Additional Caribbean Regional Project

Part I: Project Information

Name of Parent Program
Implementing Sustainable Low and Non-Chemical Development in SIDS (ISLANDS)

GEF ID
10472

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Additional Caribbean Regional Project

Countries
Regional, Bahamas, Cuba, Dominica

Agency(ies)
UNEP

Other Executing Partner(s)
BCRC Caribbean

Executing Partner Type
Others

GEF Focal Area
Chemicals and Waste

Taxonomy

Focal Areas, Sustainable Development Goals, International Waters, SIDS : Small Island Dev States, Pollution, Plastics, Chemicals and Waste, Best Available Technology / Best Environmental Practices, Open Burning, Industrial Emissions, Waste Management, eWaste, Industrial Waste, Hazardous Waste Management, Mercury, Sound Management of chemicals and waste, Emissions, Pesticides, DDT - Vector Management, DDT - Other, Persistent Organic Pollutants, New Persistent Organic Pollutants, Polychlorinated Biphenyls, Uninentional Persistent Organic Pollutants, Disposal, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Demonstrate innovative approache, Transform policy and regulatory environments, Deploy innovative financial instruments, Stakeholders, Beneficiaries, Civil Society, Non-Governmental Organization, Community Based Organization, Academia, Local Communities, Indigenous Peoples, Communications, Strategic Communications, Behavior change, Education, Public Campaigns, Awareness Raising, Private Sector, Large corporations, SMEs, Individuals/Entrepreneurs, Type of Engagement, Information Dissemination, Partnership, Participation, Consultation, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Women groups, Gender results areas, Access to benefits and services, Capacity Development, Participation and leadership, Knowledge Generation and Exchange, Capacity, Knowledge and Research, Innovation, Knowledge Generation, Workshop, Training, Learning, Indicators to measure change, Adaptive management, Theory of change, Knowledge Exchange, Peer-to-Peer, South-South, North-South

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Submission Date

6/18/2021

Expected Implementation Start

1/1/2022

Expected Completion Date

1/31/2027

Duration

60In Months

Agency Fee($)

900,000.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CW-2-3	Sound management of chemicals and waste addressed through strengthening the capacity of sub-national, national and regional institutions and strengthening the enabling policy and regulatory framework in these countries	GET	10,000,000.00	25,760,108.00
		Total Project Cost($)	**10,000,000.00**	**25,760,108.00**

B. Project description summary

Project Objective

To prevent the build-up of materials and chemicals in the environment that contain POPs and Mercury and other harmful chemicals in SIDS, and to manage and dispose of existing harmful chemicals and materials in SIDS

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
1. Preventing the Future Build-Up of Chemicals Entering SIDS	Technical Assistance	Countries have adopted environmentally sound policies and control the import of chemicals, materials and products that lead to the generation of hazardous waste.	1. The legislative and institutional framework is developed to support the environmentally sound management of hazardous chemicals in materials, products and wastes at national and regional levels in the Caribbean. 2. Sustainable training programme is developed to assist countries with implementing the Chemicals and Wastes MEAs at a national level. 3. National, institutional and technical capacity to reduce/control the current and future trade of chemicals and products containing hazardous chemicals is strengthened. 4. Increased capacity for the development and implementation of national and regional chemicals and products standards including GHS. 5. Sustainable Procurement is promoted to key stakeholders to reduce the	GET	2,486,800.00	5,317,108.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
2. Safe Management and Disposal of Existing Chemicals, products and materials	Technical Assistance	Harmful chemicals and materials present and/or generated in the countries are being disposed of in an environmentally sound manner	1. Capacity for environmentally sound management of SC POPs and MC Hg products strengthened, and obsolete pesticides and chemicals, PCBs and DDT eliminated 2. Capacity to manage other hazardous waste streams specific to the Caribbean improved.	GET	2,311,800.00	5,000,000.00
3. Safe management of Products entering SIDS/Closing Material and Product loops for Products	Technical Assistance	Build-up of harmful materials and chemicals is prevented through establishment of effective circular and life-cycle management systems in partnership with the private sector.	1. Strategies for Reverse Supply Chain Schemes for WEEE Management developed 2. Capacity built for the ESM of ELVs in The Bahamas and Dominica. 3. Improved management of plastics (including PVC) through the life-cycle approach and coordination with the public and private sectors.	GET	2,076,400.00	10,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
4.Knowledge Management and Communication	Technical Assistance	Knowledge generated by the project is disseminated to, and applied by, SIDS in all regions	1. Caribbean communities are informed and engaged with in the sound management of chemicals and waste. 2. Support for CCKM.	GET	2,465,000.00	3,793,000.00
Monitoring and Evaluation	Technical Assistance			GET	185,000.00	100,000.00
			Sub Total ($)		**9,525,000.00**	**24,210,108.00**

Project Management Cost (PMC)		
GET	475,000.00	1,550,000.00
Sub Total($)	**475,000.00**	**1,550,000.00**
Total Project Cost($)	**10,000,000.00**	**25,760,108.00**

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Bahamas/	In-kind	Recurrent expenditures	1,500,000.00
Recipient Country Government	Cuba/	In-kind	Recurrent expenditures	463,000.00
Recipient Country Government	Dominica/	In-kind	Recurrent expenditures	1,017,108.00
Other	BCRC Caribbean	In-kind	Recurrent expenditures	250,000.00
GEF Agency	UNEP Youth	Grant	Investment mobilized	130,000.00
GEF Agency	UNEP FFEM	In-kind	Recurrent expenditures	2,400,000.00
Private Sector	Iberostar	Grant	Investment mobilized	
Private Sector	Carnival Cruise Line	Grant	Investment mobilized	20,000,000.00
			Total Co-Financing($)	**25,760,108.00**

Describe how any "Investment Mobilized" was identified

Co-financing from the countries: Recurrent expenditures spent on the management of chemicals and waste as well as direct external budget support for the issue. Cash co-financing from Cuba and Dominica: indicative of ?investment mobilized? for construction of interim storage facilities for hazardous waste

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
UNEP	GET	Regional	Chemicals and Waste	POPs	10,000,000	900,000
				Total Grant Resources($)	**10,000,000.00**	**900,000.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

200,000

PPG Agency Fee ($)

18,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
UNEP	GET	Regional	Chemicals and Waste	POPs	200,000	18,000
				Total Project Costs($)	**200,000.00**	**18,000.00**

Core Indicators

Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Type/name of the third-party certification

Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
0	0	0	0

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE

Indicator 5.3 Amount of Marine Litter Avoided

Metric Tons (expected at PIF)	Metric Tons (expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
	7,400.00		

Indicator 9 Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products (metric tons of toxic chemicals reduced)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
0.00	302.68	0.00	0.00

Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
SelectDDT		64.70		
SelectPolychlorinated biphenyls (PCB)		2.80		
SelectHighly Hazardous Pesticides		234.10		
SelectPentachlorophenol and its salts and esters		0.06		
SelectPerfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride		0.02		

Indicator 9.2 Quantity of mercury reduced (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
	1.00		

Indicator 9.3 Hydrochloroflurocarbons (HCFC) Reduced/Phased out (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
	3		

Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 9.6 Quantity of POPs/Mercury containing materials and products directly avoided

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
	32,115.00		

Indicator 10 Reduction, avoidance of emissions of POP to air from point and non-point sources (grams of toxic equivalent gTEQ)

Grams of toxic equivalent gTEQ (Expected at PIF)	Grams of toxic equivalent gTEQ (Expected at CEO Endorsement)	Grams of toxic equivalent gTEQ (Achieved at MTR)	Grams of toxic equivalent gTEQ (Achieved at TE)
	480.00		

Indicator 10.1 Number of countries with legislation and policy implemented to control emissions of POPs to air (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
	3		

Indicator 10.2 Number of emission control technologies/practices implemented (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		1,179,129		
Male		1,179,129		
Total	0	2358258	0	0

Part II. Project Justification

1a. Project Description

describe any changes in alignment with the project design with the original pif

The request for CEO endorsement below is in line with the original child project submitted as part of the ISLANDS Programme Framework Document (PFD) (GEFID 10185), approved by the GEF Council in December 2019. Consultations with partners at the national and regional levels and site investigations carried out during the Project Preparation Grant (PPG) phase confirmed the initial findings presented in the PFD. The baseline analysis assisted in refining the proposed activities under this project.

The project is being submitted in the context of the ongoing COVID-19 pandemic. As such, the proposal has been adapted to reflect the potential impacts of the pandemic. The COVID-19 pandemic has affected every economic sector in Caribbean SIDS and all segments of society, however with differential impacts depending on age group, gender, disabilities, socioeconomic status and geographic location. Furthermore, the Child Project was expected to be completed in December 2020. However, due to the government-imposed restrictions effected in the project countries during the COVID-19 pandemic, data collection during the key development phases was limited. As a result, a six (6)-month extension to the PPG Phase was granted by the GEF to accommodate delays in the finalization of the alternative scenario and the CEO Endorsed Document.

COVID-19 related impacts in SIDS include (but are not limited to): impact on human health; reduced economic growth; significant decline in tourism and remittances, that have led to reduced foreign exchange earnings; reduced income from major income contributing sectors (e.g. tourism, fishery, agriculture, services, etc.); job losses, especially in the informal sector; reduced access to basic services; household food insecurity (often worsening as a result of a decline in the economy and a breakdown in supply chains); fragile healthcare systems that will be stretched further in the short term but could emerge stronger in the medium- to long- term; and women and girls more adversely affected.

Caribbean SIDS? governments have responded to the crisis through rolling national lockdowns and the enforcement of social distancing practices and in some cases, the wearing of facemasks. The impact of COVID-19 has been considered and included as part of the risk analysis for this project. Risks and their mitigation measures have been described in detail in the risk table completed under Section 5.

1. a. Project Description.

a) Global environmental and/or adaptation problems, root causes and barriers that need to be addressed

a.1 Global Environmental Problems

The sound management of chemicals throughout their lifecycle and end of life is crucial for the protection of human health and the environment. Globally, in 2016, municipal solid waste (MSW)

generation was estimated to be 2.01 billion tonnes, and this figure is expected to rise to 3.4 billion tonnes by 2050[1][1]. The composition of global waste generally includes food and green waste (44%), paper (17%), plastics (12%), glass (5%), metal (4%), and other types of waste (18%). In developing countries, organic waste accounts for the largest fraction of all waste. With increasing wealth, the shares of paper, plastic, glass and metal rise; solid waste in OECD states consists mainly of recyclables, followed by organics[2][2].

Due to their small size and narrow resource bases, SIDS are import-dependent economies. Limited landmasses mean SIDS also often have very high population densities, for example, the Maldives ranks 11th globally with 1,102 individuals per square kilometre[3][3] but with a landmass placing it at the 187th position. On a per capita basis, waste generation in SIDS is rising. In 2014, it was slightly lower than in OECD countries (1.29 kg/capita/day, compared to 1.35 kg/capita/day), but as of 2019, it is 2.3 kg/capita/day, 48% higher than that of OECD countries[4][4]. However, the substantial number of tourists often skews the per capita waste generation of the permanent population.

The progression of SIDS is bound to their import-dependent development pathways. To meet the resulting changing consumption patterns, the importation of products becomes increased and diversified at concerning rates (ranging from mercury containing thermometers to plastic packaging, from second hand electronic products to motor vehicles, from agricultural chemicals to industrial chemicals and other non-biodegradable materials). Increasing importation results in the generation of a diverse array of distinct types of hazardous and toxic wastes. The impact of SIDS import-dependent economies on waste management is magnified by the lack of proper infrastructures, such as installed capacity or required facilities, to manage the generated waste and as such, SIDS are unable to address this alone[5][5].

Akin with the Pacific, Atlantic and Indian Ocean SIDS, the Caribbean SIDS are faced with the increasing challenge of proper disposal of non-biodegradable materials and industrial and agricultural chemicals[6][6]. Furthermore, the excess amount of waste produced by tourism6, a vital economic sector for most SIDS, is posing an additional burden on existing infrastructure. In the Caribbean for example, the approximately 75 million-night stays per year, are estimated to generate as much of 166 million tonnes of waste annually as of 2019[7][7]. With the onset of the COVID-19 global pandemic, international tourist arrivals in SIDS saw a decline of 47% during the first four months of 2020 with declines reaching upwards of 90% at the end of April 2020 in some countries[8][8]. The development and planned distribution of vaccines to SIDS from 2021 and onward is expected to see a revitalization of this sector in SIDS[9][9] and with that, the concomitant waste generation. The tourism sector places additional stress on already limited and often basic landfill/open dumping infrastructure. Moreover, the complexity and hazard or potential hazard of

waste streams, such as e-waste, pesticides, asbestos, used oil, items containing heavy metals and biomedical wastes, adds to the pressure required by local waste management systems for their recovery or disposal since facilities for their treatment and disposal are often not in place6. Indian Ocean SIDS, like Mauritius, and Caribbean SIDS, like Antigua and Barbuda, realised the implications of this problem and have embarked on important investments in the establishment and operation of municipal waste management systems and related infrastructure. Despite this effort, the urgent need for systems to recycle, treat and dispose of more complex and hazardous waste streams [health-care waste management (HCWM), WEEE, Hg containing wastes, pesticides] in country or abroad exists and still poses challenges to these SIDS.

Due to inadequate or even nonexistent collection services, a common challenge in many Caribbean countries, as with the SIDS of the Pacific and Indian Oceans, open burning of accumulated waste and/or disposal into water sources is a normal practice. This challenge also results in open and uncontrolled dumping as a means of waste disposal causing human health problems, risks to the marine ecosystems, and other sensitive land areas and watercourses. In addition, the waste managed by the informal sector is often done without proper personal protective equipment (PPE)4, which creating additional risks to human health. Moreover, uncontrolled burning is characteristic of uncontrolled dumping sites, resulting in the emission of harmful chemicals such as mercury, dioxins, and furans.

As such, the transition to integrated waste management is urgently needed in SIDS across the world to address these growing concerns. Extensive evidence highlights that the economic costs of inaction in SIDS are significant as it impacts health, environment, tourism, and fisheries ? key sectors to all SIDS. In Palau for example, poor solid waste management results in pharmaceutical costs, time in hospital and lost labour costs of over US$700,000 per year, or US$36 per individual, per year4. According to the SIDS Waste Management Outlook 2019, waste reduction can save SIDS municipalities between US$35 and US$400 per tonne, depending on the location and the waste management technologies used4.

SIDS? environments are particularly vulnerable to pesticides (including POPs and Highly Hazardous Pesticides (HHPs)) damage4. SIDS?s deep physical and cultural relationship with the marine and mangrove environments increases the islands? susceptibility to harmful effects from pesticide run-off. This is extended to coral reefs, which are rich in biodiversity and a source of livelihood for SIDS, as the physiological processes of the corals are affected[10][10]. Other forms of pollution, as well as sedimentation, negatively affect the marine environments by smothering coral reefs, killing fish, and reducing the recreational value of beaches. To exemplify, in 2010, coastal sediments in the Caribbean with high concentrations of chlordecone (a POP used for 30 years in banana production) were attributed to the contamination of fish and lobsters that local communities were dependent. The Global International Waters Assessment[11][11] highlighted the significant impact on surface and groundwater that pesticides and other agro-chemicals used in the agricultural sector have, noting that improper and indiscriminate disposal of agricultural wastes is a priority issue, with emphasis needed on stockpiles of obsolete pesticides and empty pesticide containers.

a.2 Root Causes

a.2.1 **Global Root Causes**

Over the past decades, the livelihoods of people across the globe have generally been improved through economic development. Although SIDS have also seen an increase in economic growth and socioeconomic welfare, SIDS are faced with a significant challenge to sustainably manage already scarce resources needed by the resource-intensive model of economic development. Therefore, due to characteristics common across all SIDS, the long-term benefit of economic development is put at risk. These common characteristics amongst SIDS in the Pacific, Atlantic and Indian Ocean and the Caribbean Sea can be identified as root causes of chemical and waste issues. Realising the urgency of this issue, SIDS governments have continued to cooperate with international agencies to develop solutions that threaten economic development, including the root causes discussed below. Thus far, a sustainable chemicals and waste management programme presented the most promising approach to alleviate the pressure on SIDS by addressing the waste management barriers that impede SIDS from achieving sustainable development. This programme will provide an opportunity to reallocate resources to develop solutions for the noted root causes.

1. **Largely import-dependent economies:** Due to the compounding effect of several characteristics of SIDS, such as remoteness from global markets, limited available landmass, etc., SIDS economies are defined by high imports and relatively low exports. Through this dependency, SIDS become vulnerable to external conditions, which they are unable to control due to their exclusion from the global economy[12][12]. Consequently, the economic opportunities for SIDS become limited to volatile sectors such as tourism to contribute to exports and GDP.

2. **Located remotely from global markets and commonly with outer islands spread across vast distances:** Within each region, SIDS are characterised by a high degree of isolation, often separated from the neighbouring country by hundreds of kilometres. Further to this, SIDS, which often comprise tens, hundreds or even thousands of islands, can be separated from other islands of the state by significant distances. Consequently, high transport costs between and within SIDS, with the expected high international costs, limit the benefit to SIDS from development opportunities. This has led to some internal migration in SIDS in recent years from outer islands to inner islands.

3. **Limited available landmass to manage wastes:** Excepting European micro-states, almost all the world?s smallest countries by area are SIDS. Given generally high population densities along the coast, SIDS have limited access to land for waste management infrastructure as it competes with land usage for housing, commerce, agriculture, and other land uses that are vital to the SIDS economy. Paired with geographic isolation and high transport costs, SIDS-generated wastes become a particularly difficult and costly waste stream to manage4.

4. **High economic vulnerability to exogenous shocks:** Due in part to their largely import-dependent economies (see above), and their dependence on volatile economic sectors, SIDS economies are highly vulnerable to exogenous shocks. This root cause is exemplified by the impact that the COVID-19 pandemic had on the tourism economies of

SIDS. Various SIDS have experienced considerable falls in GDP in 2020, some dropping by as much as 15% or more[13][13].

5. **Lack of critical mass of people, infrastructure, and investments:** For development solutions to be both effective and efficient, a critical mass of people, infrastructure and investments is required. Likewise, for waste management solution, a critical mass of waste is required. Due to their small size, SIDS are unlikely to be able to reach the critical masses needed for conventional development and waste management solutions.
6. **Economic migration of qualified individuals:** Due to limited educational and occupational opportunities in SIDS, educated individuals will often leave their countries at an early age for higher education or career opportunities. This results in a ?brain drain? with these individuals often not returning at least until old age. Consequently, SIDS are left without the qualified individuals needed to tackle the pressing development issues. As an attempt to address this, many SIDS have worked together in recent years to create opportunities to deter brain drain through efforts such as the establishment of regional universities and the diversification of SIDS economies.

a.2.2 Regional Root Causes

During the project preparatory period, the root causes have been further analysed and the following regional root causes were identified.

a) **Economic dependence on tourism:** The Caribbean is one of the most tourism-dependent regions in the world and in 2018, the revenue from tourism totalled US$32 billion[14][14]. In 2019, the region received approximately 26.3 million foreign tourists[15][15]and 32% of global cruise line deployment, the highest share in the global cruise industry[16][16]. Annually, the region caters to visitors through land-based tourism (mainly hotels) and off-shore tourism (cruise ships). The high presence of tourists has led to a sharp increase in waste generation for the region and partially explains the above-average per capita waste generation of Caribbean countries. Furthermore, high dependence on tourism, which is a volatile economic sector, increases the region?s sensitivity to exogenous shocks, such as the COVID-19 pandemic discussed earlier. As a result of the pandemic on global travel, the Caribbean was set to lose approximately 1.2 million jobs within the tourism sector in 2020, which will have economic implications for the region and its inhabitants15.

b) High sensitivity to environmental disasters: Hurricanes, earthquakes and to a lesser extent volcanic activity are common occurrences in the Caribbean. Hurricanes occur annually and can be particularly devastating, with some having the capacity to cause hundreds of millions or sometimes billions of dollars' worth of property damage in a single year. The impacts and effects of Hurricane Dorian, a Category 5 hurricane that hit The Bahamas in September 2019, was estimated at US$3.4 billion[17][17]. Hurricanes are also becoming more destructive; climate change is resulting in storms

of greater frequency and intensity leads, which in turn leads to infrastructural damage and mounting financial costs to countries for repairs. These environmental disasters tend to cause greater amounts of disaster waste which can overload Caribbean countries? waste management systems. The economic cost of environmental disasters also decreases countries? capacities to effectively tackle long-term development issues.

a.3 Barriers to be Addressed

a.3.1 Global Barriers ? Common to all SIDS

The 2019 SIDS Waste Management Outlook identified hazardous waste management as a top priority area to be addressed by SIDS. SIDS across the world, regardless of the economic status (least developed to middle income), share the following barriers to improved chemicals and waste management:

1. **Lack of regulations and limited capacity at customs level to manage and monitor imports of chemicals contained in products:** Comprehensive regulatory frameworks, standards and institutional capacity building for waste and chemicals management are absent in most SIDS. As such, the control and deterrence of the influx of products, which present disposal changes when they become waste, are not addressed. This barrier is coupled with the insufficient capacity for effective implementation and enforcement had such policy and regulatory frameworks existed.
2. **Lack of technical capacity and infrastructure to manage, safely store and dispose of hazardous substances:** SIDS are forced to rely on export to manage their hazardous waste, which is a costly option and often an unfeasible one due to economies of scale. This barrier necessitates that SIDS require assistance to minimise and preferably avoid the import of products (where feasible) that the local infrastructure is unable to treat while working towards the implementation of best environmental practices and available technologies not entailing excessive costs for SIDS to improve and develop systems, capacity and physical infrastructure for the proper management, isolation, storage, disposal and, when required, the exportation of toxic substances, waste and products containing hazardous and toxic substances. Improved disposal of critical hazardous waste should not only be a local priority but one that requires coordination between SIDS to manage and dispose of chemical, medical, and electronic waste as well as lead-acid batteries, asbestos and used oil within each region.
3. **Limited adequate landfills and poor solid waste management systems:** As part of the infrastructure barrier in SIDS to properly manage and dispose of waste, many SIDS rely on ?dumps? when engineered landfills are absent, leading to common occurrences of uncontrolled burning and the release of Unintentionally Produced Persistent Organic Pollutants (UPOPs). In atolls particularly, space available for landfills is extremely limited. Further to this, some SIDS lack functioning waste collection systems while others, such as in the Caribbean, municipal waste collection and transportation of household waste to landfill sites is done by the public administration. However, these

efforts are limited by the availability of financial resources, access to remote villages, and poor waste treatment and disposal systems within these SIDS.

