



SAINT LUCIA MARINE LITTER MANAGEMENT ACTION PLAN

November 2022



Saint Lucia's Marine Litter Management Action Plan

Prepared under the guidance of: Department of Sustainable Development

With the support of: the Saint Lucia Solid Waste Management Authority (SLSWMA), the United Nations Environment Programme (UNEP), the International Union for Conservation of Nature (IUCN), with funding support from the European Union

Suggested citation: Government of Saint Lucia. (2022). Saint Lucia Marine Litter Management Action Plan. Department of Sustainable Development, Ministry of Education, Sustainable Development, Innovation, Science, Technology and Vocational Training.

Photo credit: Cover page - Amber Lu, St Joseph's Convent Secondary School

© Government of Saint Lucia, 2022



Table of Contents

List of Tables and Boxes	i
Acronyms	ii
Acknowledgements	iii
1. Background to the Plastic Pollution and Marine Litter Problems and Rationale for an Action Plan	1
1.1 International Context	1
1.2 National Context	2
1.3 Rationale and Objectives	3
2. Methodology	4
3. Enabling Policy, Legal and Institutional Framework	5
3.1 Policy Framework	5
3.2 Regulatory Framework	6
4. Institutional Arrangements	6
5. Stakeholder Analysis	7
6. State of Knowledge of the Marine Litter Challenge	9
7. Impacts of Plastic Pollution and Marine Litter	10
8. Marine Litter Management Action Plan	11
8.1 Pillar 1: Strengthen the Enabling Waste Management Policy and Regulatory Framework	16
8.1.1 Activity 1 Develop and approve a Waste Management Policy and Strategy	17
8.1.2 Activity 2 Conduct an assessment of the economic, environmental and social aspects of waste recovery and recycling to inform policy and regulatory control and promotion.	19
8.1.3 Activity 3 Finalise and enact the Management of Beverage Containers Bill	21
8.1.4 Activity 4 Finalise the Marine Pollution Management Bill and submit for enactment	22
8.1.5 Activity 5 Establish a mechanism to manage data collection, analysis, archiving and retrieval	23
8.2 Pillar 2 Waste Minimisation	26
8.2.1 Activity 1 Develop a programme for waste segregation in one of the eleven waste collection zones.	28
8.2.2 Activity 2 Develop guidelines and standards for waste minimisation and segregation at hotels, commercial and institutional establishments and manufacturing operations	30
8.2.3 Activity 3 Develop and implement a programme to promote recovery,	

	recycling and reuse of specific waste streams	32
8.2.4	Activity 4 Develop a national programme to encourage composting	33
8.2.5	Activity 5 Engage the DCA to include waste minimization plans in development applications	34
8.2.6	Activity 6 Develop and implement a waste management plan for the fisheries sector to include return of damaged gear	35
8.3	Pillar 3 Cleanup Campaigns	38
8.3.1	Activity 1 Design and execute annual coastal cleanup activities	40
8.3.2	Activity 2 Design and execute cleanup activities for rivers, waterways, roadways	42
8.3.3	Activity 3 Design and execute community cleanup programmes	44
8.4	Pillar 4 Strategic Partnerships and Stakeholder Engagement	47
8.4.1	Activity 1 Create ad-hoc groups to develop waste management strategies and action plans for key sectors	48
8.4.2	Activity 2 Collaborate with constituency councils and other community groups youth, environmental and student clubs and the private sector to promote community level responsible waste management	50
8.4.3	Activity 3 Continue and expand, where possible, collaboration with Regional and international partners in waste management	51
8.5	Pillar 5 Environmental Education and Behavioral Change	53
8.5.1	Activity 1 Develop a comprehensive environmental education programme with a focus on driving behavioral change toward waste management, plastic pollution and marine litter	54
9	Financing the implementation of the ML-MAP	57
10	Conclusion	57
Annex A: Technical Consultation (April 29, 2022) - List of Attendees		59
Annex B: High Level Event (July 21, 2022) - List of Attendees		61
Annex C: Seminar to Present the National Source Inventory on Plastic Pollution and Validate the Marine Litter Management Action Plan (October 6, 2022) – List of Attendees		64
Annex D: Waste Management Policy Framework		66
Annex E: International Agreements, Conventions and Protocols		69
Annex F: Legal Framework		72
Annex G: Activity Map - Saint Lucia Marine Litter Management Action Plan		74

List of Tables

Table 1	Solid Waste Management Stakeholder Analysis	8
Table 2	Pillar 1 - Activities to Strengthen the Enabling Waste Management Policy, Regulatory and Institutional Frameworks	16
Table 3	Pillar 2 - Activities to Promote Waste Minimisation	26
Table 4	Pillar 3 - Activities to Promote Cleanup Programmes	38
Table 5	Pillar 4 - Activities to promote Strategic Partnerships and Stakeholder Engagement	47
Table 6	Pillar 5 - Activities to Drive Behavioural Change	53

List of Boxes:

Box 1	Key Policy Interventions to address Waste Management	5
Box 2	International Policies and Conventions	6
Box 3	Legal Framework	6
Box 4	Maine Litter Management Action Plan Activities Summary	12

ACRONYMS

DCA	:	Development Control Authority
DSD	:	Department of Sustainable Development
EIA	:	Environmental Impact Assessment
GoSL	:	Government of Saint Lucia
GPA	:	UNEP Global Programme of Action on the Protection of the Marine Environment from Land-based Activities
GPML	:	Global Partnership on Marine Litter
IUCN	:	International Union for the Conservation of Nature
LBS	:	Land-based sources of marine pollution
MARPOL	:	International Convention for the Prevention of Pollution from Ships
MEA	:	Multilateral Environmental Agreement
ML	:	Marine Litter
ML-MAP	:	Marine Litter Management Action Plan
NCA	:	National Conservation Authority
NGO	:	Non-governmental organisations
NSI	:	National Source Inventory
NSI-PP	:	National Source Inventory for Plastic Pollution
OECS	:	Organisation of Eastern Caribbean States
POPS	:	Persistent Organic Pollutants
PP	:	Plastic pollution
PROBLUE	:	World Bank's Blue Economy Programme
PWFI	:	Plastic Waste-Free Islands
R&R	:	Recovery and Recycling
ReMLit	:	Building the Resilience in the Eastern Caribbean through Reduction of Marine Litter project
SGD	:	St. George's Declaration of Principles for Environmental Sustainability in the OECS
SLASPA	:	Saint Lucia Air and Sea Ports Authority
SLSWMA	:	Saint Lucia Solid Waste Management Authority
t	:	metric tonne
UNCLOS	:	United Nations Convention on the Law of the Sea
UNEA	:	United Nations Environment Assembly
UNEP	:	United Nations Environment Programme
WB-UBEC	:	World Bank Project: Unleashing the Blue Economy in the Caribbean

Acknowledgements

This Marine Litter Management Action Plan (ML-MAP), produced under the guidance of the Department of Sustainable Development (DSD), in collaboration with the Saint Lucia Solid Waste Management Authority (SLSWMA), was a collaborative effort resulting from the invaluable contributions of the public sector, private sector and civil society, over the course of one year, drawing from prior relevant initiatives.

Generous financial support for this ML-MAP and its associated National Source Inventory (NSI) on Marine Litter and Plastic Pollution was provided by the European Union and implemented via by the United Nations Environment Programme (UNEP), in collaboration with the International Union for the Conservation of Nature (IUCN).

The Department of Sustainable Development takes this opportunity to acknowledge the consultant, Mr. Bishnu Tulsie, who provided effective and efficient support to the process and compilations.

This ML-MAP was approved by the Saint Lucia Cabinet of Ministers in XXXX.

Background to the Plastic Pollution and Marine Litter Problems and Rationale for an Action Plan

Although plastic was ‘discovered’ in 1907, commercial production and use only ballooned after the second world war. Now, plastics have applications in almost all sectors of the economy and daily life, much of which are single use items. Global plastic production reached 381 million metric tonnes (t) in 2020¹, and with an environmental life of over four hundred years, it is estimated that about 6.3 billion t have become plastic waste.

Marine litter (ML) is a widespread, transboundary, global environmental crisis, of which plastic is the most prevalent and persistent. Approximately 12 million t of plastic enter the marine environment annually², and while their long environmental life and the great distances they travel along ocean current paths and gyres make quantification of the amount that has accumulated in the oceans difficult, it is estimated that there are more than five trillion plastic particles floating in the world’s oceans and seas³. In addition to degrading the aesthetics of beaches, coastal areas and the marine space, ML, including plastics, degrade marine ecosystems, cause loss of marine biodiversity, interrupt marine ecosystem structure, functions and services, and enter the food chain, causing harm to marine life and human health.

About 20% of all plastic waste in the oceans comes from marine sources and the other 80% from land-based sources⁴. Thus, while managing ML from sea-based activities such as fishing, marine transport and oil rig operations must be factored into any plan to reduce marine pollution, the greater benefit will be derived from improved waste management practices that prevent leakage of plastic waste into the environment and their flows into the marine space from land-based activities. These considerations have been factored into the design of this Marine Litter Management Action Plan (ML-MAP) which is premised on the view that managing ML cannot be dealt with separately from managing land-based sources of pollution, including plastic pollution (PP).

At the national level, a 2021 Report by the International Union for the Conservation of Nature (IUCN)⁵ aggregated waste statistics for the domestic, commercial, tourism and fisheries sectors for 2019 and reported total waste generated to be 77,658 t, of which 5,055.5 t was plastic, 832.7 t of which was leaked into the environment. That Report also stated that, with the exception of plastic waste collected under the Organisation of Eastern Caribbean States (OECS) RePlast demonstration project, which collected 18 t of plastic in 2019, waste segregation is not practiced. These conclusions point to the scale of Saint Lucia’s contribution to the ML challenge as well as the need to take steps to address land-based sources of ML generated within its borders.

1.1 International Context

The ML problem is steadily gaining importance in the global sustainable development agenda and is the only new target incorporated into the Rio+20 Development Agenda. It is a complex, multi-dimensional, transboundary problem, with the primary source being from land-based activities. Thus, addressing the

¹ Our World in Data (<https://ourworldindata.org/plastic-pollution>)

² IBID

³ IBID

⁴ <https://worldpopulationreview.com/country-rankings/plastic-pollution-by-country>

⁵ Asia Pacific Waste Consultants (2021). Plastic Waste National Level Quantification and Sectoral Material Flow: Saint Lucia national Report. Gland, Switzerland. IUCN

problem will require both national and international interventions. At the international level, the United Nations Environment Programme (UNEP), acting on the recommendations of the United Nations Environment Assembly (UNEA), is taking the lead, working with member states and its growing network of partners to garner widespread support for addressing both the plastic pollution and the related marine litter problems, and supports the development of regional and national marine litter management plans.

In this regard, UNEP's Global Partnership on Marine Litter, which was launched in 2012, has more than 400 members working collaboratively and individually to address the problem. Significantly, also, UNEP has established an Intergovernmental Negotiating Committee to develop an international legally binding instrument on plastic pollution based on a comprehensive approach that addresses the full life cycle of plastic.

The global nature of the ML and PP problems has also galvanized several other intergovernmental, bilateral and development cooperation entities to support global, regional and national initiatives to address the related challenges. This support is multi-faceted and includes research and the development of tools and methodologies to improve the state of knowledge of the problems, development of regional and national action plans, funding of specific interventions and research and development to usher in products and technologies that will help reduce the impacts of PP and ML on the environment.

1.2 National Context

At the national level, the Government of Saint Lucia (GoSL) has established a robust policy, legal and institutional framework to manage waste (see section 3 below). Through these arrangements, the country has established, and is currently operating one sanitary landfill, provides twice-weekly island wide waste collection services to the domestic sector, oversees the disposal of waste generated by the commercial, manufacturing and tourism sectors and manages medical and other bio-hazardous waste, which is autoclaved and deep-buried. It also provides support to private sector entities active in waste recycling. The Saint Lucia Air and Sea Ports Authority (SLASPA) manages waste generated at, and/or delivered to the air and sea ports, while waste from marinas are handled by the facility operators. While these arrangements have served the country well, there are still cases where waste is not properly managed, resulting in illegal dumping, open burning and eventual leakage of waste, including plastic waste, into the environment, including into the marine space.

The GoSL also acknowledges the international nature of the marine litter problem and responded by ratifying a number of regional and international policies and conventions aimed at addressing this threat to sustainable development pursuits. Of special relevance is Saint Lucia's embrace of UNEP's 2021/2022 Work Plan for the Cartagena Convention and specifically the European Union funded project: *Capacity Building Related to Multilateral Environmental Agreements (MEAs) in African, Caribbean and Pacific (ACP) Countries - Phase III (ACP MEA). Phase III of the ACP MEA*, which is supporting Contracting Parties like Saint Lucia, in the development of National Marine Litter and Plastics Reduction Strategies and Action Plans to ensure compliance with the Land-Based Sources of Marine Pollution (LBS) Protocol. This Marine Litter Management Action Plan is being developed under this cooperation agreement.

1.3 Rationale and Objectives

The Saint Lucia Solid Waste Management Authority (SLSWMA) maintains records of all waste delivered at the landfill, disaggregated into twenty waste sources, and the data between 2004 and 2021 shows a slight decline in the waste it receives. The average waste landfilled between 2004 and 2021 inclusive is 77,754 t, and two household waste segregation studies conducted in 2008 and 2018 estimated the plastic component of this waste to be 22% and 20% respectively.

The 2021 *Plastic Waste National Level Quantification and Sectoral Material Flow Analysis: Saint Lucia National Report*⁶, conducted by Asia Pacific Waste Consultants under contract with the IUCN, hereafter referred to as *the PWFJ Report*, examined and analysed waste data and samples for 2019 from the domestic, commercial, tourism and fisheries sectors, and reported that the total waste generated was 77,658 t, of which 5,055.5 t was plastics, and of this, 832.7 t was leaked into the environment.

Saint Lucia does not produce plastics. As such, all plastics in the country are imported as ready-for-use products, plastic pellets or preforms that are converted into plastic items, plastic containers that contain consumer products, products that comprise plastic parts or wrappings, waste streams from aircrafts and vessels, or transboundary plastic marine litter. The analysis suggested that an estimated 832.7 t of plastic waste was leaked into the environment in 2019, and with an estimated 80% of all marine plastic litter coming from land based sources, 666 t is the best estimate of the amount of this waste that flowed into the marine space in 2019. In addition to land-based sources, other human activities at sea, such as ocean transport, oil rig operations, marine fishing, pleasure craft operations and marine excursions also generate plastic waste that enters the marine environment. This source of marine plastic pollution is estimated to be of the order of 20% of the estimated 20 million t that enters the marine space annually. In the Caribbean, the concentration of marine plastic litter is about four times higher than the global average (2,014 items per kilometer of beach compared to the global average of 573 items)⁷, making marine plastic pollution an even more pressing matter for Saint Lucia and the wider Caribbean region than the rest of the world. This urgency is compounded by the impacts that include the degradation of beaches, the coastline and water quality, with negative implications for residents and the important tourism sector, the loss of income from fisheries, degradation of marine habitats and species, and the potential to delay the Government's intention to transition to a blue economy.

This acknowledgment of the country's contribution to the marine litter problem and the impacts it has on human health, the quality of marine ecosystems and the goods and services they provide, and on key economic sectors, are some of the key drivers for the decision by the GoSL to engage at both the national and international levels to address the problem. It is in this context that this ML-MAP is being developed with the following objectives:

- a) Reduce plastic waste leakage into the environment and its flow into the marine space;
- b) Reduce the amount of marine litter, including plastic waste in the near shore marine environment;
and

⁶ Asia Pacific Waste Consultants (2021). *Plastic Waste National Level Quantification and Sectoral Material Flow: Saint Lucia National Report*. Gland, Switzerland: IUCN.

⁷ Diez et al. 2019. World Bank Group, UN Environment, Organisation of Eastern Caribbean States, Centre for Environment, Fisheries and Aquaculture Science (Cefas): *Marine Pollution in the Caribbean: Not a minute to Waste*

- c) Strengthen collaboration, cooperation and assistance flows with national and international partners to address the domestic and international marine litter problem.

It is noteworthy that the GoSL has taken a proactive approach to meeting its national and international commitments to address the PP and ML problems. In this regard, the GoSL secured a loan from the World Bank under a regional project entitled *Unleashing the Blue Economy of the Caribbean Programme* (hereafter referred to as the WB-UBEC project), under which funds are allocated to the following indicative areas:

- a) develop a national waste management strategy;
- b) design and develop a public awareness and education programme;
- c) achieve the environmentally-sound closure of the Vieux Fort Solid Waste Disposal Facility;
- d) undertake a feasibility study for the development of a new landfill in the south of the island;
- e) undertake a source separation pilot programme; and
- f) establish a composting facility in the south of the island.

