the Mangrove Pond Landfill, a sanitary engineered landfill (Ministry of Environment and Drainage, 2015, p. 23).

In June 2024, the Ministry of Environment, National Beautification, Green and Blue Economy (formerly the Ministry of Environment and Drainage) and the organization Common Seas developed the National Action Plan to End Plastic Pollution in Barbados. The first analysis of the Plan estimates that nearly 15 thousand tonnes of plastic waste was generated in Barbados in 2021, equivalent to 0.14kg per person per day (Common Seas & Government of Barbados, 2024, p. 8).

The Sanitation Service Authority (SSA) provides a state-funded national collection service to all households in Barbados. The Sanitation Service Authority is required to provide a collection service to all households, some households and communities however have elected to contract private haulers for this service (Ministry of Environment and Drainage, 2015, p. 2). 96% of macroplastic waste in Barbados is collected and enters the formal domestic waste management system (14,083 tonnes) (Common Seas & Government of Barbados, 2024, p. 38).

Governance

POLICY LANDSCAPE

The Sanitation Service Authority Act of 1963, established the SSA, which falls under the Ministry of Environment, National Beautification, Green and Blue Economy. The SSA is responsible for street sweeping, and the collection, transportation, and disposal of all household municipal solid waste, as well as the operation of the disposal sites (Ministry of Environment and Drainage, 2015, p. 2), while the objective of the ministry is to promote and facilitate the sustainable use of our resources by encouraging the involvement of all citizens and the integration of environmental considerations into all aspects of national development (Ministry of Environment and National Beautification, Blue and Green Economy, 2024).

LEGISLATION

The Health Services Act of 1969, seeks to promote and preserve the health of the inhabitants of Barbados. The Minister may make regulations for, inter alia, the collection, removal, and sanitary disposal of rubbish, nightsoil, and other offensive matter. The Collection and Disposal of Refuse Regulations, 1975, requires that sanitation services must be made available to every dwelling house and building.

The Returnable Containers Act of 1986 regulated a system whereby a mandatory deposit for disposable beverage containers is included in the final price of beverages and paid upon purchase. This deposit is then refunded to any individual who returns the empty containers which are either reused or sent for recycling (Barbados Parliament, 1986). In December 2019 an amendment was introduced widening the scope of the Returnable Containers Act which removed the restriction to only beverage containers. Currently, B's Recycling exports glass, metal, and plastic bottles. Metals are prepared and exported by other waste brokers including Recycling Preparation Incorporated. Recycling Preparation Inc. deals with nonferrous metals only, while other ferrous metals are managed mainly by B's Recycling and Scrapman Recycling (Barbados Solid Waste Management Programme, 2023).

The Control of Disposable Plastics Act, 2019, prohibits the importation, manufacture, and retail of certain disposable plastics and authorizes the use of certain disposable plastics. Section 3 states that the Act shall not apply to any plastic beverage container specified in the Returnable Containers Act, 1986.

Regarding circular economy instruments, the national government is working on a Solid Waste Management Policy, which includes **"Polluter Responsibility Principle" (PRP).** The principle states: "every individual, organization or institution that produces waste has a responsibility to ensure that their waste is collected, processed and disposed of in a prescribed manner". Based on the intent to introduce the Policy, Zero Waste in the Caribbean currently helps the Project Management Coordination Unit of the Ministry of Environment & National Beautification, Green & Blue Economy with the design of an overall EPR Framework for tires, batteries, & electrical and electronic equipment.

Financial Aspects

In 2015, SSA implemented a tipping fee for commercial waste on waste disposal. Private haulers found it difficult to charge their clients and likewise, it stimulated illegal dumping. As a result, the tipping fee was removed in 2018 (Barbados Government Information Service, 2018). In 2018, Barbados implemented a Garbage and Sewage Contribution (GSC) levy, which is applied to the water bill of households and businesses and offsets the cost of managing solid waste and sewage in Barbados (Parliament of Barbados, 2018).

COUNTRY FACTSHEET **BARBADOS**

ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

Financing & Investments Needs

According to National Action Plan to End Plastic Pollution in Barbados the main landfill has a limited capacity (Common Seas & Government of Barbados, 2024, p. 20). As a result, the ministry is investigating technologies that are more circular and decrease pressure on landfill, such as reuse, recycling and composting.

The Ministry realizes that to begin transitioning towards circularity the country needs capacity building on circular economy and financial mechanisms like EPR.

The ministry is preparing an Extended Producer Responsibility (EPR) Framework for tires, appliances, and hazardous household waste streams like fluorescent lights, batteries, and solar panels. The design and implementation of these policies need several studies and capacity building to define current and future financial flows, material flows and information flows.

The country needs financial resources for the design & implementation of a national information system.

The ministry would like to explore the opportunity to receive capacity building including topics like enforcement and stakeholder engagement to improve the current Deposit Return System and future legislation.

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Social Media: https://m.facebook.com/menbbge

ZERO WASTE IN THE CARIBBEAN:
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ZERO WASTE IN THE CARIBBEAN:
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DOMINICAN REPUBLIC

Overview

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Country Information

The Dominican Republic has a population of nearly 11 million (80% urban) with an estimated per capita generation of 1 kilogram per person per day of municipal solid waste (Ministry of Foreign Affairs the Netherlands, 2021, p. 4). The country is one of the fastest expanding economies in the Latin American and Caribbean (LAC) region, with an average annual growth of 5.6% in the years 2009-2019. Tourism, remittances, foreign direct investment, mining income, free zones, and telecommunications were the sectors with the greatest contribution. About 98% of Dominican companies are small and medium-sized enterprises (SMEs) (Ministry of Foreign Affairs the Netherlands, 2021, p. 3).

KEY INDICATORS

SIZE	48,442 KM^2
POPULATION (2022)	11, 228,821 PEOPLE
GDP (2022)	113.64 BILLION USD
GDP PER CAPITA (2021)	10,120.6 USD
CURRENCY	DOMINICAN PESO

Waste Management Analysis

There are more than 240 open-air municipal landfills in a territory of 48,442 Km^2, which do not comply with any engineering or environmental standards (Ministry of Environment and Natural Resources & Japan International Cooperation Agency (JICA), 2021). More than 80% of the municipal waste is recoverable but only a small fraction is recycled and most of it reaches final disposal sites. Materials recovery for recycling is generally completed at the landfill by informal "waste pickers", feeding a chain of small and medium businesses dedicated to recycling. As many as 10,000 people are said to be working in informal recycling. It is estimated that 6% of solid waste is recovered for recycling in the Dominican Republic (Ministry of Foreign Affairs the Netherlands, 2021, p. 4).

Governance Structure

The Dominican Republic passed its first environmental legislation in the year 2000 creating the Ministry of Environment and Natural Resources (Ministry of Foreign Affairs the Netherlands, 2021, p. 4). The ministry defines the country´s environmental management policy and waste management policy, regulates the waste management sector, and is responsible for the final disposition of waste (Ministry of Foreign Affairs the Netherlands, 2021, p. 6).

Municipal solid waste management is the responsibility of municipal governments. There are 393 municipal governments in the Dominican Republic. Due to legal constraints and a tradition of centralized government at the national level, municipalities have very few direct sources of revenue, making them dependent on national government budgetary transfers. In 2021, about 3% of the national government budget was directed to the municipalities. This means municipalities currently have little capacity to implement improvements in solid waste management on their own. Some municipalities have entered public-private partnerships for solid waste valuation through recycling and waste-to-energy initiatives, but the results have not been ideal (Ministry of Foreign Affairs the Netherlands, 2021, p. 11).

Legislation Framework

The Dominican legal framework related to the environment is governed by the General Law of Environment and Natural Resources (Law 64-00). This law assigns responsibility for the management of non-hazardous solid waste to municipal councils. This includes the collection, treatment, transportation, and final disposal which must be carried out observing the official regulations issued by the Ministry of the Environment and Natural Resources (Ministry of Foreign Affairs the Netherlands, 2021, p. 5).

Another important law relating to the management of municipal solid waste in the Dominican Republic is Law 176-07 or "Law of the National District and the Municipalities". This law also regulates the functions and responsibilities of the municipalities as the main responsible for the management of waste collection, transportation, and final disposal services (National Congress of the Dominican Republic, 2007).

In October 2020, the General Law of Comprehensive Management and Co-processing of Solid Waste (225-20) was enacted. The purpose of this law is to reduce the generation of waste and to promote its reuse, recycling, utilization, and valuation. The law establishes the principle of extended responsibility of the producer, importer, and distributor (Ministry of Foreign Affairs the Netherlands, 2021, p. 5). Another important legislation to consider is Law 47-20 about Public-Private Partnerships. This law promotes public-private alliances as an adequate instrument for the provision, management, and operation of goods or services of social interest, among potential funders, national and international investors, and the community in general (Ministry of Foreign Affairs the Netherlands, 2021, p. 6).

In 2023, the country implemented its first Extended Producer Responsibility (EPR) legislation on E-waste (Decree 253-23). Since the first EPR policy was just regulated, there is no information yet available about the implementation or financial aspects (Ministry of Environment and Natural Resources, 2023). Concerning EPR, the Ministry of Environment is preparing the Technical Regulation for EPR that includes a Management Plan for the seven (7) priority waste (Lubricating oils, Batteries, Pesticides, Tires, packaging, Foam and Electrical and electronic equipment (E-waste)) that is ready. Currently, the EPR regulation is in internal consultation and will then go to public deliberation.

Although environmental and sustainability issues have had an important advance in recent decades in Dominican Republic, solid waste management is still in an incipient stage with respect to the massive incorporation of the concepts of Circular Economy, Cleaner Production, efficient use of resources, and the rest. The Ministry of the Environment and Natural Resources is receiving technical assistance from the Climate Technology Center/ United Nations Industrial Development Organization (UNIDO). This assistance supports diagnosing the current situation of the Circular Economy. This will also support the development of a road map for the Dominican Republic. This project aims to map key actors and describe ongoing initiatives related to CE. It will also identify and prioritize potential projects by geographic areas, focusing on the manufacturing, construction, tourism, and agricultural sectors.

As a step forward on the subject, in July 2024, the Executive Power approved Resolution No. 0014/2024. This resolution approves the National Plan for Comprehensive Solid Waste Management of the Dominican Republic (PLANGIR) for the period 2024-2034. The National Solid Waste Management Plan was later approved and is waiting to be enacted this year (Ministry of Environment and Natural Resources, 2024).

Financial Aspects

The Dominican Government within the framework of the new Solid Waste Law (225-20) created a Public-Private Trust for the integral management of solid waste, the operation of transfer stations and sanitary landfills, as well as the closure of open-air landfills. The funds of this Trust will come from a mandatory annual special tax to companies, based on their total income. It can also receive donations from national and international, public and private organizations, but at this date, there are no donors yet (Ministry of Foreign Affairs the Netherlands, 2021, p. 9).

In addition to the trust, Law 225-20 establishes tipping fees paid at transfer stations, final disposal sites, and treatment plants. Moreover, it establishes the promotion of green markets related to waste, including sustainable public purchases of certified products made from recycled material, recycling markets, and waste recovery, and waste bags, among others. A green bond was created as an instrument to finance or refinance, in part or in full, green projects, whether new or existing (Ministry of Foreign Affairs the Netherlands, 2021, p. 9).