4. **Limited recycling opportunities in SIDS:** Root causes such as small population sizes, geographic isolation and associated high shipping costs, SIDS are unable to achieve economies of scale. Within SIDS, high percentages of potentially recyclable wastes (e.g. compostable material, plastics, paper, glass) are disposed of in ?dumps? or landfills since the segregation of waste streams is still an uncommon practice. Inadequate human capacity and incentives to promote recycling add to the limited recycling opportunities in SIDS as legal and regulatory provisions, economic instruments for citizens and businesses or voluntary agreements with the private sector are often absent in SIDS.

5. **Lack of awareness:** Raising awareness on the proper management of waste, in both upstream and downstream stages, is often limited in SIDS as policy makers fail to view this activity as a priority4. Consequently, the citizens of SIDS lack an understanding of the importance of waste management and the costs of inaction to environmental and human health. SIDS are unaware of the potentially harmful substances in consumer products and what would constitute proper segregation and disposal. Coupled with the lack of awareness raising activities, public information to educate on improved waste management practices are also insufficient to achieve the necessary outcome.

6. **Waste generated by the tourism, hotel, agricultural and cruise industry:** As a result of the root causes explained above, many SIDS are highly dependent on tourism, agriculture, and the cruise industry as a major contributor to GDP and job creation. SIDS often lack the facilities for storage and disposal, as well as other infrastructure, to suitably manage the chemicals wastes that a produced in these sectors4 placing a burden on existing infrastructure to match the management required. This then limited SIDS ability to improve on the existing management systems for chemicals and waste. For many SIDS, tourism, agriculture, and the cruise industry are especially important in terms of job creation and GDP. However, the waste generated by the agriculture, cruise industry and the tourism and hotel sector place a significant burden on SIDS? limited infrastructure and makes it even harder to improve the management of chemicals and wastes.

7. **Additional burden of waste generated by natural disasters:** SIDS are susceptible to disasters such as cyclones, hurricanes, tsunamis, volcanoes and earthquakes, which produce unpredictable amounts of mixed waste and pollutants rapidly4. Without such events, SIDS are burdened with meeting the demands of waste management requirement; however, such disasters easily overwhelm the current waste management infrastructure with the immediate disaster waste. This is further compounded when the relief waste from such disasters are considered4. Disaster relief and recovery add to the challenge of managing disaster waste as funds must be reallocated to emergency response. With decades of waste generated in seconds, SIDS require appropriate strategies, procedures, methods, and facilities to treat with this and these are often no in place for such events characteristic of SIDS.

8. **Climate Change and rising sea levels:** One of the greatest threats to the livelihoods, security and wellbeing of SIDS? inhabitants, due to the unique geography of the states, is climate change. Low-lying coastal zones in SIDS such as the Bahamas, Barbuda, Cook Islands, Federated States of Micronesia, Maldives, Kiribati, Marshall Islands, Tonga, and Tuvalu, often only a few meters above sea level, are at risk of permanent inundation of sea-level rise. One concern is diminishing water quality in SIDS by the contamination of freshwater supplies by wastewater as well as infiltration of seawater into SIDS? groundwater supplies4. Furthermore, SIDS ability to sustainably manage chemicals and waste in the face of climate change is exacerbated by the various key sectors affected by climate change, such as the tourism and agriculture sectors, that compete with resources to adequately address risks of inundation of low-lying coastal landfills and dumpsites. Moreover, poor waste management practices in SIDS such as open burning contributes between 8-10% of annual greenhouse gas. emissions.

a.3.2 Region-Specific Barriers to the Sound Management of Chemicals and Wastes

Caribbean SIDS face these and several other unique barriers to improved chemicals and waste management. These include:

1. **Limited collection of information and exchange:** In Caribbean SIDS, detailed information on the quantities and flows of possibly harmful chemicals and products throughout their lifecycle is seldom collected and analysed by relevant authorities. There is limited ability of decision makers, for example, and private enterprises to gather, exchange and access information required to drive the reduction in use of chemicals and the resulting wastes. In the agricultural industry, there is also limited technical capacity for pesticide risk assessment and monitoring of highly hazardous pesticides.
2. **Lack of private sector engagement:** The inability to form economies of scale has always proved to be a deterrent to engaging private sector stakeholders in recycling activities. With regards to e-waste and ELVs this is compounded by a lack of treatment capacity and storage space that leads to inadequate final disposal of this waste stream. Baseline data gathered in the PPG Phase indicated that there is a high level of private sector involvement in the collection, treatment and export of WEEE in The Bahamas and Dominica, and to a lesser extent in Cuba. The technical capacity of the facilities found in the project countries was not fully assessed but it was indicated that their operations were limited, due to the fluctuations in material flows and international market prices for the commodities. Issues in material flow were supported by the informal sector?s activities, specifically with respect to collection.
3. **Lack of chemicals and waste financial mechanisms:** The amount of knowledge regarding how to design financial mechanisms to support reductions in chemicals and pesticides use while building improved production is very limited. There are no practical models that provide governments, producers, and suppliers a framework upon which to formulate financial structures designed to incentivize sustainable practices. There is little

access to expertise needed to provide innovative economic models in the region to show that a reduction in the use of pesticides can improve production and profitability, both directly as well as through the reduction of external risks.

4. **Limited promotion of alternative products:** There are relatively low levels of investment in funding for alternative and sustainable production practices. Private and/or public funding for agroecological research and development is limited. Investment in the promotion of sustainably produced commodities is not sufficient. The ability of governments to access and exchange information and to be able to afford to apply this information is lacking.

In moving the chemicals and waste agenda forward, certain changes must be made to the ?business as usual scenario? that is taking place at present. The key drivers that will inform the strategic positioning in relation to transformation include the government buy-in and support of systems such as sustainable agricultural practices, integrated waste management, recycling initiatives and measures to improve extended producer responsibility. Due to the size of the countries, many of these options cannot be implemented sustainably at the national level. The economies of scale in the Caribbean must be analysed and a determination made on the feasibility of such initiatives at the regional level.

b) The Baseline Scenario and any Associated Baseline Projects

Global and national baseline scenarios

b.1 Global baseline scenario:

SIDS are a distinct group of 58 countries, consisting of UN Member and non/Member/ Associate Members, across the Caribbean, Pacific, Atlantic, Indian Ocean and South China Sea (AIS)[18][18]. While the total population of all the SIDs is approximately less than 1% of the world?s population, these countries experience unique challenges related to social, economic and environmental issues. Many of these issues are attributed to these countries? small population size, remoteness from international markets and subsequent high transportation costs, vulnerability to global economic changes and vulnerability to natural disasters, particularly since there is little economic diversity. A variety of drivers, pressures and states and trends affect SIDs and consequently, their development. These include climate change, rising sea levels and subsequent coastal squeeze, loss of biodiversity and ecological resilience, increasing demand for energy, transport, food and water, access to potable water, food security, land use and availability, resource depletion and the management and waste, chemicals and pollution.

The SIDS Accelerated Modalities of Action (SAMOA) Pathway is an international framework that guides development in SIDS across the globe. This pathway, implemented from 2021-2024, aims to address climate change and rising sea levels and alleviate the associated impacts on development and biodiversity. Additionally, the SAMOA Pathway also seeks to focus on the development of chemicals and waste management through reduce, reuse, recycle, recover and return approaches,

through capacity building and the use of technology. A SIDS Partnership Framework was also established, designed to monitor progress of existing partnerships, and stimulate the launch of new, genuine, and durable partnerships for the sustainable development of SIDS[19][19].

In September 2019, the midterm progress in implementing the SAMOA Pathway was reviewed[20][20], where the political declaration of the meeting requested that the relevant institutions, funds and facilities review their financing instruments to maximise accessibility, effectiveness, transparency, quality and impact. Additionally, it highlighted the importance of fostering enabling environments to attract foreign investment and to strengthen the capacity of SIDS to participate in the multilateral trading system. A midterm review of the progress of the SIDS Partnership Framework was also completed[21][21], which addressed the impacts of partnerships on beneficiaries and sustainable development of SIDS, which concluded that attention is required to address the dimensions of poverty, inclusion of marginalised groups, issues of market development, health and noncommunicable diseases, gender considerations in regard with income inequality and sustainable consumption and production in small islands.

At the fourth (4th) meeting of the UNEP Assembly, through which governments committed to act to facilitate the improvement of the management of chemicals and wastes, according to the SAMOA pathway, which includes actions involving marine plastics and litter, sustainable consumption and production inclusive of green procurement, single use plastic pollution, and the environmentally sound management of chemicals and wastes[22][22].

Much emphasis is placed on the sharing of knowledge between SIDS as there is the opportunity to learn from each other, to address the common issues in the current project-by-project landscape, however, this is currently severely lacking, and can be deemed counterproductive. The SIDS Waste Management Outlook (2019) clearly indicates that SIDS require such opportunities for interaction and cooperation to work on both a regional and global scale, in order to feasibly improve chemicals and waste management21.

The stages of development as well as the capacity to address challenges posed by chemicals and waste differ among SIDS in different regions. This is seen as there are existing national commercial waste management companies which are generating knowledge on determining the best mechanism for procuring services over multi-year contract periods in Indian Ocean SIDS, while Pacific SIDS have a regional overarching policy framework under the ?Cleaner Pacific 2025? programme. As such, there is existing knowledge that can be exchanged and shared, with opportunity for the Caribbean region to utilise the lessons learned from the Pacific and Indian Ocean SIDS, to ensure that the standards are raised for each project that is embarked. Since the SIDS are generally similar in terms of vulnerabilities and overall states and trends, drivers and pressures experienced, commonalities exist in actions to be taken to address the issues that exist.

Tourism is a rapidly expanding sector globally, creating opportunities for employment, revenue generation and the generation of foreign exchange (contributing to 20% of GDP in two-fifths of SIDS where data is available21). Globally, the tourism sector contributes to the depletion of already limited local resources and a large amount of solid waste generation, and is projected to

have an increase of 251% in solid waste disposal through the year 2050[23][23]. Consequently, SIDS require regulation to deal with the generation of waste and hazardous material.

The same is applicable for the agriculture sector in SIDS. Globally, agriculture related development in SIDS is guided by the Sustainable Development Goals (Goal 2 ? targets 2.3, 2.4 and 2.A) for *inter alia* efforts to promote sustainable agriculture. The focus of this SDG is to ensure access of all persons, especially vulnerable populations, to safe and sufficient food, doubling the agricultural productivity of small-scale producers and ensuring secure and equal access to resources, inclusive of inputs, knowledge, financial services and markets and ensuring sustainable food production systems. In achieving these goals, research and technological is required to facilitate the enhancement of agricultural productive capacity. Additionally, the reduction of the use of highly hazardous chemicals in agriculture is an objective under the SDG and would make a significant contribution to minimise the adverse impacts on human health and the environment through the reduction of exposure.

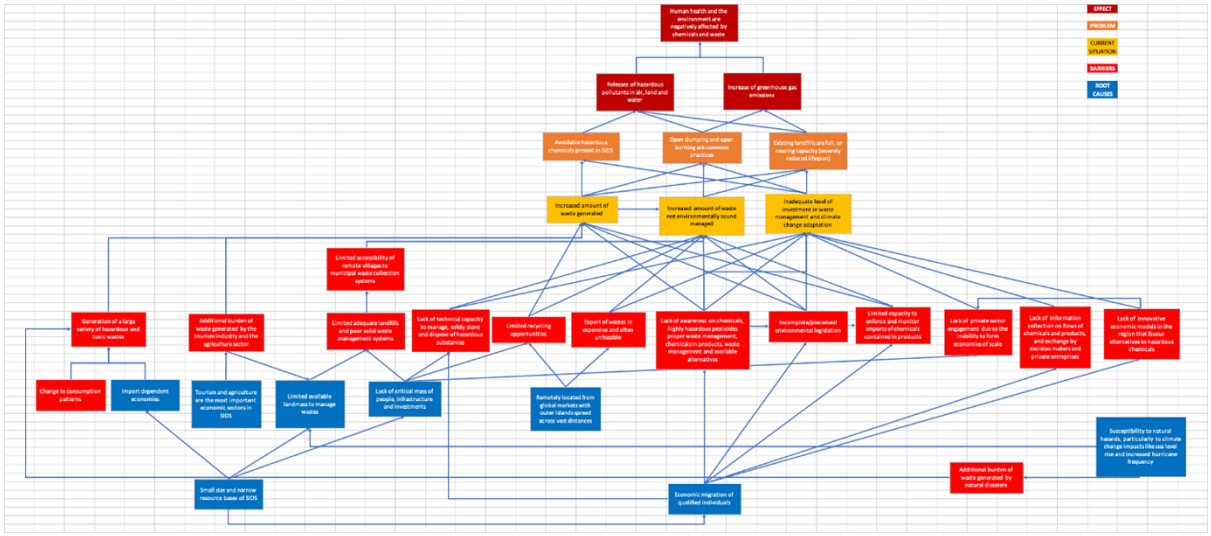

Figure 1: 10472 Caribbean Child Project Problem Tree

b.2 Regional and national baseline scenarios:

All SIDS face similar challenges with the management of waste and chemicals due to their commonalities. However, it must also be acknowledged that each country?s national situation differs due to a myriad of reasons, including geographical makeup and socio-political climate. The countries featured in this project are unique with Cuba being the largest island in the Caribbean, Dominica one of the smallest and The Bahamas comprising a series of small islands that form an archipelago. As the GEF ISLANDS 10279 project already includes a detailed regional baseline scenario for the Caribbean, in this project we have combined the regional and national baseline scenarios to provide a more comprehensive look into the unique features of the Bahamas, Cuba and Dominica.

During the Project Preparation Grant (PPG) phase, comprehensive assessments on each country?s national frameworks for the management of chemicals and waste, including solid municipal waste and hazardous wastes, were undertaken in order to further understand areas of similarity and areas

of distinction. The assessments included a review of the countries? legislative and institutional capacities for the implementation of the chemicals and waste management framework, as well as measures for border control. The private sector?s role in this framework was also analysed. Stakeholder consultations were also conducted to further inform current practices in waste management, and supplemented data on the types and quantities of wastes generated across the project country. The national baseline is presented below as follows:

- **Status of Ratification of Chemicals and Waste Management Conventions**
- **Legislative and Institutional Assessment on Chemicals and Waste Import and Onward Management in GEF ISLANDS 10472 Project Countries**
- **Waste management framework in GEF ISLANDS 10472 Project Countries**
- **Summary of hazardous chemicals and waste generation and management**

b.3 Status of Ratification of Chemicals and Waste Management Conventions

Table 3 below highlights the status of each country as it relates to their ratification or accession to the BRSM Conventions. All countries have ratified or acceded to the Basel and Stockholm Conventions. The Bahamas is not signatory to the Rotterdam Convention while Dominica is not signatory to the Minamata Convention.

Table 3: Status of Chemicals and Waste Management Conventions in GEF #10472 Project Countries

Target Country	**CONVENTION**			
	Basel	**Rotterdam**[24][24]	**Stockholm**	**Minamata**[25][25]
The Bahamas	1992 (a)	N.S.	2005 (R)	2020 (a)
Cuba	1994 (a)	2008 (R)	2007 (R)	2018 (a)
Dominica	1998 (a)	2005 (a)	2003 (a)	N.S.

Key: (a) = accession; (R) = ratification; N.S. = not signatory

b.4 Legislative and Institutional Assessment on Chemicals and Waste Import and Onward Management in GEF ISLANDS 10472 Project Countries

The lifecycle management of chemicals in the project countries is spread across different institutions. Although various institutions cooperate to ensure the functionality of the chemicals and waste management framework, baseline studies have reported that there are gaps in established formal communication between institutions, as well as in the technical capacity of some institutions as it relates to the national implementation of multilateral environmental agreements.

Customs Administrations from all project countries are equipped with the legislative and institutional framework for controlling traded commodities in general, as well as for managing restricted and prohibited goods. They share similar roles in the execution of their legislative powers to supervise the storage, examination, and clearance of chemicals and waste. Legislation on the

monitoring and control of trade in chemicals, chemicals in products, and wastes, legislation is split between multiple agencies.

All countries have implemented or are in the process of implementing data management systems to support coordination between Customs administrations and environmental departments for the control of chemicals traded in their national territories. These automated systems allow traders to submit Customs Declarations via an electronic interface and are designed to surveil administrative controls such as licensing requirements and assess the risks posed by commodities based on their Harmonized System (HS) codes. Even though there are features to allow integration of other relevant institutions onto the platform, these have not yet been activated in the project countries.

All project countries face similar issues with respect to their identification and classification of POP-containing and mercury-containing products under the HS. For example, products such as thermometers or skin creams which may or may not contain mercury cannot be distinguished by Customs Administrations as they have not been classified beyond the typical six-digit system to allow for further identification of chemicals. Continuous trainings with Customs Administrations, as well as with environmental agencies, is required in order to fill these gaps. Further, analytical and infrastructural capacity needs to be strengthened across all countries in order to support the identification of hazardous chemicals. Regional laboratories do not have the capabilities to identify more complex chemicals such as PCDD/PCDFs, PFOS and PBDEs.

Several agencies in each project country regulate the distribution and use of chemicals, and their management when they become waste. Generally, these institutions work in a cohesive manner to implement the legislation which exists to regulate these phases of lifecycle management. For several recently implemented pieces of legislation, such bans on single use plastics, it is too early to assess if the current institutional capacity can effectively implement, monitor and enforce the legislation. Of the three (3) project countries, Cuba appears to have the most structured approach for integrating various institutions into its chemicals and waste management framework as compared to the other two (2) project countries. The archipelagic nature of The Bahamas poses even further challenges to implementing a fully comprehensive chemicals and waste management system. A national perspective of each project country?s legislative and institutional framework is presented in further detail below and summarized in Table 4.

The Bahamas

In the Bahamas, the management of chemicals and waste is split between two (2) principal pieces of legislation, namely the *Environmental Health Services Act, Chapter 232* (EHS Act), which provides for solid municipal waste (SMW) management, and the *Environmental Planning and Protection Act, 2019* (EPP Act), which speaks to the management of both hazardous substances and hazardous waste. The EHS Act defines liquid and solid waste and regulates littering and the discharge of contaminants and pollutants into the environment. The supporting regulations made under this Act include the *EHS (Collection and Disposal of Waste) Regulations, 2004* and the *EHS (Collection and Disposal of Waste) (Amendment) Regulations, 2013*. The *EHS (Collection and Disposal of Waste) Regulations, 2004* makes provisions for the regulation of bulky waste, commercial waste, construction and demolition (C&D) waste, abandoned vehicles, domestic waste, industrial waste, refuse, special waste, street waste and yard waste. It directs the frequency of collection for different waste categories, the segregation of yard waste from commercial and domestic waste. The *Derelict Motor Vehicles (Disposal) Act, 1967* also regulates the disposal of ELVs. The management of stockpiles of hazardous substances and wastes are governed by the EPP

Act. The recently promulgated *Environmental Protection (Control of Plastic Pollution) Act, 2019* regulates the use of compostable single-use plastic bags and prohibits single-use plastic food ware and non-biodegradable, oxo-biodegradable and biodegradable single use plastic bags, as well as the release of balloons. Standards for the classification of biodegradable plastic bags are yet to be developed.

The Department of Environmental Health Services (DEHS) and the Department of Environmental Planning and Protection (DEPP) shoulder most of the responsibility for chemicals and waste management in The Bahamas. The former agency has oversight on solid waste management, including hazardous waste, while the latter agency is responsible for monitoring the discharge of hazardous waste in the environment of The Bahamas. Landfills are managed by both government and private entities. The island of Grand Bahama has a quasi-autonomous management system for waste, which is overseen by the Grand Bahamas Port Authority (GBPA). GBPA is not directly involved in the approval process of permitting chemicals onto the island. However, under the Hawksbill Creek Agreement, the GBPA is responsible for the provision, management and administration of all infrastructure, municipal and community services, including waste management, and provision of electricity. They are also a shareholder of the island?s Pine Ridge Landfill and directs its management. This landfill does not accept hazardous materials but when detected, they are normally diverted to a site where can be managed, usually by a local contractor.

The Bahamas has taken steps towards harmonizing the implementation of the multilateral environmental agreements (MEAs) which it has ratified through inclusion in the EPP Act. Sections 30 and 31 of this Act prohibit the discharge of hazardous substances into the environment and prescribe the management of hazardous wastes, respectively. However, regulations and standard criteria for the definition of hazardous wastes are required to support these provisions of the Act, which are yet to be adopted. Still, one of the most noteworthy provisions made under this Act for the purposes of this project is for the development of a National Policy Framework, including a National Persistent Organic Pollutants and Toxic Chemicals Policy to support the implementation of the Stockholm Convention and its protocols. Given the Bahamas? recent accession to the Minamata Convention in 2020, the 2019 Act does not speak to the development of a policy for the management of mercury and mercury added products. It is noted that the country is preparing its Minamata Initial Assessment, which can be used to inform the development of such a policy. Although the EPP Act serves as an enabling tool for the domestication of MEAs, there are no expressed provisions within this Act in relation to prohibiting import or export of hazardous waste in the terms outlined in Article 4 of the Basel Convention.

One of the apparent gaps in The Bahamas?s legal framework is the lack of regulations to provide for the management of hazardous substances prior to the end of their useful lives. There exists the *Precursors Chemicals Act, Chapter 228A*, which governs the import of chemicals to be used in the manufacture of narcotic drugs and other chemical substances. The *Customs Management Act 2011*, which regulates the importation and exportation of goods, as well as the control of prohibited or restricted goods and the *Export Control (Prohibition of Scrap Metal and Copper) (No. 2) Regulation 2011* prohibits the export of scrap metal and copper. The exportation of scrap from derelict vehicles, electrical wires, used lead-acid batteries (ULABs), and similar wastes is controlled and managed through administrative policy under the DEHS. However, there are limited legislative controls on import, export, manufacture and use of other hazardous substances and chemicals such as pesticides, POPs or mercury added products. The Bahamas does not allow the importation of wastes, whether for disposal or recycling, except in the case of used cooking oil

from cruise ships, but this is not enshrined in legislation; thus, legal instruments must still be developed to address these gaps.