Activities (a), (b), (e) and (f) are included in this ML-MAP, thereby allowing for synergies and potential early execution of elements on this Plan.

2. Methodology

Preparation of this ML-MAP, which included the preparation of a National Source Inventory for Plastic Pollution (NSI-PP), commenced with an inception meeting among project proponents to review the terms of reference and ensure common understanding of the assignment, the nature and structure of the deliverables, to identify stakeholders and resource material to be consulted and the timelines for key project activities and outputs. The meeting also discussed the role and support to be provided by the project management team throughout the initiative.

This was followed by a period of research of the current literature and stakeholder consultations to allow for an understanding of the state of waste management, including PP and ML, the completed and ongoing initiatives that can inform the project deliverables and the national and international landscape within which the ML-MAP is being developed. This period also included initial planning for the technical consultation and the high level meeting to be convened under this initiative.

A technical consultation, which was attended by a wide cross section of key waste management stakeholders, was convened on April 29, 2022. Planning for this consultation was supported by UNEP and the IUCN, who made presentations on the global, regional and national contexts under which the National Source Inventories (NSI) and ML-MAP were being developed. The key findings of the literature research were also presented to give participants a perspective of the scope of the challenges faced and the key drivers for preparing the NSI and ML-MAP. This consultation was the key activity to help identify data sources and methodological approaches for compiling the NSI and considerations to be factored into the ML-MAP. Through this activity, these were identified for follow up, either with individual organisations or in focus groups, to retrieve the available data and to explore ideas and options for consideration in developing the NSI and the ML-MAP. The consultation also allowed participants to

share their perspectives and recommendations on the structure and contents of the key project outputs as well as how these will support their work. Forty-seven persons representing stakeholder organisations attended the consultation, seven of whom participated virtually. Nineteen of the participants were males and twenty-eight were females. The list of attendees is in Annex A.

The next major activity was the high level meeting which was convened on July 21, 2022 to present the initial findings of the NSI and recommendations of actions to be included in the ML-MAP, and to seek feedback from participants on their adequacy, utility and feasibility for implementation. There were fifty-nine participants, twenty of whom were males and thirty-nine females. Participants included six members of the Cabinet of Ministers, two Permanent Secretaries, one Deputy Permanent Secretary, six Directors, two Managers, three Chief Officers, technical staff of various ministries and statutory organisations, and representatives of non-governmental organisations. The meeting generated lively and interactive discussions and resulted in useful comments and recommendations to improve the reports. The list of attendees is in Annex B.

Another consultation was convened on October 6, 2022 as a final opportunity to present the draft NSI and ML-MAP to a wider group of stakeholders for comments prior to finalizing the Reports. To this end, the Department of Sustainable Development (DSD) targeted some stakeholders involved in the previous consultations, but the majority of invitees were either not involved in the previous consultations or were invited but unable to participate. A total of forty persons representing stakeholder organisations, attended. Twenty-two of the participants were female. The list of participants is in Annex C.

UNEP, through its Global Programme of Action on the Protection of the Marine Environment from Land-based Activities (GPA) and the Global Partnership on Marine Litter (GPML), and the International Union for the Conservation of Nature, acting through its Plastic Waste-Free Island (PWFI) project, provided support throughout the initiative.

3. Enabling Policy, Legal and Institutional Framework

3.1 Policy Framework.

While the GoSL has not adopted a national waste management policy or strategy, its intention to effectively manage solid and liquid waste, including hazardous, bio-medical and plastic waste, is captured in sector policies and plans, as well as in national level development plans and strategies. These are summarised in Box 1 and are detailed in Annex D.

<p style="text-align: center;">BOX 1: Key Policy Interventions to address Waste Management:</p> <ul style="list-style-type: none">● National Oceans Policy and Strategic Action Plan● Improving Oceans Governance● Managing Marine Litter● Beach Management● Mangrove Rehabilitation● Phase out of selected single use plastic items● Medical waste and other bio-hazardous waste management plan● Waste management interventions in the Medium Term Development Strategy (2020 – 2023)

BOX 2: International Policies and Conventions

- United Nations Convention on the Law of the Sea (UNCLOS):
- International Convention for the Prevention of Pollution from Ships (MARPOL)
- Cartagena Convention
- The Basel Convention on the Transboundary Movement on Hazardous Waste and their Disposal (The Basel Convention):
- Convention on the Prevention of Marine pollution by Dumping of Wastes and other Matter (The London Convention):
- The Rotterdam Convention
- The Stockholm Convention on Persistent Organic Pollutants (POPs).
- The Minamata Convention on Mercury
- St. George's Declaration of Principles for Environmental Sustainability (SGD) (2020 – 2040)
- Eastern Caribbean Oceans Policy (ECROP):

The national level waste management policy framework is further strengthened through Saint Lucia's ratification or adoption, as the case may be, of regional and international policies and conventions concerned with waste management and ML. These are summarised in Box 2, details of which may be found in Annex E.

3.2 Regulatory Framework: In addition to the policy environment, there are a number of national laws that create institutions to manage waste, assign responsibilities for various aspects of waste management and impose controls over how waste is managed in some sectors. These are summarised in Box 3, with the details in Annex F.

BOX 3: Legal Framework for Waste Management

- Saint Lucia Solid Waste Management Authority Act (Cap. 6.10)
- National Conservation Authority Act (Cap. 6.01)
- The Saint Lucia Air and Sea Port Authority Act (Chap. 8.13)
- Physical Planning and Development Act (Cap. 5.12)
- Public Health Act (Cap. 11.01)
- Styrofoam and Plastic Service Containers (Prohibition) Act (No. 22 of 2019)
- Styrofoam and Plastic Service Containers (Prohibition) (Amendment) Act (Cap. 17.20)
- Castries Constituency Council Act: Cap. 17.20
- Fisheries Act: Cap. 7.15
- Works and Roads Act: Cap 8.05

4. Institutional Arrangements

The SLSWMA is the primary entity, created by statute to manage solid waste in Saint Lucia. It is managed by a Board of Directors appointed by the responsible Minister and is funded through a subvention from Government, an environmental levy on visitors and tipping fees for special services provided. It provides a twice weekly island-wide municipal waste collection service which it contracts out to licensed waste haulers. The Authority manages one sanitary landfill at Deglos in the north of the island and a waste transfer facility in Vieux Fort from which waste from the south of the island is transferred to the Deglos Sanitary Landfill for final disposal.

Manufacturing, commercial and tourism operations are responsible for disposing the waste they generate, which they do either through their own operational arrangements or by contracting the services of licensed waste haulers.

The SLSWMA's point of entry into the Government structure is through the DSD in the Ministry of Education, Sustainable Development, Innovation, Science, Technology and Vocational Training, through which its budget, policy recommendations *etc.* are channeled for consideration. The DSD is also the national focal point for a number of international conventions, some of which are concerned with environmental protection, including chemicals and waste management, managing hazardous waste, ozone layer protection and climate change.

The Pesticides and Toxic Chemicals Act (Cap. 11.15 of the Laws of Saint Lucia), which is administered by the Ministry of Agriculture, created the Pesticides and Toxic Chemicals Board with powers to issue licenses for the importation, manufacture, storage and use of pesticides and toxic chemicals. One of the conditions for granting a license is for the holder to ensure his/her operations are carried out in a manner that protects human and animal health and safety, plant health and the environment which, by implication, covers issues related to the application and disposal of these substances.

The Department of Fisheries is governed by the Fisheries Act (Cap. 7 .15 of the Laws of Saint Lucia) which includes provisions to prohibit the pollution of the fresh, estuarine and marine waters from any poison, noxious substance or other pollutant. The Department is also responsible for the establishment of marine reserves and for the conservation, protection and enhancement of marine resources. It is also responsible for the prohibition of pollution of the aquatic environment.

The Water and Sewerage Act (Cap. 9.03 of the Revised Laws of Saint Lucia) charges the Water and Sewerage Company to provide sewerage services, including the collection, removal, transportation, treatment and disposal of such sewage from any building, and the operations of sewerage works.

While this ML-MAP is concerned with solid waste, the above analysis gives a brief overview of the framework for managing liquid and gaseous wastes as well, and the institutions responsible for those functions.

5. Stakeholder Analysis

All persons and almost all activities generate waste, making everyone a stakeholder in waste management. That said, there are a number of public and private sector entities and non-governmental organisations whose mandates make them stakeholders of special interest in the context of this ML-MAP, and these are identified below.

Table 1: Solid Waste Management Stakeholder Analysis

Operational Level	Department/ Entity	Roles and Responsibilities
National Level		
Ministry of Education, Sustainable Development, Innovation, Science, Technology and Vocational Training	Department of Sustainable Development	<ul style="list-style-type: none"> • The development of waste management policy and legislation; • Manages the national waste management budget allocation to the SLSWMA; • Facilitates incentives to promote responsible waste management practices; • MEAs related to waste management and environmental protection – representation and compliance; • Stakeholder engagement and coordination; • Public education and outreach.
	Saint Lucia Solid Waste Management Authority	<ul style="list-style-type: none"> • Waste collection services; • Landfill management; • Disposal of hazardous and healthcare waste; • Research and data collection and analysis; • Public education and awareness; • Enforcement of legislation.
Ministry of Health and Wellness	Environmental Health Department	<ul style="list-style-type: none"> • Management and disposal of medical waste; • Licensing of commercial enterprises; • Vector control; • Port health, including waste management arrangements.
Ministry of Agriculture, Fisheries, Food Security and Rural Development	Department of Fisheries	<ul style="list-style-type: none"> • Licensing and regulation of the fisheries sector; • Licensing of fish processing facilities; • Establishment and protection of marine reserves; • Prohibition against pollution of the aquatic environment.
	Department of Agriculture	<ul style="list-style-type: none"> • Management of pesticides and toxic chemicals, including their containers.
	Soufriere Marine Management Association	<ul style="list-style-type: none"> • Management of the natural resources of the Soufriere Marine Management Area.
Ministry of Infrastructure, Ports, Transport, Physical Development and Urban Renewal	Department of Physical Planning	<ul style="list-style-type: none"> • Maintenance and improvement of the quality of the physical environment in Saint Lucia, including its amenities; • Regulation of development; • Environmental Impact Assessments (EIA) for planned developments; • Protection of natural areas.
Ministry of Equity, Social Justice, Empowerment, Youth Development, Sports and Local Government	National Conservation Authority	<ul style="list-style-type: none"> • Management, including cleaning of beaches and parks; • Community cleaning.
	Constituency Councils	<ul style="list-style-type: none"> • Cleaning of streets, roadsides and drains.

Operational Level	Department/ Entity	Roles and Responsibilities
Enterprise Level		
Private Sector	Commercial enterprises	<ul style="list-style-type: none"> • Adherence to national policies and regulations; • Disposal of waste generated by operations; • Production of plastic items from imported polymers and preforms; • Importation and exportation of plastic products or products contained in plastic containers.
	Tourism sector	
	Manufacturing sector	
	Institutional actors	
Private Sector		
Licensed Waste Haulers	Contractors engaged by the SLSWMA, SLASPA and the private sector	<ul style="list-style-type: none"> • Municipal waste collection and disposal at the landfill; • Commercial waste collection and disposal at the landfill; • Collection of bulky household waste; • Collection and disposal of hazardous and healthcare waste; • Cleaning of dumpsites; • Removal of derelict vehicles.
Recyclers	Private Operators	<ul style="list-style-type: none"> • Separation, aggregation and processing of specific waste streams for recovery, recycling (R&R) and export.
Non-governmental Organisations and the Public		
Non-governmental Organisations (NGOs)	Various NGOs such as the Caribbean Youth Environment Network, the US Peace Corps, Youth groups, Schools groups, Japanese International Cooperation Agency, Divers Association	<ul style="list-style-type: none"> • Clean-up campaigns; • Public education and awareness.
General Public	Schools, Individuals and Households	<ul style="list-style-type: none"> • Disposing of waste responsibly; • Securing of household waste and place for collection on designated days; • Avoidance of littering; • Support for recycling activities.
External Partners	Inter-governmental organisations, Convention Secretariats, international NGOs and bilateral partners	<ul style="list-style-type: none"> • Meeting mandates agreed to by Member States; • Providing support to meet international commitments and national interventions; • Monitoring compliance with commitments; • Technical and financial support.

6. State of Knowledge of the Marine Litter Challenge

By its very nature, ML is difficult to quantify, even within the national jurisdictions, as the sources are multiple and could be land based or transboundary. Section 1 above presents a snapshot of the international scale and nature of the ML problem and steps being taken at the national and international levels to deal with the sources and impacts.

At the national level, solid waste, including plastics that leak out of waste management stream, enters the marine environment through various paths depending on where the leakage occurs. Litter from beach and other near shore activities are driven by wind into the sea, while those from inland sources

are driven by wind or taken by flood waters into gutters, streams and rivers, and eventually into the sea. Waste from sea-based activities, including from ships, pleasure crafts and fishing activities are often disposed of directly into the sea or lost during the activities. The diversity and dispersed nature of these sources, combined with absence of any monitoring of the waste generated from these sources make it difficult to estimate the amount that flows into the sea with reasonable accuracy.

There are clean-up activities of major roadways, beaches and the sea bed by government agencies, service clubs and non-governmental organisations. The waste collected is generally reported by the number of bags and sometimes by weight, but segregation and quantification of the waste by category is not done. As such, the data generated will not add much value to any effort to quantify waste leakage and flows into the sea by source or category. There are two exceptions to the above. The first is the annual International Coastal Cleanup organized by the Ocean Conservancy and executed through national coordinators in ninety-seven participating countries, including Saint Lucia, in September. The waste collected is segregated and weighed and the data generated are uploaded onto a global database. The other is the cleanup activities undertaken by the local dive association which uploads the data from its activities onto the Professional Association of Diving Instructors (PADI) Database.

7. Impacts of Plastic Pollution and Marine Litter

Plastic pollution has consequences for both the terrestrial and marine spaces. On land, all waste, including plastics, is unsightly, smelly and degrades the quality of the environment. Plastic waste can collect water and serve as breeding grounds for mosquitoes that spread diseases such as Chikungunya and malaria. They encourage rodents, insects and other vectors, thereby increasing threats to human health from Leptospirosis, Hantavirus Pulmonary Syndrome, and Hemorrhagic fever. Plastics also clog drains and during high rainfall events, exacerbate flooding with resulting loss of property and infrastructure. Micro and nano plastics, which originate either from the breakdown of large plastic items or found in some consumer products, degrade soil fertility and can be fatal if ingested by animals, including marine species.

Marine litter, and in particular, marine plastic litter, has serious and wide-ranging impacts on marine biodiversity. Fishes, turtles and birds can mistake litter for food and when ingested, plastics remain in their stomachs and eventually lead to starvation and death. Plastic waste, and in particular plastic bags, smother coral reefs, thereby reducing their productivity, with negative implications for fish stocks. Turtles sometimes eat plastic bags, mistaking it for jellyfish. Micro and nano plastics can enter the marine environment, and eventually the human food chain, where they degrade the digestive system, release toxins and can result in death. Lost fishing gear can entangle sea creatures like crabs and turtles and can continue to 'ghost fish', causing unnecessary loss of fish stocks.

The negative impacts of ML also translate into economic loss for fishers and other persons who depend on marine resources for their livelihoods because of the reduced productivity of marine ecosystems. It can interrupt marine commercial and pleasure transport and also have social impacts such as the loss of aesthetic, recreational and tourism value of beaches and the marine space.

8. Marine Litter Management Action Plan

The global, transboundary nature of the ML problem was discussed in section 1 above and the impacts on ecosystems, the economy and human health in section 7. According to UNEP, 85% of marine litter comprises plastics⁸ and with an estimated 80% of this originating from land-based sources, any effective marine litter management plan must focus on managing the leakage of plastic waste from land-based sources. There is a limited amount of plastic recycling and as such plastic is delivered to the landfill commingled with general waste. Thus, while the approach taken in developing this ML-MAP considers all sources of marine pollution, greater focus is placed on managing land-based sources, as this is the hot spot source of the problem at the national level.

Goal: The goal of this ML-MAP is to reduce the impacts of ML on marine ecosystems and human health by promoting the effective control of all sources of marine pollution.

Objectives: The goal of this ML-MAP will be achieved by pursuing the following objectives:

- a) Strengthen the enabling policy, regulatory and institutional frameworks for waste management;
- b) Promote waste minimisation, recovery and recycling and diversion from the landfill;
- c) Remove leaked plastic and other waste from the environment, including the coastal areas, through clean up campaigns; and
- d) Promote behavioural change towards waste management through education and awareness.

These objectives are to be achieved under five pillars on which this ML-MAP is built. These are summarised in Box 4, and expanded in Sections 8.1 to 8.5 below.