Current Projects

The Inter American Development Bank (IDB) has been working with the Dominican Republic during the last few years, mainly to ensure adequate final disposal of SW in the capital city and increase the recovery and classification of SW. IDB made available $44.2 million USD via a loan (IDB, 2022). Moreover, IDB is implementing technical cooperation to support the preparation of the integrated management of solid waste and sanitation operations through (i) the implementation of digital tools that promote the optimization of inclusive water, sanitation, and waste services, including a gender approach; (ii) the development of strategies, conceptual studies and final infrastructure designs to improve sanitation and solid waste management; and (iii) support for the development of innovative financial mechanisms aligned with the climate change agenda. The project will be financed by a $1 million USD loan via the Japan Special Fund (IDB, 2022). Additionally, in cooperation with IDB, JICA is completing a project to improve the service of solid waste management for the Duquesa disposal site, by implementing its rehabilitation and closing some of the site (JICA, 2010).

COLLECTED OVER **80** MILLION PLASTIC BOTTLES

The financial allocations for the closure and technical rehabilitation of the Duquesa landfill involve a total investment of $110 million USD: the IDB, which will contribute $44.2 million USD , the Japan International Cooperation Agency (JICA), with $45 million USD , the Spanish Cooperation Agency (AECI) with an amount of $20 million USD. In addition to this, the Solid Waste Management Trust is working on the technical closure and rehabilitation of eight (8) open-air landfills (Ministry of Environment and Natural Resources, 2024).

The Project "Preventing plastic waste in Central America and the Caribbean Sea" (Caribe Circular) is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ). The objective of the project is to improve the political, economic, and social frameworks for preventing plastic waste from entering the Caribbean Sea. The Caribe Circular has four pillars: 1) Promote regional exchange, 2) Cooperation with the private sector through the circular economy, 3) Implementing pilot projects, and 4) Raising awareness in the public and the private sectors (GIZ, 2023).

Circular Economy projects in the Dominican Republic are being supported by different international cooperation organizations. Among these are: the Climate Technology Center and Network (CTCN) in collaboration with the UN Industrial Development Organization (UNIDO) and UN Environment Programme(UNEP), which currently supports the formulation of a diagnosis and roadmap for circular economy in several countries including the DR (Ministry of Foreign Affairs the Netherlands, 2021, p. 10).

Moreover, the Ministry of Industry, Trade and MSMEs, the Association of Industries of the Dominican Republic (AIRD), and the New Life Institution for Waste (NUVI) developed a framework agreement for inter-institutional collaboration through a public-private alliance between the three parties to promote the correct management, recovery, and commercialization of industrial waste (IndustriasRD, 2018). Additionally, the campaign features the NUVI Marketplace platform, facilitating waste transactions to expand reuse and extend the life of waste materials by transforming them into secondary raw materials. Since its inception in 2020, the NUVI PET system has successfully collected over 80 million plastic bottles. The campaign has garnered support from the Ministry of Industry, Commerce, and MSMEs, along with collaboration from the Association of Industries of the Dominican Republic (AIRD), Ecored, Adiplast, Asibenas, Adocem, and over 20 other companies. Its primary objective is to demonstrate to citizens how easily they can participate and contribute to waste collection and management efforts in their daily lives (DominicanToday, 2024).

As part of the circular economy program, The Association of Industries of the Dominican Republic (AIRD) presented two strategic plans that will help the Dominican Republic advance in terms of circular economy in the construction and demolition waste sector and the plastic containers and packaging sector. This program is supported by the Innovation Laboratory of the Inter-American Development Bank (IDB LAB) and involves public and private actors such as the Ministry of Environment and Natural Resources (MIMARENA), AIRD, ADIPLAST, the New Life Foundation for Waste (NUVI), associations of municipalities, waste management companies, ECORED, the Hotel and Restaurant sector, informal recyclers, producers, importers and marketers, media and

Financing Needs

For this year, the Dominican Republic is working on several initiatives and projects that require significant financial investment. The country needs capacity building and, the creation of technical capacities to begin with the implementation of several projects and initiatives required by the Law of Integrated Solid Waste Management. The points that require special attention are the following:

The most important is the implementation or application of the National Plan for the Prevention and Integrated Management of Solid Waste (PLANGIR), which is the master plan from which all plans and projects are derived. This plan will be the baseline for all public and private initiatives and the guideline to develop municipal plans, and other sectoral programs related to the integrated management of solid waste.

In addition to the National Plan (PLAN-GIRS) for this year and 2025, the Ministry needs to start with some Municipal Pilots Plans for Integrated Management of Solid Waste

(Municipal Plan-ISWM) which is a big challenge to start. Those municipal plans must have been focused on the Separation at Source and Selective Collection of Municipal Waste as mandated by Law 225-20 articles 82 and 96 to promote recovery and recycling.

Another important aspect is the implementation of the National Plan for Hospital and Biomedical Waste, in collaboration with the Ministry of Public Health and to begin with the national inventory of hazardous waste. In both cases, the Dominican Republic lacks information about the generation and management of data.

In 2023, the WEEE (E-waste) regulation was enacted. Currently, its implementation requires investment and financing for the creation of a platform for the registration and monitoring of WEEE (E-waste) as established by Decree 253-23. At present, this platform or system has not yet been created.

In 2023, the "Preventing Plastic Waste in Central America and the Caribbean Sea" initiative by the (GIZ, Parley for the Ocean, and the Ministry of the Environment and Natural Resources). The Action Plan now needs to begin implementation in selected municipal coastal pilots.

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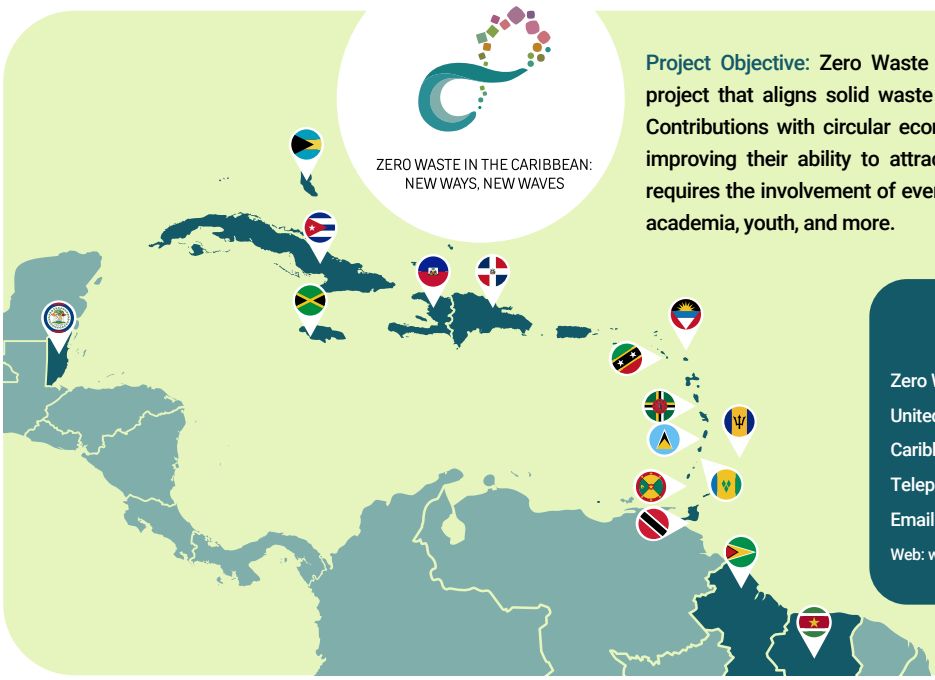

Project Objective: Zero Waste in the Caribbean is the EU-Caribbean partnership project that aligns solid waste management systems and Nationally Determined Contributions with circular economy principles in Caribbean countries, as well as improving their ability to attract investments. Achieving the goal of zero waste requires the involvement of everyone- governments, civil society, the private sector, academia, youth, and more.

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Funded by the European Union
In collaboration with: CARIFORUM
Co-financed by: german cooperation
Implemented by: AFD, giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, UN environment programme
In partnership with: OECS, RECYCLE, circular caribbean

ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

DOMINICA

Overview

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Country Information

Dominica is known as the nature isle of the Caribbean, for its 365 rivers, its greenery, large forest reserves, warm, friendly, and resilient people, and a resident population of 71,000. The Island suffered from two extreme weather phenomena in 2015 and 2017 has embarked on becoming the first climate-resilient country in the world and has embarked on the construction of a 10 MWh geothermal plant to reduce Greenhouse Gas (GHG) emissions and provide energy security to the Island (Ministry of Environment, Rural Modernization and Kalinago Upliftment, 2022, p. 68).

KEY INDICATORS

SIZE	**750 KM²**
POPULATION (2022)	**72,737 PEOPLE**
GDP (2022)	**612 MILLION USD**
GDP PER CAPITA (2022)	**8,011 USD**
CURRENCY	**EASTERN CARIBBEAN DOLLAR**

Waste Management Analysis

The Dominica Solid Waste Management Corporation (DSWMC) is mandated by the Solid Waste Act of 2002 to provide waste management services. This essential function of municipal solid waste collection at the residential level is solely carried out by the DSWMC. Within the Roseau city center , there is a greater presence of private haulers utilized for commercial entities (Government of Dominica, 2002). The DSWMC operates one landfill site at the **Fond Cole Sanitary Landfill** at Fond. The Landfill has been designed to accept waste from the island for 15 years (Seureca Veolia, 2024, p. 8).

In July 2023, the DSWMC conducted a dual waste classification exercise covering co-mingled municipal solid waste and source-separated recyclable packaging waste at the Fond Cole Sanitary Landfill Site. According to the 2023 Study Report, **plastics make up 24% of Dominica's solid waste stream** with film plastics being the dominant component at 53%. Plastics rank second to **organics, at 29%**, followed by **paper and paperboard at 17%** (OECS, 2024).

The DSWMC is currently undertaking a Circularity Assessment Protocol (CAP) in collaboration with the University of Georgia.

The CAP is modeled on seven (7) spokes; leakage, end of life, collection, use, product design, community, and input, which seeks to assess the level of plastic pollution. The CAP will also inform the formation of the National Action Plan that seeks to plot a clear pathway to end plastic pollution in light of UNEA Resolution 5/14.

Dominica through the efforts of DSWMC and other public and private sectors has successfully exported two (2) forty-foot containers of plastic in the last six months totaling 125 bales (31 tons a total of one million plastic bottles). Additionally, a total of six containers of glass bottles were exported to Trinidad in August of 2024 an estimated volume of 84 tons comprising: flint, amber, and green.

Policy Landscape

GOVERNANCE STRUCTURE

The 2002 Solid Waste Management Act established the DSWMC and sets out the core activities of the corporation to include the preparation of plans and programs to address the problems of solid waste management in the state and to oversee the collection and disposal of waste management systems in the state (Government of Dominica, 2002). The DSWMC operates under the Ministry of Environment, Rural Modernisation, Kalinago Upliftment and Constituency Empowerment. The national government is entirely responsible for waste management. The municipalities do not have any responsibilities in the sector (Dominica Solid Waste Management Corporation, 2023).

WASTE MANAGEMENT

There are several legislative instruments geared at managing solid waste and protecting human health and the environment including but not limited to (Lawrence, 2021, p. 12):

- Solid Waste Management Act of 2002.
- Solid Waste Validation Act of 2006.
- Pesticide Control Act (Cap 40:10).
- Environmental Health and Services Act of 1997.
- Physical Planning Act of 2002.

At the core of a strong waste management infrastructure is the need for the formulation of a national waste management strategy that sets out the pathway and activities required for reducing and improving waste management services. On par is the need for formulation of regulations that govern waste disposal and collection systems.

DSWMC through support from the OECS secretariat has conducted a legislative review and has provided the following draft document:

- Effluent Regulation.
- Waste Management Regulation.
- Hazardous Waste Legislation.
- Revised Litter Act.