The DEHS holds the authority to control the import, manufacture, use and disposal of hazardous chemicals while DEPP serves as the focal point and competent authority for the Basel, Stockholm, and Minamata Conventions. Their functions are also supported by the National Chemicals Coordinating Committee (NCCC), whose role it is to ensure coherence and communication between all parties involved in chemicals management. Other institutions represented on the NCCC include:

1. Department of Agriculture,
2. Bahamas Customs Department,
3. Bahamas Power and Light,
4. Department of Statistics,
5. Grand Bahama Port Authority- Environmental Division,
6. Ministry of Health- Department of Public Health,
7. Royal Bahamas Police Force (Fire Unit), and
8. University of the Bahamas.

This group has an advisory role and provides technical support on several national projects related to improving chemical management strategies, including for POPs and mercury management.

Cuba

In accordance with the Cuban Constitution, the onus for ensuring sustainable development is placed on the State. Citizens also have a duty to contribute to the protection of the environment. The *Environmental Law (Law No. 81 of 1997)*, which replaces Law 33 entitled ?Protection of the Environment and the Rational Use of Natural Resources? of 1981, is the umbrella legislation which actualizes the directions of the Constitution. It mandates Central State Administration Bodies to ensure that the movement, treatment, and final disposal of waste generated in production processes are aligned with the principles of environmental protection. Article 108 of Chapter V mandates that persons employ best practices in the generation or management of domestic, industrial, agricultural, medical and other chemical waste, while Chapter IV serves to domesticate the provisions of the Basel Convention into national law. Several sector-specific environmental laws, regulations and technical standards have been made under the Environmental Law, including *Decree No. 272 of February 2001* which is concerned with municipal solid waste management, and technical standards such as *NC 133 to NC 135*, which prescribe the storage, collection, transport, treatment and disposal of urban solid wastes. Resolution 136/2009 on the Regulations for the Integrated Management of Hazardous Waste were developed by the National Commission on Hazardous Waste to provide for the management of hazardous waste in Cuba and aims to establish the provisions that contribute to ensuring the comprehensive management of hazardous waste in the country. It requires all generators to report the types of waste generated, the quantities, and the management actions taken to the Ministry of Science, Technology and the Environment (CITMA).

Beyond the collection and final disposal of waste, the *National Recycling Law (Law 1288 of January 1975)* serves as a supporting tool for material recovery from end-of-life products, while *Decree-Law No.309 on Chemical Safety of 2013* is concerned with the management of products prior to the end of their useful lives. The former law places the onus for the management

and operation of all recycling operations in the country on the Association of Enterprises for the Recovery of Raw Materials (UERMP), including collection and processing of recyclable material, as well as subsequently delivering them to industries for use as secondary raw materials. *Decree-Law No.309 on Chemical Safety of 2013* and *Resolution 176/18* establish an integrated chemicals safety system for the lifecycle management of chemicals through cooperation between various national institutions with responsibility for chemicals management. It also establishes a The National Registry of Hazardous Chemical Products through *Regulations for the Registration of Hazardous Products of 2018*. The Regulations apply to persons who manufacture, import, export, store, commercialize or use any hazardous chemical product controlled by international treaties to which the Republic of Cuba is a Party. Such persons are required to register activities defined in Annex No. 2, regardless of the quantity of chemicals used in their operations. They aim to implement an integrated approach in complying with the international obligations contained in the Basel, Rotterdam, Stockholm and Minamata Conventions. The import and export of chemicals and products containing chemicals are also supported by *Decree Law 162*, which gives regulatory authority to Customs for the management and control of trade of all commodities entering and exiting through air or sea borders.

Cuba?s efforts towards comprehensive chemicals and waste management framework stand out as exemplary to its fellow Caribbean SIDS. In Cuba, several organs of the State work cohesively to ensure that chemicals are managed from their point of entry into the country until their recovery or disposal. CITMA is the central government institution with responsibility for environmental management policy development and implementation. The Office of Regulation and Environmental Security (ORSA), which is an office attached to CITMA, is responsible for the registration, control and management of industrial chemicals and other dangerous chemicals. ORSA also serves as the national regulatory authority for environment The Ministry of the Interior is responsible for the control of industrial explosives, their chemical precursors and toxic chemical products, some of which include mercury compounds while the Ministry of Agriculture- Central Pesticide Registry is responsible for the control and management, registration and used of pesticides. The Ministry of Public Health is also involved in the management of toxic chemicals. These entities support the registration system for chemicals which are subject to control by international treaties to which Cuba is Party.

At the municipal level, waste management is managed by provincial and municipal directorates, with overarching strategic direction from CITMA. Recycling is supported by the Union of Recyclable Materials Recovery Enterprises (URMRE), which is the State body responsible for the recovery, processing and commercialization of recyclable waste produced in both the residential and State sectors, Recyclable Material Recovery Enterprise (RMRE), responsible for recycling at the provincial level, as well as Independent Contractors (IC) and Cooperatives for Recyclable Material Recovery (CRMR) who collect recyclable materials from private and public waste and sell it to the national industry and Buyback Centres for further processing.

Dominica

The *Environmental Health Services Act, 1997* (EHS Act) provides for the investigation, research and dissemination of pertinent information to the public in relation to the management of waste. It requires the Environmental Health Department to investigate environmental issues and institute preventive and remedial measures in respect of, *inter alia*, environmental pollution and the

management and disposal of solid, liquid and gaseous wastes, and to collate, analyse and disseminate information relevant to the foregoing.

The provisions of the EHS Act complement those of the *Solid Waste Management Act, 2002* (SWM Act), which regulate themanagement of both solid municipal waste and hazardous waste. It also serves to establish the Dominica Solid Waste Management Corporation (DSWMC) has oversight for the national waste management, including the management of the country?s landfill, the Fond Cole Landfill. Dominica has adopted Annex I of the Basel Convention as its list of hazardous wastes, in addition to radioactive wastes; therefore, mercury, mercury added products and some POPs will be managed as hazardous wastes in Dominica. Dominica?s National Implementation Plan developed under the Stockholm Convention cite the development of a Hazardous Materials and Hazardous Wastes Management Act; this is yet to be enacted but given that hazardous waste is already managed under the SWM Act, its passage may result in a duplication of efforts.

The SWM Act considers the recycling, reuse and use of waste as a secondary resource, but subsidiary legislation is required to create the enabling environment for the recovery of waste through source segregation. The Act also prohibits the import of waste unless such waste is intended to be used as a secondary resource for a manufacturing process or it has been generated on a ship or aircraft landing in Dominica. Although Dominica does not accept non-recyclable portions of cruise ship waste, there is no legal instrument to formalize this decision to the international community.

Provisions are also made for the management of household appliances, which are classified as ?white goods?, but other categories of WEEE are not considered. Further to the SWM Act, the Litter Act, Chapter 40:61 prohibits the deposition of waste in public places and premises. The lack of provisions for the management of C&D waste and plastic waste are notable gaps. The DSMC is mandated under the SWM Act to establish contingency plans for the restoration of waste management services following a hurricane or the flooding of the landfill, but no legislation or guidance on the management of the wastes resulting from disasters is available.

The management of chemicals are controlled under the Noxious and Dangerous Substances Act, Chapter 40:09, the Pesticides Control Act, Chapter 40:10 and regulations made thereunder. The former Act speaks to the licensing regime for the storage of certain petroleum-related products, oxygen and sulphuric acid, while the later provides for the importation, manufacture, packaging, sale, storage and use of chemicals used to control pests. Regulations made under the Pesticides Control Act include the Pesticides Control (Labeling of Pesticide) Regulations, 1987, which indicates colour codes, symbols and precautionary words to be included on the labels of pesticide containers, and the Pesticides Control (Prohibition) Regulations, 2020, which prevent the importation of pesticides such as Roundup and any pesticide with the active ingredient glyphosate. However, legislation for the manufacture, distribution and use of other chemicals and products containing chemicals are lacking. The Pesticides Control Board is responsible for providing direction on the import, distribution, sale and use of pesticides, but there is no one institution or committee which provides overarching management of all chemicals.

The Customs Act, 2010 provides legislative authority to Dominica Customs and Excise Department (DCED) for the control and management of all import and export of trade goods, including chemicals. Explicit provisions for the import of mercury, mercury added products or products containing POPs have not been made. There are, however, administrative arrangements for the control and management of hazardous chemicals, including POPs, but such arrangement are

informal. The Customs Act is also supported by the Standards Act, 1999, which provides for the development of national standards and analytical testing of consumer goods, but standards relating to chemicals management are also limited.

Table 4: Summary comparison of the enabling environments for the management of chemicals and wastes in The Bahamas, Cuba and Dominica.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
Pesticides and Toxic Chemicals	? Regulated under primary legislation for environmental management, which provides for the management of hazardous substances. ? The import of chemicals to be used in the manufacture of drugs and narcotics are controlled; however, there are gaps with respect to the import, use and distribution of chemicals containing POPs and Hg.	? Regulated under primary legislation for environmental management, which provides for the management of hazardous substances. ? Cuba?s management system is supported by its Central Registry of Pesticides and National Registry of Hazardous Chemicals.	? Dominica is the only project country which has a law specific to the management of pesticides. Come noxious and dangerous substances, are also regulated but there are gaps with respect to the import, use and distribution of chemicals containing POPs and Hg.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
Waste and Hazardous Waste	? Overarching legislation which prescribes the management of solid waste and hazardous waste; however, deficiencies in certain aspects such as disposal practices are noted. ? Although the Government of The Bahamas does not support the importation of waste, this position has not been transposed into domestic law. ? Exportation of hazardous waste is regulated by DEPP.	? Overarching legislation which prescribes the management of solid waste and hazardous waste. ? National environmental strategy exists, which gives some directions on the management of waste. This document is regularly updated. ? Cuba is the only country which has integrated the provisions of the Basel Convention into the national context of hazardous waste management, as its National Registry of Hazardous Chemical Products supports the monitoring of imports and exports of wastes and the licensing regime associated with same. ? Exportation of hazardous waste is regulated by ORSA.	? Overarching legislation which prescribes the management of solid waste and hazardous waste; however, deficiencies in certain aspects such as disposal practices are noted. ? The importation of waste is banned, unless it is from aircrafts or ships, or for use as a secondary resource. ? Exportation of waste is regulated by the DSWMC.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
EEE	? No specific legislation to regulate the import, distribution or use of electrical and electronic equipment, or legal definition for WEEE. ? The EHS (Collection and Disposal) Regulations places the onus for the removal of abandoned domestic appliances on the owner of that appliance. Other categories of WEEE, nor other phases of the lifecycle of EEE prior to becoming WEEE, are addressed under other legislative instruments.	? No specific legislation to regulate the import, distribution or use of electrical and electronic equipment, or legal definition for WEEE	? No specific legislation to regulate the import, distribution or use of electrical and electronic equipment, or legal definition for WEEE ? SWM Act provides for the management of household appliances.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
ELVs	? In the Bahamas, provisions for the management of ELVs are made under the Derelict Motor Vehicles (Disposal) Act, 1967, as well as regulations made under the EHS Act. ? With respect to age limits on used vehicles to be imported in The Bahamas, vehicles under ten (10) years may be imported at standard rates, while vehicles older than ten (10) years will require special permissions.	? ESM of ELVs is not a national priority for Cuba, given their cultural appreciation for vintage cars. Provisions for management of hazardous waste generated by other components of ELVs, however, may be managed through technical standards created under the Environmental Law.	? In Dominica, both the SWM Act and Litter Act make provisions for the removal and environmentally sound disposal of ELVs at approved sites. ? Used vehicles aged over 5 years incur an Environmental Surcharge of XCD 3,000.00, while vehicles aged under 5 years incur an Environmental Surcharge of 1% of the CIF (Cost, Insurance and Freight) Value. There is a tiered approach with duties and taxes to be paid on imported cars that under five years. These two-tiered approaches provide disincentive to consumers to import vehicles over the stipulated ages.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
Mercury and mercury-added products	? No legislation to specifically manage the import mercury, or the import and manufacture of mercury added products ? Mercury-containing waste is classified as hazardous. ? Mercury-containing substances are classified as toxic. ? Mercury Initial Assessment (MIA) under development.	? No legislation to specifically manage the import mercury, or the import and manufacture of mercury added products ? Mercury-containing waste is classified as hazardous. ? Mercury-containing substances are classified as toxic. ? Mercury and mercury products are broadly regulated under Resolution 176/ 2018 under the authority of the CITMA. In addition, Decree Law No. 225 of Industrial Explosives, Means of Initiation, their Chemical Precursors and Toxic Chemical Products, which is implemented by the Ministry of the Interior, controls mercury nitrate, mercury cyanide and mercury thiocyanate, which are used as precursor chemicals in the production of explosives or pyrotechnics. ? Mercury Initial Assessment (MIA) under development.	? No legislation to specifically manage the import mercury, or the import and manufacture of mercury added products ? Mercury-containing waste is classified as hazardous. ? No provisions on mercury-containing substances. ? Mercury Initial Assessment (MIA) being finalized.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	**Cuba**	**Dominica**
Medical Waste	? The Bahamas makes provisions for the collection of medical waste in its EHS Act but there are gaps in directives for the other aspects of its management. ? With respect to the management of clinical wastes, the *Health Services Act, Chapter 231* prescribes the management of articles infected by infectious diseases, while the *Health Services Rules, 1935* made under same prohibits the deposition of waste an any area not recognized as a dumping ground. ? World Health Organization (WHO) guidelines on best management practices for handling medical wastes observed in practice.	? Cuba?s ?Manual for Hazardous Medical Waste Management? defines the methodology for the operation and treatment of hazardous waste generated in hospitals. However, this document was developed in 1998 and its guidance may be antiquated. ? World Health Organization (WHO) guidelines on best management practices for handling medical wastes observed in practice.	? In Dominica, the DSWMC is tasked with the development of a National Waste Management Strategy which should identify methods for the management of medical waste, but this strategy has yet to be developed. ? The Environmental Health Department is responsible for monitoring emissions from facilities which manage medical waste in accordance with conditions of Certificates of Approval. ? World Health Organization (WHO) guidelines on best management practices for handling medical wastes observed in practice.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
Post-Disaster Waste	? Disaster management plans created; however. there has been minimal effort to formalize directives for the management of post-disaster wastes. ? Typically, most post-disaster waste is amassed and landfilled without separation into the various categories.	? Disaster management plans created; however. there has been minimal effort to formalize directives for the management of post-disaster wastes. ? Typically, most post-disaster waste is amassed and landfilled without separation into the various categories.	? Specific draft plans developed for the management of post-disaster wastes resulting from hurricanes and earthquakes but have not been finalized. ? Dominica?s SWM Act calls for expediency in the restoration of waste management services in order to aid recovery efforts; however, a strategy for the management of the wastes are only in draft form.
Tourism Waste	? Tourism waste not considered in legislative framework.	? Tourism waste not considered in legislative framework.	? Cruise ships are typically given notice of the classes of wastes which will be accepted for landfilling forty-eight (48) hours prior to their arrival. This mechanism, though informal, prevents the landing of non-recyclable wastes from cruise ships into Dominica. It is noted that the SWM Act prohibits the import of waste into Dominica except when generated onboard aircrafts and ships. ? Tourists must pay a levy os US $1.50 upon entry. DCED will collect levy and remit to DSWMC. The levy is used to fund DSWMC?s operations. Since COVID-19 has disrupted travel to Caribbean SIDS, this has led to a decrease in funding to DSWMC.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
Plastic Waste	? Prohibitions declares on single-use plastic foodware and non-biodegradable single use plastic bags, as well as the release of balloons. Standards for the classification of biodegradable plastic bags are yet to be developed. ? It is noted that the law is not applicable to local manufacturers of expanded polystyrene for export ad that there are no standards for prescribing the composition of non-biodegradable plastic bags. ? No legislation on the management of halogenated plastics or plastics contaminated by hazardous chemicals.	? No policy or legislative bans single-use plastic have been instituted in Cuba. ? No legislation on the management of halogenated plastics or plastics contaminated by hazardous chemicals.	? Dominica?s Non-Biodegradable Waste (Control) Bill, 2019, is yet to be promulgated. However, under the Go Green Campaign, single-use plastic and Styrofoam containers were banned and a 0% import duty on authenticated biodegradable products and reusable shopping bags. ? No legislation on the management of halogenated plastics or plastics contaminated by hazardous chemicals.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
Customs and Trade	? Gaps noted with respect to inspection procedures for other chemicals which may contain POPs or Hg. ? The Bahamas has developed its own data management system which is known as the BSEW. ? The Bahamas has made adjustment to its HS nomen clature beyond the sixth digit to accommodate the capturing of trade data on a few products containing che micals. However, there are still some challenges with the segmentation of many traded commo dities containing hazardous che micals from their counterparts which do not contain chemi cals.	? Customs plays a key role in the integrated system for managing transboundary movements of hazardous waste under the Basel Convention, as well as the registration of hazardous chemicals. However, baseline studies noted that increased coordination is required between Customs and environmental agencies in Cuba, especially as it relates to the management of national obligations under multilateral environmental agreements. ? Cuba also uses its own Electronic Single Window	? Gaps noted with respect to inspection procedures for other chemicals which may contain POPs or Hg. ? In Dominica, where the import of waste is prohibited, coordinated inspections are conducted between Customs and the solid waste management authority to investigate any potential breaches to the law. ? Dominica uses the Automated System for Customs Data (ASYCUDA).

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
Recycling	? In the Bahamas, the EHS Act requires the separation of yard waste from other waste streams, but there is no other legislation which facilitates the separation of waste at source for recycling or other recovery operations. There are several non-governmental organisations and private sector companies which endeavour to promote recycling across the country, including in Family Islands, but are therefore not guided by national legislation.	? Cuba is the only project country with a National Recycling Policy. Its targets and progress towards meeting same are unknown. ? There is a wide movement in the country dedicated to the recovery of raw materials to support recycling and environmental awareness activities led by the Union of Companies for the Recovery of Raw Materials of the Ministry of Industry and various social groups such as the Federation of Cuban Women (FMC) and the Committee for Defense of Revolution (CDR).	? Section 34 of Dominica?s SWM Act requires all persons to comply with requirements for separation waste and to prohibit the disposal of wastes for reuse, recycling or composting; however, the implementation of this section must be supported by subsidiary legislation, which is yet to be made.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
Reverse supply chain (RSC) schemes	? No legislation on RSC for any waste stream. ? Baseline studies in the Bahamas indicated that attempts were made by the private sector to collect and return ink cartridges from printers to the USA but the programme was eventually stalled due to unfavourable market prices.	? No legislation on RSC for any waste stream.	? No legislation on RSC for any waste stream.
Globally Harmonized System (GHS)	? No laws to address the requirements of GHS. ? Low level of national awareness on GHS and limited trainings conducted with Customs on GHS.	? No laws to address the requirements of GHS. ? Cuba has indicated that its Customs officers have been trained on GHS and have a heightened awareness on the system and a national implementation strategy for GHS has been developed.	? No laws to address the requirements of GHS. ? Low level of national awareness on GHS and limited trainings conducted with Customs on GHS.

Chemical of Concern/ Waste Stream	Summary of the current enabling environment in GEF ISLANDS 10472 Project Countries		
	The Bahamas	Cuba	Dominica
Labelling and Standards	? Implemented Standards and Quality Act, which empowers the Bahamas Bureau of Standards and Quality to develop standards, inspect quality and conduct metrology ? Member of CARICOM Regional Organisation for Standards and Quality (CROSQ)	? Implemented Standards and Quality Act, which empowers the Cuba Bureau of Standards to develop standards, inspect quality and conduct metrology ? Not a member of CROSQ	? Implemented Standards Act, which empowers the Dominica Standards Bureau to develop standards, inspect quality and conduct metrology ? Member of CROSQ
Sustainable Procurement	There are limited initiatives to promote or incentivise sustainable procurement in the import of chemicals, and even less so for the domestic manufacture of chemicals. Procurement practices in the Caribbean are mainly driven by the cost factor. With recent legislative bans on single-use plastic in several Caribbean countries and discussions on potential bans in other countries, there has been a noticeable change in the packaging and materials used for bags, food containers and straws. There are also initiatives to consider biopesticides over other chemical pesticides in countries. Still, awareness on sustainable procurement of non-regrettable alternatives in Caribbean countries is generally perceived as low. The CARICOM Protocol on Public Procurement encourages its members to apply green procurements policies in their procurement regimes. Dominica became signatory to the protocol in 2020.		

2.1.1 Waste management framework in GEF ISLANDS 10472 Project Countries

Hazardous chemicals and waste systems in the Caribbean region are in the process of modernising, but practices vary based on income level and other limiting factors. The weighted daily average of solid waste generated by SIDS inhabitants is 2.30 kg per person4. The daily average of waste generated by Caribbean SIDS inhabitants is slighltly higher than those of its counterparts, that is 2.37 kg per person. The countries featured in this project are unique, despite belonging to the same region. Cuba is the largest island in the Caribbean, while Dominica is one of the smallest. On the other hand, The Bahamas? geographical makeup consists of an archipelago of small islands. Given the varying populations and sizes of the project countries, their municipal solid waste generation s ranges from approximately 20,000 tonnes annually in Dominica[26][26] to approximately 30,0000

tonnes in Cuba for 2019[27][27]. However, when analysed through the lens of waste generation per capita, the quantities of municipal waste generated in the smaller countries of The Bahamas and Dominica appear to outweigh the amount of waste generated in Cuba[28][28]. Variation in waste in the project countries by kilograms per capita per day is shown in Figure 2.