⁸ UNEP Press Release. Nairobi. 21 October, 2021.

BOX 4			
MARINE LITTER MANAGEMENT ACTION PLAN: ACTIVITIES SUMMARY			
PILLAR	ACTIVITY	INDICATORS	INDICATIVE BUDGET (US\$)
Pillar 1: Strengthen the Enabling Waste Management Policy and Regulatory Framework	Activity 1: Develop or finalise, as appropriate, approve and implement a National Waste Management Policy and Strategy	An approved national waste management policy and strategy	\$ 50,000.00
	Activity 2: Conduct an assessment of the economic, environmental and social aspects of R&R and recycling of viable waste streams to inform policy and regulatory control and promotion.	An approved report that assesses the economic, environmental and social aspects of waste recovery and recycling	\$ 40,000.00
	Activity 3: Finalise and enact the Management of Beverage Containers Bill	The Management of Beverage Containers Act in enacted into the laws of Saint Lucia.	\$ 2,000.00
	Activity 4: Finalise the Marine Pollution Management Bill for enactment.	The Marine Pollution Management Act is enacted into the laws of Saint Lucia	\$ 2,000.00
	Activity 5: Establish a mechanism to manage data collection, analysis, archiving and retrieval.	Appropriate adjustments are made to the structure of one government department to include formal arrangements for data collection, analysis, archiving and retrieval.	\$ 21,280.11 - \$ 28,400.02
Pillar 2: Waste Minimisation	Activity 1: Develop a pilot programme for waste segregation in one of the eleven waste collection zones	The successful launch of a programme to segregate waste from all sectors in one waste collection zone; The recyclable and compostable components of the segregated waste are diverted from the landfill for recycling or composting	\$250,000.00
	Activity 2: Develop guidelines and standards for waste minimisation and segregation at hotels, commercial and institutional establishments and manufacturing operations and in large office complexes.	Approved waste minimisation and segregation action plans for the manufacturing, commercial, institutional and tourism sectors	\$ 20,000.00
	Activity 3: Develop a programme to promote recovery, recycling and reuse of specific waste streams	A national programme to recover, recycle and reuse viable waste streams is developed and implemented.	\$ 10,000.00
	Activity 4: Develop a composting pilot project	A composting pilot project is developed and implemented in one waste collection zone.	\$400,000.00
	Activity 5: Engage the Development Control Authority to include waste minimization plans in development applications.	Waste avoidance, minimisation segregation, recovery, reuse and disposal plans are included in the terms of reference for EIAs for major development applications submitted to the Development Control Authority for consideration.	N/A
	Activity 6: Develop and implement waste management plan for the fisheries sector to include return of damaged gear	A waste management plan for the fisheries sector is developed, approved and implemented	\$ 15,000.00
Pillar 3: Cleanup Campaigns	Activity 1: Design and execute annual coastal cleanup activities, capture data and lessons learned and communicate findings.	An approved plan for organising coastal cleanup activities At least one cleanup activity is conducted annually at agreed locations Data collected from cleanup activities are uploaded onto a national database	\$ 8,000.00
	Activity 2: Design and execute cleanup activities for rivers, waterways and roadways, capture data and lessons learned and communicate findings.	An approved plan for organising cleanup activities for rivers and waterways. At least one cleanup activity is conducted annually for agreed rivers and/or waterways Data collected from cleanup activities are uploaded onto a national database	\$ 75,000.00
	Activity 3: Design and execute community cleanup programmes, capture data and lessons learned, and communicate findings	Community cleanup activity is developed and conducted in at least four communities annually. Data collected from cleanup activities are uploaded onto a national database	\$375,000.00 N/A
Pillar 4: Strategic Partnerships and Stakeholder Engagement	Activity 1: Create ad-hoc groups to develop waste management strategies and action plans, including for marine litter, for key sectors.	Waste management strategies and action plans for the commercial, industrial, manufacturing, institutional and tourism sectors are developed and implemented	\$ 15,000.00
	Activity 2: Collaborate with constituency councils and other community groups youth, environmental and student clubs, and the private sector to promote community level responsible waste management.	The number of groups actively engaged in developing and implementing waste management programmes at the community or sector levels	\$ 10,000.00
	Activity 3: Continue and expand, where possible, collaboration with regional and international partners in waste management	Number of regional and international conferences, workshops, consultations and training experiences in which that Saint Lucia participates. Number of projects supported by regional and international partners	N/A
Pillar 5: Environmental Education and Behavioral Change	Activity 1: Environmental education and behavioural change	Number of environmental education tools and other products developed to influence behavioural change. Number of behavioural change programmes rolled out Inclusion of waste management material in the revised lower school curriculum.	\$ 50,000.00

Activities under each are identified below for implementation in the short term (2023 – 2024), medium term (2025 – 2027) and long term (2028 +) and these are further expanded in related project briefs.

Although these pillars are stated as separate areas of intervention, several of the supporting activities are related, both within and across the five pillars. These are identified in the Activity Map in Annex G and should be considered when developing implementation plans to take advantage of the synergies and to support more efficient and cost effective execution of the activities.

Financing the implementation of the ML-MAP: Sections 8.1 to 8.5 below present the five pillars on which this ML-MAP is built and under each, a number of activities are proposed. Each of these activities is expanded into project briefs that outline the rationale for activity, its goal and outputs, success indicators and a proposed approach to be followed to achieve the goal. The project briefs also include the indicative budgets and possible sources of funds to finance implementation. It is expected that upon taking the decision to execute any of the activities, the project briefs will be expanded into project proposals and in so doing, a budget will be prepared to better reflect the most likely cost of each activity. As such, the cost for each activity is to be considered as indicative at this stage.



We, as humans can play our part to make the oceans thrive!

*Deja G. William
Soufriere Primary School*

8.1 Pillar 1: Strengthen the Enabling Waste Management Policy and Regulatory Framework

Waste management is an economy-wide undertaking, requiring the input and collaboration of several public, private and civil society organisations as well as the citizenry as a whole. It is therefore necessary to create an enabling framework to coordinate and focus the efforts of these groups and individuals to achieve the goal of this ML-MAP.

A major policy gap in the overall waste management framework is the absence of a national waste management policy and strategy. One such strategy was developed in 2003 but was not submitted for formal adoption. Such a policy is necessary to improve waste management in all sectors and should be designed to address the current gaps in the waste management framework at the policy, regulatory and institutional levels. To this end, *ad hoc* sector groups should be created to make recommendations for policy, regulatory and institutional reforms to improve waste management across their sectors for incorporation in the national level policy. The groups should represent the manufacturing, commercial, industrial, institutional, tourism, air and sea ports, fisheries and domestic sectors and their mandates should include considerations on waste minimization, leak prevention, recovery, recycling and reuse, and final safe disposal. While these groups would be free to consider all possible measures to achieve these outcomes, they may be guided by the following considerations:

- Incentivise R&R of specific waste streams;
- Promote reuse of items wherever possible and safe to do so;
- Introduce the phased prohibition of the most used, single use plastic items, including plastic shopping bags;
- Introduce waste segregation for waste from the manufacturing, commercial, domestic and tourism sectors;
- Use of lidded bins;
- Practice composting;
- Promote the use of reusable materials across all sectors;
- Account for fishing gear – registration, reporting loss and incentivize return of damaged gear;
- Discourage the use of single use plastic items on fishing vessels;
- Enact the Management of Beverage Containers Bill;
- Enact the Marine Pollution Management Bill;
- Encourage and regulate waste recycling; and
- Expand the list of prohibited plastic items as may be feasible.

In this regard, consideration should be given to adapting the OECS Model Sustainable Waste Management Policy developed by the OECS Commission under the *Building the Resilience in the Eastern Caribbean through Reduction of Marine Litter (ReMLit)* project, which is funded by Norad and executed by the OECS Commission, to local circumstances.

Recycling is an effective way to minimise waste sent to the landfilled. It also reduces leakage, adds value to the waste stream and promotes the circular economy concept. The recycling sector has grown on its own, without a full understanding of the economic, social and environmental cost-benefit, technology

options, employment potential, growth potential and/or restrictions, and regulation. These should be addressed through a thorough assessment of the sector, to include an examination of best practices in other, similar economies and the results and recommendations used to regulate the sector in a manner to encourages growth.

With regard to the regulatory framework for waste management, the proposed national waste management policy and strategy should be used to trigger amendments to the Saint Lucia Solid Waste Management Act. In addition, steps should be taken to enact the Management of Beverage Containers Bill and the Marine Pollution Management Bill at the earliest. Further, consideration should be given to enacting the most relevant Conventions to which Saint Lucia is Party (see section 3.1 above) into the laws of Saint Lucia. In addition, the OECS Commission has developed draft Effluent Regulations, draft Waste Management Regulations, draft Hazardous Waste Regulations and draft Hazardous Waste (Control of Transboundary Movement) Regulations under the ReMLit project and these should be considered for enactment under the appropriate laws.

The specific actions proposed to strengthen the enabling policy and regulatory framework for waste management are in Table 2 below.

Table 2: Pillar 1 - Activities to Strengthen the Enabling Waste Management Policy and Regulatory Framework

Short Term Actions (2023 – 24)	Medium Term Action (2025 – 27)	Long Term Actions: 2028 +
Pillar 1 Activity 1: Develop, or finalise as appropriate, approve and implement a National Waste Management Policy and Strategy.	Implement, monitor, evaluate and report on the effectiveness of the policy, the impacts of the strategy, and lessons learned.	Continue the medium term activities and revise the policy and strategy based on the monitoring and evaluation reports.
Pillar 1 Activity 2: Conduct an assessment of the economic, environmental and social aspects of R&R and recycling of viable waste streams to inform policy and regulatory control and promotion.	<ul style="list-style-type: none"> • Regulation of the recycling sector. • Monitor, evaluate and report on recycling activities and lessons learned, and adjust as may be advisable. 	Continue the medium term activities.
Pillar 1 Activity 3: Finalise and enact the Management of Beverage Containers. Bill	<ul style="list-style-type: none"> • Monitor effectiveness, challenges and lessons learned. • Expand coverage where feasible. 	Continue the medium term activities and revise as needed.
Pillar 1 Activity 4: Finalise the Marine Pollution Management Bill for enactment.	Monitor enforcement and produce annual reports on its effectiveness.	Continue the monitoring and reporting and consider amendments.
Pillar 1 Activity 5: No short term actions proposed	Establish a mechanism to manage data collection, analysis, archiving and retrieval.	Maintain and expand the mechanism, as necessary and possible

The following are the project briefs for these five activities.

8.1.1: Project Brief - Pillar 1 Activity 1

Pillar 1: Strengthen the Enabling Waste Management Policy and Regulatory Framework.

Activity 1: Develop and approve a Waste Management Policy and Strategy.

Rationale: A national waste management policy should define the vision and goal(s) to be pursued by the agencies and other stakeholders involved at all points of the waste management stream, define the programmatic approach to achieving the goal(s) and the boundaries, usually defined by law and capacity, within which the programmes may be pursued. It can, however, trigger the need for legislative reform and capacity improvements, as may be needed, based on national resource allocation priorities. A waste management strategy should begin with the existing policy and legal framework and serve as the roadmap that links the vision for waste management with the mandate of the SLSWMA and other supporting organisations, and a plan of action that advances waste management from its current state towards the vision by pursuing the specific objectives it will define.

The absence of a formal waste management policy and strategy does not imply the absence of key elements there-of. On the contrary, there is a rich body of legislative, policy and programme elements, developed over time and enforced or implemented to improve waste management services, coordinate the inputs of stakeholders and generally achieve incremental improvements in waste management island wide. However, the *status quo* weakens the waste management landscape because there is not a single place one can reference to understand and be guided in terms of the vision, goals, programmes, and stakeholder inputs into ongoing efforts to improve waste management. Further, formal approval of a national policy and strategy is the strongest signal of the highest level of political support for the effort and can be used to advance public engagement, improve relationships with stakeholders, assure external partners of the government's commitment and help with fund raising.

Goal: The goal of this activity is to create a Cabinet – approved National Waste Management Policy and Strategy.

Outputs: This activity will deliver two outputs:

- a) A national waste management policy; and
- b) A national waste management strategy.

Indicator: a) An approved national waste management policy and strategy.

Approach: The approach should embrace the fundamental difference between these two instruments. It should also involve meaningful engagement of all stakeholders to the extent that by the time the instruments are nearing completion, they should be aware of the key elements there-in, whether or not they agreed with them. Whereas there may be adequate national expertise and experience in developing policies and strategies generally, the transboundary nature of the causes and impacts of pollution, particularly ML, coupled with the number of regional and international policies, conventions and

networks to which Saint Lucia is a Party, are sufficient to persuade collaboration with external partners active in the pollution control and marine litter management spheres. This will enable the sharing of experiences and best practices from other jurisdictions and allow Saint Lucia's experiences with the development of its waste management policy and strategy to be shared as well.

Cost: An indicative budget of US\$ 50,000 (XCD\$133,500.00) is allocated to this activity.

Source of Funds: Funding for this activity can be sourced from the WB-UBEC project which includes a grant allocation the World Bank's Blue Economy Programme (PROBLUE) to, *inter alia*, develop a National Waste Management Strategy for Saint Lucia.

8.1.2: Project Brief - Pillar 1 Activity 2

Pillar 1: Strengthen the Enabling Waste Management Policy Regulatory and Institutional Frameworks.

Activity 2: Conduct an assessment of the economic, environmental and social aspects of waste recovery and recycling to inform policy and regulatory control and promotion.

Rationale: Recovery and recycling waste reduce pressure on landfills, add value to the waste stream, expand the circular economy, contributes to a cleaner environment, reduces the impacts of littering and create new employment opportunities. Whereas recycling is specifically mentioned in the Act that created the SLSWMA as one of its charges, the Authority has not invested directly in this activity. Rather, it lends policy support to the entities involved in recycling various elements of the waste stream, including metals, plastics, paper/cardboard, glass, E-waste, used lead-acid batteries, tyres, wood pallets and waste oil. With regard to plastics, there were initially ten active recyclers, but this number has reduced to two. Investigations revealed that the cost of separating plastics from the main waste stream, in which it is co-mingled, makes this activity uneconomical.

The SLSWMA provides a twice-weekly island-wide municipal waste collection service and this presents an opportunity to introduce waste segregation at source which would, in turn, make R&R, particularly for plastic waste, more economically viable. However, the attitude of households towards this practice needs to be assessed. In addition, commercial, industrial and tourism operators are responsible for disposing the waste they generate, which they do either through their own in-house operational arrangements or by contracting the services of licensed waste haulers. This arrangement also presents opportunities to have waste segregated at source.

Goal: To promote the recovery and recycling of specific waste streams.

Outputs: This activity will deliver an assessment of the state of R&R and a national waste recovery and recycling plan for Saint Lucia.

Indicator: a) An approved report that assesses the economic, environmental and social aspects of waste recovery and recycling and a national recovery and recycling plan.

Approach: There would be two parts to this activity:

1. The stock taking report that assesses the state of R&R which should consider, *inter alia*:

- a) A flow analysis, tracking current waste streams from generation to final destination, with the view to identifying opportunities for R&R;
- b) A cost-benefit analysis for waste R&R for specific waste streams to include both financial and environmental costs and benefits;
- c) The attitude of waste generators from all sectors towards waste segregation;
- d) Challenges and opportunities faced by the entities currently engaged in waste R&R;

- e) Threats to, and opportunities for expansion of R&R operations;
 - f) The potential environmental impacts of a waste R&R;
 - g) State of technology employed in current waste R&R activities; and
 - h) A preliminary set of actions to be taken to expand waste R&R.
2. Following validation of the stock taking report, the action plan to promote the R&R of specific waste streams would be developed. The following possible elements of the action plan is not intended to be prescriptive, but may be considered as a guide:
- a) Identification and quantification of waste streams that could be recovered and recycled;
 - b) Identification and assessment of possible markets for recycled waste;
 - c) Programmatic, regulatory and policy change requirements, including incentives and disincentives, to promote R&R;
 - d) Behavioural changes that would be necessary to create a viable R&R industry;
 - e) A cost –benefit analysis for R&R of specific waste streams; and
 - f) Technology options to promote a successful national R&R programme.

Cost: An indicative budget of US\$ 40,000.00 (XCD \$ 108,000.00) is allocated for this activity.

Source of Funds: Activity 1.5 of the WB-UBEC project is geared at diverting organic waste and recyclables away from landfilling to be recovered/recycled/composted. The output of this activity will help ensure the success of Activity 1.5 and as such, should be considered as a preparatory activity to help inform the design of the waste diversion project.