AWARENESS AMONGST CIVIL SOCIETY & THE PRIVATE SECTOR

Public engagement and awareness are critical in the promotion of any program or activity. The corporation emulates Corporate Social Responsibility and Evoking Collective Consciousness as articulated in the Climate Resilient Recovery Plan 2030 as its two pillars in engaging the private sector and civil society and has launched the following educational and awareness programs:

- Beyond Waste – once monthly radio program.
- Beyond Waste – fortnightly television program.
- Zero Waste School Program – 46 primary and secondary schools.
- Be the Solution to Stop Pollution.

Financial Aspects

The Dominica Solid Waste Management Corporation relies on four major revenue streams namely: subvention, visitors levy, tipping fee, and contribution. The monthly subvention which is allocated by the government equates to about 51% of the corporation budget, whereas the visitor levy equates to 25% of the current budget and is susceptible to external shocks such as natural disasters and pandemics thus the necessity of adopting sustainable financial models that should consider the polluters pay principle amongst other.

Dominica is considered an "upper-middle-income" country based on the benchmark of $215 USD per ton set for waste management services, DSWMC presents a revenue stream below the benchmark and is inadequate to meet its actual obligation. Waste diversion through a comprehensive waste separation at source focusing on specific recycled material at the household level has long been envisaged as a catalyst in fostering Dominica's transition from a linear to a circular economy approach. Since 2015 DSWMC has implemented a national recycling collection service at the household level that focuses on the following items: Pet, glass, and cans. This has been further enhanced through support from the OECS REMLit and OECS Demonstrative Plastic collection project.

The Government since 2017 and 2018 has provided 5 trucks for refuse collection and through the National Authorising Office has provided the following:

- One (1) vertical bailer – 2021 – for enhancing plastic waste processing.
- 1100 residential receptacles – 2022 – for improving residential waste collection in Roseau city and at government residential units.
- One (1) Excavator – 2023 – for improving landfill operation.
- One (1) Tipper truck - 2023 – for improving municipal waste collection.

Financing & Investments Needs

The Kalinago Zero Waste Project serves as a model for showcasing the intention of the DSWMC and the government of Dominica in improving waste management services in Dominica. According to a situation analysis conducted as part of the zero-waste project 45% of waste within the Kalinago territory is organic. The Ministry for Environment recognizes the need for a national biomass waste treatment system that considers private and public sector collaboration thereby providing organic base fertilizer, and compost needed for the agricultural sector improving food security and livelihoods (OECS, 2022).

The pursuit of an Integrated Waste Management System is costly and requires commensurate and adequate financing that promotes the circularity approach to waste management. The Ministry for Environment, the government, and DSWMC recognize that financial instruments and human resources are equally important in planning, forecasting, and analyzing the ever-growing complexity of the current and future waste streams, noting the hazardous nature of waste.

According to Dominica Waste management/gap analysis and recommendations: "The revenue collection of DSWMC should conform to the polluters pay principle". This will provide the liquidity required for improving, the recycling system, residential waste collection, treatment, hazardous waste, bulky waste, landfill operation, and biomass waste streams.

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ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

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ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

GRENADA

Overview

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Country Information

Grenada is an island country in the Eastern Caribbean with a population of around 125,000 (The Commonwealth, 2024). The island of Grenada lies north of Trinidad and Tobago and lies in between the Caribbean Sea and the Atlantic Ocean. Grenada's service economy relies on tourism and the exporting of spices and aims to advance its emerging blue economy. Unfortunately, the country experiences vulnerability to hurricanes, and deforestation, affecting solid waste management efforts (CIA World Factbook, 2024).

KEY INDICATORS

SIZE	**348.5 KM²**
POPULATION (2022)	**125,438 PEOPLE**
GDP (2022)	**1.26 BILLION USD**
GDP PER CAPITA (2021)	**10,016.2 USD**
CURRENCY	**EASTERN CARIBBEAN DOLLAR**

Waste Management Analysis

Since its inception in 1995, the Grenada Solid Waste Management Authority (GSWMA) has been engaged in the provision of waste management services specific to solid waste collection, development and management of engineered landfills in Grenada and Carriacou, recyclable waste processing for export, promotion of best practices in waste management and the recent introduction of a compliance unit within the GSWMA to encourage adherence to procedures for waste management (GSWMA, 2024). Through private contracts, the Authority provides services for waste collection, transportation of waste, and street cleaning. There are currently thirteen private waste haulage and street cleaning companies providing these services for and on behalf of the GSWMA and one auxiliary company to cater for defaults in services or equipment failure on the part of the collection contractors (GSWMA, 2024). The country is divided into eight (8) garbage collection zones. Collection contractors are awarded five (5) year contracts and are required to fulfill several obligations to GSWMA during that period. Collection services are offered through curbside pick-up arrangements. Residents place their waste in tied bags, covered bins, or buckets. All contractors must transport waste on behalf of GSWMA in compactor trucks for MSW. They also must have one flatbed truck for bulky waste, furniture, and white goods. Apart from residential waste, GSWMA contractors are mandated to provide garbage collection to Government institutions/ministries.

Currently, there is no source separation happening for the collection of residential waste except for the few who volunteer to sort plastic PET bottles for special collection drives or take them to the proposed facility for recycling.

The last waste characterization study which was commissioned by the Minister for the Environment for review of the National Waste Management Strategy was done in 2020. Our waste stream has seen an increase in waste volumes in the past ten years by more than 10% per year.

The GSWMA currently operates two sanitary-engineered landfills. At mainland Grenada, the Perseverance landfill is a semi-aerobic cell located at Perseverance, in the Parish of St. John, and serves all of Grenada. Leachat treatment is achieved through a wetland treatment pond system. In Carriacou,

the sanitary engineered landfill is at Dumfries. It caters for all waste from both Carriacou and neighboring Petit Martinique. Waste from Petit Martinique is transported by boat to Carriacou under a contractual agreement between GSWMA and the solid waste collection contractor for both islands. This site receives all MSW, construction, and demolition waste, institutional, green waste, bio-medical waste, special waste, derelict vehicles, etc.

The GSWMA is in the process of establishing its first recycling center at Queens Park, St. George. This facility will cater to the processing of plastic, electronic waste, metal, glass, cardboard, ozone-depleting substances, and light bulbs. Several companies have expressed interest in the implementation of recycling initiatives.

The GSWMA has promoted composting initiatives through partnerships with several institutions some of which include the Northeast Farmers Organizations (Caribbean Agua Terrestrial Solutions, 2015), Hotels for Green Globe certification, through its environmentally Friendly Schools Initiative (GSWMA, 2023), and with the Sandals Foundation and Inter American Institution for Corporation on Agriculture with Backyard farmers (Sandals Foundation, 2023). A recently implemented project under Climate Change Action Plan (CCAP) is aimed at promoting composting as a means of waste diversion while at the same time reducing the generation of methane gas from the presence of organic waste in landfills. It will be targeted at 200 households (CCAP, 2022).

Governance Structure

The Grenada Solid Waste Management Authority is a statutory organization established by the Government of Grenada by way of an Act of Parliament cited as the Grenada Solid Waste Management Authority Act No 11 of 1995. This Act mandates the GSWMA to develop waste disposal facilities to cater for solid waste treatment and disposal in the state of Grenada and provide collection and transportation of residential solid waste to such facilities (Government of Grenada, 1995).

Since its inception in 1995, the GSWMA has been engaged in the provision of waste management services specific to solid waste collection, development and management of engineered landfills in Grenada and Carriacou, recyclable waste processing for export, promotion of best practices in waste management and the recent introduction of a compliance unit within the GSWMA to encourage adherence to procedures for waste management. The GSWMA has over the years conducted reviews of its organizational structure to effectively address the demands of what is considered a dynamic waste management sector. While the Authority remains positioned under the Ministry of the Environment, the organizational structure has changed significantly over the past 28 years to include the creation of new departments and new officers (GSWMA, 2024)

Legislation

The operations of the GSWMA are supported by several bits of legislation including but not limited to the following:

- The Environmental Levy Act 1997.
- The Waste Management Act. 16 of 2001.
- Abatement of Litter Act. #24 of 2015.
- Environmental Management Act of 2005.
- National Parks & Protected Areas Act 1991.
- Non-Biodegradable Waste Control Act of 2018.
- Procurement and Disposal of Public Property Act #1 of 2018 and.
- Public Finance Management Act # 17 of 2015.

Financial Aspects

The GSWMA is principally financed through the Environmental Levy Act – 5 of 1997 (Government of Grenada, 1997). The chart below shows the list of levy collection agents and the systems by which collections are done.

ITEM/PERSON SUBJECT TO LEVY	BILLING SYSTEM	COLLECTION AGENT	COMPOSITION TOTAL REVENUE
Householders –1	Electricity bill	GRENLEC	11%
Water Consumers -2	Water bill	NAWASA	4%
Stayover visitors	Passenger head tax	Grenada Airport Authority	3%
Marine visitors	Cruise agents	Grenada Ports Authority	6%
Imports.	Customs & Excise Department	Government	61%
Refund for services (not a levy)	MOF (exempt – households, street cleaning, Gov´t institutions)		14%

COUNTRY FACTSHEET **GRENADA**

ZERO WASTE IN THE CARIBBEAN: NEW WAYS, NEW WAVES

The Grenada Solid Waste Management Authority (GSWMA) as a statutory body is governed by several legislations that impact its financial governance (Fiscal Responsibility Oversight Committee, 2017):

- Public Finance Management Act # 17 of 2015 (Regulates proper fiscal management of money property and other resources).
- Public procurement and disposal of public property Act No 39 of 2014.
- Public Debt Management Act No. 28 of 2015.
- Fiscal Responsibility Act No. 29 of 2015 (establishes transparency and accountability for the sustainability of finances).

The current Operating cost of Grenada Solid Waste Management Authority is approximately $18 million dollars. This cost is expected to be higher as the Authority is currently expanding and diversifying its operations to solve the waste management needs of the state with limited disposal space.

Financing Needs

The GSWMA has established its strategic objectives which is aligned with the UN SDGs. These strategies will require the revolutionizing of the sector to meet Grenada's waste management needs and goes beyond garbage collection and landfilling but moving speedly to waste minimization and the valorization.

With the current trends in waste generation, including quantities and character, GSWMA must and is committed to a circular economy approach to achieving its established strategic objectives, chief of which is to reach an 80% waste diversion rate by 2035.

This requires a multi sector and multi role approach since we no longer work in isolation as we advance in circular economy principles. It is to be noted that while diversion objectives seem ambitious, the Authority holds fast to the conviction that with the adoption of advanced technologies specific to waste management/processing and the establishment of fruitful partnerships, the target is achievable.

The Authority is also mindful that from time to time there may be spikes in its waste stream emerging from disasters and is prepping itself with an equipment procurement plan and strategy. We have identified that the same of best practices and specialisation in the aforementioned diversion and processing practices wholly lends itself to addressing all aspects of dealing with Disaster waste management including but not limited to collection, debris site management, waste processing, cost recovery and shipment and final disposal.