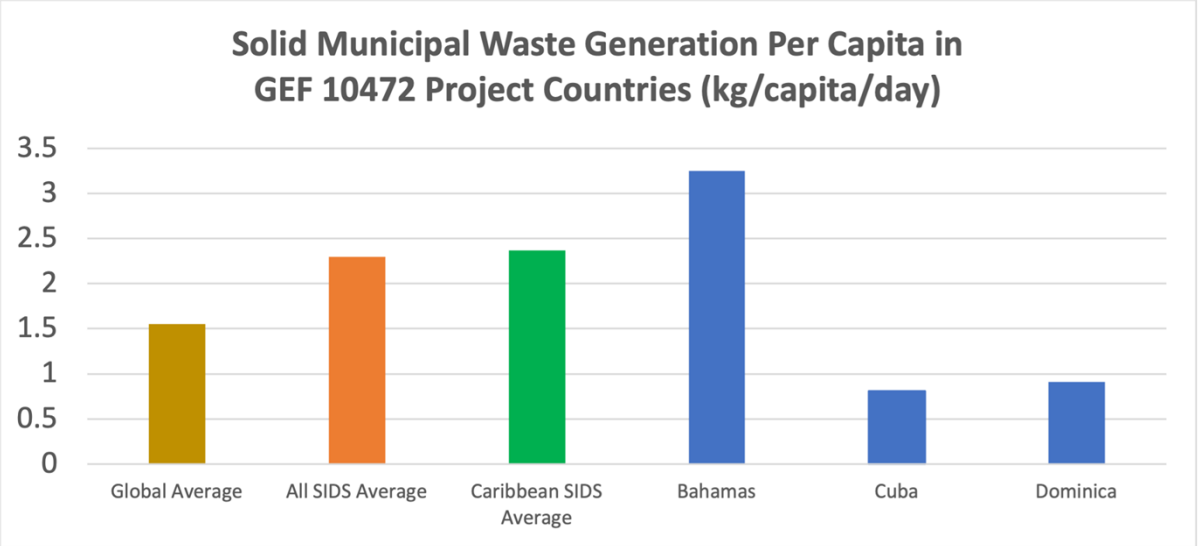

Figure 2: Waste Per Capita (Kg/capita/year) for the participating countries

Figure 3 provides a comparison of waste generation in Caribbean countries in relation to their Gross National Income. This indicates that The Bahamas is the highest generator of solid municipal waste in the project countries and one of the highest generators of municipal solid waste per capita in the region. The reason for high levels of waste generation in The Bahamas may be assumed to be as a result of the tourism industry, which has been the major source of revenue for The Bahamas prior to the onset of the COVID-19 pandemic. This impact of tourism waste on The Bahamas? waste management system is further elaborated in Section 2.2.3 (Municipal Solid Waste Management). Other economic activities which contribute to The Bahamas? Gross National Income (GNI) include the agricultural and industrial sectors; breweries, container ports and the manufacture of pharmaceuticals are among the chief driving forces of the country?s industrial sector. Similarly, Cuba?s GNI has been supported by its tourism, agricultural and industrial sectors. Cuba produces pharmaceuticals, cement, metals, tyres, petroleum and plastic products, metal and pesticides. Its earnings from these sectors were noted to have steadily increased since 2017. Although Cuba?s GNI is near in value of that of The Bahamas, its municipal solid waste generation is less than half of The Bahamas?. In Dominica, the tourism and agricultural sectors are the major sources of revenue. It promotes itself as ?the nature island of the Caribbean?. Dominica has the lowest GNI of the project countries but its annual rate of solid municipal waste generation is still slightly higher than that of Cuba.

Given that tourism is one of the foundational economic activities in all project countries, it can be assumed that each country?s GNI has been severely affected by international travel restrictions imposed by the COVID-19 pandemic; however, there is limited data on the extent to which their individual economies have been impacted.

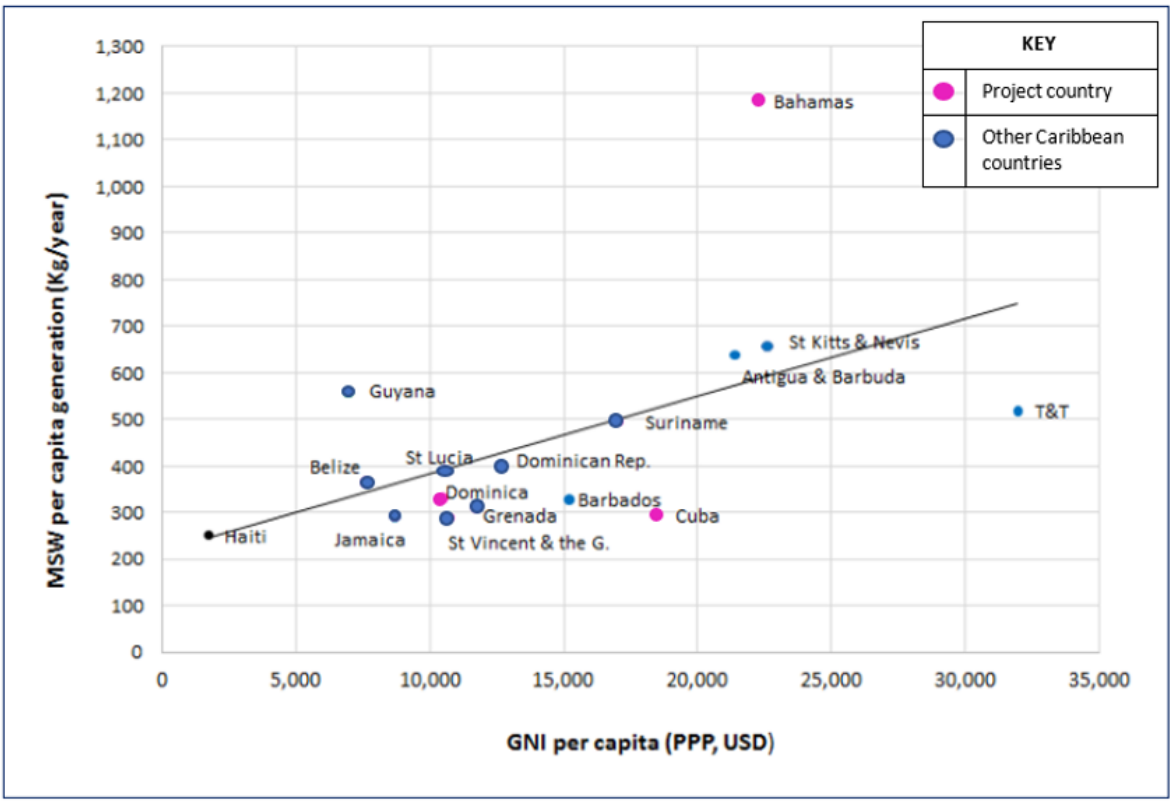

Figure 3: Generation of Municipal Solid Waste in the Caribbean region in kilograms per capita per year against the countries? Gross National Income (GNI) (Adapted from UNEP, 2017[29][29])

Table 5 provides estimated values of plastic waste streams and other selected hazardous waste streams generated by the project countries in tonnes per year.

Table 5: Waste Distribution per Country by Tonnage (Tonnes/yr)

Waste Type	**BAHAMAS(1)**	**CUBA(2)**	**DOMINICA(3)**
WEEE	6,600	57	600
Plastics	39,000	5,101.5	7,785
Agriculture Plastics	n.d.a.	n.d.a.	n.d.a.
Metals	15,000	251,000(4)	2,994
ELVs	2,860	ND	588
Waste Oil	1,560(5)	4,543	321(5)
Used Tyres	3,120	11,088	500
ULABs	1,105	7,555	227.4

Notes:

1 Rapid Environmental Assessments (2003) Limited Waste and Chemicals Assessment for Bahamas (2021), GEF ISLANDS 10472 PPG Phase

2 Rapid Environmental Assessments (2003) Limited Waste and Chemicals Assessment for Cuba (2021), GEF ISLANDS 10472 PPG Phase

3 Rapid Environmental Assessments (2003) Limited Waste and Chemicals Assessment for Dominica (2021), GEF ISLANDS 10472 PPG Phase
4 Figure estimated based on quantity of metal recycled by UMRE
5 Estimates provided for used vehicle oil only
n.d.a. = no data available
ND = not determined

2.1.2 Summary of hazardous chemicals and waste generation and management

A summary of hazardous chemicals and waste generation and management in GEF 10472 Project countries is provided below.

2.1.2.1 Hazardous chemicals

One commonality in all three (3) countries is the manufacture of pharmaceuticals. Several pharmaceutical manufacturing companies operate as contract manufacturing organisations in The Bahamas and Cuba, while there is only one in Dominica. Apart from this, the manufacture of other chemicals in The Bahamas and Dominica is very limited. The Bahamas also manufactures polystyrene while Dominica manufactures paints. Additionally, Dominica is also preparing to develop its geothermal energy sector; however, the use of chemicals from this activity may be minimal[30][30]. The list of chemicals manufactured in Cuba, on the other hand, is more diverse and includes fertilizers, insecticides and herbicides, liquid chlorine, caustic soda and sulfuric acid and refined petroleum products. Although Cuba?s agricultural sector has attempted to place greater focus on techniques such as crop rotation and the use of biopesticides over synthetic approaches to crop protection, pesticides are still imported to ensure that market demand is met. Overall, similarly to other SIDS, The Bahamas, Cuba and Dominica are heavily reliant on imports for the supply of many other industrial chemicals.

With respect to the use of POPs in the project countries, it was noted that agricultural and industrial activities, such as power generation, have historically used POPs. Heptachlor, Endosulfan, and Kelthane (Dicofol) were used as pesticides and stockpiles of these chemicals are present in The Bahamas, although the exact quantities are unknown. Dichloro-diphenyl-trichloroethane (DDT) may still be used for vector control. The last shipment of obsolete DDT from the Bahamas was performed in 1999; the waste was sent to the United Kingdom for incineration[31][31]. The import of POP-pesticides has been banned in Cuba since 1989 and are therefore not used; however, there are stockpiles of obsolete pesticides such as DDT, Heptachlor, Toxaphene and Sodium Pentachlorophenate (PCFS) in Pinar del R?o and Matanzas. In Dominica, POP-pesticides have not been imported or used for over thirty (30) years. DDT has not been used since the 1970s in Dominica and there are no known stockpiles of the chemical on the island.

With respect to POPs used in industrial applications, it has been noted that there are large quantities of PCBs in Cuba, but these will be managed through another project implemented by the UNDP. Several POPs which are used in industry, for example PCBs, have been phased out in Dominica. The power company, DOMLEC, indicated that there are no PCB-containing oils or transformers on operating sites - their records show that none of the oils or power-generating equipment tested for the presence of PCBs show levels greater than 50 ppm. The Dominica Fire and Ambulance Service has indicated that aqueous film forming foam (AFFF) foams are still used

in their operations; per- and polyfluoroalkyl substances (PFAS) are the active ingredient in these fluorinated surfactants. There are also stockpiles of PCBs on Grand Bahama which are the only known PCB-containing stockpiles in the country. The quantity is reported in Table 6.

There are gaps in information for newly listed POPs. At the time of preparation of this document, Dominica had not yet updated its NIP; therefore, investigations on usage and stockpiles of newly listed POPs have not been formally reported. Analytical capacity for testing hazardous chemicals such as POPs and mercury is inadequate in these countries. Labelling practices at storage facilities may vary. All project countries have reported that chemicals are stockpiled at their landfills and at other storage sites, but improper labelling and the lack of analytical capabilities have hindered their identification. There are no facilities available in project countries which are equipped to undertake the environmentally sound management (ESM) of POPs and other chemicals. Therefore, the practice of collecting and storing obsolete chemicals pending export for ESM is common to all countries.

Assessments of mercury releases in the environment for The Bahamas and Cuba have not yet been finalized as their Minamata Initial Assessments (MIAs) are currently in progress. According to Dominica?s finalised MIA Report which was mainly based on 2018 data, the anthropogenic releases of mercury into Dominica?s environment occur mainly through consumer products and other intentionally used products. Given that there are no major industrial activities in The Bahamas which use or release mercury, the source of releases in The Bahamas can be assumed to be similar to Dominica. Previously, Cuba primarily used mercury in its chlor-alkali production plant but the production plant has been retrofitted to use mercury free alternatives as of 2020. Other possible routes of exposure may be via its cement manufacturing and petroleum refining processes, as well as from the use and disposal of mercury-added consumer products.

Table 6 also provides information on the quantities and emissions of pesticides, POPs and mercury added products (MAPs) in the project countries. It must be noted that while the NIPs of The Bahamas and Cuba were unable to provide the quantities of PBDEs, HCBDs, and PFOS present, the possible sources of these POPs were discussed. Through their NIPs, these project countries also detailed their intended actions for quantifying these POPs within their borders.

Table 6: Status of Pesticides, POPs and Hg products in each country (kg), based on NIP and MIA data

Type	**BAHAMAS** (1)	**CUBA**(2)	**DOMINCA**(3)
Pesticides (kg)	203,000	40,000,000(4)	291,625 (5)
POP pesticides (kg)	38	23,700	3
PBDE in use (kg)	nd	nd	nd
HBCD (kg)	nd	nd	nd
PFOS (kg)	nd	nd	nd
PCBs (kg)	2,839	987,000	0(6)
Hg Products (kg Hg/y)(7)	20(8)	240 (8)	21
UPOPs (g TEQ)(9)	nd	489.83	nd

Notes:

1Data source is the most recent NIP (2020). Bahamas National Implementation Report Plan.

2Data source is the most recent NIP (2020). Plan de Aplicaci?n Nacional para la Gesti?n de Contaminantes Org?nicos Persistentes.
3Data source is the most recent NIP (2006). National Implementation Plan for the Management of Persistent Organic Pollutants, Commonwealth of Dominica.
4 In the initial NIP completed by Cuba in 2008, it was reported that in 1989, the quantities of pesticides used within the agricultural sector reached 40,000 tonnes, which equates to 40,000,000 kg.
5Figure represents the annual average of the total quantity of pesticides imported between the years of 2000 and 2005.
6Based on discussions with Dominica Electricity Services Limited, April 2021.
7Category is based on the estimated Hg Input (in kg Hg/y) for the source categories of consumer products with intentional use of mercury and other intentional products/processes uses examined through MIAs.
8Minamata Initial Assessments for The Bahamas and Cuba are currently being completed and as such no official data are available yet. The quantities were therefore estimated based on data presented in the Global Mercury Assessment, 2010
9UPOPs emissions data in g TEQ/annum.
nd ? no data available at this time.

2.1.2.2 Hazardous chemicals in agriculture

For Cuba and Dominica, agriculture is a significant economic activity. In its NIP, Dominica reported that it was the country most dependent on agriculture amongst the Organization of Eastern Caribbean States (NIP, 2006). In Cuba between 2008 and 2018, agriculture has contributed approximately 4 % to the GDP[32][32]. In The Bahamas, on the other hand, agriculture contributed less that 1 % to the GDP in 2018[33][33] and the most recent NIP noted that the number of subsistence farmers is declining. While the agricultural situation differs between the project countries, the use of pesticides, herbicides and insecticides has been noted in all three (3) countries. Several potential Highly Hazardous Pesticides (HHPs) have been identified in the project countries (Table 6).

Table 7: Priority potential HHPs identified

Country	**Pesticide active ingredients commonly used**	**To which crop (or non-ag contexts) is each mainly applied?**	**Against which target pest or disease organisms or type of weeds?**
Bahamas	Paraquat; diquat; and pyrethrin	Food (veg) & non-food crops Vector control (public health)	Weed control Insects Mosquitoes
Cuba	Methamidophos; acephate; glyphosate; and lindane	Food (veg) & non-food crops	Insects Weed control

Dominica	Paraquat; diquat; methomyl; oxamyl; diphacinone; fenthion; and malathion	Agricultural crops Domestic pest control Fogging (public health)	Weed control Insects Rodent control Mosquitoes

Globally, food quality and food safety of agricultural commodities have become critical. For many export and import countries, the use of chemicals during cultivation and pesticide residues in food are major concerns related to food safety. For example, in Dominica, farmers who wish to sell their bananas to entities, such as the Fair-Trade Organization must comply with rules regarding pesticide usage[34][34]). Regarding pesticide residues, the Maximum Residue Limits (MRLs) are commonly used globally as the maximum acceptable pesticide residue levels in food. Food safety standards, e.g., pesticide MRLs, are a critical issue in the region for safeguarding domestic consumers and for facilitating the international trade of agricultural products.

Poor pesticide management can result in pesticide residues in food exceeding the MRLs set by international standards like the Codex Alimentarius. Research from Cuba has found that agricultural chemicals that have been banned in Europe, such as Methamidophos, Lindane and Acephate are still present[35][35][36][36]. According to Lopez-Davila et al. (2021), Methamidophos and Lindane were not on the 2016 list of authorised pesticides in Cuba, however, residues of these chemicals, which exceeded European MRLs, were found in agricultural produce that was tested. For Cuba and Dominica, especially, the lack of adherence with the pesticide residue regulations published by different nations could affect agricultural commodity trade.

The availability of biopesticides as alternative control measures to synthetical pesticides is limited in the Caribbean. Lopez-Davila et al. (2020) reported that a Cuban national environmental strategy did aim to increase the use of biopesticides and natural products in agricultural pest management. However, the use of chemical pesticides still dominates and Lopez-Davila et al., 2021, found that farmers tended to overuse pesticides to ensure they obtain the highest possible yields.

2.1.2.3 Municipal Solid Waste Management

According to the 2018 Waste Management Outlook for Latin America and the Caribbean28, The Bahamas is one of the highest generators of solid municipal waste in the Caribbean. Increased rates of municipal solid waste (MSW) generation are usually observed in countries with high Gross National Incomes; these rates of MSW production are therefore typical for a country such as The Bahamas, which has been classified as a high-income country by the World Bank[37][37]. The significant amount of non-resident waste generated via the tourism industry may also be a major contributor to this figure. Further, given its classification as a high-income country by The World Bank, the composition of its MSW may be different from that of the other two project countries, who are classified as upper middle-income countries; that is, the fraction of organic waste sent to its landfills in The Bahamas can be assumed to be around 36% as opposed to 52% in the other two

(2) countries28. The Bahamian NGO Friends of the Environment (FRIENDS) is focused on preserving the Abaco Islands? environment through education, conservation and research facilitation. It should be noted that in school programs, girls make up 60% of participants and in extracurricular activities, girls make up 70% of participants. This reinforces the need to promote the participation of girls and women in the environment and climate sector, especially following climate-related hazards/disasters, as they may have more experience in environmental preservation.

Each project country has attempted to implement integrated solid waste management (ISWM) but efforts rarely consider waste prevention and minimization. In the Bahamas, the archipelagic nature of the country is prohibitive towards fully implementing ISWM in all islands, but attempts have been made to integrate less developed islands into recycling operations on more developed islands such as Grand Bahama and New Providence. However, material flows from smaller areas and logistics for collection and integration tend to make such operations economically unfeasible. Cuba and Dominica have made greater strides in this regard, as they have been able to roll out systems for recycling and composting, respectively. In Cuba, these efforts are supported by laws, while in Dominica, they are supported through nationally funded projects.

In all the project countries, waste collection is conducted through direct government services or through government contracted services. Collection of residential waste in Cuba, Dominica and most of The Bahamas is provided as a free service. On the island of Grand Bahama in The Bahamas, a fee for the collection of residential waste is attached to the water bill from the Grand Bahama Utility Company. The frequency of waste collection in all project countries varies based on rurality; in urban areas, waste may be collected daily or three times a week, whereas in rural areas, collection occurs less often.

The management and disposal of MSW in each of the project countries mainly occurs via landfilling, either of the open type or dumpsites, sanitary landfills or non-sanitary landfills. Of the nine (9) landfills in The Bahamas, only two (2) are sanitary landfills[38][38]. These are namely the New Providence Ecology Park (NPEP) and the Pine Ridge Landfill in Grand Bahama. NPEP remediated the landfill in 2019 is now operates it in accordance with internationally recognized standards for solid waste management and with rigid protocols for health and safety. Further, NPEP also operates the hazardous waste management facility at this site. During discussion with the BCRC-Caribbean in April 2021, NPEP indicated that waste had been stored at the facility indiscriminately prior to 2019, but they have also remediated the facility and identified and safeguarded hazardous wastes for export and ESM. The Great Abaco Landfill has been relegated to non-sanitary status following the passage of Hurricane Dorian. Open burning still occurs on many Family Islands, mostly for agricultural waste, although there are instances of household waste being burnt as well.

In Dominica, the Fond Cole Landfill is the only landfill in the country. It is a modern, engineered landfill, with a liner, leachate collection, and capping. Methane collection vents were installed and have been venting the methane produced from the organic waste (40% of all waste) decomposition process. The facility is also equipped with a leachate pond. The leachate pond and the landfill are lined with a special material which prevents leachate from seeping into the soil[39][39]. Hazardous waste is stored in a separate cell within the landfill from MSW, while green waste is directed for composting. There are also two (2) informal dumpsites in other parts of the country but attempts

are being made to close and remediate these sites. In 2016, the Government of the Commonwealth of Dominica has also expressed interest in waste-to-energy projects and announced partnerships with the Swedish Government for financial and technical support of two pilot demonstrations of this management technique on the island30. The genderization of solid waste management has not yet started in Dominica in spite of ongoing public education and programmes to encourage sound management and disposal practices at national level. The need for genderization is underpinned by the fact that the impact on the lifestyle and livelihood of both genders can be debilitating especially at the level of the household and in some cases the workplace.

In 2013, it was noted that there were nine hundred and eighty-six (986) landfills in Cuba[40][40] and over one thousand, eight hundred (1,800) biogas reactors. The Calle 100 Landfill in Havana receives 80% of the municipal waste generated by the city?s two million inhabitants. In 2008, a biogas plant was commissioned on this landfill, which can produce carbon dioxide and methane from the organic fraction of waste for electricity generation; twenty (20) tonnes of organic waste are processed per day, with each tonne producing approximately forty (40) cubic metres of gas.

Informal sector involvement varies across countries. The management of NPEP has effected protocols to prevent scavenging at its landfill but at other sites across The Bahamas, waste pickers have not been formalized. Cuba has made efforts to regularize their informal sector; however, given the number of landfills present in the country, it is improbable that all informal workers have been formalized. There is a smaller margin of informal workers in Dominica as opportunities for regularizing roles have increased through internationally and locally funded projects.

2.1.2.4 Hazardous Waste

There is no segregation of waste at source in any of the project countries. All project countries have assigned institutions to ensure the sound management hazardous waste and prevent its discharge into the environment; however, only a few wastes streams are manged due to human and technical constraints to effectively implement and monitor regulatory requirements . Cuba is the only project country which has a registration and permitting system for importers, exporters and generators of hazardous waste. However, other project countries have begun their attempts to streamline the management of hazardous wastes.