8.1.3: Project Brief - Pillar 1 Activity 3

- Pillar 1:** Strengthen the Enabling Waste Management Policy, Regulatory and Institutional Frameworks.
- Activity 3:** Finalise and enact the Management of Beverage Containers Bill.
- Rationale:** In 1996, a draft Returnable Containers Bill was produced to provide incentives to reduce the amount of waste, particularly plastics and glass containers, being leaked into the environment. In its ongoing efforts to improve waste management and reduce the leakage of waste, particularly plastics, the DSD has facilitated the revision of the Bill into what is now called The Management of Beverage Containers Bill. This was done in an effort to reduce the resistance to the Bill by reducing its scope to cover beverage containers only. The Bill incentivizes the return of beverage containers with the aim of reducing their prevalence in the waste stream and the environment. This is expected to create new employment opportunities for persons willing to collect and return these containers to designated collection sites.
- The 2022 NSI identified beverage containers as one of the most prevalent plastic waste items leaked into the environment, including the marine space, and studies have reported that they are most common items of pollution in the ocean. If enacted, the Management of Beverage Containers Bill will be a major step towards reducing their leakage into the environment and flows into the sea.
- Goal:** To reduce the amount of beverage containers in the waste stream, the environment and the marine space.
- Outputs:** If successful, this activity will result in the Management of Beverage Containers Bill becoming enacted into the laws of Saint Lucia.
- Indicator:** a) The Management of Beverage Containers Act is enacted into the laws of Saint Lucia.
- Approach:** The Bill is currently under review by a multi-stakeholder committee. The following are proposed in an effort to advance the enactment of this Bill:
- a) Complete the review and submit to the Office of the Attorney General for finalization and submission to the Parliament for enactment; and
 - b) Following enactment, develop and launch a public education and awareness programme using a mix of media tools and targeting various interest groups to:
 - Provide information on the contents of the Act and related implications, including costs and benefits;
 - Explain the operational aspects of the Act; and
 - Provide information on employment opportunities the Act will create.
- Cost:** An indicative budget of US\$2,000.00 (XCD\$ 5,400.00) is allocated to cover any consultations that may be needed to execute this activity.
- Source of Funds:** This activity will require budgetary allocation from the SLSWMA or the DSD.

8.1.4: Project Brief - Pillar 1 Activity 4

Pillar# 1: Strengthen the Enabling Waste Management Policy, Regulatory and Institutional Frameworks.

Activity 4: Finalise the Marine Pollution Management Bill and submit for enactment.

Rationale: Marine pollution, in the form of both solid and liquid waste, is caused either through direct dumping or discharges, or leakage from land-based sources. Sewage discharge, end-of-pipe discharges, flows of polluted waters from streams and rivers and discharges from ships are the main sources of liquid waste that contribute to marine pollution. ML also originates from diverse sources, including from sea-based activities such as shipping and pleasure crafts, oil rig and fishing operations. Some of these discharges are accidental. Research suggests that 20% of marine litter originates from direct disposal into the marine environment.

The GoSL has articulated and acted upon its commitment to manage marine pollution through statements of policy, the inclusion of specific actions in development plans and sector action plans and the ratification of international conventions, including the United Nations Convention on the Law of the Sea, the International Convention for the Prevention of Pollution from Ships, the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal, and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter. However, Saint Lucia has not enacted any legal instruments to elevate its commitments under these conventions into national law.

Goal: The goal of this activity is to create a legal framework to manage marine pollution.

Outputs: Under this activity the Marine Pollution Management Bill will be finalized for submission to Parliament for enactment.

Indicator: a) The Marine Pollution Management Act is enacted into the laws of Saint Lucia.

Approach: SLASPA has developed a working draft of the proposed Marine Pollution Management Bill which includes provisions for the prevention of pollution of the marine environment from the operations of vessels within Saint Lucian waters. The Bill also makes provisions to incorporate the marine pollution conventions to which Saint Lucia is Party into the laws of Saint Lucia.

Under this activity the draft Bill will be finalized for submission to the Parliament for enactment into the laws of Saint Lucia.

Cost: An indicative budget of US\$2,000.00 (XCD\$5,400.00) is provided for to cover the cost of consultations that will be needed to finalise the Bill.

Source of Funds: This activity may be funded through budgetary support from SLASPA.

8.1.4: Project Brief - Pillar 1 Activity 5

Pillar# 1: Strengthen the Enabling Waste Management Policy, Regulatory and Institutional Frameworks.

Activity 5: Establish a mechanism to manage data collection, analysis, archiving and retrieval.

Rationale: A recurring limitation during all phases of developing the NSI and this ML-MAP was the paucity of data from all points of the waste management stream to estimate waste generation, leakage and flows. This compromised the accuracy of the NSI with implications for the conclusions that can be drawn and the related inputs into policy decisions. This challenge is arguably due to the fact that data collection, analysis, archiving and retrieval is not within the mandate of any one agency and by extension, is not assigned to anyone as his/her duty.

This challenge is not unique to the waste management sector. The DSD is the focal point for the UNFCCC in which capacity it is responsible for meeting national reporting commitments to the Convention and the Paris Agreement. The accuracy of these reports correlates directly with the availability and accuracy of the data used to conduct the assessments. In all three National Communications completed to date, it was reported that data availability and accuracy remain challenges that need to be overcome to improve the accuracy of the country; reports to the UNFCCC. This constraint also affected the accuracy of the 2021 Biennial Updated Report prepared for reporting under the Paris Agreement, in which it was noted that the *'lack of human capability leads to trickle down effects which cause other gaps to appear in the climate change adaptation and mitigation process, such as lack of data collection, poor data sharing and delayed reporting*'

In considering this matter, it must be borne in mind that the data referred to relate to most economic sectors and as such, whatever data is being produced are from multiple sources and may be generated in different formats to meet diverse reporting requirements.

Goal: The goal of this activity is to create a mechanism to collect, analyse, archive and retrieve data needed to meet a variety of reporting commitments, including on pollution.

Outputs: It is proposed that a formal institutional mechanism be created to be responsible for data collection, analysis, archiving and retrieval.

Indicator: a) Appropriate adjustments are made to the structure of one government department to include formal arrangements for data collection, analysis, archiving and retrieval.

Approach: The Rationale above provides much of the justification needed to approach the relevant authority make the necessary adjustments to create the proposed mechanism. This could be either the Permanent Secretary of the DSD, to reorganize the role of one or more of the officers of the Department to be responsible for this function, or the Ministry of the Public Service to create a new post within the public sector establishment specific to this role.

Cost:

There are two scenarios for the indicative budget:

- a) If the roles of the officers of the DSD are reorganized to fulfil the functions, then there will be no direct cost; or
- b) If a new post is created it should be at the technical officer level (Grades 12 – 16) with annual salary of between XCD\$ 57,456.30 - XCD\$76,680.53 (US\$ 21,280.11 - US\$28,400.02).

Source of Funds:

This activity will require an allocation in the national budget if the second option is implemented.



This piece depicts a metaphorical and fairytale like presentation of humans not only working together, to help preserve and protect the oceanic environment but also working with said environment.

*Annabelle Casimir
St Joseph's Convent Secondary School*

8.2 Pillar 2:

Waste Minimisation

Accepting that waste generation cannot be avoided, the focus should be on minimising the amount of waste generated from all sectors, as well as the amount being landfilled. The most severe negative impacts come from waste leaked into the environment. In the context of limited resources, the initial focus should therefore be on reducing waste at the identified hot spots and areas in which the investments are likely to be most impactful. Several actions can result in waste minimization, including, but not limited to purchasing behaviours, reusing materials when safe to do so, R&R, waste diversion (e.g. composting, review of production methods, use of technology, waste segregation at source, and behaviours in the fishing sector). These are captured in the activities in Table 3 below.

Table 3: Pillar 2 - Activities to Promote Waste Minimisation

Short Term Actions (2023 – 24)	Medium Term Action (2025 – 27)	Long Term Actions: 2028 +
Pillar 2 Activity 1: Develop a pilot programme for waste segregation in one of the eleven waste collection zones.	<ul style="list-style-type: none"> • Implement programme, monitor effectiveness and adjust as may be needed. • Document the lessons learned. 	Expand the waste segregation programme to other waste collection zones as applicable.
Pillar 2 Activity 2: Develop guidelines and standards for waste minimisation and segregation at hotels, commercial and institutional establishments and manufacturing operations.	<ul style="list-style-type: none"> • Implement guidelines and monitor implementation and effectiveness. • Share monitoring results with stakeholders. • Implement adjustments as needed. 	Continue the medium term activities.
Pillar 2 Activity 3: Develop a programme to promote recovery, recycling and reuse of specific waste streams.	<ul style="list-style-type: none"> • Implement the RRR programme. • Monitor impacts and lessons learned. • Implement adjustments as necessary. 	Continue the medium term activities.
Pillar 2 Activity 4: Develop a composting pilot project.	<ul style="list-style-type: none"> • Implement the composting pilot project. • Monitor impacts and lessons learned. • Implement adjustments as necessary. • Use the lessons learned to develop and roll out a national programme to promote composting. 	Continue the medium term actions.
Pillar 2 Activity 5: Engage the Development Control Authority (DCA) to include waste minimization plans in development applications.	<ul style="list-style-type: none"> • Monitor implementation, document findings and communicate findings and impact of the policy. 	Continuation of medium term actions.
Pillar 2 Activity 6: Develop and	<ul style="list-style-type: none"> • Monitor adherence of fishers to the plan 	Continuation of

Short Term Actions (2023 – 24)	Medium Term Action (2025 – 27)	Long Term Actions: 2028 +
implement a waste management plan for the fisheries sector to include return of damaged gear.	and report findings to stakeholders. <ul style="list-style-type: none"> • Review plan as needed. 	medium term activities.

The following are the project briefs for these six activities.

8.2.1: Project Brief – Pillar 2 Activity 1

Pillar 2: Waste Minimisation.

Activity 1: Develop a programme for waste segregation in one of the eleven waste collection zones.

Rationale: Waste segregation will allow for the segregation of recyclable and compostable waste streams, thereby adding value to some waste streams and reducing pressure on the landfill. The current island-wide twice weekly municipal waste collection service provided by the SLSWMA will facilitate this if recyclable waste streams are collected on one day and other waste collected on the other day each week. This approach should be tried in one of the waste collection zones and the lessons learned be used to implement improvements and inform the design of similar programmes in other waste collection zones.

Goal: To add value to waste streams and reduce pressures on the landfill by segregating waste at source.

Outputs: This activity will:

- a) result in waste being segregated at source for the domestic sector in one waste collection zone and at commercial enterprises;
- b) divert recyclable waste streams for recycling;
- c) divert compostable waste streams for composting;
- d) add value to parts of the waste stream;
- e) reduce the amount of waste being landfilled;
- f) reduce the amount of waste, including plastics, that is leaked into the environment and flows into the marine space; and
- g) provide opportunities to improve waste segregation activities for replication.

Indicators:

- a) The successful launch of a programme to segregate waste from all sectors in one waste collection zone.
- b) The recyclable and compostable components of the segregated waste are diverted from the landfill for recycling or composting.

Approach: The SLSWMA and its stakeholders would develop and roll out a plan of action to introduce waste segregation as a pilot project in one of the waste collection zones to be identified. Issues to be considered could include:

- a) defining the geographic zone for the pilot programme;
- b) engaging recyclers to participate in the collection of recyclable waste streams under conditions to be determined;
- c) undertaking public education, and sensitization;
- d) engaging key stakeholders, including local businesses, community leaders and NGOs active in the geographic area identified for the pilot project to provide support, including public education and sensitization; and

- e) documenting the lessons learned to implement improvements to the programme and to inform replication in other zones.

Cost: The cost of this activity is to be determined (use census data to determine number of households to be provided with bins), but an indicative budget of US\$ 250,000.00 (XCD\$667,500.00) is provided for this programme.

Source of Funds: The WB-UBEC project includes Activity 1.5: *Source Separation Pilot Program, geared at diverting organic waste and recyclables away from landfilling to be recovered/recycled/composted under its loan component.* Funding for this activity could be sourced under that project.

8.2.2: Project Brief – Pillar 2 Activity 2

Pillar 2:	Waste Minimisation.
Activity 2:	Develop guidelines and standards for waste minimisation and segregation at hotels, commercial and institutional establishments and manufacturing operations.
Rationale:	Waste segregation will allow for the separation of recyclable and compostable waste streams, thereby adding value to some waste streams and reducing pressure on the landfill. Under current practices manufacturing, commercial, institutional and tourism actors are responsible for the disposal of the waste they generate, which they do either under internal operational arrangements or through the use of licensed waste haulers they contract for this service. This arrangement presents opportunities to practice waste segregation at source and could result in savings for the operators if arrangements are made with recyclers to collect the segregated waste to be used as inputs into their recycling operations.
Goal:	To reduce the amount of waste landfilled from the manufacturing, commercial, institutional and tourism sectors through waste segregation and diversion for recycling.
Outputs:	<p>This activity will result in:</p> <ul style="list-style-type: none">a) action plans to minimise and segregate waste generated by manufacturing, commercial, institutional and tourism sources;b) diversion of valuable waste streams for recycling;c) reduction of pressures on the landfill; andd) reduction in the amount of waste, including plastics, that is leaked into the environment and flows into the marine space.
Indicator:	<ul style="list-style-type: none">a) Approved waste minimisation and segregation action plans for the manufacturing, commercial, institutional and tourism sectors.
Approach:	<p>Under this activity, the SLSWMA and stakeholders would develop and roll out action plans to segregate the waste generated by the sectors identified above. The plan will include arrangements for the collection of recyclable waste streams by active recyclers and a monitoring programme to assess the effectiveness of the programme. This should also be designed to achieve improvements in waste management systems and data collection to inform future policies and actions to reduce the amount of waste leaked, and flows into the marine space.</p> <p>This activity should be included in the proposed national waste management policy and strategy and consideration should be given to including it in the terms of reference for that activity.</p>
Cost:	This activity will involve stakeholder consultations and the generation of action plans for each of the four sectors identified. An indicative budget of US\$20,000.00 (XCD\$ 53,400.00) is assigned to this activity.

Source of Funds: The possibility of sourcing funding, or in-kind contributions from the sector umbrella bodies should be explored.

8.2.3: Project Brief – Pillar 2 Activity 3

Pillar 2:	Waste Minimisation.
Activity 3:	Develop and implement a programme to promote recovery, recycling and reuse of specific waste streams.
Rationale:	Recovery, recycling and reuse of waste will reduce the amount of waste generated, the amount landfilled, and add value to specific waste streams. It will involve public education and awareness, behavioural change in purchase patterns and waste disposal practices. Other activities under this action plan address waste segregation, R&R, public education and awareness and behavioural change. This will therefore be a cross cutting activity, to be developed under, and supportive of those initiatives. It will also cover any gaps that may be identified to achieve the behavioural change that will be necessary for a successful national waste recovery, recycling and reuse programme.
Goal:	To reduce the amount of waste generated and landfilled through the recovery, recycling and reuse of specific waste streams.
Outputs:	A national programme to recover, recycle and reuse waste will be developed and implemented.
Indicator:	a) A national programme to recover, recycle and reuse viable waste streams is developed and implemented.
Approach:	Pillar 1 Activity 2: <i>Conduct an assessment of the economic, environmental and social aspects of waste recovery and recycling to inform policy and regulatory control and promotion</i> ; Pillar 2 Activity 1: <i>Develop a programme for waste segregation in one of the eleven waste collection zones</i> ; Pillar 2 Activity 2: <i>Develop guidelines and standards for waste segregation at hotels, commercial and institutional establishments and manufacturing operations</i> ; and Pillar 5 Activity 1: <i>Develop a comprehensive environmental education programme with a focus on driving behavioral change toward waste management, plastic pollution and marine litter</i> include elements that promote waste R&R. Those activities will require support in the form of education, awareness and behavioural change to help ensure their success. This activity will be designed to lend this support.
Cost:	While the activities identified in the ‘Approach’ section above will provide inputs into the design of the programme to promote recovery, recycling and reuse of specific waste streams, support will be needed to use those inputs to develop the programme. An indicative budget of US\$ 10,000.00 (XCD\$27,600.00) is assigned to this activity.
Source of Funds:	This activity will require budgetary support from the SLSWMA and/or the DSD.