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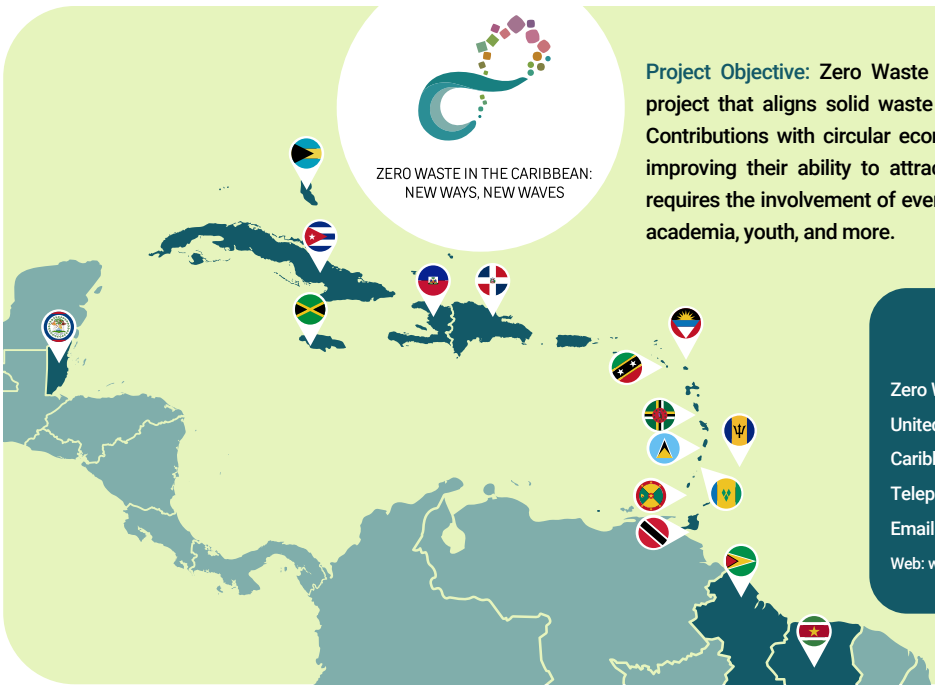

Project Objective: Zero Waste in the Caribbean is the EU-Caribbean partnership project that aligns solid waste management systems and Nationally Determined Contributions with circular economy principles in Caribbean countries, as well as improving their ability to attract investments. Achieving the goal of zero waste requires the involvement of everyone- governments, civil society, the private sector, academia, youth, and more.

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Co-financed by: german cooperation

Implemented by: AFD Agence Française de Développement; giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH; UN environment programme

In partnership with: OECS; RECYCLE OECS; circular caribbean

ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

GUYANA

Overview

The Zero Waste in the Caribbean Initiative, under the theme New Ways, New Waves supports 16 CARIFORUM countries with the establishment of enabling frameworks and instruments to facilitate investment and sustainable financing of waste management. This factsheet was prepared with the objective of sharing information with financing partners on the waste management situation in the project countries. Also highlighted are their needs for financial support and technical assistance. This would be a catalyst for the development of Waste Management and associated Circular Economy Initiatives. All project activities advance the Sustainable Development Goals as highlighted below.

Country Information

Guyana is located on the northern coast of South America with a population of more than 790,000 (CIA Factbook, 2024). Guyana borders the Atlantic Ocean and is a founding member of the Caribbean Community (CARICOM, 2024). The country is known for its recent expansion in the oil economy, but also heavily exports rice, sugar, gold, timber, and shrimp (World Bank, 2024).

In conjunction with this economic expansion, Guyana has pledged to promote sustainable development utilizing its Low Carbon Development Strategy 2030 (LCDS, 2030).

Moreover, Guyana seeks to balance economic growth with environmental stewardship by sustaining the country's vast forest cover, promoting renewable energy, and national communications strategy advancing waste management efforts.

KEY INDICATORS

SIZE	**214,970 KM²**
POPULATION (2022)	**808,726 PEOPLE**
GDP (2022)	**15.36 BILLION USD**
GDP PER CAPITA (2022)	**18,989.8 USD**
CURRENCY	**GUYANESE DOLLAR (GYD)**

Waste Management Analysis

According to the National Solid Waste Management Strategy 0.73 kilos per day per person of combined household and commercial waste is generated (Ministry of Local Government and Regional Development, 2014, p. 18). However, over the past few years the amount of waste being disposed at the landfills have increased by twofold mainly due to the developments within the oil and construction sectors.

The 80 local democratic organs are mandated to collect and dispose of municipal solid waste free of cost. However, due to inadequate collection coverage private waste collectors operate for a fee in communities not serviced by the local organs.

The main waste disposal methods in Guyana are landfilling, controlled dumpsites, and illegal dumping. The largest waste disposal site is the Haags Bosch Sanitary Landfill located in Eccles, which covers an area of 60 hectares and an expected lifetime of 25 years. The facility opened in 2011 and receives approximately 1487 tons per day (Ministry of Local Government and Regional Development, 2024).

There are a total of 15 other controlled landfill sites across the 10 administrative regions that are operated by the MLGRD. The Ministry aims to upgrade existing dumpsites into controlled landfills, close and restore illegal dumpsites and develop regional waste management facilities. There is no tipping fee attached for disposal at the landfills.

Recycling is minimal in Guyana, with only a few small-scale initiatives in place. Some small private businesses are involved in collecting and exporting plastics, aluminum and scrap metals. At the landfill, waste pickers search for reusable materials such as aluminum, scrap metals, and glass bottles for resale. There is no official information available on recycling, although in the country several private companies are exporting waste for recycling. As well, What a Waste 2.0 states that Guyana is recycling a small portion (0.5%) through glass and scrap metal recycling programs (Kaza, Yao, Bhada-Tata, & van Woerden, 2018, pág. 242).

Gorvernance Structure

The Ministry of Local Government and Regional Development (MLGRD) is the primary Government Agency that provides policy leadership and management to enable Regional and Local Democratic Organs to deliver social, economic, and environmental services in communities. It facilitates, coordinates and monitors the execution and implementation of programmes, projects, and activities in the various local government arms and ensures that these activities are in conformity with the legal framework and the policies of the Government.

More specifically, the Ministry in keeping with the national agenda to "strengthen the solid waste management programme at the local level to deliver timely collection, treatment and appropriate disposal of solid waste" is pursuing an integrated sustainable waste management. As such, provides resources, financial and technical support, and capacity building to the 10 Regional Democratic Councils (RDC), 10 Municipalities and 70 Neighbourhood Democratic Councils (NDC) to better execute their solid waste management mandates.

The Ministry is responsible for coordinating with regional and local councils to establish the requisite infrastructure and implement waste management policies including overseeing waste collection and establishment of waste disposal facilities, promoting recycling and recovery, and ensuring that waste management practices align with the country's environmental objectives. RDCs observe the waste management efficiency of Municipalities and NDCs, which are statutorily required to offer waste collection and disposal services, sweeping streets, and cleaning of drains.

Legislation

The current legislative framework for solid waste management in Guyana comprises several laws, including Municipal and District Councils Act, Chapter 28:01, Local Government Act, Chapter 28:02, Environmental Protection Act, Chapter 20:05, 1996, Environmental Protection Litter Enforcement Regulations, 2013, Public Health Ordinance, Chapter 145; and the Environmental Protection (Expanded Polystyrene Ban) Regulations, 2015. Furthermore, there is currently no comprehensive legislation on solid waste management, although the Solid Waste Management Bill, initially drafted in 2014, is currently being revised by the Government.

The Municipal and District Councils Act, 1969, contains several by-laws and regulations relating to the management of solid waste including the City Government By-Laws, the Offensive Trades Regulations, the City Markets By-Laws, the Offensive Matter Removal Regulations, the City of Georgetown (Collection and Disposal of Waste) By-laws and the New Amsterdam Town Council By-Laws.

Financial Aspects

The local government exists of 80 organs which should be self-functioning, but they lack resources to organize waste collection and manage disposal sites. Municipalities either provide collection services or contract private companies. The ministry focuses on infrastructure development, landfill operations, capacity building, and clean-ups and education campaigns since littering is a big problem. The cabinet has pronounced the commitment to strengthen the local organs to improve waste management (Ministry of Local Government & Regional Development, 2023). Although the country does not have a waste tariff system in place, some residents and businesses that does not receive collection services from the local organs do pay private service providers for their waste collection.

Guyana's waste management sector is primarily financed through a combination of local government revenue from rates and taxes, supplemented by annual subventions from the MLGRD. The national government has also allocated substantial budgets, including $1.9 billion GYD in 2023 and $2.6 billion GYD in 2024, to support infrastructural development, landfill operations, public awareness, capacity building, and solid waste clean-up programs. In addition, the budget also covers the purchase of essential waste management equipment, with ongoing efforts to improve waste disposal and clean-up activities nationwide. As such, 120 tractors and trailers were bought in 2022 and 36 heavy duty machinery in 2023.

Moreover, the rates and taxes collected by the local democratic organs should cover the costs for waste management and other basic municipal services. However, these laws are dated and the rates and taxes collected are very insufficient even to pay wages.

In accordance with Section 7A of the Customs Act Chapter 82:01, an Environmental Levy at the rate of ten dollars ($10.00 USD) ($0.05 USD) is raised, levied, and collected on every unit of non-returnable metal, plastic or glass of any alcoholic or non-alcoholic beverage imported into Guyana or manufactured locally.

Every importer of such beverage shall pay the levy to the Customs and Trade Administration at the same time when Customs Duties are paid, or for manufacturers, monthly, when the returns are submitted in the prescribed form (Guyana Revenue Authority, 2017). The Guyana Revenue Authority (GRA) has managed to collect close to $1.2billion GYD ($5,747,660 USD) in environmental taxes as of the end of 2017, ever since its implementation on February 1, 2017, (Guyana Times, 2018). All the collected money goes into the consolidated fund of which a part is coming back to the sector via the national budget (Ministry of Local Government & Regional Development, 2023).

Financing & Investments Needs

The ministry of Local Government & Regional Development prepared, together with the ministry of Legal affairs drafted a solid waste management bill over a decade ago with the objective to keep the responsibility of collection and final disposal by the local organs and establish a national authority/department within the ministry to address policy, operation and licensing. Since it is difficult to move forward with this process technical support is needed on the design and further structuring of the bill, and legislative and policy development (Ministry of Local Government & Regional Development, 2023).

Guyana needs to develop comprehensive financial instruments for waste management that would help secure sustainable funding for waste management operations. Moreover, the country wants to develop a stakeholder engagement strategy to involve the private sector in the transition towards the circular economy. Since there is almost no local production in the country the most important stakeholders are the importers of (consumer) goods. Because of this, the country would like receive capacity building on stakeholder management, private sector involvement in a circular economy and the design of an EPR model focused on importers and financing to develop the recycling industry to process plastics, metals, glass, and organic waste.

Although it is not possible to implement a waste management utility system during the current government, the ministry would like to start preparations for a utility system, which should first be implemented for private companies and latter for citizens.

Investment is needed in large-scale public awareness campaigns to educate citizens on littering, waste segregation, recycling, and environmental impacts of improper waste disposal. Developing and funding programs for waste management personnel is essential for building capacity in the sector.

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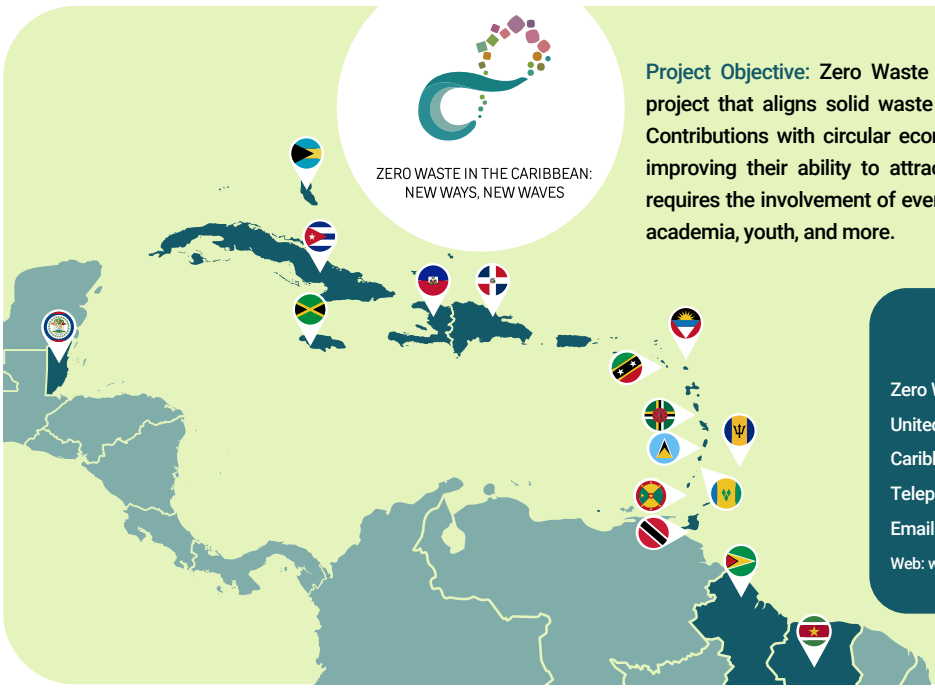

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ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

HAITI

Overview

The Zero Waste in the Caribbean Initiative, under the theme New Ways, New Waves supports 16 CARIFORUM countries with the establishment of enabling frameworks and instruments to facilitate investment and sustainable financing of waste management. This factsheet was prepared with the objective of sharing information with financing partners on the waste management situation in the project countries. Also highlighted are their needs for financial support and technical assistance. This would be a catalyst for the development of Waste Management and associated Circular Economy Initiatives. All project activities advance the Sustainable Development Goals as highlighted below.