Dominica has a separate lined cell at its Fond Cole Landfill for the storage and disposal hazardous waste. However, there is currently no mechanism for the disposal of obsolete POPs and pesticides. They are collected and stored at a facility at the Botanic Gardens until arrangements can be made for their disposal. The New Providence Ecology Park (NPEP) has a storage facility where hazardous waste and expired chemicals are stored and awaiting disposal. The development of a hazardous waste facility on the site is in progress. The Pine Ridge Landfill on the island of Grand Bahama, however, does not accept hazardous waste; if any is detected, it is separated for management by a private contract. In Cuba, industries which generate hazardous waste are responsible for ensuring their management in accordance with State regulations. Some hazardous waste is disposed of in the Ocho Vias Landfill in Havana or transported to a storage yard in Casablanca Town[41][41]. Hazardous waste management facilities designed for the recycling and disposal of ULABs and used oil are also operational in Cuba. Hazardous waste management in rural areas is typically challenging and more so in Cuba, given its large geographical area. With

respect to the management of medical wastes, World Health Organization guidelines are typically followed as best management practices and medical waste is usually incinerated. There are at least thirty-five (35) incinerators across hospitals in Cuba which are used for the management of the country?s medical waste. Similarly, incineration is used for medical waste in Dominica but the incineration ash is being stored at the Princess Margaret Hospital until the mechanism for its management can be finalized.

There is also a recognised need for the current waste management systems of the region to address other priority and emergent waste streams such as construction and demolition (C&D) waste and disaster waste38. The Fond Cole Landfill in Dominica accepts C&D waste and stores it in a separate cell, together with industrial waste. C&D waste is typically dumped at informal sites in The Bahamas. In Cuba, it is not typically separated from other waste streams prior to its disposal in landfills but it is often used as cover soil in the landfills. The exacerbation of climate change issues and related increased intensity and frequency of natural disasters have been directly recognised in the Caribbean islands28. Following the passage of Hurricane Maria in Dominica, approximately 4 million m^3 of debris was generated and the projected amount for the years 2030 and 2050, reaches up to 5 and 6 million m^3 of debris respectively if another Category 5 storm strikes the island. Key findings of the by the UN Environment / OCHA Joint Unit mission to Dominica included the need to ?develop a clear long-term waste management strategy? including the aspects for chemicals and hazardous waste management[42][42]. Strategies for integrating the management of post-disaster wastes into the existing waste management systems should be considered for all project countries, given that they are all within the hurricane belt of Atlantic Hurricanes. These strategies should also consider the management of wastes emerging generated as a response to the COVID-19 pandemic. Although there are already mechanisms in place for the management of medical waste as previously mentioned, further support is needed to offset the strain caused by the ongoing pandemic.

2.1.2.5 Recycling

All countries have structures in place for the recycling of certain categories of waste streams. Of the three project countries, Cuba has the most structured system which is driven by State directives. Although most waste from residential and commercial facilities in Cuba is not separated at source, recyclable materials such rum and beer bottles, paper, cardboard, aluminium, copper, sacks, medicine bottles, lead batteries, scrap steel and cast iron, are still recovered from their garbage by Independent Contractors for Recyclable Material Collection (IC) and by Cooperatives for Recyclable Material Recovery (CRMR). These groups are not paid by government and are therefore dependent on profits. They sell any material collected to Recyclable Material Recovery Enterprises (RMRE), which are operated by Provincial Directorates, in return for cash. Each provincial RMREs forwards its recyclable material to the Union of Recyclable Materials Recovery Enterprises (URMRE), which works at the national level to trade with national and international markets[43][43]. There are also recycling facilities for ULABs in Cuba. In Dominica, the Government also began the implementation of an island-wide recycling program for beverage containers in 2015 which requires residents to separate the following material at source: glass bottles, PET Containers and tin or aluminium cans. Residents are asked to place recyclable waste

in clear or white plastic bags, and regular waste in black or yellow bags. The materials are compacted and exported for further recovery.

Recycling activities in The Bahamas are driven by NGOs and private sector initiatives. One of the main programmes is called ?Cans for Kids?, which engages forty (40) schools across the country in a collection drive for aluminium cans. These cans are delivered to Waste-Not for onward export and processing at Florida, USA. The programme also partnered with the New Providence Community Centre to manage a depot that would collect aluminium cans, corrugated cardboard, plastic containers and glass bottles, but the inconvenient drop-off locations created an unsteady flow of materials. Approximately three shipments are made per year. Other initiatives included the recycling of ink cartridges and a take-back programme for glass bottles by Commonwealth Brewery, but both have been stopped. In the former case, the operations were compromised by unfavourable market conditions while in the latter case, the operation was found to be more costly than the import of lower-weight virgin bottles[44][44]. In 2010, a private sector initiative saw the launch a biodiesel facility on the island of New Providence, Bahamas, which processes used cooking oil collected from local restaurants. The facility is owned and operated by 700 Islands Energy in partnership with Bahamas Waste. This biodiesel is paired with petroleum to fuel the Bahamas Waste fleet of trucks and is also distributed as fuel for the transportation and power generation sectors[45][45]. It is important to note that businesses that engaged in recycling and waste management at their own expenses are women-owned businesses. This demonstrates the commitment women have to protecting the environment and the understanding of the connection between people and planet. As noted by UNEP, women are both the main contributors to management and protection of natural resources and the most vulnerable to environmental hazards and climate-related disasters.

2.1.2.6 Waste Electrical and Electronic Equipment (WEEE)

In 2019, globally, 77,190 kt of Electrical and Electronic Equipment (EEE) was put on the market, where EEE Put on market is described ?any supply of a product for distribution, consumption or use on the market in the course of a commercial activity,? either for a fee or free of charge. For the Caribbean (whose population was cited as 16 million), 201 kt of EEE was put on the market during 2019, and for the project countries of The Bahamas and Dominica, quantities of EEE put on market were 7 kt and 1 kt respectively[46][46]. For Cuba, while information regarding EEE put on market was not identified, it should be noted that this project country has experience with the manufacture of EEE including computers, televisions and washing machines[47][47]. In 1970, the first Cuban computer was made and in 2016, the first computer factory with a production capacity of 120,000 units annually was opened[48][48].

Once EEE is discarded as waste, it becomes WEEE or e-waste. Given that WEEE may be comprised of components with hazardous characteristics, such as lead-containing glass of plastics with brominated flame retardants, this stream is considered as hazardous. In 2019, 53.6 million metric tonnes (Mt) of WEEE were produced globally with 9.3 Mt being collected and recycled

properly (Forti et al., 2020). The generation of WEEE is attributed to higher consumption levels or rates of EEE; shorter life cycles; and limited repair opportunities[49][49]. In 2019, the Caribbean produced 0.1 Mt of WEEE and 1% of that figure was collected and recycled properly; The Bahamas produced 6.6 kT of WEEE while Dominica produced 0.6 kT50. For Cuba, the quantity of WEEE produced was 0.057 kT[50][50]. Further, it was found that the Cuban recycling sector at one point collected 420,000 tonnes of recyclable materials to be exported and sold to the local market[51][51]. These recyclable materials included electronic scraps (WEEE) destined for export[52][52].

WEEE can be categorised based on function, material composition among other things50. These categories include temperature exchange equipment (e.g. refrigerators); screens and monitors (e.g. televisions and laptops); lamps (e.g. LED lamps); large equipment (e.g. washing machines); small equipment (e.g. microwaves); and small IT and telecommunications equipment (e.g. printers)50. A paucity of information on the composition of WEEE by category in the project countries was noted.

Within the three project countries there is no national legislation regarding WEEE50 [53][53]. In The Bahamas, however, the Environmental Health and Services (Collection and Disposal of Waste) Regulations 2004, does prohibit the abandoning domestic appliances. At the NPEP, a WEEE recycling program is being set up to manage discarded computers and electronics and prevent these items from being deposited in the landfill. In Cuba, the waste from the public and private sectors is composed of residual waste, which is sent to the landfill, and recyclable materials, which through different channels makes its way to the Uni?n de Empresas de Recuperaci?n de Materias Primas (Union of Recyclable Materials Recovery Enterprises) to be sold locally or exported45. As mentioned above, these recyclable materials are reported to contain electronic scraps[54][54] [55][55]. In Dominica, WEEE is currently disposed of in a lined cell at the landfill and there are no special facilities to deal with this material[56][56]. As such, in their National Resilience Development Strategy, the Government discussed the need to develop a proper strategy to manage WEEE.

The ISLANDS gender analysis identified e-waste women in the project countries as an economic opportunity for women to manage, promote, and operate by mobilizing communities, setting up collection points, and facilitating product and container returns to and pickups from businesses.

2.1.2.7 End of Life Vehicles

ELVs represent a source of recoverable materials. ULABs, for example, can be fully recovered, while used tyres may be repurposed into construction material for furniture, roads and coastal protection structures. While some may view this waste stream as an opportunity to replenish resources, it can become a threat if it is improperly managed and its hazardous components are

allowed to leach into the environment. ELVs are commonly abandoned in public spaces in The Bahamas and Dominica, which may pose a threat to the environment. Cuba, on the other hand, does not face this problem to the same extent as the other two countries due to public perception towards older cars. While the average lifespan of vehicles is considered to be twenty (20) years in most countries, vintage cars are meticulously maintained in Cuba and serve as one of the country?s leading tourism products. Still, waste will be generated through maintenance operations.

In both The Bahamas and Dominica, recent national programmes have supported the removal of derelict vehicles from public spaces. The GBPA?s removal programme provides vehicle owners with a seven- (7-) day notice to facilitate its management prior to having the vehicle removed to a storage site on Thackery Street until it can be exported for disposal. The passage of Hurricane Dorian in 2019 also left many ELVs in its wake; the GBPA hosted a clean-up campaign in August of 2020 which removed one thousand (1,000) ELVs from the island. A similar initiative in Dominica entitled the ?National Enhance Environment Project? has removed five hundred and thirty-two (532) ELVs from public spaces between June and December of 2019. Following collection, the DSWMC transferred the ELVs to private sector companies for dismantling and export. In Dominica, depollution and dismantling of ELVs are carried out at rudimentary level. Financial constraints hinder more sophisticated baling and dismantling operations. There is no data on the number of ELVs exported from either country for further treatment. Components which are not exported for recovery or recycled locally are disposed of via landfilling. This presents an opportunity for the entry of harmful chemicals, such as POPs, into the environment via leaching.

Most Caribbean countries have recognized the opportunity to recover resources from ELVs, which is often exploited by the informal sector. This leads to some unsound management practices, especially with respect to the management of ULABs. However, there is a specially engineered landfill dedicated for the disposal of ULABs in Cuba to assist in combatting this issue. While there are no such facilities on the other two project countries, strides have been made to ensure that best environmental practices are followed by cottage recycling operations. The Dominica Solid Waste Management Corporation has been instrumental in ensuring that persons who attempt to recycle ULABs in the country ensure their proper storage and comply with the provisions of the Basel Convention prior to export for further processing. It has been noted, however, that ULABs may sometimes be mixed with scrap metal for export.

Used tyres are typically managed via different strategies in the project countries. On the island of New Providence in the Bahamas, NPEP accepts used tyred for shredding in order to be used in landfill operations. Some are also used in construction projects. On the island of Grand Bahama, four hundred thousand (400,000) tyres were used to erect a berm structure for a wetland treatment system at the Pine Ridge Landfill. In Cuba, used tyres are collected from around the country in order to fuel the cement kilns of Cementos Cienfuegos S.A. Between one hundred and thirty and one hundred and fifty (130 ? 150) tyres are processed per day. There are currently no strategies for the management of used tyres on the island of Dominica.

Recovery operations for used oil occur in all the project countries. In the Bahamas, the private sector firm known as Engineers and Consultants Ltd has collected from several Family Islands in the country through its collection points on New Providence, Paradise Island and Lyford Cay. Their customer base is comprised of automotive garages and marinas. Some local companies use the oil as fuel for their furnaces but the majority is exported to the USA. Three to four shipments of containers with over 22,000 L of oil were made per month in previous years but recent fluctuations in market prices have heavily affected the frequency of shipments. In Cuba, used oil and their sludge are also used as fuel for cement kilns. Approximately thirty thousand (30,000) litres were

processed in the first half of 2020. In Dominica, a leading soap manufacturing company collects used oil directly from garages and other industries in order to fuel its boilers.

The electric vehicle sector has been identified during the ISLANDS gender analysis as providing an opportunity for increased gender equality on the islands. For women, on the road for school drop-off and pick-up as well as household errands, electric vehicles?with long-term savings and ease of maintenance?may be attractive if they were more affordable. A woman-owned business in the Bahamas, Easy Car Sales, is promoting and selling electric vehicles which eliminate the need for oil and provide the abovementioned benefits to households and women in particular.

2.1.2.8 Plastics

Across a sample of Caribbean countries, an estimated 322,745 tonnes of plastic go uncollected each year, resulting in 22% of households discarding waste in waterways or on land where it can end up in waterways (World Bank). According to the United Nations Environment Programme (UNEP), 92% of marine litter in the Caribbean comes from land-based sources, as compared to the global average of 80%. In its 2018 Waste Management Outlook for Latin America and the Caribbean, the UNEP estimated that plastics make up 11-12% of the MSW stream.

Indications on legislative bans have been discussed in Section 2.2. This section speaks to management of plastics on the ground. In both The Bahamas and Dominica, plastics from MSW are separated after collection and then compacted for export for recycling, while plastics collected in Cuba are repurposed into lumber and piping by local facilities. It is evident that project countries are taking measures to recycle certain plastic waste streams and ban the use of single-use plastics; however, there are still gaps in the knowledge and management of plastics, as the facilities for the recycling of certain plastic waste streams are not available in the region, primarily due to economies of scale.

Large amounts of plastic waste are generated through The Bahamas?s tourism industry, especially through cruise ships, and so a large portion of plastic waste may be concentrated at ports on the islands of New Providence and Grand Bahama. The plastics management sector in the Bahamas is led by the Bahamas Plastics Movement, founded by Kristal Ambrose, and leadership in the plastics movement as well as the rest of the climate and environment sector is identified as an opportunity for increasing women?s participation in chemicals and waste management in the Bahamas. Due to its population and size, Cuba is able to accommodate the supply and demand for viable recycling operation; however, logistical challenges may still be presented in collecting materials from households and commercial entities. Dominica, on the other hand, refuses the landing of certain types of waste, including plastics. Large scale recycling plants in this country may not be viable, although the import of plastic waste as a secondary resource can be considered to supplement gaps in the local flow of materials.

With respect to agricultural plastics, it has been noted that waste plastic film, which was frequently used in Dominica?s banana industry, was collected and disposed of in the Fond Cole Landfill. However, the quantity of film disposed of via landfill was not monitored; therefore, data on this waste stream is not available. Given that the country?s banana industry has been on the decline, the quantities of agricultural plastics being sent to the landfill was expected to steadily decrease over time. However, Dominica is undertaking a project with the World Bank which will develop and implement a programme to revitalize agriculture (refer to Section 5), which may present and

opportunity to quantify and properly dispose of agricultural plastics in the country. Similar information could not be sourced for The Bahamas and Cuba.

With respect to waste streams of PVC, it has been noted that there are PVC manufacturers in The Bahamas and Cuba. PVC is also imported in all project countries. Information on their mechanisms for management of PVC waste was not apparent in the baseline. However, anecdotal information indicated that no systems have been instituted for segregation and diversion from landfills.

2.1.2.9 Ship-generated Waste

In all project countries, ship-generated waste (SGW) is managed in accordance with the provisions of the MARPOL Convention, to which all project countries are Party. Given the Bahamas?s status as a global hub for transshipments of oil and dry cargo, as well as being a popular cruise ship destination, it receives the highest quantity SGW among all the project countries. This is according to a 2016 feasibility report for the Caribbean on port waste facilities, which was developed by the Regional Activity Centre/Regional Marine Pollution Emergency, Information and Training Centre - Wider Caribbean Region (RAC-REMPEITC). On the island of New Providence, SGW is collected primarily from cruise ships and is usually hauled to the landfill for disposal without separation. Solid wast,e such as plastics and other non-hazardous waste, is usually collected. At Freeport in Grand Bahamas, more hazardous waste streams are generated due ship repair activities. The Grand Bahama Shipyard, which is a public-private partnership between the Government of the Bahamas and international cruise lines, is one such entity which facilitates ship repairs. The shipyards also provide waste reception services to clients and bill directly for the use of port facilities (RAC-REMPEITC, 2016). Plans to construct a waste reception facility at Freeport are being considered.

The ship traffic in Cuba consists mainly of dry cargo ships and tankers, of which a considerable part is involved in domestic trade, while in Dominica, it consists of mainly dry cargo ships and cruise ships. While some of this waste is disposed of at the Fond Cole site, many times it is refused, except for paper. The existing landfill is unable to accommodate the other types of waste. Specifically, Dominica refuses the landing of food waste, used engine oil, green waste such as flowers, and chemicals such as paints. Waste disposal arrangements are made through the local representative of the cruise ship within at least forty-eight (48) hours of the ship?s landing.

2.2 Associated baseline projects

The Caribbean Region is made up of island nations in the Caribbean Sea and mainland countries on the South and Central American continents. These countries are SIDS with varying levels of economic status. Some countries have primarily tourism-based economies, such as The Bahamas and Dominica, and others, including Cuba, rely on commodity exports such as agriculture, minerals and petrochemical products, respectively. There are several regional and sub-regional entities that support coordination among countries for varying purposes. These include, *inter alia*, entities such as the Caribbean Common Market (CARICOM), the Organization of Eastern Caribbean States (OECS), CARICOM Regional Organisation for Standards and Quality (CROSQ), the Caribbean Development Bank (CDB) and the University of the West Indies (UWI).

As predominantly import-dependent countries with limited existing capacities for the ESM of emerging streams of chemicals and wastes, Caribbean nations have continued to work towards improving national and regional frameworks for chemicals and waste management through

ratification of international multilateral environmental agreements and participation in national and regional projects. Regional and international interventions have supported the development of the Caribbean SIDS waste management sector. As early as 1994, the World Bank worked with 22 countries in the region through the Wider Caribbean Initiative for Ship Generated Waste Project[57][57], with the overall objective of supporting countries with the ratification and implementation of the International Convention for the Prevention of Pollution from Ships (MARPOL). Additional aims of the initiative included, *inter alia*: assessing existing waste management systems, formulating regional engineering criteria for waste reception facilities at the ports; coordinating with shipping and cruise lines on reducing waste, and developing integrated waste management alternatives. More recently, in 2019, the World Bank announced the Unleashing the Blue Economy of the Eastern Caribbean (UBEEC) Programme which aims to improve the competitiveness of the OECS blue economy and strengthen the resilience of marine and coastal assets on blue economy development in the OECS. UBEEC will include activities related to solid waste and marine litter management. This project is still in an incipient phase, including preliminary communications with countries (Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines).

The Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean (BCRC-Caribbean), was established in 1998 as the Regional Centre to support Caribbean Parties to the Basel Convention and subsequently the Rotterdam, Stockholm and Minamata Conventions, with fulfilling their national chemicals and waste management obligations to the Conventions, has executed several national and regional projects. Most notable is the GEF-funded Project #5558:?Development and Implementation of a Sustainable Management Mechanism for Persistent Organic Pollutants (POPs) in the Caribbean? which is benefitting eight (8) Caribbean countries including: Antigua and Barbuda, Barbados, Belize, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago. Activities conducted between 2015 to 2020 included the update of national implementation plans (NIPs), development of model legislation for integrated chemicals management, improved landfill management to reduce the production of UPOPs, prioritization of contaminated sites requiring remediation, removal and disposal of obsolete stocks and the development of a public awareness ?Stop the POPs Caribbean?campaign. The project also will develop a online database for geospatial data on POPs in the eight (8) countries, known as the POPs Regional Information System (POPs-RIS). This will serve as a foundation activity for expansion into the GEF 10472 beneficiary countries. The BCRC-Caribbean will continue to execute the update of the NIPs in The Bahamas and Dominica in the upcoming year.

The BCRC-Caribbean has also worked with the region to conduct Minamata Initial Assessments (MIAs), having completed four (Jamaica; Saint Kitts and Nevis; Saint Lucia; Trinidad and Tobago) to date with the remaining six (Antigua and Barbuda; Bahamas; Belize; Dominica; Grenada; Saint Vincent and the Grenadines) being completed in the period 2020 ? 2022. The BCRC-Caribbean will continue to support the finalizations of Minamata Initial Assessments (MIAs) for The Bahamas and Dominica within this timeframe.

Another GEF-funded project conducted throughout the region was the FAO-implemented GEF #5407 Project ?Disposal of Obsolete Pesticides including POPs, Promotion of Alternatives and Strengthening Pesticides Management in the Caribbean?. The Bahamas and Dominica are also beneficiary countries in this project. Key activities under this project include, safely destroying

POPs and obsolete pesticides, remediating pesticide-contaminated sites, establishing mechanisms to deal with empty pesticides and other waste plastic containers, strengthening the institutional and regulatory framework for managing pesticides through their lifecycle, and increasing the uptake of alternatives to the most hazardous chemical pesticides on key crops. This project provided a regional baseline for pesticides management which highlighted that approximately ten thousand (10,000) tonnes of pesticides are imported annually into the region. Large quantities of pesticides are indiscriminately used to increase agricultural production in short-term crops for local and regional markets and pesticides residues on produce regularly exceed maximum residue levels, thereby raising food safety concerns and jeopardizing export potential. Further, the widespread use of pesticides is threatening agricultural production, harming vital ecosystem services, reducing soil quality, polluting aquatic systems and having negative impacts on human health due to direct and indirect exposure. Some of these challenges were addressed throughout the Project and under other regional initiatives such as: the Common Agricultural Policy, the CARICOM Regional Food and Nutrition Security Policy and Action Plan, the Caribbean Agricultural Health and Food Safety Agency, Caribbean initiatives to regionally integrate climate resilience and climate change adaptation policies, and the CARICOM Youth Development Action Plan (CYDAP) which further commit governments to act to improve the management of agrochemicals, in line with the SAMOA pathway.