8.2.4 Project Brief: Pillar 2 Activity 4

Pillar 2:	Waste Minimisation.
Activity 4:	Develop a national programme to encourage composting.
Rationale:	Between 2013 and 2021 inclusive, the SLSWMA data indicate that it landfilled an annual average of 2,197t of coconut waste, 7,718 t of farm waste and 6,533 t of green waste. This suggests a considerable potential for composting, either at the household level to promote waste minimisation and small scale food production, or at the national level as a new economic activity, or both. Composting will have the additional benefits of reducing pressure on the landfill and creating a new economic activity.
Goal:	To divert compostable waste from the landfill by encouraging composting as a new economic activity.
Outputs:	The outputs will be twofold: <ul style="list-style-type: none">a) In the short to medium term, a composting pilot project will be implemented and lessons learned captured; andb) In the medium to long term, the lessons from the pilot project will be used to inform the design and roll out a national composting programme.
Indicator:	a) A composting pilot project is developed and implemented in one waste collection zone.
Approach:	<p>The SLSWMA and its stakeholders will develop a composting pilot project to be implemented in one of its collection zones. Under Pillar 2 Activity 1, a waste segregation programme is proposed for one collection zone. This presents a good opportunity to combine this composting project with that activity as an integrated activity to achieve both purposes, and should be designed as such. Consideration will need to be given to collection services and identification of suitable land for the composting operation. This could be included in Activity 1.4 of the WB-UBEC project: <i>Feasibility Study for the Development of a New Landfill in the South of the Island</i> to allow for the integration of this central composting facility within the design of the new landfill. In addition to this central facility, the project should also include the promotion of composting at the household and farm levels to both reduce the amount of waste being landfilled and to encourage food production.</p> <p>The composting pilot project should also be designed as an economic activity to generate income from the sale of compost material.</p>
Cost:	An indicative budget of US\$ 400,000.00 (XCD \$1,068,000.00) is allocated to this activity to cover the cost of equipment and facilities to facilitate the activity as well as one year of operational costs.
Source of Funds:	Funds for this activity can be sourced under Activity 1.6 of the WB-UBEC project: <i>Establishment of a composting facility in the south of the island.</i>

8.2.5: Project Brief – Pillar 2 Activity 5

Pillar# 2: Waste Minimisation.

Activity 5: Engage the DCA to include waste minimisation plans in development applications.

Rationale: Section 22 of the Physical Planning and Development Act (Cap.5.12) stipulates that *the Head of the Physical Planning and Development Division may require that an environmental impact assessment (EIA) shall be carried out in respect of any application for permission to develop land in Saint Lucia, including an application for approval in principle, if the proposed development could significantly affect the environment*, and Schedule 4 of that Act lists the types of developments, which generally include major construction projects, for which EIAs will be required. The requirements for EIAs generally include a waste management plan to be implemented during construction. Issues such as waste minimization during construction and operations of the facilities are not generally required and this is gap that should be addressed.

Goal: The goal of this activity is to revise the requirements for EIAs to include effective waste management plans, including waste minimisation, during the construction and operational phases of major development projects.

Outputs: Adjustments to the Terms of Reference for EIAs used by the Physical Planning and Development Division to include plans for waste avoidance, minimisation, segregation, recovery, recycling, reuse and disposal during the construction and operational phases of development projects requiring EIAs.

Indicator: a) Waste avoidance, minimisation segregation, recovery, reuse and disposal plans are included in the terms of reference for EIAs for major development applications submitted to the DCA for consideration.

Approach: The SLSWMA and the DSD will engage the Physical Planning and Development Division to present a compelling case to adjust the requirements for EIAs to include the elaboration of plans for waste avoidance, minimisation, segregation, recovery, recycling, reuse and disposal during the construction and operational phases of development projects requiring EIAs.

Cost: The DCA has templates it uses to create Terms of Reference for EIAs, and if agreement is reached to move forward with this recommendation, relevant text will be added to the section that deals with waste management. This could be done by the legal officer assigned to the DCA and as such, there is no direct cost associated with this activity.

8.2.6 Project Brief – Pillar 2 Activity 6

Pillar 2: Waste Minimisation.

Activity 6: Develop and implement a waste management plan for the fisheries sector to include return of damaged gear.

Rationale: The majority of the waste generated by fisheries operations, which includes, *inter alia*, fishing lines, seines and other nets, traps, buoys, fish pots and hawser contributes directly to marine pollution, and in particular, plastic marine litter when lost or discarded at sea. In addition, fishing crews take subsistence items such as water and food as well as life jackets, buckets and other gear which generally incorporate plastic material in their design, that may get lost or discarded at sea. The PWFI Report referenced earlier estimated that the 927 vessels and 3,364 fishers registered in Saint Lucia generated 96 t of waste in 2019, contributing directly to the accumulation of ML.

The Department of Fisheries has the legal responsibility, as enshrined in the Fisheries Act (Cap. 7.15), to regulate the fisheries sector, including to designate marine reserves and take steps to protect the flora and fauna there-in, to allow for natural regeneration of aquatic life and to preserve and enhance the natural beauty of such areas. ML poses direct threats to these aspects of the marine environment and must be managed to mitigate the threats it poses. This activity will support the reduction of marine litter from the local fishing sector.

Goal: The goal of this activity is to reduce the contribution of the local fisheries sector to ML, particularly PP, and the related impact on the marine resources.

Outputs: Under this activity a waste management plan for the fisheries sector will be developed and implemented.

Indicator: a) A waste management plan for the fisheries sector is developed, approved and implemented.

Approach: The SLSWMA and the Department of Fisheries shall take the lead for the development of the waste management plan for the sector. They shall consult widely with all stakeholders and in particular, with the bodies representing the interests of the local fisheries sector to determine the types and quantities of gear and supplies taken on fishing expeditions, loss patterns/rates, methods used to dispose of spent gear and other material discarded while at sea. Practical ideas for responsible disposal will be explored for waste generated at sea as well as for land-based activities and a plan developed for presentation and acceptance by stakeholders prior to implementation. Consideration should also be given to the inclusion of some form of accounting for, or the return of abandoned, lost or discarded fishing gear, as the case may be, during the licensing process for fishers and fishing vessels.

The waste management plan for the fisheries sector will serve as an input into the proposed National Waste Management Policy and Strategy and as such, should be included in the Terms of Reference for the related consultancy.

Cost: An indicative budget of US\$15,000.00 (XCD\$ 40,000.00) is assigned to this activity.

Source of Funds: This activity will require budgetary support from the Department of Fisheries and/or the SLSWMA



“The hint of light piercing through the seabed depicts the oceanic features at its best. A fish’s journey there would reveal a paradise of colors where lively and bright corals abound, with not a plastic bag in sight. This is a healthy haven where different species of fish, crabs and jellyfish live in harmony and without boundaries in a vast marine habitat. The absence of garbage really makes a difference. Instead of harsh living conditions, marine life thrives in a rich underwater kingdom”.

[The painting was created on an old fridge. The collaboration was between the Arts Department, Agriculture teachers and the environmental club. The aim was to determine how the fridge could be repurposed since it had not been disposed of correctly. The decision was made to illustrate a healthy coral ecosystem on the old fridge.

The fridge will further be converted to a fish aquarium, where students will be able to understand the importance of caring for aquatic life and gain knowledge on the necessary water conditions for fish to thrive. This will be achieved through collaboration with the school’s agriculture department and environmental club in the current academic year (September 2022 to July 2023).]

- Heru Jolly
- Marc Devaux
- Verlorrn Francis
- Jahvid Mathurin

St Mary’s College Secondary School

8.3 Pillar 3: Clean up Campaigns

In spite of the measures taken to encourage adherence to proper waste disposal practices, waste will continue to be leaked into the environment. This leaked waste has several negative impacts on the environment, on human and animal health, the environment and economic development. In addition to degrading the aesthetics of the environment, waste dumps and litter are prime breeding sites for communicable disease vectors such as rodents, cockroaches, mosquitoes and houseflies, which exacerbate the prevalence of diseases such as cholera, typhoid, cholera, dysentery and malaria, among others, thereby posing direct threats to human health. To the extent that it is unlikely that all persons will adhere to proper waste management practices, cleanup campaigns will remain a necessary activity.

While the primary goal of a cleanup activity or campaign is to rid the environment of indiscriminately discarded waste, these activities can serve wider purposes. They should be designed to be enjoyable activities that encourage citizens to take greater care of their community on an ongoing basis. They can also help promote pride in the community and cohesion among community members. Corporate citizens can become engaged as part of their corporate social responsibility and become better recognised and appreciated by their customers. Cleanup activities should also be structured to generate data that can provide information on the sources of the leaked waste, the quantities of specific waste categories of interest, including brand audits, and identify hotspots for special attention. The activities proposed are in Table 4 below.

Table 4: Pillar 3 - Activities to promote cleanup programmes

Short Term Actions (2023 – 24)	Medium Term Action (2025 – 27)	Long Term Actions: 2028 +
Pillar 3 Activity 1: Design and execute annual coastal cleanup activities, capture data and lessons learned and communicate findings.	<ul style="list-style-type: none"> • Redesign, as may be necessary, based on observations. • Continue data capture and lessons learned. • Communicate findings. • Use information generated as input into behavioural change programmes. 	Continue the medium term activities.
Pillar 3 Activity 2: Design and execute cleanup activities for rivers, waterways and roadways, capture data and lessons learned and communicate findings.	<ul style="list-style-type: none"> • Redesign as may be necessary, based on observations. • Continue data capture and lessons learned. • Communicate findings. • Use information generated as input into behavioural change programmes. 	Continue the medium term activities.
Pillar 3 Activity 3: Design and execute community cleanup programmes, capture data and	<ul style="list-style-type: none"> • Redesign as may be necessary, based on observations. • Continue data capture and lessons learned. 	Continue the medium term

Short Term Actions (2023 – 24)	Medium Term Action (2025 – 27)	Long Term Actions: 2028 +
lessons learned and communicate findings.	<ul style="list-style-type: none"> •Communicate findings. Use information generated as input into behavioural change programmes.	activities.

Below are the project briefs for these three activities.

8.3.1: Project Brief: Pillar 3 Activity1

Pillar 3: Clean up Campaigns.

Activity 1: Design and execute annual coastal cleanup activities.

Rationale: Marine litter originates from two sources – litter discarded or dumped directly in the seas or oceans, and waste generated on land that is leaked into the environment or dumped into waterways that eventually flow into the marine environment. Once in the marine space, litter is transported by ocean currents or driven by winds across borders and may eventually be deposited on coastlines thousands of miles away. This makes ML a transboundary problem, requiring international cooperation if it is to be successfully addressed. A further consideration is that some ML, particularly plastics, have long environmental lives and remain a problem long after it is generated.

While solutions to the ML problem are being developed at both the national and international levels, it is likely to persist well into the future. This makes it necessary to remove litter already in the coastal areas in order to mitigate its negative social, economic and environmental impacts.

A number of public sector, NGOs and private sector interests undertake coastal cleanup activities. These are pursued out of concern for the environment, to improve the quality of the near shore marine space and to protect marine flora and fauna. These efforts should be supported and expanded to improve on the impacts they deliver.

Goal: The goal of the campaign is to reduce the amount of marine litter in the coastal areas in Saint Lucia through structured coastal cleanup activities.

Outputs: This activity will be designed to deliver the following outputs:

- a) A list of stakeholders to be engaged at various levels in developing and implementing coastal cleanup activities;
- b) A blueprint for organising coastal cleanup activities;
- c) An annual calendar of coastal cleanup activities developed and executed;
- d) Reports on ML collected by waste category, brands and geographical location and stored in a central database; and
- e) Opportunities to engage in education and awareness programmes on ML and PP.

Indicators:

- a) An approved plan for organising coastal cleanup activities.
- b) At least one cleanup activity is conducted annually at agreed locations.
- c) Data collected from cleanup activities are uploaded onto a national database.

Approach: The DSD, the Department of Fisheries, the SLSWMA and other stakeholder to be identified will develop an annual calendar of coastal cleanup activities based on the proposed outputs listed above. They will also collaborate in organising the activities, the data collection and analysis of the waste collected (including a brand audit of the

waste collected), central storage of the data and related public education and awareness programs around the activities and the information generated from the data analysis. Opportunities to collaborate with external partners, including the sharing of information generated, will be explored as well.

Potential non-governmental stakeholders include the local chapter of the Ocean Conservancy annual cleanup programme, Anbaglo - the Saint Lucia Dive Association, the Japan International Cooperation Programme, the Saint Lucia Hospitality and Tourism Association, Fisher folk umbrella organisations, Environmental NGOs, school groups, coastal communities, the private sector and other interest groups.

Planning for this activity could be combined with planning for Pillar 3 Activity 2: *Design and execute cleanup activities for rivers, waterways and roadways*, capture data and lessons learned and communicate findings.

Cost: A indicative budget of US\$8,000.00 (XCD\$ 21,500.00) is allocated to develop the blueprint for organizing coastal and other cleanup campaigns and an annual indicative budget XCD\$ 25,000.00 is allocated to meet the cost of supplies, health and safety gear, subsistence support and waste disposal. Some of these costs can be covered through in-kind contributions.

Source of Funds: Coastal cleanup activities should be an element in the proposed National Waste Management Strategy and as such, funding to develop the blueprint for organizing cleanup campaigns could be sourced from the WB-UBEC project grant component under Activity 1.1: *Development of a National Waste Management Strategy*. Funding for subsequent activities may need budgetary support as well as support from the private sector. Budgetary support, grant funding and in-kind support will need to be sourced to fund specific clean-up activities.

8.3.2: Project Brief - Pillar 3 Activity 2

Pillar 3:	Clean up Campaigns.
Activity 2:	Design and execute cleanup activities for rivers, waterways, roadways, capture data and lessons learned and communicate findings.
Rationale:	<p>Until such time that all persons embrace sound waste disposal practices, waste will be leaked into the environment from multiple sources, making prevention of this leakage difficult to achieve. This leaked waste degrades the quality of the environment, encourages the spread of disease vectors and exacerbates damage to infrastructure and homes during high rainfall events. Leaked waste, including plastics, enter the marine environment through various paths depending on where the leakage takes place. Litter from beach or other near shore activities is driven by wind into the sea, while those from inland sources are driven by wind or taken by flood waters into gutters, streams and rivers, and eventually into the sea.</p> <p>There are a number of governmental and non-governmental organisations, private sector interests and community groups that are sufficiently driven by concerns about this problem to organise cleanup activities for specific geographic locations. These are generally internally driven with little, if any central coordination to explore collaboration and synergies among the players and efforts.</p>
Goal:	The goal is to rid gutters, streams, rivers and other waterways of leaked waste through an organised annual cleanup campaign.
Outputs:	<p>Through this activity an annual national cleanup programme will be developed and rolled out. This will be achieved by pursuing the following outputs:</p> <ol style="list-style-type: none">A list of stakeholders to be engaged at various levels in developing and implementing the cleanup activities;A blueprint for organizing cleanup activities along waterways and roadways;An annual calendar of cleanup activities;Reports on waste collected by waste category, brand and geographical location are compiled and stored in a central database; andOpportunities to engage in waste management education and awareness programmes focusing on the impacts of marine litter. <p>With regard to item (c) above, the calendar could include competitions for the cleanest community among communities who accept invitations to participate in the contest.</p>
Indicators:	<ol style="list-style-type: none">An approved plan for organising cleanup activities for rivers and waterways.At least one cleanup activity is conducted annually for agreed rivers and/or waterways.Data collected from cleanup activities are uploaded onto a national database
Approach:	As is recommended under the approach for Pillar 3 Activity 1: <i>Design and execute annual coastal cleanup activities</i> , planning for this programme should be done in

tandem with the coastal cleanup planning because of the similarity of the activities, the overlap of stakeholders, the commonality of goals and the possibilities for building synergies. Planning and execution should involve all stakeholders to be identified. The programme should have island wide coverage and organized at district levels to enable better management and coordination. Constituency Councils should be fully engaged when activities are being planned for their constituencies.

Since virtually all human activities generate waste, the entire population becomes stakeholders in both the actual cleanup activities and efforts to minimise leakage of waste, which would make subsequent efforts less arduous. To this end, carefully designed public education and awareness campaigns should be developed and rolled out to garner support as well as to share the results of the activities.

Cost: An indicative annual budget of US\$75,000.00 (XCD\$ 200,000.00) is allocated to meet the cost of supplies, health and safety gear, subsistence support and waste disposal. Some of these costs can be covered through in-kind contributions.

Source of Funds: This annual activity would be funded through a mix of cash and in-kind contributions from private sector sources, budgetary allocations from public sector partners, the donation of health, safety and subsistence supplies and subsidised waste transport costs.