Country Information

The Republic of Haiti occupies the western third (27,750 km²) of the eponymous island that it shares with the Dominican Republic. According to estimates by the United Nations World Population Prospects, in 2023, Haiti had a population of 11,724,763, 52% of whom were women.

Haiti is among the countries with the lowest economic performance in the Latin American and Caribbean region. In 2023, the World Bank estimated the national GDP per capita at $1,693 USD. Underlying this indicator is a population suffering from severe deficiencies in terms of access to employment, housing, food, drinking water, health care, education, and other goods and services. Moreover, these deficiencies are increasing day by day, due to the low growth rate (around 1% per year) of the national economy, which is continuously lower than the population growth rate of around 1.2% per year.

KEY INDICATORS

SIZE	**27,750 KM²**
POPULATION (2023)	**11,724,763 PEOPLE**
GDP (2023)	**19.85 BILLION USD**
GDP PER CAPITA (2023)	**1,693 USD**
CURRENCY	**GOURDE**

Waste Management Analysis

The poor management of solid waste is one of the major challenges of the Haitian urban space. This problem has become increasingly worrisome as the size of the population and the surface area of urban areas, particularly the ten departmental capitals, increases.

According to the World Bank, in 2017, the country produced an average of 0.6 kg of waste per person per day. This figure when calculated for a population of 11 million people gives a total of 6,600 tonnes of waste produced on the national territory in one day (World Bank Group, 2017). This figure varies according to the country's geographical boundaries, taking into account the population density and the income level of the residents.

A small percentage of the waste generated by households, public markets, businesses, and institutions is collected by public and private waste collection service providers. World Bank Group (2017; 2018) estimates

suggest that only 12% of urban solid waste is collected, and the participation of utilities in this percentage is very low (World Bank Group, 2018). That would mean that 5,808 tonnes of waste accumulate daily in the country particularly in large urban areas-without being collected, stored, recovered, or destroyed by either municipalities or private companies and civil society organizations. The same observation is made in the area of solid waste treatment and recovery (UNDP, 2020).

Governance Structure

Solid waste management in Haiti is a complex challenge that involves a variety of public and private actors, each with specific roles and responsibilities. Here's an overview of the governance of this management:

- Ministry of the Environment: This ministry is responsible for the development and implementation of environmental policies, including those related to solid waste management. It coordinates efforts for the collection, treatment, and disposal of waste.
- The National Solid Waste Management Service (SNGRS): Under the authority of the Ministry of the Environment, this entity implements national policies at the local level, supervises waste management operations, and collaborates with local authorities to ensure efficient collection.
- Town Halls: They play a key role in waste management at the municipal level. They are responsible for waste collection, organizing collection, and maintaining landfills.
- Collection Cvompanies: These private companies are often contracted by municipalities to carry out the collection and transport of waste. They can operate on a large scale or specialize in certain areas.
- Treatment companies: Some private companies manage waste sorting, recycling, and treatment facilities. They are crucial for waste management not only in terms of treatment but also in terms of recycling innovation.
- Non-Governmental Organizations (NGOs): Many local and international NGOs work in Haiti to raise public awareness about waste management, organize clean-up programs, and develop waste reduction initiatives.
- Community Associations: These groups play an important role in raising awareness and local waste management, often in partnership with local authorities and NGOs.

Other actors are also involved in waste management. Among these are: healthcare institutions, university centers, etc.

Legislation

Waste management in Haiti is governed by a legislative framework and policies that aim to structure and improve waste management practices. While implementation often faces challenges, there are several laws, policies, and strategies in place to guide efforts in this area.

The law of the 21st September 2017 is the linchpin of the regulatory and institutional framework governing the solid waste management system in Haiti. Concerning the creation, organization, and operation of the (SNGRS), this law indicates the manifest desire of the public authorities to put solid waste management at the heart of government action, to fill regulatory gaps, and to provide appropriate solutions.

The changes in the institutional architecture, and the specification of the attributions of certain key state institutions called upon to intervene in the solid waste sector, are among the most striking facts of this law.

The Ministerial Decree of the 10th of July 2013 prohibits on the national territory the production, import, marketing, and use of bags, inputs, and objects made of Sprawled Polystyrene or Styrofoam, for single food use.

Unfortunately, there is not yet a formal policy on the management of solid waste in Haiti. The various players who intervene in the sector do so without a frame of reference. There is no official technical reference issued by the Ministry of the Environment.

Awareness Amongst Civil Society & Private Sector

The involvement of civil society and the private sector is crucial for effective solid waste management. In Haiti, the awareness campaign plays a central role in improving waste management practices, encouraging responsible behavior and building the capacities of the various actors involved.

Raising awareness among civil society and the private sector requires the implementation of:

- Awareness campaigns on good waste management practices including information on selective sorting, recycling, and waste reduction at source.
- Workshops and Training to explain the benefits of waste separation, how to reduce waste, and methods of composting organic waste.
- Cleaning programs to improve the cleanliness of neighborhoods and public spaces.

Financial Aspects

The financing of solid waste management in Haiti is characterized by several challenges, including a high dependence on external funds and a limited financial infrastructure at the local level. The following is a description of the main aspects of solid waste management financing in the country.

PUBLIC FUNDING

Funding for solid waste management is usually integrated into the national budget and allocated to the (SNGRS). The funds available for waste management projects are limited and insufficient to cover the necessary costs, resulting in an insufficient collection rate.

LOCAL FINANCING

Through local taxes, citizen contributions, and subsidies from the central government, local authorities, like town halls, are responsible for the day-to-day management of waste in their respective areas. However, they usually have limited budgets for this task.

PRIVATE FINANCING

In some regions, private companies provide a waste financing mechanism. This mechanism includes service contracts for waste collection and treatment.

INTERNATIONAL FUNDING AND HUMANITARIAN ASSISTANCE

International organizations and donors provide financial and technical support to Haiti for waste management. These funds are often used for specific projects, such as building infrastructure, implementing waste management programs, and awareness-raising initiatives.

Some projects funded by development agencies, such as the World Bank, the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and other agencies, also provide resources to improve waste management systems. These projects may include subsidies for the construction of landfills, sorting centers, and other infrastructure.

It is important to note that taxes and fees are not yet used as financial instruments in the sector.

Financing & Investments Needs

The need for financing is crucial for effective solid waste management in Haiti. In a holistic approach, funding should cover all aspects that make the waste management system difficult and costly to set up and maintain, such as:

INADEQUATE AND INADEQUATE INFRASTRUCTURE

The lack of adequate infrastructure for the collection, sorting, and treatment of waste poses a major challenge. The funds are needed to purchase or rehabilitate trucks, and dumpsters, and to build or improve transfer stations.

EDUCATION AND AWARENESS

Although efforts are being made, public awareness and education on waste management remain insufficient. Citizens must be informed about waste sorting and reduction practices. Awareness campaigns and educational programs require funds for their design and implementation.

In addition to raising public awareness, workers in the waste management sector must be trained to improve collection, sorting, and treatment methods.

RESEARCH AND DEVELOPMENT INFRASTRUCTURES

Technological innovations are an important factor for efficient waste management. Investment in innovative technologies for waste treatment and recycling may require significant funding for research and development in the sector.

PLANNING AND STRATEGIC MANAGEMENT

Funds are needed to develop waste management plans, conduct feasibility studies, and implement strategies tailored to local needs.

In summary, funding is essential to overcome the challenges of solid waste management in Haiti and to build an efficient, sustainable, and environmentally friendly system. From a circular economy perspective, a coordinated and well-funded approach is needed to improve infrastructure, educate the population, and ensure adequate solid waste management.

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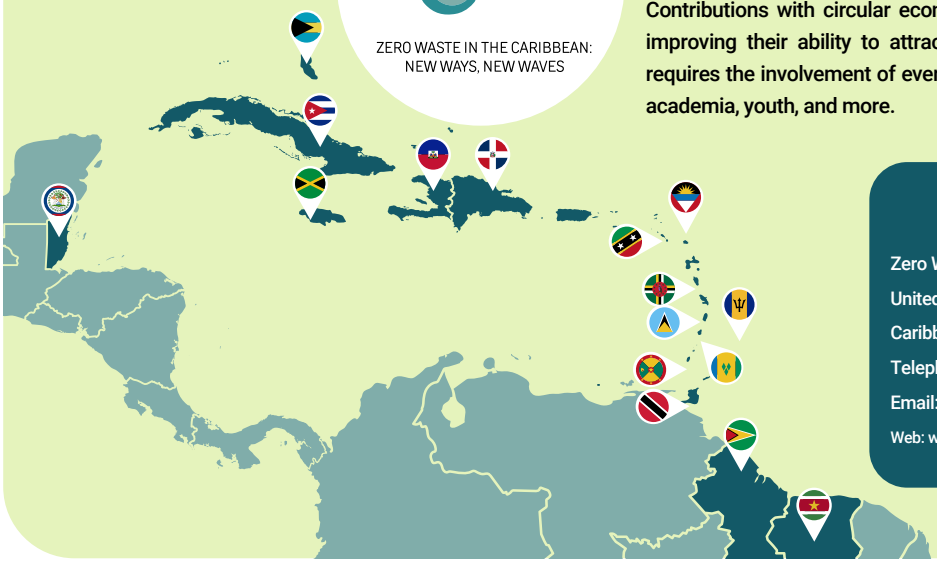
ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES



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In partnership with: OECS, RECYCLE, circular caribbean

ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

JAMAICA

Overview

The Zero Waste in the Caribbean Initiative, under the theme New Ways, New Waves supports 16 CARIFORUM countries with the establishment of enabling frameworks and instruments to facilitate investment and sustainable financing of waste management. This factsheet was prepared with the objective of sharing information with financing partners on the waste management situation in the project countries. Also highlighted are their needs for financial support and technical assistance. This would be a catalyst for the development of Waste Management and associated Circular Economy Initiatives. All project activities advance the Sustainable Development Goals as highlighted below.

Country Information

Jamaica is the largest English-speaking Island in the Caribbean and the third largest in size. The country is predominantly known for its rich cultural heritage expressed through music, food, and the Rastafarian religion. With a population of over 2 million (estimated at 2,734,092, Statistical Institute of Jamaica - 2019) the country is considered highly vulnerable to external shocks given its reliance on imports, tourism, and agriculture.