The FAO has also initiated several projects on sustainable agricultural practices in the Caribbean. Focus has included integrated pest management (IPM), with several training workshops being conducted. Assessment of the use of biocontrol mechanisms as countries are being encouraged to promote alternatives to synthetic pesticides. Furthermore, there has been work with farmers to increase education and awareness of the dangers of Highly Hazardous Pesticides (HHPs) and how to minimize such dangers. The FAO and stakeholder entities (including the World Bank, CDB, Development Bank of Latin America (CAF) and the IDB) have also engaged in soliciting support from governments and the private sector to provide investment in agricultural projects to reduce the use of HHPs and improve the sustainability for the sector within the region. Supporting projects in the Caribbean for the ISLANDS Programme include the Sustainable Agriculture Market Access project in Suriname; Resilient Agriculture and Integrated Water Resources Management project in the Dominican Republic; the IOMC Toolbox for Decision-Making in Chemicals Management; the Green Jobs for Youth programme; and Phase III (HHPs) of the ACP-MEAs Programme.

The CARICOM Secretariat?s Sustainable Development and Environment Programme is the implementer for the ?Programme for Capacity Building Related to Multilateral Environmental Agreements in African, Caribbean and Pacific MEAs? (ACP-MEAs) in the region. This Programme, which is funded by the European Commission and coordinated by the UNEP, aims to strengthen Caribbean countries? capacities to effectively implement the MEAs to which they are Party. One of the outputs of this Programme is a Customs Handbook (2013) that serves as a guide to MEAs including the BRS Conventions for Customs Departments.

Additionally, CARICOM, through the Revised Treaty of Chaguaramas 2001, has also provided its member states with the directive to take environmental concerns into account when trading as a bloc. In this regard, and through the projects with which they become involved, the Caribbean countries, as a region, have indicated their commitment to promote sustainable environmental policies as part of their ongoing development and trade agenda. The commitment of the countries to the protection of the region from the adverse impacts of export and transport of hazardous chemicals and waste is seen in the CARIFORUM European Union Economic Partnership agreement 2008 between CARICOM and the EU. The agreement highlights the need to ensure

adequate environmental protection during the execution of the agreement under its provisions to facilitate trade in goods and services that the parties consider beneficial to the environment. Such products may include environmental technologies, renewable- and energy-efficient products and services and eco-labelled goods. Through provision of assistance to enhance the technological and research capabilities of the CARIFORUM countries, the Agreement also facilitates development of, and compliance with, internationally recognised sanitary and phytosanitary measures and technical standards and internationally recognised labour and environmental standards[58][58]. But CARICOM is unable to take advantage of these provisions currently as Member States do not have the capacity to provide efficient trade and waste management services among each other or internationally. CARICOM?s continued commitment to the safety of the region?s environmental quality, has been further advanced with the establishment of the CARICOM Regional Organization for Standards and Quality (CROSQ). It is the regional centre for promoting efficiency and competitive production in goods and services, through the process of standardization and the verification of quality. In this regard, CROSQ aims to support international competitiveness for the enhancement of social and economic development of the region. CROSQ helps to promote standards and quality across the Caribbean to ensure environmental protection is maintained. CARICOM also has a draft harmonized Customs Model Bill and Regulations which, when passed, will help to advance and harmonize the customs regulations in the region and present an opportunity for a harmonized position on chemicals and waste management as well as move the GHS process forward.

These project examples underscore the overall principles of sustainable development that govern the operations of the key regional entities in the Caribbean. They also highlight the commitment of the region to the SAMOA pathway. For example, the OECS, through the St George?s Declaration in 2006, adopted the prevention and control of pollution and the management of waste as a core principle under which the regional body, consisting of Ministers of Environment, operates. To further the achievement of its mandate, the organization has also encouraged its member states to endorse the Caribbean Waste Management Action Plan proposed by UNEP and to mobilize resources to ensure the implementation of the action plan. Furthermore, the OECS has taken strides to encourage its member states to work on the reduction of marine plastics pollution and the effective management of ship generated waste through legislation enactment, developing management strategies and implementing activities aimed at recycling and containing plastic pollution in the OECS region. The organization has also embarked on projects aimed at improving management of solid waste through composting and other sustainable land management practices for organic waste. Presently, the OECS is implementing a 3 million USD project aimed at building the resilience of marine ecosystems through a reduction in marine litter in the Eastern Caribbean countries. They have also joined with the International Union for Conservation of Nature (IUCN) to further move this agenda forward through the Norwegian Agency for Development Corporation (NORAD) Plastic Waste Free Island Project to address the issue of plastic waste leakage from island states. This will be complemented with an additional project funded by the French Ministry of Foreign Affairs though an 828,000 EUR recycling project involving the French overseas territory of Martinique.

There are also other initiatives within the Caribbean basin that support the ISLANDS Programme. The Metabolism of Islands programme is currently conducting research on waste and resource flows including e-waste in Aruba, Barbados, Cuba, Grenada, Jamaica and Trinidad and Tobago.

The Climate Technology Centre and Network (CTC-N) has a number of waste management projects in the Caribbean region. The IMO is also currently undertaking initiatives aimed at improving the region?s compliance under the MARPOL, Cartagena and London Conventions in relation to the transporting of hazardous waste that will be considered under the ISLANDS project. Further collaboration can also be made with the Cartagena Convention Secretariat in areas of mutual benefits through their complementary projects on International Waters and nutrients as well as marine litter and wastewater management. Initiatives under the Cartagena Convention Secretariat include the development of a Regional Action Plan. Initiatives under the current Plastic Waste Free Islands project, funded by NORAD and being executed by the IUCN regional office for Mexico, Central America and the Caribbean, can complement the anticipated benefits of the GEF ISLANDS Programme. The project, which focusses on the elimination of plastics from the islands, is being implemented in three (3) Caribbean countries; Antigua and Barbuda, Grenada and Saint Lucia. Furthermore, it is part of a lager initiative that includes the Pacific Ocean islands as well. Similar projects for the management of chemicals and waste in the Caribbean region are also currently being undertaken by the US Environmental Protection Agency (USEPA), specifically in Puerto Rico and the US Virgin Islands. The USEPA also has waste management projects in the Dominican Republic, particularly in the design of controlled and sanitary landfills and providing workshops on landfill design. Projects on municipal waste management are also being funded by the USAID in the Dominican Republic as they seek to improve the waste management system currently in place. Other governmental agencies providing development support in the Caribbean include the Japan International Cooperation Agency (JICA) and the UK Department for Environment, Food and Rural Affairs (DEFRA). DEFRA has a number of ongoing projects in waste management in the Caribbean, such as: the Commonwealth Clean Ocean Alliance (CCOA); Commonwealth Litter Programme (CLiP); Technical Assistance Facilities helping member countries of the Commonwealth develop a waste management plan (including Saint Lucia, Belize); Blue Planet fund; and Tide Turners Plastic Challenge Badge. Collaborations here could mean great strides in the overall management of hazardous chemicals and waste across the Caribbean region.

Finally, there is work being undertaken in the private sector. Individual companies and organizations have been embarking on the drive to better manage chemicals and waste in the Caribbean. For example, there is currently exploration in the use of microwave technology as an alternative to incineration and autoclaving for the management of waste through RS Caribbean in Cura?ao. The possibilities offered by this company are potential alternatives to explore under the ISLANDS project. The Florida Caribbean Cruise Association and Cruise Lines International Association (CLIA) through their own initiatives, have been working with members to ensure effective management of chemicals and waste from their ships. Carnival Cruise Line, for example, has a number of ports in the Caribbean region where collaborations in waste management could be beneficial for local communities, such as Amber Cove in the Dominican Republic. In the manufacturing sector, the MSC Foundation is setting the stage with their work on projects aimed at recycling plastics to create building materials within the Caribbean. In Guadeloupe, work has also been ongoing for the pretreatment of electronic waste, the recycling of PET plastic products, and the recycling of food oils into biodiesel. In the Dutch Caribbean, a motor oil/tyre recycling plant provides a regionally relevant and appropriate solution to the issue of used tyres and used oil on small islands, which could be replicated within ISLANDS project countries. In the USA, Ecovation Global Holdings offers a tapestry of proven Environmental and Technology Solutions to sustainability issues that are financially feasible, benefit the health and well-being of communities and the environment, and improve the all-around resilience of small island states.

c) The Proposed Alternative Scenario with a Description of Components of the Project

The overarching objective of the GEF ISLANDS programme is to support the entry of SIDS into a safe chemical development pathway. This will be achieved by strengthening the enabling frameworks through which regional and national institutions sustainably implement chemicals and wastes management while simultaneously enhancing their capacities to manage the same. The ISLANDS programme aims to improve each country?s ability to control the flow of chemicals, products and materials into their territories and to develop resources for the long-term, integrated and environmentally sound management (ESM) of chemicals and waste. These goals will be realized by working with SIDS at a global level to provide training and capacity building, introduce legislation, standards and regionally appropriate infrastructure whilst simultaneously addressing the national priorities of the project countries.

The GEF ISLANDS programme features seven (7) child projects, each with a project execution timeframe of five (5) years. Currently, there are thirty-three (33) SIDS participating in the programme, hailing from the Indian Ocean, Pacific, Atlantic and Caribbean regions. Although these regions are geographically unique, all SIDS tend to face similar challenges when it comes to the management of wastes, chemicals and natural resources. Thus, the global approach offered through this programme will facilitate greater leveraging of resources than those afforded to single countries or regions through traditional approaches. Furthermore, the economies of scale made available through the programme have the potential to encourage private sector investments which are more attractive than singular transactions with individual SIDS. The direct result will be the incubation of small and medium enterprises (SMEs) which are appropriately equipped to tackle the regional challenges with the assurance of environmental and economic sustainability.

The ISLANDS programme will also allow for the exchange of knowledge and experience across regions which would not be possible with insular regional interventions. The information exchanged and knowledge amassed at the national level will also be shared among regions to achieve impacts at the global level. In this regard, it will serve as a key tool for unlocking the resources necessary for propelling SIDS along the trajectory towards the two critical concepts of: environmentally sound management and lifecycle management of products. The programme will also support the implementation of multiple chemicals and waste-related multi-lateral environmental agreements (including the Basel, Rotterdam, Minamata, and Stockholm Conventions, the Montreal Protocol and SAICM) as it relates to strengthening capacity for border control (export, import monitoring and customs), phasing out or eliminating products which lead to the generation of hazardous wastes and the application of best practices for SIDS in chemicals and wastes management.

The South-South cooperation fostered through this programme will ensure that best environmental practices (BEP) and innovative technologies are incorporated into the solutions for the common challenges in chemicals and waste management faced by SIDS across the different regions. It is recognized, however, that the strategies via which each country must contribute to regional success has to be tailored to accommodate its individual national priorities. Solutions to challenges from chemicals and wastes will be geared towards addressing needs of specific SIDS but will fall within a larger framework built around appropriate technology for each region. The programme will

therefore establish a network to facilitate cooperation within and across regions to marshal the requisite resources for the ESM of chemicals and waste appropriate to each country.

The GEF ISLANDS 10472 Project is the sixth Child Project (Child Project 6) under the GEF ISLANDS Programme. Activities under this project will mirror those of the third child project, which is also being executed in the Caribbean (referred to in the text as GEF 10279). Knowledge products developed under the project will be shared with SIDS from all regions through Child Project 1 (referred to in the text as GEF 10266). The Bahamas is also a beneficiary country in Child Project 2 which is implemented by the IDB. Consequently, the other project countries in Child Project 6 will gain knowledge based on The Bahamas? experience in that project. Child Project 6 activities will be designed to address the management of stockpiles of harmful chemicals and to ensure that sustainable development in the Caribbean does not lead to the accumulation of toxic and hazardous substances in future. This will be achieved through harmonizing, among other things, mechanisms for implementing the chemicals and waste MEAs, border control procedures, standards and labelling and capacity building. The Child Project will support the global programme in creating and supporting long term cooperation among SIDS to achieve the overall goal. While working at the regional level to harmonize practices, the programme will identify and accelerate SIDS appropriate technologies and practices to manage chemicals and wastes. This will allow much needed action at the national level to be taken and lessons learned at the national level to be scaled up to the regional and global levels through the coordination mechanism developed by the programme.

Child Project 6 will help to overcome the common challenges facing Caribbean SIDS based on several core principles adopted from the global programme:

? **Operational Effectiveness:** The project will work to strengthen existing relevant legislative and policy frameworks and where they are absent, develop the frameworks to ensure the integration of regulations at the regional level. The project will work alongside regional institutions such as CROSQ to develop a series of instruments and systems at the regional level which will benefit all countries. Although Cuba is not a member country of CROSQ, benefits will still be derived through participation in the ISLANDS Programme;

? **Knowledge management and exchange:** The exchange of knowledge and lessons learnt among regions will allow countries to fast-track the implementation of best practices into their *modus operandi* for waste and chemicals management. These experiences will be collated, packaged and disseminated, by the global Communication, Coordination and Knowledge Management Child Project (GEF 10266), which will serve as the epicentre for knowledge dissemination for the GEF ISLANDS Programme;

? **Facilitating public-private partnerships:** The project will engage importers, distributors and manufacturers of chemicals and chemical-containing products such as electronics, vehicles, plastics and agricultural chemicals to improve environmental performance and develop procurement agreements with interested private and public sector partners. Sustainable procurement will be built into business operations to achieve the project?s objectives;

? **Alignment of activities with other initiatives operating at the regional, cross-regional and global levels:** Several other major funds are coordinating efforts at the regional, inter-regional and global levels. These include the OECS, World Bank, IUCN, EC ACP Secretariat and European Investment Bank. This provides the opportunity to link GEF activities with other development partners coordinating the work at the regional and global levels, facilitating alignment of workflows and achieving economies of scale. Several other major sectors such as climate change

and plastics management are also operating across the four regions and provide opportunities to build on and link with existing structures for improved coordination. According to the SIDS Waste Management Outlook 2019, regional approaches that utilize synergies between countries are key to improving waste management in SIDS;

? **Linkages to global agreements and initiatives:** Bodies such as the BRS and Minamata Conventions, SAICM, and processes linked to the S.A.M.O.A. (Small Island Developing States Accelerated Modalities of Action) Pathway and WHO projects in SIDS operate and coordinate at the global level. They also provide existing platforms for coordination across regions to achieve global impacts, knowledge exchange and policy dialogue;

? **Cost effectiveness:** Will be achieved by delivering on all the above. Participating Caribbean countries will share the costs of development of products, knowledge and standards, which can be utilized and applied across non-participating Caribbean countries and other regions. By linking with existing global platforms, the programme will also increase the visibility of the issues in SIDS and the impacts of the programme in a cost-effective way.

The Child Project?s theory of change (Figure 4) has been developed around three complementary approaches, which serve to address the barriers to sound chemicals and wastes management faced by Caribbean SIDS (and outlined in Section 1a.1 above). These three approaches are:
? avoiding future imports and use of chemicals and products/materials that lead to waste which cannot be disposed of in Caribbean SIDS;
? treating chemicals and waste that are currently present in Caribbean SIDS and cannot be disposed of under existing conditions or using existing infrastructure, and;
? developing systems, circular, or otherwise, to ensure that those chemicals and subsequent wastes which cannot be avoided are used safely with capacity for recycling or environmentally sound disposal at end-of-life.

Together with a cross-cutting global component on Knowledge Management and Communications, these three approaches also form the Project Component framework (outlined below).

The integrated approach responds to and reflects the Child Project and full programmatic theory of change by focusing on interventions in line with the identified drivers, including: public health concerns; responding to climate change and sea level rise (through future proofing infrastructure); that tourism requires a clean environment; and the need to protect ecosystems. The activities of Child Project 6 are directed at achieving the long-term objective of preventing the accumulation of POPs and mercury materials and managing and disposing of existing harmful chemicals and wastes in the project countries. It is envisaged that through the developed activities, the Caribbean will achieve the following outcomes, in line with the overall expected outcomes of the ISLANDS Programme:

? Caribbean SIDS have in place effective mechanisms to control the import of chemicals, and products that lead to hazardous waste;
? Harmful chemicals and materials present and/or generated in Caribbean SIDS are being disposed of in an environmentally sound manner;
? Build-up of harmful materials and chemicals is prevented through establishment of effective circular and life-cycle management systems in partnership with the private sector, and;
? Knowledge generated by the Child Project and the Global Programme is disseminated and applied by SIDS in all regions.

Following the successful execution of Child Project 6, the project countries are expected to have in place financial and regulatory structures and associated enabling environments to foster entrepreneurism and private sector investment in the management of chemicals and wastes; partnerships and communication platforms forming a solid basis for ongoing and future investments; bans on single-use plastics to address locally derived marine litter; improved capacity for e-waste management; and regional cooperation leading to an upsurge of sustainable management and behaviours across SIDS.

Activities to be conducted under the Child Project 6 were developed based on national priorities highlighted during initial consultations with stakeholders from the participating countries and will also mirror some of the activities to be conducted under the GEF 10279 Project. The activities include national and regional level activities developed using baseline information collected during the Project Preparation Grant Phase (PPG) to avoid duplication and maximise incrementality of the project. Regional level activities are proposed under all components while some activities focus on addressing the national priorities identified by each project country. Components 1 and 2 will help ensure national equivalence of regulatory environments and allow all countries to benefit from project activities. National level activities under Component 3 are based on national priorities, as outlined in Section 7. Component 4 activities will include the development of mechanisms to manage knowledge and communications to promote learning regionally and globally beyond the life of the project.

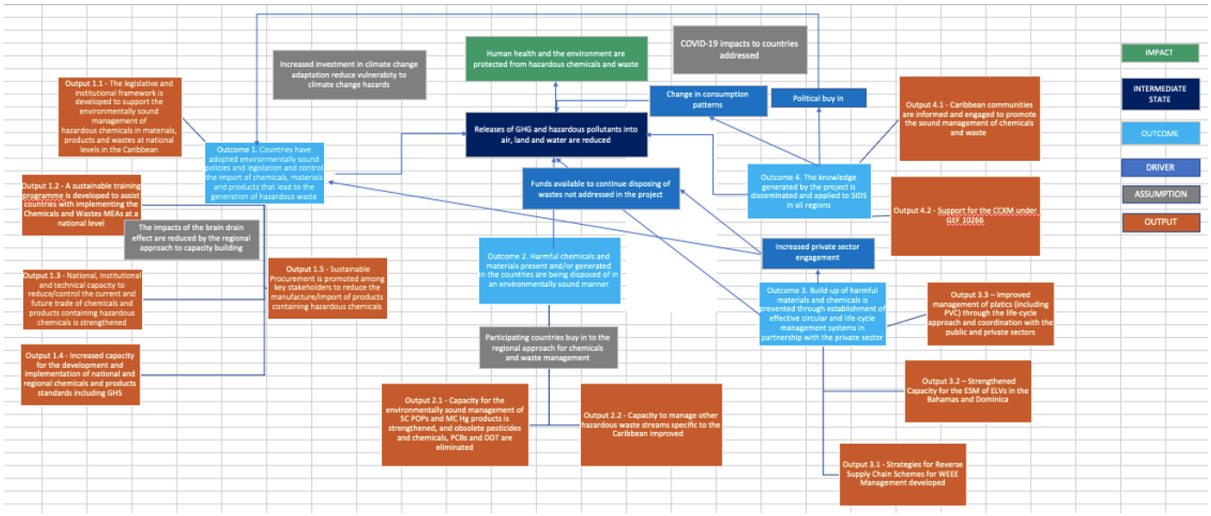

Figure 4: Theory of Change for GEF ISLANDS 10472

Component 1 ? Preventing the Future Build-Up of Chemicals Entering SIDS

Waste prevention is the most favourable waste management option recommended by the UNEP?s ?waste hierarchy?, with disposal to landfills being the least favourable option. Given that there are limited facilities, resources and capacity in the Caribbean to manage the hazardous waste streams generated in the islands, waste prevention is critical to ensuring that hazardous wastes do not

accumulate in our environments over time. To achieve this, the ISLANDS programme aims to work together with project countries to effect mechanisms to control the import of chemicals, materials and products that lead to the generation of hazardous waste. This is the overarching goal of Component 1, which will be achieved through five (5) Outputs.

Specifically, activities under Outputs 1.1 through 1.5 will aim to:

i. **develop the legislative and institutional framework for the environmentally sound management of Electrical and Electronic Equipment (EEE), End-of-Life Vehicles (ELVs) and mercury containing products, and develop national strategies for their adoption and implementation (Output 1.1);**

ii. **train the customs/border control and trade officers, environmental inspectors, and officers responsible for the sound management of chemicals (Outputs 1.2, 1.3 and 1.4);**

iii. **implement standards and build capacity to control/limit and prevent the import of hazardous chemicals, products containing hazardous chemicals or products that will result in hazardous waste (Outputs 1.3, 1.4), and;**

iv. **promote Sustainable Procurement to reduce the manufacture/import of products containing hazardous chemicals (Output 1.5).**

Activities under Output 1.1 are national-level activities, while the activities proposed for the other outputs are on a regional level. Two (2) national-level demonstration projects in The Bahamas and Cuba are planned under Activity 1.3.2. Three (3) national pilot projects are discussed under Output 1.5 and will be designed based on the national priorities of countries. The lessons learnt from these demonstration projects will be communicated to the other countries in the Caribbean through output 4.1 and to the other regions through the GEF 10266 Project.

Output 1.1 The legislative and institutional framework is developed to support the environmentally sound management of hazardous chemicals in materials, products and wastes at national levels in the Caribbean

Each project country has made efforts towards harmonizing their legal frameworks for the management of solid municipal waste and hazardous waste. However, none specifically highlight the POPs and mercury related products and waste streams identified in the NIPs and MIAs that require attention. These are namely WEEE, ELVs and MAPs, HHPs and other POP-containing chemical products. Guidance documents developed under the Stockholm and Minamata Conventions promote a ?*cradle to grave*? approach to the management of mercury-containing and POP-containing products. In this output, the legislative and regulatory enabling environment will be enhanced to achieve lifecycle management of these waste streams. This will facilitate the uptake of the regional solutions proposed in this project to manage these materials, products and wastes, particularly as it relates to regulating their import and informing safe transboundary movement. The countries? obligations (where appropriate) under the Basel, Rotterdam, Stockholm and Minamata Conventions will also be synced with these legislative chemical management requirements, making them compliant with these treaties at the same time.