8.3.3: Project Brief: Pillar 3 Activity 3

Pillar 3:	Clean up Campaigns.
Activity 3:	Design and execute community cleanup programmes, capture data and lessons learned and communicate findings.
Rationale:	<p>Waste that is indiscriminately discarded within communities degrades their aesthetic appeal, poses health hazards by encouraging vector infestation and exacerbates damage from flooding from high rainfall events by blocking waterways. While the SLSWMA provides twice weekly municipal waste collection services and once monthly bulky waste collection to all communities island wide, and allows all waste generators free access to the landfill to dispose of any waste they generate, the evidence is that there are cases where the waste placed for collection is not properly secured, much indiscriminate littering is practiced and some persons dispose of waste in remote locations.</p> <p>The PWFI Study referenced earlier reported that in 2019, the domestic and commercial sectors leaked 569 t and 155 t of waste into the environment respectively. While this is not the complete picture, it gives an idea of the scope of the problem which this activity and Activity 2 under Pillar 3 - <i>Design and execute cleanup activities for rivers, waterways, roadways and communities</i> will jointly begin to address.</p>
Goal:	The goal of this activity is to remove the waste discarded within communities.
Output:	This activity will result in cleaner, more aesthetically appealing communities with reduced environmental health problems and reduced damage from flood waters during high rainfall events.
Indicators:	<ul style="list-style-type: none">a) Community cleanup activity is developed and conducted in at least four communities annually.b) Data collected from cleanup activities are uploaded onto a national database.
Approach:	Due consideration should be given to planning the community cleanup activities around the concept of the Plus Belle Village competitions organised by central government some years ago because in addition to the removal of waste, this model will also help build community cohesion and pride in the communities themselves. Key stakeholders, including the Constituency Councils should be engaged to review the previous Plus Belle Village programmes to extract lessons learned and use this information to design the programme for implementation. Community leaders and other influencers should be engaged to promote the programme, which should be held once annually and cover the entire island either simultaneously or in geographic zones to allow for ease of implementation. However, this may not need to be an annual activity, depending on the successes of activities 1 and 2 under this Pillar.
Cost:	An indicative budget of US\$375,000.00 (XCD\$1,000,000.00) is allocated to cover the cost of the programme, including planning, execution, education and awareness and post programme evaluation.

Source of Funds:

This activity could be funded through a mix cash and in-kind contributions from private sector sources, budgetary allocations from public sector partners, the donation of health and safety and subsistence supplies and subsidised waste transport costs.



We must come together, regardless of differences, to protect and revitalize the oceans because they are a valuable resource that we all benefit from.

Divine Julien
Soufriere Primary School

8.4 Pillar 4: Strategic Partnerships and Stakeholder Engagement.

As stated earlier in this ML-MAP, waste management is a society-wide undertaking, requiring the support and commitment of all sectors if the associated problem is to be addressed to satisfaction. As such, partnerships and stakeholder engagement is a cross cutting issue, to be embraced in the design of all activities geared towards achieving the goal of this ML-MAP. The main stakeholders and their interests in waste management are identified in the stakeholder analysis in section 5 above (see Table 1) and should be considered under all activities being planned under this Action Plan and any other activities that may be undertaken to improve waste management.

Notwithstanding, the following specific actions are proposed to ensure broad stakeholder engagement in implementing the activities under this Plan.

Table 5: Pillar 4 - Activities to promote Strategic Partnerships and Stakeholder Engagement

Short Term Actions (2023 – 24)	Medium Term Action (2025 – 27)	Long Term Actions: 2028 +
Pillar 4 Activity 1: Create ad-hoc groups to develop waste management strategies and action plans, including for marine litter, for key sectors.	<ul style="list-style-type: none"> • Integrate outputs into national waste management policy and strategy. • Implement strategy, monitor effectiveness and capture lessons learned. 	<ul style="list-style-type: none"> • Continue the medium term activities. • Review policy and strategy as necessary.
Pillar 4 Activity 2: Collaborate with constituency councils and other community groups youth, environmental and student clubs, and the private sector to promote community level responsible waste management.	<ul style="list-style-type: none"> • Continue with short term activity. • Develop and launch a community clean community competition. • Capture lessons learned and adjust programme as needed. • Communicate findings. 	<ul style="list-style-type: none"> • Continue the medium term activities. • Develop and launch a clean community competition.
Pillar 4 Activity 3: Continue and expand, where possible, collaboration with regional and international partners in waste management.	<ul style="list-style-type: none"> • Continue with short term activity. 	<ul style="list-style-type: none"> • Continue with short term activity.

Below are the project briefs for these three activities.

8.4.1: Project Brief - Pillar 4 Activity 1

Pillar 4:	Strategic partnerships and stakeholder engagement.
Activity 1:	Create ad-hoc groups to develop waste management strategies and action plans for key sectors.
Rationale:	<p>Under current arrangements, the manufacturing, commercial, institutional and tourism sectors are responsible for disposing the waste they generate at the landfill. This they do by either hiring licensed waste haulers to provide the service or as part of their operations. Based on data from various sources, it is estimated that in 2019, the combined waste generated by the tourism, commercial and industrial sectors was 52,135 t of which 7,298.9 t was leaked into the environment. The research also indicated that in 2019, 836 t of plastic waste was leaked into the environment. These data points present an indication of the scope of the problem to be addressed.</p> <p>The ML-MAP seeks to reduce the amount of litter, including plastics, entering the marine space. Research indicates that up to 80% of marine litter is from land-based sources, suggesting that any effective strategy must address land-based sources of marine pollution, of which the sectors above are major contributors. In addition, the GoSL has committed to developing a National Waste Management Strategy, which it is safe to assume, will include waste management strategies for various sectors of the economy. This activity will contribute to addressing land-based sources of marine pollution.</p>
Goal:	The goal of this activity is to improve waste management practices in the commercial, industrial, manufacturing, institutional and tourism sectors.
Outputs:	Under this activity, waste management strategies and action plans that address waste minimisation, segregation and disposal will be developed for the commercial, industrial, manufacturing, institutional and tourism sectors.
Indicators:	a) Waste management strategies and action plans for the commercial, industrial, manufacturing, institutional and tourism sectors are developed and implemented
Approach:	The SLSWMA and its stakeholders will develop guidelines, desired outcomes and a format for the waste management strategies and action plans which will be presented, discussed and approved by the sectors identified, through their umbrella bodies. Each of the sectors will then be requested to prepare their strategies and action plans for submission to the SLSWMA for review and approval, following which they will be implemented. It is to be noted that under Pillar 2, Activity 2, the identified sectors will be developing waste segregation guidelines and standards which will be a subset of the output of this activity. As such, these two activities could be combined to generate a single output for each of the sectors identified.
Cost:	An indicative budget of US\$ 15,000.00 (XCD40,350.00) is allocated to cover any costs to be incurred for convening meetings.

Source of Funds:

Budgetary support from the SLSWMA and/or the DSD will be needed to support this activity. In addition, cash and in-kind contributions from the sectors of interest should be pursued.

8.4.2: Project Brief - Pillar 4 Activity 2

- Pillar 4:** Strategic partnerships and stakeholder engagement.
- Activity 2:** Collaborate with constituency councils and other community groups youth, environmental and student clubs and the private sector to promote community level responsible waste management.
- Rationale:** All individuals and sectors generate waste and are therefore stakeholders in efforts to improve waste management practices, which include waste avoidance, minimisation, recovery, recycling, reuse, responsible disposal and cleanup activities. Interventions are required at each of these steps if waste management is to be improved. National organisations such as the SLSWMA cannot achieve this by themselves because waste generation is widespread and its management at all points of generation must be managed if the desired improvements are to be achieved. This activity addresses this situation.
- Goal:** The goal of this activity is to engage all stakeholders in promoting responsible waste management throughout the waste management continuum.
- Outputs:** Through this activity, all sectors will become more engaged in managing waste responsibly.
- Indicator:** a) The number of groups actively engaged in developing and implementing waste management programmes at the community or sector levels.
- Approach:** All activities proposed in the ML-MAP require the active engagement of stakeholders involved at one of more points of the waste management continuum, including waste generation, minimisation, recovery, recycling, reuse, responsible disposal and cleanup activities. The engagement to be achieved under this activity will be through the forging of partnerships, meaningful engagement, education and awareness and the required behavioural change. These should be factored into the design and roll out of all the activities proposed under the ML-MAP to ensure stakeholder buy-in for the projects and programmes proposed.
- Cost:** A cost of US\$10,000.00 (XCD\$27,000.00) is proposed to support any stakeholder consultations that may be needed to achieve the activity output.
- Source of Funds:** Budgetary support from the SLSWMA and/or the DSD will be needed to support this activity. In addition, cash and in-kind contributions from the sectors of interest should be pursued.

8.4.3: Project Brief - Pillar 4 Activity 3

Pillar 4:	Strategic partnerships and stakeholder engagement.
Activity 3:	Continue and expand, where possible, collaboration with regional and international partners in waste management.
Rationale:	<p>Research indicates that 20% of ML comes from activities at sea and 80% from land-based sources, and that once in the seas and oceans, will cross borders and pollute far away coasts. These conditions indicate that while managing land-based sources at the national level is a necessary component of any strategy to reduce marine pollution, international cooperation and efforts are necessary to address ML challenge. This was recognised by the international community, as is evidenced by the active participation of several United Nations organisations, international NGOs, regional cooperation and bilateral support to address the global ML challenge.</p> <p>Saint Lucia has, and continues to be actively engaged in responsible waste management, as is evidenced by its ratification of all the major regional and international policies, agreements and treaties concerned with managing waste, including ML, its active participation in those processes and the programmes and projects for which it has received external support to undertake.</p>
Goal:	The goal of this activity is to ensure that Saint Lucia is recognised as an active and responsible partner in, and contributes to international processes to manage ML.
Outcome:	The outcome being pursued is Saint Lucia's continued and where possible, expanded involvement in international processes and initiatives to address the ML problem at the national and international levels.
Indicators:	<ol style="list-style-type: none">a) Number of regional and international conferences, workshops, consultations and training experiences in which that Saint Lucia participates.b) Number of projects supported by regional and international partners
Approach:	Saint Lucia is an active and responsible member of the international community concerned with addressing the marine pollution challenge and should continue along its current path to addressing the problem within its jurisdiction and at the regional and international levels. This it should do through active participation and representation at negotiations, seeking out and embracing opportunities for capacity development and technology transfer, encouraging north-south and south-south cooperation, forging relationships with non-governmental actors and actively pursuing funding and technical cooperation opportunities to develop and execute programmes and projects to address marine pollution. The country could also demonstrate greater commitment by incorporating the conventions and treaties to which it is a Party into national law.
Cost:	There are no direct costs associated with this activity.
Source of Funds:	Not applicable.



How beautiful the ocean can be! We must work as one to protect our ocean!

*Geleann Mathurin
Castries Comprehensive Secondary School*

8.5 Pillar 5: Environmental Education and Behavioral Change

While much work has been undertaken by public, private sector and civil society organisations to inform and educate the public about its social, economic and mainly, environmental consequences, poor waste management practices still persist. The investments in education and awareness have not translated sufficiently into the behavioural change that is necessary to solve the waste management challenge, as is evidenced by the amount of waste leaked into the environment and the flows into the marine space. It is therefore proposed to redesign the education and awareness programmes to serve as vehicles to drive behavioural change towards waste management. To this end, issues such as social and economic incentives, progress monitoring and reporting, and personal satisfaction and reward, among other considerations that are recognised as the key drivers of behavioural change, should be factored into the redesign of waste management education and awareness programmes. Further, different publics respond to different drivers, depending on age, geography, economic pursuits *etc.* and this should also be factored into the redesign of the programmes.

Table 6: Pillar 5 - Activities to Drive Behavioural Change

Short Term Actions (2023 – 24)	Medium Term Action (2025 – 27)	Long Term Actions: 2028 +
Develop and implement an environmental education programme with a focus on driving behavioral change toward waste management, plastic pollution and marine litter.	<ul style="list-style-type: none"> • Monitor impacts. • Capture lessons learned. • Adjust as may be necessary. 	Continue the medium term activities.

Below is the project brief for this activity.

8.5.1: Project Brief - Pillar 5 Activity 1

- Pillar 5:** Environmental Education and Behavioural Change.
- Activity 1:** Develop a comprehensive environmental education programme with a focus on driving behavioural change toward waste management, plastic pollution and marine litter.
- Rationale:** The indiscriminate disposal of waste, whether on land or at sea, is at the centre of the reasons why pollution, including marine pollution, persists, along with its negative environmental, social and economic impacts. It is therefore reasonable to conclude that if behaviours about how we generate and manage waste at the individual and organizational levels can be changed, significant strides will be made in addressing both the problem and its consequences.
- There is much literature on effecting behavioural change, including in relation to human interaction with the environment, from which to draw lessons on how to design programmes to achieve this end. It is recognised that the starting point is public education and awareness of the causes, consequences and solutions to the problem as well as the benefits to be derived by changing behaviours. But beyond this, the evidence is that issues such as social and economic incentives, progress monitoring and reporting, and personal satisfaction and reward are among other considerations to be factored into the design and roll out of behavioural change programmes. Further, the literature suggests that material used to drive behavioural change should not be generic, as different groups respond differently based on a number of factors, including economic status, education level, geographic location and age group as well as the communication medium. These considerations should inform the design and delivery of education and awareness programmes that are geared to changing behaviours rather than merely sharing data and information.
- Goal:** The goal of this activity is to change the behaviours of all sectors of the population towards waste management in order to improve waste management practices at all levels.
- Outputs:** The outputs of this activity will be:
- a) A series of education and awareness tools and behavioural change material, custom designed to encourage changes in waste management practices, targeting different audiences within the general population based on age group, educational level, economic status and geographic location, *etc.*;
 - b) A series of educational and behavioural change material custom designed to encourage changes in waste management practices, targeting major commercial sectors such as tourism, manufacturing, commercial and institutional audiences; and
 - c) Inclusion of learning material on waste management in the lower school curriculum.

Whereas the outputs above have wide target audiences, the scope of coverage may be restricted based on available resources. In this case, decisions on which groups, waste streams and/or sectors should be targeted should be based on, *inter alia*, an analysis of their relative contribution to leaked waste and the potential for achieving the changes being pursued.

- Indicators:**
- a) Number of environmental education tools developed to influence behavioural change.
 - b) Number of behavioural change programmes rolled out.
 - c) Inclusion of waste management material in the revised lower school curriculum.

Approach: Redirecting environmental education and awareness programmes to drive behavioural change is a highly technical matter requiring expert guidance in both the design and delivery of the programmes. The design of the material should be informed by research on what factors drive behavioural change with different groups and what communication tools work best for them. For example, the literature suggests that children of lower school age are motivated by practical experiences; hence field research, cleanup campaigns and citizen science approaches may yield the greatest change for this group. The design of the material should also be informed by research into the communication tools and channels that work best for the different target audiences. There should also be an active engagement of the target audiences for their input into the design and testing of the educational material to be developed to drive behavioural change.

In designing these programmes, consideration should also be given to tweaking existing knowledge products, where possible, so that they may become relevant to the new focus on behavioural change.

Whereas funding may dictate a project approach, effecting behavioural change will require a sustained effort into the medium term at the least. This should also be factored into the design of the tools, materials and approaches to be developed, even if the roll out will be of limited coverage.

The Ministry of Education is currently revising the lower school curriculum and this opportunity to review and update, as may be necessary, the material on waste management, should be pursued.

Cost: This activity will incur costs for the design and production of the material to be used as well as the longer delivery, monitoring and reporting phases, with some production costs being incurred when programmes are being rolled out for specific groups. Given that at this time, the nature of the tools to be used, the groups to be targeted and the pace of their roll out are not determined, the following indicative costs are presented for further verification:

Consultancy to develop behavioural change material for all groups and sectors: US\$ 50,000.00 (XCD 133,500.00).

Material production and roll out of programmes for specific groups: US\$15,000.00 (XCD \$ 40,000.00) per programme.

There is no cost associated with the proposed revision of the school curriculum.

Source of Funds: The loan component of the WB-UBEC project includes Activity 1.2: *Capacity Building: Design and Development of a Public Awareness and Education Program*, which is intended to develop a focused public awareness and education program aimed at defining and influencing waste generator's behaviour and attitude towards waste management. Funding for this programme could be accessed from this source to develop the behavioural change material as well as to produce and roll out the programme for the first groups to be targeted.

9. Financing the implementation of the ML-MAP

Several of the activities proposed in this ML-MAP are one-off interventions without recurrent costs. As such, once funded from the sources identified in the relevant project concepts, or any other source, any cost implications will end. As noted in Annex D (g), the GoSL included aspects of waste management in its Medium Term Development Strategy (2020 – 2023) in pursuit of which it has secured a mix of grant and loan financing under the WB-UBEC project to fund some aspects of waste management seen as priority, including the development of a national waste management strategy, the establishment of a composting facility, a waste segregation programme and public education and awareness programmes, all of which are included in this ML-MAP, and can be funded from this source. There are other activities, such as the operations of the composting facility, the annual cleanups, ongoing education, awareness and behavioural change programmes and waste segregation that will have long term budgetary implications. Possible funding sources for these are included in the project briefs, and will require a mix of central government support, revenue flows from the composting operations and private sector support to be sustainable.