KEY INDICATORS

SIZE	**10,991 KM²**
POPULATION (2019)	**2,734,092 PEOPLE**
GDP (2023)	**19.42 BILLION USD**
GDP PER CAPITA (2022)	**6,874.20 USD**
CURRENCY	**JAMAICAN DOLLARS (JMD)**

Waste Management Analysis

Based on the last Waste Characterization Study, which was finalized in 2022, the main fraction found in Jamaican waste is organic waste (37,2%), composed mainly of food waste (21,3%) and garden waste (15,8%). Another important fraction is plastics (16,8%) which are found in very few banned plastics (0,03%), a notable quantity of plastic bottles (5,9%), and other plastics (11,8%) – mostly plastic packaging. The third most important fraction is "other waste" (15,8%) of which 10,8% is sanitary waste (diapers, paper tissues, etc.). In smaller proportions, other materials can be found which include cardboard (9,0%), textiles (6,7%), papers (6,5%), glass (3,5%), metals (2,6%).

The National Solid Waste Management Authority (NSWMA) currently collects, treats, and disposes of municipal solid waste while simultaneously regulating the sector. Collection and disposal of solid waste are organized around four waste sheds, each of which is managed by a Regional Parks and Market Company. These Parks and Market Companies are responsible for the collection, transportation, and final disposal of the waste hauled to one of the eight disposal sites via government-owned collection units and private collectors. Currently, private collectors account for approximately 20% of the units utilized every year. For the 2023 calendar year, an estimated 1,074,555.65 tonnes of waste was deposited at the eight disposal sites island wide.

Currently, there is no legislation as it relates to separation at source, however, the government and several private sector entities have collaborated on actively engaging the populace in separating PET bottles thus limiting the amount being disposed of at our municipal disposal sites. Besides, PET cardboard and glass bottles are being exported for recycling. This is done by five main sorting and exporting / recycling companies: 1) Recycling Partners of Jamaica, which have 20 Locations in Jamaica, 2) Garbage Disposal & Sanitation Services (GDSS), 3) 360 Recycle Manufacturing Limited, 4) Sweet Craft Limited and 5) Jamaica Recycles.

There is no large-scale composting on record being undertaken on the island, residents are however encouraged to compost as a means of reducing the total amount of waste entering our disposal sites.

Governance Structure

Governance of the Waste Management Sector is regulated by the NSWMA which operates through the Ministry responsible for Solid Waste (The Ministry of Local Government and Community Development). The authority is guided by the National Solid Waste Management Authority Act (Government of Jamaica, 2001), which mandates the NSWMA to take all necessary steps to affect the management of solid waste in Jamaica.

Besides, the following institutions are involved in Waste Management:

- National Environment and Planning Agency (NEPA) is responsible for environmental protection and planning. It regulates waste management practices to ensure they comply with environmental laws and standards. NEPA issues permits for waste disposal sites and monitors their environmental impact.
- Ministry of Health and Wellness is involved in waste management from a public health perspective, particularly in the regulation and management of hazardous and medical waste to prevent health risks.
- Jamaica Environment Trust (JET) is a non-governmental organization that advocates for environmental protection, including waste management. JET often engages in public education campaigns, advocacy, and legal actions related to environmental issues.

Legislation

The NSWMA is current working on several regulations under the NSWM Act:

- National Solid Waste Management (Public Cleansing Regulations), 2023.
- National Solid Waste Management (Hazard Waste) (Electronic Waste) Regulations, 2023.
- National Solid Waste Management (Disposal Facilities) Regulations, 2023.
- National Solid Waste Management (Fixed Penalties) Regulations, 2023.

Awareness Amongst Civil Society & Private Sector

"Nuh Dutty Up Jamaica" is one of the most prominent public education campaigns focused on encouraging Jamaicans to properly dispose of their waste and reduce littering. Besides, the NSWMA periodically organizes Waste Management Awareness Week to educate the public about the importance of proper waste disposal, waste separation, and recycling. Moreover, there are the following initiatives: Plastic Waste Reduction Initiatives, Clean School Initiative, Recycle Now Jamaica, International Coastal Cleanup Day, Community Clean-Up Campaigns.

Financial Aspects

The Authority is being financed primarily by the Parochial Revenue Fund (PRF) Fund and the Consolidated Fund from the Ministry of Finance. Besides, the Government of Jamaica has invested in the sector through the purchasing of a total of 100 trucks between 2022 and 2024.

Financing Needs

The Solid Waste Management Act is the principal legislation governing solid waste management in Jamaica. One of the regulations it must implement is a tipping fee structure and rates (Auditor General´s Department of Jamaica, 2022, p. 18). Technical assistance must be provided for the design and implementation of these financial mechanisms, including capacity building on enforcement.

The NSWMA encourages composting as a means of enriching the soil and promoting sustainable development. To do this, the Department provides a composting guide and has organised a committee in Hanover to help the parish build a composting pilot project (National Solid Waste Management Authority, 2023). Nevertheless, the authority needs financial and technical assistance to extend the treatment of organic waste on an industrial level.

The National Energy Policy 2009 – 2030 provided the overarching framework for the development of the Energy-from-Waste policy (Ministry of Energy and Mining , 2010). Which could be one of possible technologies to decrease pressure on exiting landfills and open dumps that the government would like to further explore next to other circular economy initiatives. Since at Jamacia different international projects are being executed currently it is advised to jointly organise these technical assistance and capacity building activities.

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National Solid Waste Management Authority. (June , 13 2023). Jamaica's Waste Management System. Retrieved from https://jis.gov.jm/information/get-the-facts/get-the-facts/

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ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

Project Objective: Zero Waste in the Caribbean is the EU-Caribbean partnership project that aligns solid waste management systems and Nationally Determined Contributions with circular economy principles in Caribbean countries, as well as improving their ability to attract investments. Achieving the goal of zero waste requires the involvement of everyone- governments, civil society, the private sector, academia, youth, and more.

FOR MORE PROJECT INFORMATION:

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Funded by the European Union
In collaboration with: CARIFORUM
Co-financed by: german cooperation
Implemented by: AFD Agence Française de Développement; giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH; UN environment programme
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ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

SAINT LUCIA

Overview

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Country Information

Saint Lucia, a Small Island Developing State located in the Eastern Caribbean is home to a population of approximately one hundred and eighty thousand people. Tourism is the main source of income, the primary driver of economic growth and the largest employer. Tourists have historically demonstrated a disproportionately larger demand for infrastructure services compared to residents, generating more waste per person than the average resident (United Nations for Project Services, 2020).

KEY INDICATORS

SIZE	**616 KM²**
POPULATION (2022)	**179,857 PEOPLE**
GDP (2022)	**2.07 BILLION USD**
GDP PER CAPITA (2022)	**11,481.50 USD**
CURRENCY	**EASTERN CARIBBEAN DOLLAR (XCD)**

Waste Management Analysis

The records (2011–2024) of the Saint Lucia Solid Waste Management Authority (SLSWMA) for waste disposed at the Deglos Sanitary Landfill, indicate that Saint Lucia generates on average seventy-five thousand and twenty-five tons of waste per year. The records identify twenty-six waste streams including residential, institutional, industrial, commercial, hotel, farm, plastics, tires, green, ship, aircraft, biomedical, construction and demolition and scrap metal.

The SLSWMA engages the services of private contractors to provide waste collection services to households and government institutions; and is also responsible for the collection of biomedical waste from medical facilities island wide. The commercial sector and other private entities are responsible for the disposal of the waste that they generate. Presently, approximately 96% collection coverage is achieved, the remaining 4% being inaccessible due to Saint Lucia's mountainous terrain (Seureca - Veolia, 2024). The SLSWMA operates one landfill site at Deglos in the north and a transfer station at Vieux Fort in the south of the Country.

The Government of Saint Lucia has indicated a desire to eliminate the need for landfill disposal by 2030. This provides a meaningful incentive and political/regulatory driver for developing waste diversion systems and processes including recycling and recovery. In keeping with this thrust, a significant amount of segregated green waste that is received at the Deglos Sanitary Landfill is utilized to produce compost, woodchips and wood chip mulch for sale to the public. Other key initiatives included the two-year RePLAST-OECS Pilot Plastic Recycling Project which concluded in 2022; and the Recycle OECS project which ends in December 2024. The Recycle OECS Project aims to reduce plastic pollution in the OECS region. Notwithstanding the aforementioned initiatives, recycling efforts in Saint Lucia are currently minimal due to a lack of source separation of recyclable materials and limited volume of available material, which restricts economies of scale. Some businesses are however actively, collecting, processing, and exporting scrap metal, plastics, batteries and e-waste for recycling.

Policy Framework

Saint Lucia's waste management policy seeks to respond to the need to protect the domestic environment and preserve human health; as well as to give effect to the island's commitments to international norms and agreements to which it is party. The principal provisions of the policy framework are as follows:

- The broad powers and functions granted to the SLSWMA and the mandatory requirement for a consultative and participatory approach to key decision making by that body.
- A more effective management of garbage collections through a robust licensing system, with powers vested in the SLSWMA to address shortcomings by waste haulage contractors.
- A commitment to public education and awareness building to encourage acceptable waste disposal practices and to discourage indiscriminate littering.
- A more environmentally conscious approach to the operation of waste management facilities; and the elaboration of procedures to govern the process of establishing and managing such facilities.

Legislation

The Waste Management Act (2021 Revision) repealed the Waste Management Act, 1996 and the Litter Act, 1983 and introduced a comprehensive new approach to the management of all solid waste in Saint Lucia (Government of Saint Lucia, 2021). The law provides a process for waste management planning and institutes a license scheme for the establishment and management of waste management facilities. A number of operational matters are also dealt with under the Act including the requirements for waste handling, separations and processing; littering and illegal dumping, removal of derelict vehicles; and waste storage at public events. More specifically, the SLSWMA has delegated responsibility for several solid waste management and related functions including:

- Waste collection services to households and government institutions.
- Collection of biomedical waste from medical facilities island wide.
- Provision of other waste management services including the disposal of ship-and air craft derived waste,
- Operation of disposal sites – the Deglos Sanitary Landfill (the main waste disposal facility) in Castries, the capital city and a transfer station in the south of the island.
- Education and public awareness.

Financial Aspects

In Saint Lucia there is a noticeable absence of user fees/charges for waste management. This means that the average generator of waste at both the residential and commercial level does not contribute to the cost of the collection, treatment and disposal of this waste. The main revenue sources come from a government subvention (65%); the environmental levy paid by visitors entering the air and seaports (28%). Other income sources account for 7% of the total income (SLSWMA 2024).

Financing Needs

Saint Lucia is seeking funding for various aspects of its waste management operations; the proposed initiatives are as follows:

- The establishment of a landfill to serve the south of the island and for the procurement of equipment required for the effective operation of this new facility and the existing landfill in Castries.
- Remediation and extension of the Deglos Sanitary Landfill in the capital city Castries; inclusive of the remediation of the leachate treatment system.
- Implementation of the proposed Community and Schools Plastics Collection Initiative currently being designed through the Recycle OECS Project.
- Capacity building for the implementation of the National Waste Management Strategy and the associated legal and regulatory framework (including guidelines, standards etc.); to be developed through the World Bank funded Unleashing the Blue Economy Project.
- The formal conduct of a comprehensive assessment of the staffing requirements of the SLSWMA.
- Strengthening of the overall institutional capacity of the SLSWMA in the principles of solid waste management, overall project management and in the technical and regulatory aspects of waste management and the circular economy.

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United Nations for Project Services. (2020). SAINT LUCIA: National Infrastructure Assessment.

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ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

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ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

ST. KITTS AND NEVIS

Overview

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Country Information

The Federation of Saint Christopher (hereafter, St. Kitts) and Nevis with a combined area of 104 square miles (269 km²) is a twin island state located in the Lesser Antilles of the Eastern Caribbean Sea. With a two-mile channel separating the land masses, St. Kitts and Nevis are located at the northern part of the Leeward chain of islands; approximately two hundred fifty miles (402 kilometers) southeast of Puerto Rico. St. Kitts is twenty-three miles (thirty-seven kilometers) at its greatest length, with an approximate area of sixty-eight square miles (176.8 km²). Nevis is thirty-six square miles (93.6 km²) and is almost circular in its configuration.