Consideration will also be given to strengthening infrastructural and institutional capacities to support the effective implementation of the legal frameworks at the regional and national levels. Activity 1.1.1 will focus on assessing the legislative, institutional and infrastructural gaps and providing recommendations for a standardized regional approach to chemicals and waste

management, while Activity 1.1.2 will ensure that the nuances of each project country are considered in the ascent to a standard regional approach.

Activity 1.1.1: Evaluate the legislative, institutional and infrastructural capacities for the environmentally sound management of wastes and chemicals at national levels

A comprehensive review of the existing legislation, infrastructural and institutional capacities in the individual countries will be conducted to determine: (i) the degree of efficacy with which institutions interact with the legal and institutional frameworks to achieve the environmentally sound management of chemicals and waste; and (ii) the capability of each country to successfully implement the project activities proposed hereunder. The focus of this review will be the management of EEE, ELVs, pesticides, mercury-added products(MAPs) and plastics, including PVC. Consideration will be given to the current gaps and barriers to the effective management identified and the recommendations will suggest regionally appropriate technologies for the management of the aforementioned chemicals and wastes and national activities for facilitating the implementation of a regional approach. These recommendations will also guide the development of activities under Components 2 and 3 and will facilitate private sector involvement where relevant.

This activity will build on the preliminary assessments undertaken under the PPG Phase of the project, as well as other legislative and institutional assessments which would have been conducted under other enabling activities such as the development of National Implementation Plans under the Stockholm Convention or Minamata Initial Assessments under the Minamata Convention. Existing directives from intergovernmental or supranational bodies, such as the European Commission?s Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), the European Union (End-of-Life Vehicles) Regulations 2014 will be consulted. Successful regional or national regulatory mechanisms which have been implemented or are being implemented to manage hazardous waste streams in other SIDS will also be assessed and findings will be used in support of activities under Components 2 and 3. Recommendations from the development of draft legislation on Reverse Supply Chains in Mauritius, for example, can be considered here and will directly support Activity 3.1.1. Given the different geopolitical climates of each project country, the lessons learnt from each country will also be considered.

Activity 1.1.2: Develop national strategies (one per country) for adoption and implementation of the environmentally sound management of hazardous waste at the national level

Under the GEF 10279 Project, a regional model policy will be developed to address the management of hazardous waste streams such as EEE, ELVs, as well as other POP-containing and mercury-containing chemicals. In order to ensure that there is a standardized approach to the management of these chemicals and wastes across the Caribbean, this document should be used as the base for the development of legislative instruments for the management of each country?s priority hazardous waste streams. This activity will therefore use the model regional policy as a guidance manual to support the development of national strategies and roadmaps for each country with respect to the management of EEE and mercury-added products. In the cases of The Bahamas and Dominica, the management of ELVs will also be considered. The national strategy and roadmap will document roles and responsibilities, description of tasks, supporting agencies, outputs and timelines. They will serve to guide each country?s enactment of the proposed recommendations toward achieving the obligations under the BRS and Minamata Conventions.

Extensive stakeholder engagement will be necessary for ensuring that realistic and effective outputs are developed.

An understanding of the issues to be addressed will be derived from the data gathered from the analyses conducted in Activity 2.1.1, as well as material flows, technical and economic assessments conducted under Activities 3.1.1, 3.2.1, 3.31 and 3.3.2. National working sessions will be then held to identify the sections of the regional model policy which are applicable to the individual needs of each country. These sessions should also provide insight into how countries view their ability to manage the specific hazardous chemicals, products or waste streams and their plans for configuring a market-based approach for the management of chemicals and waste at the national and regional levels. Financial, material and human resources needed to implement these recommendations and legislation, such as best practice guidelines, standard operating procedures, user-friendly and illustrative booklets/manuals, and reporting, should also be discussed. The findings of Activity 1.1.1 will also be analysed to determine which parent legislation could be amended and/or where subsidiary legislation can be created to accommodate the suggested updates to the legal framework. Once determined, the national model strategy and roadmap will be customized accordingly.

These strategies will be developed with a view towards facilitating regional trade within the different socio-political structures of each country and will be tailored for the institution(s) which will oversee its implementation. They will therefore seek to create the necessary enabling environment to allow countries to manage chemicals and waste in coordination with the private sector. Consultations with each country?s legislative drafting department will be held and the core experts from each country will participate in periodic regional workshops as the regulations are developed. Technical support for this activity will be provided by economic experts and regulators, primarily from the ministries with responsibilities for waste, chemicals and environmental management, legal affairs and trade. The lessons learnt from each participating country and by extension the work conducted under GEF 10279 will be communicated via the GEF 10266 Project.

Output 1.2 A sustainable training programme is developed to assist countries with implementing the Chemicals and Wastes MEAs at a national level

Stakeholder consultations with each project country during the PPG Phase indicated the need for building capacity across the various institutions with responsibility for the implementation of chemicals and waste Multilateral Environmental Agreements (MEAs). The lack of an integrated national effort limits each country?s ability to meet its obligations under the various Conventions. This challenge is further compounded by the fact that there are limited resources with the technical capacity to support their implementation, especially when there are updates to the annexes of Conventions. Thus, this output has been designed to support a sustainable solution to these challenges through the development of a sustainable training programme and supporting awareness-raising products for the different institutions involved in the implementation of the Chemicals and Wastes Conventions.

A comprehensive training needs analysis will be undertaken to elucidate the institutional challenges and barriers to the effective implementation of the MEAs (Activity 1.2.1). Training materials will then be developed and delivered to key stakeholders to address the main challenges identified (Activities 1.2.2 and 1.2.3). The training programme will be designed to enable the expansion of technical capacities across relevant government ministries. It is envisioned that the BCRC-Caribbean?s website and database will serve as the repository for the information and will

therefore be responsible for the maintenance and continual update of the repository (Activity 1.2.4). This will allow for a standardised and guided approach to access the training material. Communication products will be developed under Activity 1.2.5 to raise awareness on the existence and utility of the BCRC-Caribbean?s online repository among key stakeholders in the project countries, in all subsequent outputs and will be shared with the global knowledge management platform developed under GEF 10266 (see Output 4.1).

Similar activities to the aforementioned have been proposed under the GEF 10279 Project, which is co-implemented by the FAO. The FAO will contribute to the development of those activities by providing guidance on the implementation of MEAs as they relate to chemicals management in agriculture. In order to ensure that the project countries can benefit from the aforementioned material, synergies must be established between this project and the GEF 10279 Project in order to facilitate information exchange on this topic. The activities developed under this output will therefore seek to incorporate such FAO guidance into the training materials developed here so that there is a harmonized approach for the implementation of the Conventions across the Caribbean.

Activity 1.2.1: Conduct a Training Needs Assessment (TNA) for implementation of the Chemicals and Wastes MEAs

This is a foundation activity for this output and will inform the subsequent activities. The initial activity will be to conduct a Training Needs Assessment (TNA) for staff of key agencies in all participating countries as it relates to the Chemicals and Wastes Conventions. The TNA Assessment will include, but not be limited to: a stakeholder analysis; consultations with stakeholders to identify the gaps, barriers and needs within these agencies; the prioritisation of the training needs; the development of the preliminary training plan which outlines the approach to each of the selected training topics; and the recommendations for the execution of the training programme. The stakeholder agencies which should be targeted in the training programme will also be identified. The findings of this assessment will be documented in a TNA report.

In order to ensure that efforts under this project are synergised with those under GEF 10279, the TNA will also seek to understand the role of agriculture and pesticide management in the successful implementation of the Chemicals and Wastes Conventions in the project countries. The knowledge, attitudes and practices of stakeholders involved in pesticide management and their interactions with the regulations that govern the same will also be assessed and documented in the TNA report. The TNA report will serve as a baseline for measuring the impact of training and awareness-raising activities developed under Activities 1.2.2 through 1.2.5.

Activity 1.2.2: Develop targeted training materials for the gaps identified from the Training Needs Assessment

Under this activity, an interactive and detailed training plan will be developed for the stakeholders identified under Activity 1.2.1 in correspondence with the individual country needs documented in the TNA report. Technical guidance from the BRS Secretariat, UNEP and FAO, as well as training materials from other regional centres, will be engaged to create customized training materials to fulfil the needs of the countries in this project. Consideration will also be given to materials developed under ongoing projects such as the GEF/UNEP project ?Integrated Stockholm Convention Toolkit to improve transmission of information under Article 7 & 15?.

Electronic packages containing training materials, including all accompanying background materials, will be prepared for the stakeholders to deliver to their agencies via the ?Training of the Trainers? approach described in Activity 1.2.3. The expected exponential increase in technical capacity across institutions responsible for implementation of Conventions through the ?Training

of the Trainers? approach must also be communicated in the training materials for the expectation to be realized. Toolkits and handbooks will also be developed on the training needs identified to ensure the institutionalization of the training plan following the workshop. All materials will be developed in English and Spanish and will be stored on the online repository of the BCRC-Caribbean?s website and database.

Activity 1.2.3: Deliver a ?Training of Trainers? programme to support the capacity in key agencies mandated with the implementation of and the monitoring of Chemicals and Wastes MEAs

Under the GEF 10279 Project, a training programme entitled ?*Training of Trainers*? will be developed for key personnel in key agencies (e.g., waste management, environment, health, agrochemical sector) and the staff of the BCRC-Caribbean. The Training of Trainers programme is intended to engage master trainers in coaching new persons who are less experienced with a topic or skill to become trainers. Sustainability of this approach will be facilitated through the creation of a pool of competent instructors who can teach the material to others.

In this project, a similar training programme will be developed based on the TNA to deliver the training materials developed under Activity 1.2.2 and to ensure that the trained persons can subsequently facilitate the delivery of the training materials to other relevant stakeholders in their respective institutions. This in turn will exponentially increase the number of personnel with the technical capacity to implement the chemicals and waste MEAs and will thereby assist in abating the loss of knowledge transfer which occurs when there are changes to key personnel at these institutions. It will be based on a participatory learning process which will be designed to allow participants to review their training methodology, share experience and improve their training ability. The training programme under this project will build on the training programme developed in GEF 10279, but focus on the needs identified in the TNA, as these will most likely vary from those identified in the GEF 10279 project.

The training materials will be delivered to the key stakeholders via a regional workshop that will aim to train 20 trainers, of which at least 40% (8 trainers) should be female. The workshop will be facilitated in both English and Spanish. In preparation for the workshop, a stakeholder analysis will be conducted to identify personnel at the national, regional and international agencies, NGOs and governments that are actively working on chemicals and waste management for training. A Knowledge, Attitudes and Perception Survey (KAP) will be conducted before and after the training workshop is executed. This will be completed by the participants to ensure that feedback can be incorporated into the improvement/finalization of the training materials to continuously strengthen the future delivery of the training programmes.

The regional FAO ?Training of Trainers? programme will also be adopted from the GEF 10279 Project to extend capacity in key agencies mandated with the implementation and monitoring of Chemicals and Waste MEAs in relation to agriculture. The regional Training of Trainers will be designed as a practical learning experience for agricultural pesticide management practitioners and trainers from various Caribbean countries and its content will therefore still be applicable to the countries involved in this project. National, regional and international agencies, NGOs and governments that are actively working on pesticide management and transformation processes and/or importantly involved in training will be invited to nominate suitable staff members for participation in the course. These organisations can nominate staff for the course provided that the organisations commit themselves to: providing trainings on pesticide management related topics on

a continuous basis in the future and provide full institutional support to their staff in the design, development, and delivery of the regional and national level training on pesticide management during the Training of Trainers program.

Activity 1.2.4: Adapt or utilize online training tools which are designed to promote sustainability of knowledge management on Chemicals and Waste MEAs in national institutions

Under the GEF 10279 Project, an online database, which will be hosted and managed by the BCRC-Caribbean, will be developed as a repository for all learning content, training materials and knowledge enhancing products developed under the ISLANDS Programme, as well as any other training or awareness raising materials on Chemicals and Wastes developed under future initiatives. Under this project, resources will be allocated to ensure that the participating countries will be successfully connected to this database. The database will also support the successful implementation of the ?Training of the Trainers? Programme by ensuring that all persons have access to the requisite resources for training to build their competence. Knowledge products developed by the BCRC-Caribbean under both the GEF 10279 and 10472 Project, such as training materials and videos, will be made available on the repository. The BCRC-Caribbean will be responsible for updating the materials to address any future changes related to the Chemicals and Wastes Conventions, such as the addition of newly listed chemicals and adjustments to the Annexes of the Conventions.

During the development of the baselines for this project, the paucity of available information on the chemicals and waste management frameworks of the three (3) project countries was evident. In this regard, in addition to acting as the repository of information for learning content, it is imperative that the data sets for chemicals and wastes management also be housed with the BCRC Caribbean. These will include: maps; data sets from current and previous studies, including summary sheets of the baseline assessments conducted during the PPG Phase of this project; and links to the webpages of governmental and intergovernmental bodies. Consultations will be undertaken with countries to determine whether there are any restrictions on materials to be shared and to determine the standard operating procedure for information exchange between the BCRC-Caribbean and the countries. A virtual regional training workshop will be delivered to the participating countries of this project to demonstrate the use of the database, and its resources and to ascertain from the stakeholders in the key agencies of the participating countries how they expect to use and share the database at a national level.

Activity 1.2.5: Develop and implement an awareness raising programme on the Chemicals and Wastes MEAs Training Database

Under the GEF 10279 Project, an awareness raising programme will be developed to communicate the catalogue of resources and tools available on the BCRC-Caribbean?s online repository. Materials developed under that project will be accessed via the GEF 10266 project and will then be tailored and targeted to audiences in the Bahamas, Cuba and Dominica. While the awareness raising programme will be implemented in all three countries, in accordance with the national priorities identified by Cuba, training materials and knowledge products will be created under the project to increase awareness among Caribbean youth on the ESM of hazardous waste. These materials and products will be housed in the database developed under Activity 1.2.4. Therefore, in order to ensure that youths and other stakeholders groups are aware of the existence of the database

and how it can be used to expand their own knowledge, an awareness-raising programme on the Chemicals and Wastes MEAs Training Database will be created. Awareness raising materials can also be shared via intranet platforms of academic institutions or inclusion in the curriculum for students of law and environmental science. Messages will also be developed to raise awareness among other stakeholder organisations who are involved in the implementation of chemicals and waste MEAs in all project countries. A survey will be conducted before and after the completion of the awareness raising program to provide insight on the awareness spread, and the database will be continuously monitored for viewer traffic. Detailed dashboard reports will be created showing interactions with the tools and disaggregation by country. Any additional educational materials and awareness raising materials developed for the database under this project will be shared with other participants in the ISLANDS programme via the GEF 10266 Project.

Output 1.3 National, institutional and technical capacity to reduce/control the current and future trade of chemicals and products containing hazardous chemicals is strengthened

The existing national and regional frameworks related to the control of trade in chemicals, products containing chemicals and wastes governed by the various chemicals and waste MEAs are generally weak. This is epitomised by a lack of awareness among border control agencies and the public on restricted goods under the Conventions. This issue is further compounded by Customs? limited capacity for identification of imports before entry at port facilities, including aggregated import data. Informal or non-existent institutional arrangements/collaboration between relevant agencies are also a barrier to the effective implementation of the Conventions. These agencies include customs and border control agencies, port owners, environmental departments and agencies with responsibility for pesticides, chemicals and waste. Most countries in the region also lack standards and legislation related to labelling requirements for imported chemicals and products containing chemicals, as well as standardized methods for the identification and quantification of chemicals or product imports containing chemicals of concern.

Activities under this Output will address the identified gaps in the enforcement, institutional and technical frameworks to strengthen national and regional capacities to reduce and control the current and future trade in specified hazardous chemicals, products containing chemicals, and waste. They will focus on improving mechanisms for:

- **identification of restricted or prohibited hazardous chemicals, products containing chemicals or waste prior to their import or export;**
- **identification and seizure of illegal imports upon their arrival;**
- **environmentally sound storage, handling and testing of imported chemicals and products, and;**
- **institutional coordination and communication for data collection and management.**

Activity 1.3.1: Assess institutional, technical and analytical capacity for the identification of restricted/ controlled chemicals and products containing chemicals and waste

All project countries have indicated that there is limited formal communication between customs and regulatory agencies as it relates to the monitoring and enforcement of the illegal trade in chemicals and waste. Thus, in order to support the development of formal inter-agency

communication strategies, an in-depth analysis will be undertaken to better understand: (i) the relationships between border control agencies, regulators with responsibility for the environment and chemicals management, and actors having analytical capacity in both the private and public sectors; (ii) the extent of collaborative efforts involved in the identification of suspicious or illegal imports and exports; (iii) the integration of the data management systems such as ASYCUDA World System into the operations of stakeholder agencies, or the BSEW in the case of Bahamas; (iv) the standard operating procedures for the pre-screening and identification of imports containing restricted chemicals; and (v) monitoring and enforcement protocols for confirmed cases of illegal traffic. This analysis will be coupled with an assessment of the technical and laboratory capacity of each country for the analysis of POPs, mercury and other chemicals of concern and the method. Opportunities for facilitating and strengthening collaboration among the various institutions will be presented and recommendations for countries to quickly adapt to the global identification of new POPs of concern will be provided[59][59]. The priorities identified under the assessment will lead to the development of guidelines to support a standardized approach for pre-screening and identification of mercury added products and POP-containing products. In order to support the pilot project proposed under Activity 1.3.3 on identification of chemicals in imports, mechanisms for sustainably financing the maintenance and operating costs of equipment for chemical analysis will also be explored. In this regard, guidance will be provided to countries as it related to leasing agreements with service providers in the private sector for maintenance of equipment.

Activity 1.3.2: Develop a formal mechanism for inter-institutional collaboration and communication as it relates to the trade of restricted or controlled chemicals, products and waste and management of data generated by relevant agencies

This activity will seek to implement the opportunities identified under Activity 1.3.1 to strengthen collaboration and communication between regulatory agencies with responsibility for border control, environmental and chemicals management. The particular situations of each project country will be considered to enact suitable national mechanisms for comprehensive border control. In the case of The Bahamas, for example, the National Coordinating Chemicals Committee already serves as a tool for the national integrated management of chemicals but ultimate power to implement recommended actions is limited in its capacity as a committee. Consideration will therefore be given to the development of a model policy to support its formalization into a Board. Draft Terms of Reference will be created for member agencies. Further, in order to assist in facilitating liaisons between the private sector and the public sector, Model Memorandum of Understanding (MOU) will also be developed. The results of this activity will build on efforts being conducted under the Environmental Network for Optimizing Regulatory Compliance on Illegal Traffic (ENFORCE), of which the BCRC-Caribbean is a member, and the Green Customs Initiative.

The project will also establish a special collaborative mechanism between customs and national pesticide management agencies for control of illegal trade of pesticides. Given that there is no pesticides and toxic chemicals inspectorate or board in The Bahamas, this activity will include other relevant stakeholders in agricultural management, such as the Ministry of Agriculture and The Bahamas Agriculture and Marine Sciences Institute. The information exchange system will be strengthened between the registration authority and customs for sharing registration information

and importing products to enable customs to check the legality of products pending import. This system will exploit the data management systems already in use in the project countries, such as the BSEW or ASYCUDA World systems. As a similar system already exists in Cuba for the management of the National Register of Hazardous Chemicals, a case study will be undertaken to share lessons learnt in Cuba with the other participating project countries to be noted for implementation during the development or update of the information exchange system. Joint law enforcement will be organized between agriculture and customs for pesticide trade.

Another aim of this activity is to support the amendment of the regional Common External Tariff HS Codes based on the guidance report to be submitted by the United Nations Environment Programme Global Mercury Partnership?Mercury in Products partnership area (Products Partnership) at the fourth Conference of the Parties for the Minamata Convention (consideration will also be given to additional developments and decisions made at COPs within the lifecycle of the project). This activity is key to reducing the imports of mercury-added products (MAPs) over the next five (5) years and thus limit the build-up of mercury wastes in countries. Participating countries generally follow the World Customs Organization?s 6-digit Harmonized System (HS) Codes for classification of traded commodities. However, trade statistics obtained from using the 6-digit HS Codes are often aggregated by commodity-type, and quantities of imported products containing harmful substances, such as mercury, are often totalled with imports of their chemicals-free alternatives, thereby hindering analysis and understanding of the true nature of chemicals imports. Assistance for this activity will be sought from the Global Mercury Partnership (GMP)[60][60] and regional bodies [e.g. the CARICOM Council for Trade and Economic Development (COTED)].

Activity 1.3.3: Improve institutional, technical and analytical capacity to support customs and affiliated regulatory agencies with the identification of trade in restricted and prohibited hazardous chemicals, chemicals in products and wastes.

Under this activity, a regional training programme will be developed building on activities under Output 1.3 of the GEF 10279 Project to provide for capacity building initiatives as it relates to implementing inter-institutional collaboration. This activity will support customs and border control agencies of the project countries in the adoption of the guidelines developed under Activity 1.3.1, while simultaneously ensuring that there is a standardized approach to the management of restricted and prohibited chemicals by border control agencies in the Caribbean. Specifically, the training plan will improve the capacity of customs and border control agencies in chemicals identification and examination, notification procedures, and reporting and coordination for activities related to the control of restricted and prohibited hazardous chemicals and product imports and monitoring and enforcement[61][61]. The training plan will also elaborate on the sampling and laboratory analysis of POPs and mercury added products, including the appropriate equipment to be used for the detection of different POPs and mercury, thus building from the analysis module for detection of POPs under GEF 5558. This activity can also be linked to Activities 1.5.3 and 2.1.2. Training materials will also be developed under the plans and delivered via two regional workshops.

The capacity of the border control agencies to detect and control MAPs, in project countries where the need exists (e.g., Bahamas and Cuba), will be improved through the provision of X-Ray Fluorescence (XRF) devices. A pilot exercise will be conducted in at least one project country to test the effectiveness of the guidelines developed under Activity 1.3.1 and support their finalisation. The country in which the pilot project will be conducted will be determined based on the impacts of mercury to the environment from industrial applications. The results of this pilot project will be summarized and disseminated to the GEF 10266 Project via Activity 4.1.1 in order to facilitate replication in other SIDS.