The GoSL has a good record of attracting financial and technical support for its priority programmes and will pursue a variety of sources, including public, private, bilateral, multilateral and loan financing, as appropriate, to support projects and programmes to improve waste management for the national and global good.

It is anticipated that the proposed National Waste Management Policy and Strategy will be a more comprehensive framework for managing all waste streams (solid, liquid and gaseous) and funding the activities in this ML-MAP will eventually migrate to the implementation of that strategy. It is also expected that over time, waste management will continue to be immersed in the national development agenda and will filter down into sectoral programmes as well as in the practical and operational processes of the public and private sectors as well as at the individual and household levels.

10. Conclusion:

Plastic pollution and marine litter pose long term, persistent and transboundary sustainable development challenges that will require sustained national interventions and international cooperation to minimise, or ideally eliminate these impacts. This ML-MAP should be seen as a starting point for those interventions. The proposed National Waste Management Policy and Strategy is expected to deliver a more comprehensive approach to managing waste within the national jurisdiction, including within the marine space. It should be sufficiently comprehensive to cover all aspects of waste management, including solid, liquid and gaseous wastes, and should include international cooperation as a key element in the overall strategy. The Policy and Strategy should also focus on upstream phases of the waste cycle with a focus on materials, including plastics, before they enter the waste stream by considering issues such as waste avoidance, minimisation, recycling and technological options to address these elements.

It is expected that implementation of this ML-MAP will eventually overlap with implementation of the proposed National Waste Management Policy and Strategy. The relevant authorities should manage

this overlap to avoid duplication of effort, take advantage of synergies and explore financing options that bridge their implementation, to ensure continuity.

Annex A: Technical Consultation (April 29, 2022) - List of Attendees

NAME	DESIGNATION	ORGANISATION	GENDER (M/F)
Silka Tobias	Deputy Permanent Secretary	Department of Sustainable Development	F
Annette Rattigan-Leo	Chief Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Dawn Pierre-Nathaniel	Deputy Chief Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Yasmin Jude	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Maier Sifflet	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Jeanel Volney-Albert	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Leviticus Peter St. Marie	Sustainable Development and Environment Assistant	Sustainable Development and Environment Division	M
Jeremiah Edmund	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	M
Lavina Alexander	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Joanne Norville	Science and Technology Officer	Sustainable Development and Environment Division	F
Kate Wilson	Legal Officer	Department of Sustainable Development	F
Bethia Thomas	Piton Management Area/ Protected Areas Manager	Department of Sustainable Development	F
Dana Murray	Intern	Department of Sustainable Development	F
Marie Dalsan	Operations & Landfill Manager	Saint Lucia Solid Waste Management Authority	F
Sarita Peter	Chief Fisheries Officer	Department of Fisheries	F
Miguel Montoute	Water Resources Specialist	Water Resources Management Agency	M
Jason Ernest	Director	Water Resources Management Agency	M
Werner Houson	Physical Planning Officer	Department of Physical Planning	M
Darin Solomon	Customs Officer	Customs and Excise Department	M
Josette Maxwell	Programme Manager	Office of the Prime Minister	F
Linn Brown	Economist	Department of Economic Development	F
Darnally Esteva-St. Ange	Social Transformation Officer	Ministry of Equity, Social Justice and Empowerment	F
Nadela Noel	Foreign Service Officer	Department of External Affairs	F
Christopher Alexander	Director - Division of Maritime Affairs	Saint Lucia Air and Seaports Authority/ Maritime Affairs	M
Gemma Edwin	Research Officer, National Integrated Planning and Programme Unit	Department of Finance	F

NAME	DESIGNATION	ORGANISATION	GENDER (M/F)
Fabian Felix	Civil Engineer, National Integrated Planning and Programme Unit	Department of Finance	M
Kershal Trezelle	Building Officer	Ministry of Tourism	
Dyrud Lionel	Operations Manager	National Conservation Authority	M
Craig Henry	Chief Executive Officer	Saint Lucia National Conservation Fund	M
Bianca Gittens	Conservation Assistant	Saint Lucia National Trust	F
McAllister Hunt	Field Operations Officer	Replast OECS Demonstration Project	M
Marie Louise Felix	Lecturer	Sir Arthur Lewis Community College	F
Chris Sealys	Coordinator, International Coastal Cleanup, Saint Lucia	Caribbean Youth Environment Network	M
Lennox Perpie	Dock Supervisor	Soufriere Regional Development Foundation	M
Hiroyasu Tonokwa	Chief Representative	Japan International Cooperation Agency	M
Eget Martyr	President	St. Lucia Divers Association Inc.	F
Donovan Brown	Immediate Vice President	St. Lucia Divers Association Inc.	M
Callum Sweeney	Intern	The the Life Cycle Initiative, United Nations Environment Programme	M
Fadilah Ali	Assistant Executive Director	Gulf and Caribbean Fisheries Institute	F
Michelle Headley	National Project Assistant	Plastic Waste Free Islands Project	F
Domenique Finegan	Technical Officer, Regional Office for Mexico, Central America and the Caribbean IUCN, San Jose, Costa Rica	Plastic Waste Free Islands Project, International Union for Conservation of Nature	F
Janaka DaSilva	Senior Programme Coordinator, IUCN Oceans Team	Plastic Waste Free Islands Project, International Union for Conservation of Nature	M
Dr. Ludgarde Coppens	Head, SDGs and Environmental Statistics Unit	United Nations Environment Programme	M
David Marquis	Associate Programme Management Officer for Marine Litter and Plastic Pollution-Free Ecosystems Unit, Marine and Freshwater Branch, Ecosystems Division	United Nations Environment Programme	M
Ekaterina Poleshchuk	Statistician SDG and Environment Statistics Unit	United Nations Environment Programme	F
Toma Iida	Associate Expert, Source to Sea Pollution Unit, Marine and Freshwater Ecosystems Branch, Ecosystems Division	United Nations Environment Programme	M
Bishnu Tulsie	Consultant	Marine Litter Management Action Plan Project	M

Annex B: High Level Event (July 21, 2022) - List of Attendees

NAME	DESIGNATION	ORGANISATION	GENDER (M/F)
Honourable Shawn Edward	Minister	Ministry of Education, Sustainable Development, Innovation, Science, Technology and Vocational Training	M
Honourable Stephenson King	Minister	Ministry of Infrastructure, Ports, Transport, Physical Development and Urban Renewal	M
Honourable Wayne Girard	Minister	Ministry of Finance, Economic Development and Youth Economy	M
Honourable Alva Baptiste	Minister	Ministry of External Affairs, International Trade, Civil Aviation and Diaspora Affairs	M
Honourable Dr. Virginia Albert -Poyotte	Minister	Ministry of Public Service, Home Affairs, Labour and Gender Affairs	F
Honourable Guibion Ferdinand	Parliamentary Secretary	Ministry of Tourism, Investment, Creative Industries, Culture and Information	M
Caroline Eugene	Permanent Secretary	Ministry of Youth Development and Sports	F
Mary Wilfred	Director of Youth	Ministry of Youth Development and Sports	F
Ann Margaret-Adams	Director: Product Development	Department of Tourism	F
Pariet Herman	Director of Consumer Affairs	Ministry of Commerce, Manufacturing, Business Development, Cooperatives and Consumer Affairs	F
Esli Lafeuillee	Director of Commerce and Industries	Ministry of Commerce, Manufacturing, Business Development, Cooperatives and Consumer Affairs	M
Fiona Hinkson	Director	National Competitiveness and Productivity Council	F
Verne Emmanuel	Director	Saint Lucia Bureau of Standards	M
Lennel Malzaire	Director	Innovation Department	F
Natasha Lloyd-Felix	Director Bureau of Health Education	Department of Health	F
Heidi Khodra - Jaganath	Quality Assurance Officer	Department of Health	F
Sarita Peter	Chief Fisheries Officer	Department of Fisheries	F
Yvonne Edwin	Fisheries Officer	Department of Fisheries	F
Perle Alcindor	Chief Economist	Department of Economic Development	F
Linn Brown	Economist	Department of Economic Development	F
Cletus Thomas	Supervisor	Customs & Excise Department	M
Susanna Scott	Project Manager: Ocean Governance and Fisheries Programme	Organisation of Eastern Caribbean States Commission	F
Alden Lewis	Representative	Caribbean Youth Environment Network	M
Antonius Nikki Calderon	Representative	Castries Constituency Council	M
Michelle Headley	National Project Assistant	Plastic Waste-Free Islands Project	F
Augustine Dominique	Programme Manager: Conservation	Saint Lucia National Trust	M
Donovan Brown	Immediate Vice President	Saint Lucia Divers Association-Anbaglo	M
Eget Martyr	President	Saint Lucia Divers Association-Anbaglo	F
Ronald Roach	Representative	Unite Caribbean and RePLAST OECS	M
Peter Myers	Specially Invited Guest of Hon. Minister Shawn Edward		M
Laurianus Lesfloris	Acting General Manager	Saint Lucia Solid Waste Management Authority	M
Marie Dalsan	Operations/ Landfill	Saint Lucia Solid Waste Management Authority	F

NAME	DESIGNATION	ORGANISATION	GENDER (M/F)
	Manager		
Anita Montoute	Permanent Secretary	Department of Sustainable Development	F
Silka Tobias	Deputy Permanent Secretary	Department of Sustainable Development	F
Annette Rattigan-Leo	Chief Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Dawn Pierre Nathoniél	Deputy Chief Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Samanthia Justin	Chief Technical Officer	Department of Sustainable Development	F
Kate Wilson	Legal Officer	Department of Sustainable Development	F
John Calixte	South East Coast Project Coordinator	Department of Sustainable Development	M
Rochelle Alcee	South East Coast Project Assistant	Department of Sustainable Development	F
Jessy Leonce	Information Assistant	Sustainable Development and Environment Division	F
Ruth Phillips-Itty	Commonwealth National Climate Finance Adviser - Saint Lucia	Sustainable Development and Environment Division	F
Lavina Alexander	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Jeanel Volney-Albert	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Yasmin Jude	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Jeremiah Edmund	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	M
Kasha Jn Baptiste	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Leviticus St. Marie	Sustainable Development and Environment Assistant	Sustainable Development and Environment Division	M
Joanne Norville	Science and Technology Officer	Sustainable Development and Environment Division	F
Natalie James	Administrative Secretary	Department of Sustainable Development- Support Team	F
Cleopatra Anthony	Administrative Assistant	Department of Sustainable Development- Support Team	F
Ansha Augustin	Administrative Assistant	Department of Sustainable Development- Support Team	F
Tricia George	Administrative Receptionist	Department of Sustainable Development- Support Team	F
Tamoy Singh Clarke	Programme Management Assistant, Cartagena Convention Secretariat, Ecosystems Division	United Nations Environment Programme	F

NAME	DESIGNATION	ORGANISATION	GENDER (M/F)
Ekaterina Poleshchuk	Statistician SDG and Environment Statistics Unit	United Nations Environment Programme	F
Sarah Wollring	Associate Programme Management Officer	United Nations Environment Programme Jamaica office	F
Tessa Goverse	Coordinator – Environment under Review programme	United Nations Environment Programme	F
David Marquis	Associate Programme Management Officer for Marine Litter and Plastic Pollution-Free Ecosystems Unit, Marine and Freshwater Branch, Ecosystems Division	United Nations Environment Programme	M
Bishnu Tulsie	Consultant	Marine Litter Management Action Plan Project	M

Annex C: Seminar to Present the National Source Inventory on Plastic Pollution and Validate the Marine Litter Management Action Plan (October 6, 2022) – List of Attendees

NAMES	DESIGNATION	ORGANISATION	GENDER (M/F)
Honourable Shawn Edward	Minister	Ministry of Education, Sustainable Development, Innovation, Science, Technology and Vocational Training	M
Edith Emmanuel	Project Manager for Education-EQUIP	Department of Education	F
Yvonne Edwin	Fisheries Biologist	Department of Fisheries	F
Laurianus Lesfloris	Acting General Manager	Saint Lucia Solid Waste Management Authority	M
Marie Dalsan	Operations/ Landfill Manager	Saint Lucia Solid Waste Management Authority	F
Emlyn Jean	Information & Communication Manager	Saint Lucia Solid Waste Management Authority	F
Christopher Alexander	Maritime Affairs and Co-Chair National Ocean Governance Committee	Saint Lucia Air and Sea Ports Authority	M
Sariah Best-Joseph	Divisional Head – Marketing and Corporate Communications	Massy Stores St. Lucia Ltd.	F
Gillian Polius	Representative	Island Innovation Ambassadors	F
Cuthbert Didier	Specially invited guest and consultant		M
Alleyn Regis	Public Relations and Communications Specialist, South East Coast Project	Department of Sustainable Development	M
Pamela Roberts-Benjamin	Lecturer	Sir Arthur Lewis Community College	F
Cannita Melius	National Coordinator	Caribbean Youth Environment Network	F
Chris Sealys	Coordinator, International Coastal Cleanup, Saint Lucia	Caribbean Youth Environment Network	M
Craig Henry	Chief Executive Officer	Saint Lucia National Conservation Fund	M
Augustine Dominique	Conservation Manager	Saint Lucia National Trust	M
Viallai Edward	Assistant Project Officer	Youth Emergency Action Committee	M
Donovan Brown	Immediate Vice President	Saint Lucia Divers Association-Anbaglo	M
Kurneil Lynch	Representative	Renew Saint Lucia	M
Harold Dalsan	Chairman	Soufriere Marine Management Association	M
Noorani Azeez	Chief Executive Officer	Saint Lucia Hotel and Tourism Association	M
James Perineau	Director	National Conservation Authority	M
Nadia Cazaubon	Program Director	WaterWays	F
Jason Darius	Media Personnel	Daher Broadcasting Service	M
Jasmine Donovan	Media Personnel	Hot 7 Television	F
Marla Foster	Managing Director	Quench Inc.	F
Dale Elliott	Managing Director	The Independent Film Company	M
Desmond Etienne	Camera Crew	The Independent Film Crew, The Independent Film Company	M
Al W. Leonce	Camera Crew	The Independent Film Crew, The Independent Film Company	M
Barbara Jacobs Small	Managing Director	Right Angle Imaging	F
Lynette Marlock	Administrative Manager	Right Angle Imaging	F
Silka Tobias	Deputy Permanent Secretary	Department of Sustainable Development	F

NAMES	DESIGNATION	ORGANISATION	GENDER (M/F)
Dawn Pierre Nathoniell	Deputy Chief Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Joanne Norville	Science and Technology Officer	Sustainable Development and Environment Division	F
Jeanel Volney-Albert	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Jermaine Missole	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Jessy Leonce	Information Assistant	Sustainable Development and Environment Division	F
Lavina Alexander	Sustainable Development and Environment Officer	Sustainable Development and Environment Division	F
Ekaterina Poleshchuk	Statistician- SDG and Environment Statistics Unit	United Nations Environment Programme	F
Bishnu Tulsie	Consultant	Marine Litter Management Action Plan Project	M

Annex D: Waste Management Policy Framework

While the GoSL has not adopted a national waste management policy, its intention to effectively manage solid and liquid waste, including hazardous, bio-medical and plastic waste is captured in sector plans and development plans and strategies, as well as its through commitment to regional and international policies and conventions concerned with waste management and ML, the main ones of which are mentioned below.

National level Policy Interventions

- a) The 2014 action plan to address climate change in the tourism sector in Saint Lucia⁹ includes improved sewage treatment and coastal water quality as goals to be pursued.
- b) The portfolio of projects for resilient ecosystems developed in 2020 under Saint Lucia's national adaptation planning process¹⁰ includes ten project concepts in which issues such as improving ocean governance, managing marine litter, improving the attractiveness of the beach environment, valuation of goods and services associated with marine ecosystems and resources, water quality monitoring and mangrove rehabilitation were included as areas for future investments.
- c) Saint Lucia has approved a National Ocean Policy and Strategic Action Plan (2020 – 2035)¹¹ which includes clear statements of intent with regard to marine pollution, as contained in the following goals of the policy:
 - Goal 2.3: Maintain effective marine pollution contingency planning, monitoring and response capabilities in line with relevant international and regional conventions and national obligations.
 - Goal 3.4: Support the effective monitoring and control of land and marine based sources of pollution.
 - Goal 5.2: Develop and implement national systems of coastal and marine spatial planning to allow for the improved planning and control of marine and coastal activities.
- d) In January, 2019 the GoSL formally approved a plan to phase-out the use of Polystyrene (PS), Expanded Polystyrene (EPS), Polystyrene terephthalate (PET) and high-density Polyethylene (HDPS) containers in the local food service industry. New Harmonized System Codes for these products were also approved to improve the monitoring of imports. The government also

⁹ Government of Saint Lucia and the Caribbean Community Climate Change Centre. (2015). Volumes I and II: Impact Assessment and National Adaptation Strategy and Action Plan to address Climate Change in the Tourism Sector of Saint Lucia. Department of Sustainable Development, Ministry of Education, Innovation, Gender Relations and Sustainable Development.