KEY INDICATORS

SIZE	**269 KM²**
POPULATION (2022)	**54,000 PEOPLE**
GDP (2022)	**1.8 BILLION USD**
GDP PER CAPITA (2022)	**$29,000 USD**
CURRENCY	**EASTERN CARIBBEAN DOLLAR**

Waste Management Analysis

St. Kitts generates approximately 140 tonnes of waste per day. Its components are food waste, paper, plastics, textiles, green waste, glass, and metals. Source separation is practiced mainly for recyclables such as cans and plastics, with infrastructure in place for collection. The infrastructure for garbage collection includes a fleet of garbage trucks equipped with compactors for collecting waste from households. The trucks follow designated routes to ensure that all areas are covered regularly.

St. Kitts relies on the Conaree Landfill for waste disposal which is facing challenges with issues such as improper waste management practices, environmental concerns, and limited capacity. The country has implemented measures to increase recycling to divert waste from landfills and continues to work on long-term solutions for solid waste management, including exploring options for waste-to-energy projects.

Only a small portion of waste is processed for export from St. Kitts, mainly plastics and metals. Some of the waste streams that are commonly exported for recycling include scrap metal (old cars & appliances), paper and cardboard materials, plastics (PET bottles and containers), and glass (such as bottles and jars). There is one private recycling company operating on the island, so more infrastructure to strengthen the recycling chain is needed. Deposit systems for recycling have not yet been implemented. Likewise, composting is not widely practiced in St. Kitts. No companies are offering composting services. More education and awareness are needed to promote composting as a sustainable waste management solution.

Waste-to-energy (W2E) and biogas technologies are not implemented in St. Kitts. However, the country has shown interest in exploring W2E initiatives as a sustainable solution for managing solid waste on the island. In recent times, there have been discussions and proposals for W2E projects in St. Kitts, but the government understands that implementing such projects requires careful consideration of the impact on the environment, technological feasibility, and financial viability. As such, they will continue to assess these factors before moving forward with W2E initiatives.

Circular economy

To promote a circular economy, St. Kitts has implemented bans on certain single-use plastics and is working towards reducing waste through different initiatives. The implementation of the ban will be structured in three phases and will affect the importation, sale, and distribution of several items:

- Phase 1 involves the ban on the importation of T-shirt plastic shopping bags as of December 31st, 2024. This will be followed by a ban on the sale and distribution of these bags by March 31st, 2025.
- Phase 2 involves a ban on the importation of Styrofoam food containers and plastic straws effective as of April 30th, 2025. The sale and distribution of the same items will be banned as of July 31st, 2025.
- The final Phase involves banning the importation of single-use plastic cups, plastic plates, and plastic utensils as of August 31st, 2025, followed by a ban on the sale and distribution of the same products as of November 30 th, 2025.

Governance on waste

POLICY LANDSCAPE

The Solid Waste Management Corporation (SWMC) was established in 1996 to address the growing waste management challenges in St. Kitts. The SWMC, a Statutory Body, is responsible for collecting, transporting, and disposing of household waste on the island. Private companies are typically contracted to collect and dispose of commercial waste from businesses on the island.

The SWMC operates the only landfill on the island which serves as the primary disposal site for waste collected from households, businesses, and other sources. The SWMC is responsible for managing and maintaining the landfill to ensure proper waste disposal.

LEGISLATION

The Solid Waste Management Act of 2009 (last revised in 2017) is the primary legislation in St. Kitts that governs waste management practices on the island. The Act establishes the legal framework for the collection, transportation, and disposal of solid waste. It also established the SWMC, which is responsible for overseeing and regulating solid waste management activities. The Corporation is tasked with developing waste management plans, monitoring waste disposal sites, and enforcing regulations related to solid waste management.

Penalties for non-compliance with the provisions of the Act may include fines and possible imprisonment for individuals or businesses found to violate the law. The Act aims to promote sustainable waste management practices and reduce the negative impacts of improper waste disposal on the environment and public health in St. Kitts.

Both the civil society and the private sector in St. Kitts are actively involved in raising awareness about waste management issues through campaigns and initiatives. Public-private partnerships are being formed to drive sustainable waste management practices.

Financial Aspects

The waste management sector is financed through a combination of government funding and an environmental levy imposed on every departing passenger from the country. The Current cost of Waste Management is $6 million Eastern Caribbean dollars per annum.

The Federation of St. Kitts and Nevis in partnership with the Republic of China on Taiwan, launched the St. Kitts and Nevis Solid Waste Management and Recycling Project in July of 2021. The project's activities include establishing collection points at various locations around the entire country to make it convenient for households, commercial establishments, and industrial entities to drop off their plastic waste for collection. Since its inception, the project has made significant strides in mitigating the impact of plastic waste on the environment. It has helped divert over 250,000 pounds of plastic waste from the Conaree Landfill, promoting a more circular economy approach to waste management. To date, the project has conducted numerous workshops, and seminars and has held several activities on recycling promotion.

Additionally, the SWMC is set to launch a scrap metal recycling project. This initiative will not only help to clean up the environment but also create new job opportunities and stimulate economic growth on the island. The SWMC has already secured partnerships with relevant stakeholders to ensure the success of the project. The collected metal will be sorted, processed, and then sold to manufacturers for reuse. This closed-loop system will help to conserve natural resources and reduce the need for new metal production, which is often energy-intensive and polluting. This forms part of the commitment to making a positive impact and contributing to the circular economy.

Financing & Investments Needs

As mentioned before, the country wants to strengthen the recycling chains of different products because of which there is a need for implementing infrastructure and capacity building on waste management and circular economy legislation. Moreover, the SWMC is currently exploring the possibility of implementing a waste-to-energy project as a means of sustainable waste management on the island. As a result, they seek financial support to engage the services of a reputable technical consultant with expertise in waste-to-energy projects. This consultant will play a crucial role in conducting a thorough analysis of the proposals, assessing their feasibility, and providing valuable recommendations for the successful implementation of the project.

FOR MORE COUNTRY INFORMATION:

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ZERO WASTE IN THE CARIBBEAN:
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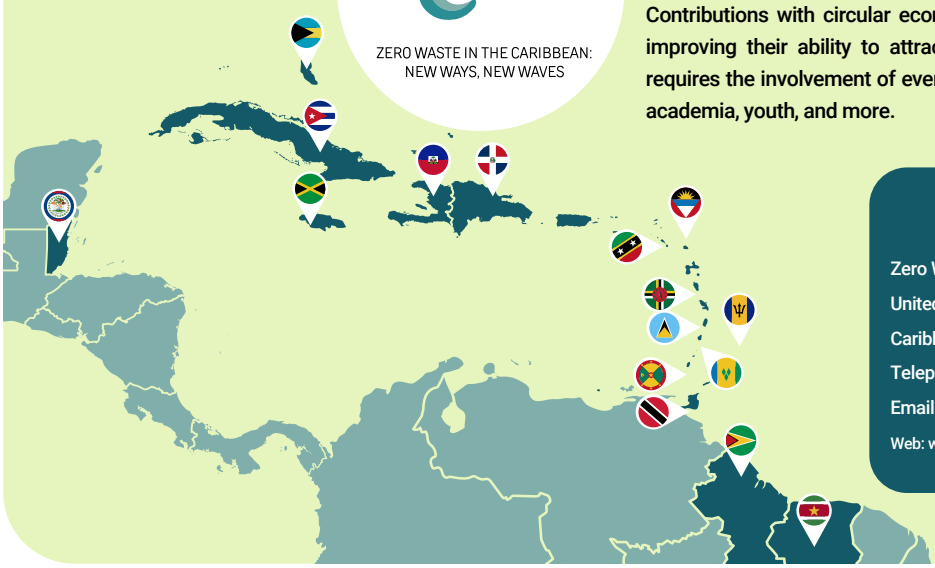

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ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

SURINAME

Overview

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Country Information

Suriname is a small, natural-resource-rich, upper-middle-income country in South America with a population of approximately 623,000. The economy is driven by its abundant natural resources, with mining accounting for nearly half of public sector revenue and gold representing over three-quarters of total exports. These factors make Suriname extremely vulnerable to external shocks (World Bank, 2024).

KEY INDICATORS

SIZE	**163,265 KM²**
POPULATION (2022)	**623,000 PEOPLE**
GDP (2022[1])	**3.62 BILLION USD**
GDP PER CAPITA (2022[2])	**5,858.3 USD**
CURRENCY	**SURINAME DOLLAR**

Waste Management Analysis

Suriname was estimated to generate around 253 kton of waste, including 140 kton of household waste and 28 Kton of industrial waste by the end of 2022. A total estimate of 2954.31 m^3 of hazardous waste is generated per year within the Greater Paramaribo Region, the most dominant region in Suriname when it comes to the generation of hazardous waste as it covers 45% of the total population (Ilaco, 2022, p. 6).

Household waste is collected in an integrated manner in compactor trucks and open trucks operated by contractors of the Ministry of Public Works (PW). The collection is well organized for most of the larger urban areas, but more than 95% of all waste, including hazardous and infectious waste, is dumped in open and controlled dumpsites. Ornamibo is the only semi-controlled dump site. At the household level and during transport, materials are informally selected for direct reuse or recycling, e.g. organic materials for feedstock and compost, paper/cardboard, and wood for fuel. Additionally, scavengers at the dumpsite take out other metals, e-waste, and any other valuable material that can be sold or processed informally (Ilaco, 2022, p. 6).

Some initiatives to separately collect plastic waste in special bins have been initialized by the authorities and Non Governmental Organizations (NGOs). The United Nations Industrial Development Organization (UNIDO), in cooperation with the Ministry of Spatial Planning and Environment (SPE), is implementing the recycling pilot project KONI DOTI with the aims of making Surinamese people aware of the importance of separating waste at the source. Additionally, the initiative promotes reducing the amount of waste dumped at Ornamibo and encourages local recycling. Plastic bags, plastic bottles, and aluminum cans are separated and collected once a month (Public Green and Waste Management Directorate, 2023). The Ministry of Public Works is about to start its second phase later this year, extending to two resorts in Great Paramaribo and two

1. https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=SR

2. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=SR

Policy Landscape

Suriname does not have a waste authority, the responsibilities lie with the following authorities:

- The **Ministry of Spatial Planning and Environment** (ROM) is responsible for waste management policy and legislation in the country.
- **Public Green and Waste Management Directorate** of the **Ministry of Public Works** (PW) is responsible for the collection and discharge of municipal solid waste and bulky waste.
- **Ministry of Regional Development and Sports** (RO) administers Suriname`s 10 rural districts, coordinating development activities and governance in these areas. Administratively Suriname is divided into 10 districts. Each district has a District Commissioner (DC). This is the primary representative of the government in the district.

Legislation

Solid waste management in Suriname is currently governed by the Environmental Framework Act which was approved in May 2024 and contains provisions relating to waste management. Article 33 requires the National Environmental Authority (NMA) to determine the standards and procedures for the treatment of waste including the collection, transport, storage, and transfer of waste as well as the reuse and recycling of waste and the treatment of waste in the environment. The NMA can prohibit the import or export of any waste, emissions into the environment of any waste suitable for reuse or recycling, as well as any other form of waste disposal or reuse of waste. Additionally, the NMA can promote the reuse or recycling of waste, order the cleaning of existing waste landfills, regulate waste disposal activities, and ensure the aftercare of closed landfills (De Nationale Assemblée van de Republiek Suriname, 2024). The National Institute for Environment & Development (NIMOS) is being replaced by the NMA.

The Integrated Solid Waste Management Plan (IWMP) was commissioned in September 2022 by the Government of Suriname and provides the roadmap and actions required to overcome the challenges in waste management (Ilaco, 2022).

Financial Aspects

Waste management is heavily subsidized by the central government, without collection of fees from households or companies. The actual situation is that no government funds are available and enforcement on correct waste management is weak. In small villages and remote areas, there is not much of an organized waste management system (Ilaco and Royal Haskoning DHV, 2018, p. 6).

COUNTRY FACTSHEET **SURINAME**

ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

Financing & Investments Needs

The challenges the waste management in Suriname faces result in inadequate environmental management practices posing risks to human health, the environment, and the country's ecosystems. The main challenges that contribute to this situation and need (financial) support are (i) The **lack of national coordination** of all agencies involved in all aspects of integrated waste management; (ii) **a lack of adequate guidelines and operational standards** based on the integrated waste management principles in context with the Environmental Framework Act; (iii) **the dumpsites in the country cannot cope with the amounts** and there is an urgent **need to reduce the quantities and valorize waste streams** by more efficient segregation and reuse/recycling; (iv) there are **no systems in place for separate collection** and protected disposal of hazardous waste streams in Suriname; and (v) **limited information and data available** regarding waste.

Technical Cooperation will support the implementation of some of the identified priority activities included in the IWMP.

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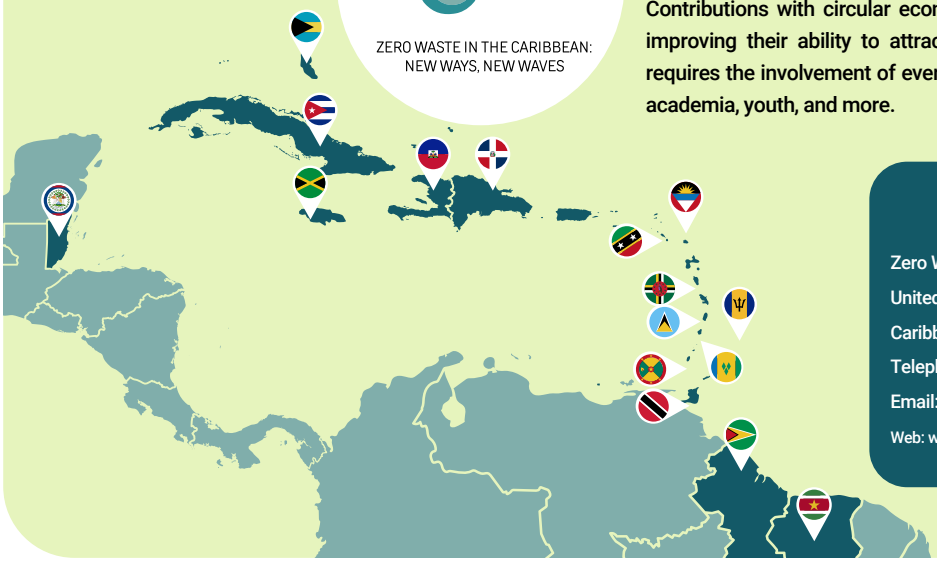
ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES



Project Objective: Zero Waste in the Caribbean is the EU-Caribbean partnership project that aligns solid waste management systems and Nationally Determined Contributions with circular economy principles in Caribbean countries, as well as improving their ability to attract investments. Achieving the goal of zero waste requires the involvement of everyone- governments, civil society, the private sector, academia, youth, and more.

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Zero Waste in the Caribbean: New Ways, New Waves Project
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Funded by the European Union
In collaboration with: CARIFORUM
Co-financed by: german cooperation
Implemented by: AFD Agence Française de Développement; giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH; UN environment programme
In partnership with: OECS; RECYCLE with OECS; circular caribbean

ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

TRINIDAD AND TOBAGO

Overview

The Zero Waste in the Caribbean Initiative, under the theme New Ways, New Waves supports 16 CARIFORUM countries with the establishment of enabling frameworks and instruments to facilitate investment and sustainable financing of waste management. This factsheet was prepared with the objective of sharing information with financing partners on the waste management situation in the project countries. Also highlighted are their needs for financial support and technical assistance. This would be a catalyst for the development of Waste Management and associated Circular Economy Initiatives. All project activities advance the Sustainable Development Goals as highlighted below.

Country Information

Trinidad and Tobago covers an area of 5,130 km² with a population density of 272.8 people per km² as of 2020. Trinidad being the larger island has an area of 4,826 km², and Tobago, the smaller island, has an area of 300 km². Both islands are bounded on the north by the Caribbean Sea, the west by the Gulf of Paria, the east by the Atlantic Ocean, and the south by the Columbus Channel. Tobago, which is about 32 km northeast of Trinidad, is separated from Trinidad by a 12 km wide channel (SWMCOL, 2024, p. 1).

KEY INDICATORS

SIZE	**5,128 KM²**
POPULATION (2022)	**1,531,044 PEOPLE**
GDP (2022)	**27.9 BILLION USD**
GDP PER CAPITA (2022)	**18,222.3 USD**
CURRENCY	**TRINIDAD/TOBAGO DOLLAR**

Waste Management Analysis

In 2023, the Solid Waste Management Company Limited (SWMCOL) executed a detailed waste characterization study, providing information on general municipal solid waste and information on beverage container production. The study showed that in the last three years, the amount of waste has peaked at around 770,000 tons/year (SWMCOL, 2023, p. 18). 19% of this waste is organic food and 7% is garden waste. Besides, 11.6% is plastic waste, and beverage containers account for 11.7%. 77% of the materials disposed of at the landfills in Trinidad are recyclates. Accordingly, there is a need for the introduction of strategies to divert recyclable materials from the nation's landfills and to capture their economic value as secondary resources in the manufacturing sector (SWMCOL, 2023, p. 19).

In Trinidad and Tobago, municipal solid waste (MSW) is collected by multiple companies using different types of vehicles across the country. The waste is disposed of in the country's major landfills: (1) Beetham Landfill, on the outskirts of Port of Spain, posing an ecological threat, as it is located in a wetland environment; (2) Forres Park Landfill, in Claxton Bay, which is also earmarked for the future engineered sanitary landfill, correctly located in the centre of the country, and (3) Guanapo Landfill in Arima, where the underlying aquifer and all the surface water downstream of the site is threatened, and (4) Guapo Landfill that is managed by Point Fortin Regional Corporation. Additionally, Studley Park in Tobago is under the management responsibility of the Tobago House of Assembly (THA) (SWMCOL, 2023, p. 16).

The Trinidad and Tobago Solid Waste Management Company Limited (SWMCOL) established this country's first Materials Resource Recovery Facility (MRF) at the Guanapo Landfill in August 2016. The MRF sorts and recovers a variety of recyclable materials, including glass, ferrous metals, food and beverage cans, tetra pak cartons, plastic containers, and plastic bags from the incoming municipal solid waste (SWMCOL, 2023).

It should be noted that the 2023 Characterization Study showed that approximately 67,300 tons of beverage containers are landfilled annually resulting in lost resources and business opportunities. In that regard, the Government of the Republic of Trinidad and Tobago (GoRTT) is seeking to implement a mandatory Deposit Return System (DRS) on filled single-use beverage containers. The implementation of the DRS is intended to contribute to the national agenda of increasing circularity in the management of the country's resources by returning valuable resources to the supply chain (SWMCOL, 2024, p. 1).

Policy Landscape

GOVERNANCE STRUCTURE

There is a lack of a single overarching body with the necessary regulatory authority and mandate to address all aspects of solid waste management (SWM). Consequently, several agencies are currently involved in SWM, and their regulatory roles/responsibilities are not always clear (SWMCOL, 2023, p. 16). SWMCOL is a wholly owned state enterprise established in 1980 tasked with the responsibility of implementing an Integrated Solid Waste Management Plan for Trinidad and Tobago). In this regard, SWMCOL is mandated with the responsibility for the management, collection, treatment, and disposal of solid waste in Trinidad and Tobago, including the management of the three landfills in Trinidad. Besides, the Municipal Corporations under the Ministry of Rural Development and Local Government, the Ministries of Public Utilities, Planning and Development, Health and Trade and Industry, and the THA are the main Ministries involved in solid waste management in the country (SWMCOL, 2023, p. 17).

LEGISLATION

The Environmental Management Act of 2000 governs both hazardous and non-hazardous wastes and substances. The Waste Management Rules, 2021, were made under section 26 of the Environmental Management Act and address the generation and handling of non-hazardous and hazardous wastes. Other laws relevant to solid waste include the Litter Act, the Public Health Ordinance, of 1917, the Municipal Corporations Act, and the Certificate of Environmental Clearance (CEC) Rules, of 2001. The Municipal Corporations Act, of 1990, applies to 2 City Corporations, 5 Borough Corporations, and 7 Municipal Corporations in Trinidad. Section 232(j) of the Act states that a Corporation in the municipality is responsible for the disposal of garbage from public and private property and the development and maintenance of sanitary landfills. The Tobago House of Assembly Act 1996 gives the THA responsibility for municipal sanitation services for Tobago.

In May 2024, the GoRTT approved a revised policy framework which includes the National Integrated Solid Waste/ Resource Policy (NISWRMP), the National Recycling Policy (NRP), and the Beverage Containers Deposit Return Policy (BCDRP). The NISWRMP outlines a ten-year roadmap for comprehensive and sustainable management of solid waste. The NRP focuses on developing sustainable management systems for recyclable materials. By diverting 50% of the recyclates currently landfilled into value-added processes, it will reduce waste and encourage the growth of the local recycling industry. The BCDRP sets the framework for GoRTT to develop and administer a DRS for the management of sealed, non-refillable, single-use beverage containers that have a high likelihood of being disposed of indiscriminately in the environment.

Financial Aspects

A 2017 Study conducted by the Inter-American Development Bank (IDB) on behalf of the GoRTT found that Solid Waste Managment (SWM) costs are fully subsidized by the GoRTT and that the breakeven SWM cost is approximately $511TT ($75 USD) per tonne. (IDB, Arcadis, 2017, pp. 4-5).

Financing & Investments Needs

Following the approval of the revised policy framework, resources, and technical assistance are required to develop new legislation, regulations, and a national action plan outlining short, medium, and long-term plans and the associated implementation costs. Moreover, rationalizing the governance structure of the sector, improving national coordination at the central and local government levels and across the public and private sectors, and introducing appropriate cost recovery mechanisms for SWM are high-priority areas for the GoRTT.

Regarding infrastructure for final disposal, the Ministry of Public Utilities and SWMCOL commenced the implementation of a project to construct a sanitary landfill, transfer stations, and material recovery facilities. An Environmental and Social Impact Assessment is currently ongoing to obtain the necessary clearances for the project.

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SWMCOL. (2024). REQUEST FOR PROPOSAL (RFP): # 003 – 2023-2024.

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ZERO WASTE IN THE CARIBBEAN:
NEW WAYS, NEW WAVES

Project Objective: Zero Waste in the Caribbean is the EU-Caribbean partnership project that aligns solid waste management systems and Nationally Determined Contributions with circular economy principles in Caribbean countries, as well as improving their ability to attract investments. Achieving the goal of zero waste requires the involvement of everyone- governments, civil society, the private sector, academia, youth, and more.

FOR MORE PROJECT INFORMATION:

Zero Waste in the Caribbean: New Ways, New Waves Project
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Funded by the European Union

In collaboration with: CARIFORUM

Co-financed by: german cooperation

Implemented by: AFD Agence Française de Développement; giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH; UN environment programme

In partnership with: OECS Organisation of Eastern Caribbean States; RECYCLE OECS; circular caribbean