¹⁰ Government of Saint Lucia. (2020). Saint Lucia's Portfolio of Project Concept Notes for Resilient Ecosystems 2020–2028, under the National Adaptation Planning Process. Department of Sustainable Development, Ministry of Education, Innovation, Gender Relations and Sustainable Development.

¹¹ Government of Saint Lucia. (2020). Saint Lucia's National Oceans Policy and Strategic Action Plan ((NOP SAP) 2020 – 2035. Department of Sustainable Development, Ministry of Education, Innovation, Gender Relations and Sustainable Development.

launched a public campaign to phase out the use of all Styrofoam and selected single use plastic items such as straws, beverage cups and lids, snack, desert and sampling trays, packaging trays and containers, and plastic cutlery. These policy positions are supported through the enactment of the Styrofoam and Plastic Food Service Containers (Prohibition) Act (No. 22 of 2019) under which the importation, manufacture, sale, use and distribution of Styrofoam or plastic food service containers was prohibited as of August 1, 2019, but their use is allowed for such items held in stock on August 1, 2019 until the stock is exhausted. The Act was amended in 2020 (Amendment No. 8 of 2020), amidst the COVID-19 pandemic which presented challenges to local importers in obtaining shipments of alternatives to the banned single-use plastic food service containers. The amendment therefore extended the timeframe allowed for the use of existing stock of single-use plastic before the use, manufacturing, sale and distribution ban took effect. In 2020, the Cabinet of Ministers approved a zero percent import duty concession to be implemented on all approved biodegradable, compostable and plant-based food service containers. The Cabinet Conclusion No. 870 of 2020 provided an opportunity for stakeholders to enjoy lower costs for purchasing these items, thereby encouraging a continued supply of environmentally safe food service containers.

The Styrofoam and Plastic Food Service Containers (Prohibition) Act (No. 22 of 2019) and the draft Management of Beverage Containers Bill both allow for the expansion of the items that fall under their control. To this end, the DSD and the SLSWMA will collaborate with the Saint Lucia Bureau of Standards to continuously monitor technology developments and product substitution opportunities to expand the range of items to be prohibited over time.

- e) The GoSL also developed a National Health Sector Policy (draft) whose goal is to produce a nation of empowered and healthy people, to be achieved through twenty-one (21) policy measures, one of which is to provide increasing managerial autonomy to public health institutions within the strengthened framework for public accountability with a view to achieving overall efficiency in service delivery, reducing waste and improving responsiveness to local needs.
- f) A Medical Waste and other Bio-Hazardous Waste Management Plan setting minimum requirements for the safe handling, transportation and disposal of bio-hazardous waste was developed and implemented in 2006. Adherence to the provisions of this Plan avoids the leakage of these waste streams into the environment.
- g) In its Medium Term Development Strategy (2020 – 2023)¹², the GoSL committed to the strategic goal to foster and promote sustainable development at the national level through research and networking, resource mobilization and reporting by focusing on, *inter alia*, chemicals management, climate change and sustainable use of terrestrial and coastal resources. A number of interventions are proposed to help achieve these goals, including developing and implementing a marine pollution strategy and action plan, including for solid waste, point sources from industry, marine pollution from ports, sewage effluent and non-point pollutants; development and implementation of an integrated chemicals and waste management strategy

¹² Government of Saint Lucia: Medium Term Development Strategy 2020 – 2023. Department of Economic Development, Transport and Civil Aviation. Currently under amendment

with interventions to address pollution management; strengthening the policy, legislative and institutional frameworks for solid waste management and an improved solid waste collection methodology; identification and implementation of alternative uses for solid waste (re-use, recycling, composting); and improving national capacity to deal with new waste (e.g. e-waste).

Annex E: International Agreements, Conventions and Protocols

Saint Lucia's domestic policy framework is further strengthened through the country's ratification of a number of international agreements, conventions and protocols related to waste and chemicals management and/or pollution control. While these impose commitments on the State, they have not been promulgated into national law. However, ratification of these agreements is, *inter alia*, a clear statement of policy by the GoSL to join the international community in pursuing the purposes of these instruments. In this regard, the following are of relevance:

- a) **United Nations Convention on the Law of the Sea (UNCLOS):** The law of the sea is a body of public international law governing the geographic jurisdictions of coastal States and their rights and duties in the use and conservation of the ocean environment and its natural resources. Part XII of the convention is concerned with the protection and preservation of the marine environment, and includes related provisions in seven (7) areas: underlying principles; jurisdictions; fishery resources; mineral resources; marine science and technology; environmental protection; and dispute settlement. UNCLOS also includes provisions for States to take measures to prevent, reduce and control pollution of the marine environment, including from land-based sources of pollution.

Saint Lucia ratified this Convention in March 27, 1985

- b) **International Convention for the Prevention of Pollution from Ships (MARPOL):** Adopted in 1973, the MARPOL Convention is the main instrument for the prevention of pollution of the marine environment by ships from operational or accidental causes. Regulations under the Convention are contained in its six (6) Annexes, of which Annex V: Prevention of Pollution by Garbage from Ships, prohibits the disposal into the sea of all forms of plastics.

Saint Lucia ratified the MARPOL Convention on March 24, 1998.

- c) **Cartagena Convention:** The Cartagena Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (WCR) is a regional legal agreement for the protection of the Caribbean Sea from pollution from ships, dumping of waste into the sea, from land-based sources, sea-bed exploration and exploitation, and from atmospheric discharges.

Saint Lucia ratified the Cartagena Convention on August 27, 2013.

- d) **The Basel Convention on the Control of Transboundary Movement on Hazardous Waste and their Disposal (The Basel Convention):** This Convention regulates the transboundary movements of hazardous wastes and their disposal, and obliges its Parties to ensure that such wastes are managed and disposed of in an environmentally sound manner. The Convention covers toxic, poisonous, explosive, corrosive, flammable, eco-toxic and infectious wastes.

Saint Lucia ratified the Basel Convention on December 9, 1993.

- e) **Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (The London Convention):** The objective of this Convention is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter. Under the Convention a so-called "black- and grey-list" approach is applied for wastes which can be considered for disposal at sea according to the

hazard they present to the environment. Dumping is prohibited for the blacklisted materials while disposal of the grey-listed materials require a special permit from a designated national authority and must be done under strict control, and provided certain conditions are met.

Saint Lucia ratified the London Convention in 1980.

- f) **The Rotterdam Convention:** This Convention promotes shared responsibility and cooperative efforts among Parties in international trade of certain pesticides and hazardous chemicals to protect human health and environment from harm. It also contributes to the environmentally sound use of those hazardous chemicals by facilitating information exchange about their characteristics and by providing for a national decision-making process on their import and export.

Saint Lucia signed the Convention in January, 1999 but has not ratified it.

- g) **The Stockholm Convention on Persistent Organic Pollutants (POPs):** This convention focuses on eliminating or reducing releases of POPs. It sets up a system for tackling additional chemicals identified as unacceptably hazardous. Ultimately, the Convention points the way to a future free of dangerous POPs and promises to reshape the economy's reliance on toxic chemicals.

Saint Lucia ratified the Convention on October 4, 2002.

- h) **The Minamata Convention on Mercury:** This Convention controls anthropogenic releases of mercury throughout its lifecycle. It includes a ban on new mercury mines, the phase-out of existing ones, the phase-out and phase-down of mercury use in a number of products and processes, control measures on emissions into the air, releases to land and water, and the regulation of the informal sector of artisanal and small-scale gold mining. The Convention also addresses interim storage of mercury and its disposal once it becomes waste, sites contaminated by mercury, as well as health issues. Whereas Saint Lucia does not engage in activities that release mercury into the environment, it is subject to the related negative impacts, particularly through mercury contamination of marine resources that enter the human food chain.

Saint Lucia acceded to the Convention on January 23, 2019.

- i) **St. George's Declaration of Principles for Environmental Sustainability in the OECS (SGD) (2020 - 2040):** The goal of the Declaration is to promote and support effective management and sustainable use of the natural capital of the Eastern Caribbean by enhancing its integrity and strengthening resilience and adaptive capacity. One of the strategic priorities of the SGD is an integrated approach to waste management through sustainable consumption, production and management practices that reduce waste and pollution in the environment.

- j) **Eastern Caribbean Regional Oceans Policy (ECROP):** This policy is based on a vision that the coastal and marine resources of the Eastern Caribbean are sustainably managed to optimize the potential of the natural capital to support a blue economy, ensure resilience and adaptation to climate change, protect and restore the marine ecosystems of the region, and nurture our natural and cultural heritage for the benefit of current and future generations. The policy lays out a number of goals to help achieve the vision, among which are:

- Goal 2.2: OECS Member States address the requirements of relevant international, regional and national obligations addressing marine pollution contingency planning, monitoring and response, and safety at sea.
- Goal 3.3: OECS Member States ensure that land and marine based sources of pollution impacting the marine environment are effectively monitored and controlled.
- Goal 8.3: The state of the marine environment is understood, both nationally and regionally, through coordinated monitoring and research activities.

Annex F: Legal Framework

The GoSL has established a robust legal framework to support its policy prescriptions and to give legal force to measures to manage waste at the national level. These are listed below.

- a) **Saint Lucia Solid Waste Management Authority Act (Cap. 6.10)** - created the SLSWMA to provide coordinated and integrated systems for the collection, treatment, recycling and disposal of solid waste, including hazardous waste, and to establish and manage sanitary landfills throughout the country. The SLSWMA provides a twice-weekly domestic waste collection service island wide, except the City of Castries, which receives this service three times weekly. It currently operates one sanitary landfill at Deglos and a waste transfer facility in Vieux Fort.
- b) **National Conservation Authority Act (Cap. 6.01)** - established the National Conservation Authority (NCA) as a corporate body to, *inter alia*, conserve the natural beauty and topographic features of Saint Lucia; remove derelict objects from a beach or a protected area; and secure sanitary conditions on a beach or protected area. The Act also authorises the NCA to prohibit a person from littering a beach or protected area.
- c) **The Saint Lucia Air and Sea Port Authority Act (Chap. 8.13)** - created the Saint Lucia Air and Sea Ports Authority (SLASPA) to, *inter alia*, provide for co-ordinated and integrated systems of airports, seaports and port services. The Act prohibits, restrict and controls the depositing of any substance, solid matter, article or thing polluting or likely to pollute the waters of any seaport, and the disposal of garbage, papers, refuse or other material at an airport or seaport, except in the receptacles provided for that purpose. SLASPA is also responsible for ensuring compliance of vessels in Saint Lucian waters with the provisions of international conventions to protect the marine environment.
- d) **Physical Planning and Development Act (Cap. 5.12)** - makes provisions for the development of land, the assessment of the environmental impacts of development, the grant of permission to develop land and for related matters, and has as one of its objects, to maintain and improve the quality of the physical environment in Saint Lucia. Section 22 of the Act requires developers of certain developments to submit an EIA which must accompany the application for approval of the development, and Schedule 4, which lists the types of development requiring an EIA, includes any industrial plant or development projects generating or potentially generating emissions, aqueous effluent, solid waste, noise, vibration or radioactive discharges, or will store and/or use hazardous materials.
- e) **Public Health Act (Cap. 11.01)** - provides for the promotion and preservation of public health and authorises the Minister to make regulations to promote the objects of the Act. Regulations under the Act of relevance to PP and ML include Statutory Instrument 21/1978: Disposal of Offensive Matter; Statutory Instrument 70/1980: Food; and Statutory Instrument 3/1953: Mosquito Control.
- f) **Styrofoam and Plastic Food Service Containers (Prohibition) Act (No. 22 of 2019)** - prohibits the importation of Styrofoam and single use plastic food service containers and service items as of August 1, 2019. It also prohibits the manufacture, sale, use and distribution of Styrofoam food services containers as of August 1, 2020 and single use food service containers and service items

as of 1 August, 2021. These prohibitions are supported through the application of a zero percent (0%) import duty on all bio-degradable and compostable alternatives and an education and awareness campaign to promote the transition away from single use Styrofoam and plastic items in the food service sector. The Act was amended in 2020 (Amendment No. 8 of 2020), amidst the COVID-19 pandemic which presented challenges to local importers in obtaining shipments of alternatives to the banned single-use plastic food service containers.

- g) **Castries Constituency Council Act: Cap. 17.20** - created the Castries Constituency Council and charged it with responsibility for, *inter alia*, ensuring the cleanliness of streets and other public places within the city of Castries and its environs. Under this provision, the Council undertakes waste collection and the cleaning of drains within the City limits.
- h) **Fisheries Act: Cap. 7.15** - authorises the Minister to declare areas of the sea as marine reserves and to take measures, as necessary, to afford special protection of the flora and fauna of these areas. Such measures include managing marine litter, which impacts negatively on these resources.
- i) **Works and Roads Act: Cap 8.05** - grants the Minister the powers and responsibility to clear verges and drains and desilt waterways. These activities have impacts on waste flows, including into the marine environment.

In addition, the following two Bills are under consideration to further strengthen the regulatory framework for waste management:

- A draft Management of Beverage Containers Bill (2019) that would incentivise the return of plastic beverage containers in exchange for the payment of a cash refund. This Bill is under review by the Office of the Attorney General; and
- A Marine Pollution Management Bill that would, *inter alia*, establish administrative and operational requirements for the management of ship-generated waste and place a ban on the disposal of waste into the territorial waters of Saint Lucia.

Annex G: Activity Map - Saint Lucia Marine Litter Management Action Plan		
KEY: P = Pillar; A = Activity		
Pillars	Activities	Relationships with other Activities
Pillar 1	STRENGTHEN THE ENABLING WASTE MANAGEMENT POLICY AND REGULATORY FRAMEWORK	
P1 - A1	Develop and approve a National Waste Management Strategy	Inputs required from P1 A2, P2 A2, P2 A3, P2 A4, P3 A1, P4 A2, P4 A2, P5 A1
P1 - A2	Conduct an assessment of the economic, environmental and social aspects of waste recovery and recycling to inform policy and regulatory control and promotion.	Input into P1-A1; Output will support P2-A1, P2-A2 and P2-A3
P1 - A3	Finalise and enact the Management of Beverage Containers Bill	
P1 - A4	Finalise the Marine Pollution Management Bill and submit for enactment	
P1 – A5	Establish a mechanism to manage data collection, analysis, archiving and retrieval	
Pillar 2	WASTE MINIMISATION	
P2 - A1	Develop a programme for waste segregation in one of the eleven waste collection zones	To be supported by P5-A1; Input into P1-A1; Supports P2-A3
P2 - A2	Develop guidelines and standards for waste segregation at hotels, commercial and institutional establishments and manufacturing operations	To be supported by P5-A1; Input into P1-A1; Supports P2-A3
P2 - A3	Develop a programme to promote recovery, recycling and reuse of specific waste streams	Input into P1 - A1; Guidance from P1-A2; Supported by P5-A1
P2 - A4	Develop and pilot a national programme to encourage composting.	Supported by P5-A1
P2 - A5	Engage the DCA to include waste minimization plans in development applications.	
P2 - A6	Develop and implement waste management plan for the fisheries sector to include return of damaged gear	Input into P1 - A1; Supported by P5-A1
Pillar 3	CLEANUP CAMPAIGNS	
P3 - A1	Design and execute annual coastal cleanup activities, capture data and lessons learned, and communicate findings.	Input into P1 - A1; Supported by P5-A1
P3 - A2	Design and execute cleanup activities for rivers, waterways, roadways, capture data and lessons learned, and communicate findings.	
Pillar 4	STRATEGIC PARTNERSHIPS AND STAKEHOLDER ENGAGEMENT	

Annex G: Activity Map - Saint Lucia Marine Litter Management Action Plan		
KEY: P = Pillar; A = Activity		
Pillars	Activities	Relationships with other Activities
P4 - A1	Create ad-hoc groups to develop waste management strategies and action plans for key sectors	Input into P1 - A1; P2-A2,
P4 - A2	Collaborate with constituency councils, community groups, the private sector, and NGOs to promote responsible waste management.	Input into P1 - A1; Supported by P5-A1
P4 - A3	Continue and expand, where possible, collaboration with regional and international partners in waste management	Cross-cutting activity
Pillar 5	ENVIRONMENTAL EDUCATION AND BEHAVIOURAL CHANGE	
P5 - A1	Develop a comprehensive environmental education programme with a focus on driving behavioural change toward waste management, plastic pollution and marine litter	Input into P1 - A1; Cross cutting and to be factored in all activities