All developed training materials will be incorporated into the online training database to be utilized in Output 1.2 to ensure sustainability. Further, training materials developed under GEF 10279 for Pesticides and Customs Inspectors/Officers on the import/export Inspection and Control of Pesticides will be shared with this project through GEF 10266 via Output 4.1 and any lessons learnt will be incorporated into this activity. This includes information on pesticides regulation; registration law enforcement including the procedure of confiscation, safe transportation, storage and disposal; the role of Pesticides Inspectors and types of Inspections; the roles of Customs and Border Control in the Control and Inspection of Imported Pesticides; Pesticides Import and Export Control, and; collaboration among and between government agencies. The outcomes of the pilot project will also be shared with other countries via the GEF 10266 project.

Output 1.4 Increased capacity for the development and implementation of national and regional chemicals and products standards including GHS

All project countries have a department with responsibility for the development of national standards with respect to products, services, processes and practices. These departments also generally have responsibility for testing of products to ensure compliance with developed standards. However, it has been noted that there is limited analytical capacity in the project countries to facilitate tests on the chemicals of concern under the ISLANDS Programme. In the absence of analytical capacity, it is therefore imperative that standards on the labelling and classification of chemicals be implemented in order to support the identification of hazardous chemicals. Furthermore, standards on labelling will ensure the safety of all parties involved in the handling of hazardous chemicals, including their transport, as well as during inspection and clearance by border control agencies.

Hazard classification and labelling of chemicals will be considered under Activity 1.4.1, which focuses on developing an adaptive implementation strategy for the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in each project country. The GHS System is an internationally recognized approach to enhance protection strategies against hazardous chemicals. It is acknowledged that there are some limitations to GHS as it does not adequately address chemicals in products and wastes, which is a major issue and problem for POPs and other hazardous chemicals in products and related waste management. Nevertheless, it is considered a frontline tool to support regulation of the import of chemicals and is another aspect that can be strengthened in each country.

Activity 1.4.2 will exploit synergies with the GEF 10279 Project, under which (2) regional standards will be developed on the labelling of hazardous chemicals. Under this project, national roadmaps will be created to support countries with implementation of these standards. CROSQ will be engaged as a project partner for this activity. CROSQ is a regional inter-governmental organisation which coordinates the development of harmonized regional standards based on

requests by member states. The project countries, except for Cuba, are Member States of CROSQ. However, as a beneficiary project country in a project implemented by the BCRC-Caribbean, provisions will be made to allow Cuba to derive the benefits of this activity, with a view to allow for national implementation.

Activity 1.4.1: Conduct a detailed multi-institutional assessment of current implementation status of GHS in each project country to support the improvement of chemical registration systems for the evaluation and authorization of imported chemicals

The baseline indicated that the extent of implementation of GHS in the project countries varies but is generally low. Training and awareness raising activities have been conducted for Cuba but similar activities are yet to be executed in The Bahamas and Dominica. Overall, there is a need for national GHS implementation strategies that consider coordination among all the key institutions such as the national standards bureaux and border control agencies. To support the above, an assessment of current implementation of GHS will be conducted for each country. The existing national and regional labelling and product standards related to hazardous chemicals and products containing hazardous chemicals will be examined to identify gaps in available standards that could support countries with fulfilling their obligations under the chemicals and waste management MEAs, particularly the Stockholm and Minamata Conventions. The existing situation in each country will be benchmarked against the GHS ?Purple Book? and best practice examples of implementation in the other project countries and internationally. The current role of national standards bureaux in hazard communication and their implementation of related labelling legislation will be assessed.

Stakeholder mapping will be conducted to understand how both the private and public sectors can support the implementation of GHS in each country. A regional awareness raising webinar will be developed to share case studies with these stakeholders of best practice examples of GHS implementation in other countries. Additionally, the training materials for a programme on the implementation of GHS will be developed and shared at this webinar. All training materials and awareness raising products from this activity will be integrated into the BCRC-Caribbean?s online repository database developed under Activity 1.2.4.

This activity will build on the outcomes of Activities 1.1.1 and 1.3.1, which would have assessed the existing legal framework, the data management framework and inter-agency communication mechanisms with respect to managing the import and identification of harmful chemicals.

Activity 1.4.2: Develop national roadmaps for implementation of two (2) regional labelling and product standards for relevant chemicals and products, as well as to support future development and implementation of labelling and product standards for relevant chemicals and products

Under the GEF 10279 Project, two regional standards will be developed to provide specifications on products which contain POPs or mercury, for example skin-lightening creams with mercury or toys or kitchen utensils that contain PBDE. This activity will seek to create national roadmaps to support countries involved in this project with the implementation of these standards in line with CROSQ?s Technical Regulation Development Guide. CROSQ provides support for CARICOM countries by developing and suggesting mechanisms that can be used for implementation of the developed standards, providing training on the requirements of the standard, advising on

conformity assessment procedures, and identifying necessary equipment and calibration for testing. CROSQ has developed a Technical Regulation Development Guide (Good Regulatory Practice Guide) that countries can use to ensure that they are using best practices in developing their regulations, including the development of a regulatory impact assessment. Once regional standards are developed by CROSQ, countries are responsible for implementing, monitoring and assessing the effectiveness of the developed standards.

Although Cuba is not a member of CROSQ, a national roadmap will still be developed for the country based on guidance available from CROSQ and in collaboration with the bureau of standards in Cuba (Oficina Nacional de Normalizaci?n). During the development of roadmaps for The Bahamas and Dominica, CROSQ?s Regional Technical Committee[62][62], which consists of members from the National Standards Boards of CARICOM countries, will regularly collaborate with the National Working Groups and the BCRC-Caribbean to ensure technically sound implementation. Other existing guidance documents, such as the Stockholm Convention?s ?Labelling of products or articles that contain POPs ? Initial Considerations?, 2017, will also be consulted to understand requirements for monitoring and enforcement and the corresponding analytical support for the successful implementation of the standards. The roadmaps will incorporate lessons learned on barriers to the implementation and enforcement of new and existing standards and recommendations to improve processes and circumvent the identified barriers. A training and awareness-raising workshop will be developed with the support of national standards bureaux and will be delivered to key stakeholders in the private and public sector.

In addition to the planned activities, Guidelines on Good Labelling Practice for Pesticides in agriculture developed by the FAO under the GEF 10279 Project, which will cover information about pesticide hazards, risks, main routes of exposure and general principles of effective personal protection when working with pesticides, will also be shared with project countries under this activity. This will be supported by the GEF 10266 Project.

Output 1.5 Sustainable Procurement is promoted among key stakeholders to reduce the manufacture/import of products containing hazardous chemicals

The principles of sustainable procurement involve the purchasing of goods, supplies and services that are less harmful to human health and the environment, thereby promoting sustainable development and shifts to green economies. It is well acknowledged by the international community that establishing mechanisms to ensure green procurement can play a major role not only in contributing to achieving the Sustainable Development Goals (SDGs), but also promoting compliance with the chemicals and waste MEAs like the Stockholm and Minamata Conventions. In the Caribbean, it is noted that while there may be challenges, some sustainable procurement initiatives are being implemented, such as: nationally driven activities to replace incandescent light bulbs with fluorescent and LED bulbs; promotion of other energy saving activities and initiatives under the Montreal Protocol that aim to reduce greenhouse gas emissions; and more recently, initiatives to reduce the use of single use plastics. The intent of this output is to assess the enabling environment and promote the procurement of safer chemicals and products rather than those which traditionally may contain POPs and/or mercury or generate UPOPs as by-products of their use or destruction, with a focus on the public and/or private sectors that import chemicals and products for use in industry, fire safety, cosmetics and healthcare. The GEF SAICM project ?Chemicals

Without Concern ? Towards safer products for our environment and health? implemented by UNEP will be a key resource for this output.

Activity 1.5.1: Assess enabling environment for Sustainable Procurement in countries and determine which products lend themselves to such policy

The overarching objective of this activity is to assist the project countries in progressing towards a circular economy model as it relates to the use of materials that produce waste. The example set by the public sector is expected to be used as a template for the private sector to also move towards a circular economy model. This activity will seek to assess the legal frameworks that govern material imports, including: the purchasing policies and practices; negative import lists where appropriate, with the view of identifying gaps and opportunities for enabling sustainable procurement; and eco-labeling schemes or other certifications as a means of verification for public procurement. Focused stakeholder consultations with key actors in government, as well as relevant Chambers of Commerce, importers, and distributors, will be conducted to assess the sectors most impacted by POPs or MAPs. The assessment will include a cost-benefit analysis considering reliable available non-regrettable alternatives to products that may contain POPs or mercury and financial and other incentives to facilitate uptake of these alternatives. The activity will allow for recommendations to be made that can facilitate the drafting or updating of national or regional technical policies and procedures for sustainable procurement, or where appropriate, draft amendments to existing articles in the legislation aimed at mainstreaming sustainability in the public procurement legal framework. Standard clauses on sustainable procurement, in the form of examples, will also be proposed for incorporation into standard bidding documents and source selection criteria. This assessment will also be used to inform the development of training materials for the delivery of training workshops under Activity 1.5.3.

Activity 1.5.2: Assess and select sustainable suitable alternatives to POP-pesticides, POP-PBDEs and HBCD, PFAS, and mercury added products in all project countries

An assessment of usage of POPs and Hg in each country will be undertaken based on the inventories conducted between 2016-2021 as part of the updated NIPs and MIAs and projected future usage. The assessments and selections will focus on POP-pesticides, POP-PBDEs and HBCD, PFAS, and mercury added products. With respect to POP-pesticides, focus will be placed on DDT, Endosulfan and Heptachlor. These categories were selected based on reports and consultations held during the PPG Phase, as well as the review of updated NIPs and/or MIAs where applicable, while focus for alternatives to mercury will be placed on consumer products and intentionally used products, such as compact fluorescent (CFL) bulbs and medical devices. This activity will not focus on PCBs as The Bahamas and Dominica have indicated that the chemical is no longer used in their countries and Cuba has indicated that this chemical will be addressed through a national project being executed by the United Nations Development Program (UNDP).

The assessment will rely on the inventories made in Activity 2.1.1 to identify manufacturing processes in the region which use POPs. Based on these data, selected products containing these chemicals will be prioritised according to usage/import, level of risk, and a more detailed assessment of its existing use and functionality in each project country. In order to support the transition to safer alternatives, the following criteria will be considered during the selection process: (i) compiling suitable alternatives considering costs and performance; (ii) education and

capacity-building of the key stakeholders; and (iii) awareness raising and training to promote the phase in of the alternatives. The proposed GEF funded Global Greenchem and Innovation Network Programme can provide useful guidance. Measures to identify and promote suitable alternatives will focus on two areas: cleaner design and manufacture and the supply chain, particularly the distributors. These are synergistic with SAICM?s approach. The availability of non-regrettable alternatives for the products of priority will also be considered if they are available on the market. Synergies with national or regional environmental projects being executed will also be considered. For example, light-emitting diode (LED) bulbs are currently being promoted as an alternative to fluorescent lighting, especially by initiatives for the conservation of energy in relation to climate change.

Pilot projects will also be designed and undertaken to assist countries in the phase out of harmful chemicals identified and to support the transition to sustainable alternatives based on market availability and technical feasibility. Reference will be drawn to the GEF 5558 Project, whereby technical guidance is being developed to assist Saint Lucia and Saint Vincent and the Grenadines in their transition from PFOS/PFOA fire-fighting foam to PFAS-free alternatives. Similar pilot projects may be executed in Cuba or Dominica, as The Bahamas has indicated that PFAS-containing foams are not used by their Fire Services. Alternatively, pilot projects may be designed for other products which have been prioritised for phase-out during the assessment. For example, given the expression of interest by The Bahamas and Cuba to phase out CFL bulbs, pilot projects to facilitate this activity can also be considered. Another product which may be considered under this activity is halogenated plastic, categories of which include polychlorinated vinyl (PVC), polychloroprene (PC or Neoprene) and chlorinated polyethylene. If non-regrettable alternatives are available within the budget allocated for this activity, these will also be considered; if they are available but not affordable, the project will then consider the development of national roadmaps under the pilot projects towards the transition. This activity will target at least one (1) product in each project country and will consider usage, ecological and human health impacts and engagement of the importers/distributors/users to facilitate the transition. The results of the pilot project will be shared through the GEF 10266 Project to facilitate uptake across the Caribbean region, as well as to provide guidance to other SIDS with similar challenges. In the case that disposal of stocks of the phased-out chemical or products is required, this will be addressed under Output 2.1.

Activity 1.5.3: Develop training materials on the assessment and selection of alternatives and the role of public-private partnerships in environmentally sound management of POP-containing products and mercury-added products

This activity seeks to promote and increase regional awareness raising and capacity for sustainable procurement development, implementation, and its benefits. The target audiences will be institutions involved in procurement (public and private sectors) and consumers. For the institutions, the target training group will include government procurement managers, relevant policy makers and technical project officers. In the private sector, the Chambers of Commerce will be the key collaborative institution.

Training materials and knowledge products will be developed to: give an understanding of the concepts of sustainable procurement; raise awareness of standards; identify key drivers, barriers and benefits; provide a strategy for organized sustainable procurement using proposed recommendations for products prioritised under Activity 1.5.2 and useful tools and guidance

documents for implementation; and promote awareness among key stakeholders on how to integrate environmental criteria for procurement of products and services, especially non-regrettable alternatives. In addition to developing materials for the products prioritized under Activity 1.5.2, training tools for farmers, distributors and governments will also be developed on sustainable procurement in agriculture and on integrated pest management, including biopesticides. In collaboration with the private sector, training materials will be delivered to the relevant targeted groups. Round table consultation meetings will be conducted to share good practices, business cases, success stories, new methods, tools and innovative approaches for SIDS farming communities. Consideration will be given to the development of mobile application software to support members of the public in the selection of suitable alternatives to harmful chemicals, as well as to provide information on the cost and efficacy of alternative products.

The training can be delivered face-to-face or via webinar, and the training materials produced can remain available on the online database developed in Activity 1.2.4. For consumers, the POPs communication toolkit from the GEF 5558 project as well as the communication products developed for the MIAs in the region have already laid a foundation for general awareness and will now be expanded to specifically engender the public?s purchasing power to select safer alternative products on the market. Training materials will be made available for dissemination via the GEF 10266 Project.

Component 2 ? Safe Management and Disposal of Existing Chemicals, Products and Materials

In many Caribbean SIDS, harmful chemicals and materials may already be present and/or generated due to past or present activities. Therefore, there is a need to dispose of harmful chemicals and materials in project countries in an environmentally sound manner. To achieve this, the ISLANDS programme aims to work together with project countries to implement several interventions, including the collection, safeguarding, export and disposal of PCBs, obsolete pesticides and chemicals, DDT stockpiles and selected mercury added products. The ISLANDS programme also aims to assist countries in improving their capacities to manage hazardous waste. Finally, consideration will be given to countries? access to national or other funding mechanisms for these activities in the future, especially regarding the implementation of recommendations with respect to infrastructural capacity. Where stocks cannot be addressed by the ISLANDS programme, the programme will work to identify financing options, including, but not limited to, the IDB. These are the overarching goals of Component 2, which will be achieved through two (2) Outputs.

Specifically, activities under Outputs 2.1 and 2.2 will aim to:

i. strengthen capacity for the environmentally sound management of SC POPs and MC Hg products (Output 2.1);

ii. eliminate PCBs, obsolete pesticides and chemicals such as DDT, Heptachlor and Endosulfan (Output 2.1), and;

iii. improve capacity to manage hazardous waste (Output 2.2).

All activities under Output 2.1 will be conducted on a regional level, while activities under Output 2.2 will be implemented regionally but with a focus on national priorities.

Output 2.1 Capacity for the environmentally sound management of SC POPs and MC Hg products is strengthened, and obsolete pesticides and chemicals, PCBs and DDT are eliminated

In many Caribbean countries, the value of imported products outweighs that of exported products. The manufacturing sectors of The Bahamas, Cuba and Dominica are limited but it is recognized that some value-added products, such as refined fuel products and pharmaceutical products, are manufactures and exported by The Bahamas and Cuba. Many chemicals and products containing chemicals are therefore imported into these countries for daily use. Legacy chemicals and products containing hazardous chemicals are stockpiled in many SIDS as the requisite facilities for ESM of these obsolete chemicals are not available in these regions. Medium to long-term strategies and systems must be instituted to safely manage them on a national level and, where possible, as a region. As such, the activities outlined below address the removal and ESM of stockpiles, while raising awareness to reduce UPOPs emissions from open burning, which is the main UPOPs contributor in the Caribbean. All activities are executed on a regional level, with consideration to the national priorities of each country.

Activity 2.1.1: Develop management and disposal/stabilisation strategies to eliminate PCBs, obsolete pesticides and chemicals including DDT, POP-PBDEs and HBCD in WEEE and selected mercury added products.

This activity will inform the subsequent activity. This activity aims to develop strategies for the management of obsolete pesticides and chemicals, including PCBs, DDT and selected mercury added products to be disposed of under this project. Since there are still no available mechanisms to safely dispose of all these chemicals within the region, they will need to be exported for safe disposal. Synergies in the centralized interim storage and consolidation of the different categories of chemicals will be explored for logistical coordination of the removal operations. Options to consolidate the wastes from project countries under GEF ISLANDS 10472 with those under GEF 10279 may be considered in order to ensure the economic feasibility of the operation. However, the strategies developed will also need to identify public and private sector financing opportunities to either supplement disposal costs or undertake separate disposal operations for wastes that could not be disposed of in this project.

Cuba has identified the removal of pesticides in the Pinar del R?o Province as a national priority. Pesticides from other provinces in which there are stockpiles, such as Matanzas, may also be considered. According to Cuba?s updated NIP and stakeholder discussions during the PPG Phase, these stockpiles contain DDT, heptachlor, toxaphene and sodium pentachlorophenate. Given that the Annex A POP Pesticides Heptachlor and Kelthane are currently in use in The Bahamas, strategies for their elimination must also be developed. Confirmation on the location and quantities of POP pesticides in Dominica will be confirmed upon the update of their 2006 NIP. Safeguarding and disposal strategies will be considered for the removal of PCBs from The Bahamas, where stockpiles of PCB oils in the quantity of 500 gallons are stored by the Grand Bahamas Power Company Limited, along with transformer carcasses and capacitors which contained PCBs. The disposal of POP-PBDEs from WEEE will be considered for all project countries. This part of the activity will be informed by updated NIPs and the assessments undertaken in Activity 3.1.1.

Strategies are also required to address the diversion of potentially mercury containing products from landfills. This activity will assess the potential collection, storage, treatment and disposal options for each major mercury-added product for the development of targeted strategies for their

disposal. It is noted that Cuba has made impressive strides to retrofit its chloralkali plants to work with mercury-free alternatives. An assessment will also be undertaken to understand how the mercury from this plant was stored and to determine whether further action is required to avoid contamination of the environment. Cuba has also identified that management of environmentally sound management of compact fluorescent lighting (CFL) bulbs as a national priority. Strategies for the management of CFL bulbs from households, government offices and privately-owned facilities such as hotels will therefore be developed for Cuba. The strategy in this case will consider crushing of the bulbs and collection and interim storage of the mercury compounds pending export for stabilization. A demonstration of the separation of the mercury from the CFL bulbs will be designed for Cuba and recorded for development of training materials to be disseminated to other project countries. This pilot project may also be extended to The Bahamas.

Activity 2.1.2: Eliminate PCBs, obsolete pesticides and chemicals, and selected mercury added products through safeguarding, centralization and disposal/stabilisation

Under this activity, the identified chemicals and associated products will be packaged in each country, labelled and consolidated at centralized secured sites prior to export for disposal/stabilization at an approved facility. The exercise will entail confirming the location of the stockpiles and ensuring that they are properly labelled, as well as safeguarding until the removal operation can be conducted. Technical expertise from public and private sector personnel must be obtained in order to ensure that statutory requirements are followed and harm to human health and the environment is prevented during the execution of the operation. Reference will be drawn to the strategies employed under the GEF 5407 project to undertake the removal of these chemicals, that is, pesticides from all project countries will be consolidated for disposal at an approved facility abroad.

This activity will seek to undertake the consolidation, safeguarding, export and disposal of obsolete chemicals and waste products containing chemicals, including, but not limited to:

i. **POP-pesticides such as heptachlor and DDT from Pinar del R?o in Cuba, as well as in priority areas identified in The Bahamas and Dominica;**

ii. **PCBs from Grand Bahama Power Company Limited, and;**

iii. **the elimination of CFL bulbs and other specific mercury added products from various sectors in Cuba and The Bahamas.**

The Governments of The Bahamas and the Commonwealth of Dominica, as well as the BCRC-Caribbean, have gained experience with processes involved in safeguarding and safe disposal of chemicals abroad through the GEF 5407 Project. As such, this activity will capitalize on this knowledge and other operational aspects that were put in place, including government agencies and personnel familiar with the key stakeholders, trained in-country personnel, and identified centralized storage sites. This activity will be conducted in the second half of the project to enable as large as possible quantities of these chemicals to be accumulated to have maximum impact.

Under the GEF 10279 Project, a regional network will be activated in the Caribbean to use the Pesticide Stock Management System (PSMS), which is an online tool developed by the FAO to record and monitor national inventories and management strategies of pesticides. Following the completion of this activity, these project countries will be integrated into the regional PSMS and

POPs Regional Information Systems Database being developed under the GEF 5558 Project and housed by the BCRC Caribbean. This activity will be linked to the GEF 10266 Project. In order to ensure sustainability of this activity, it is important that countries be made aware of the importance of continually updating their inventories of obsolete pesticides so that future management strategies can be developed to avoid stockpiling these chemicals indefinitely. A virtual training will be conducted to introduce the countries to the networks and communication materials on the update of the databases will be developed under Component 4.

Activity 2.1.3: Carry out awareness raising campaigns to promote or apply BAT/BEP to minimize UPOPs emissions from open burning

In many Caribbean countries, open burning of accumulated waste, particularly plastics, is widely practiced, largely due to insufficient waste management infrastructure and lack of awareness of the risks to human and environmental health. Only Cuba?s updated NIP quantifies UPOPs releases, and this was calculated to be 489.83 g TEQ of which approximately 2% was from waste and 98% was released to air. There are no estimates for UPOPs released in the environments of The Bahamas and Dominica; however, open burning of waste from the agricultural sector and occasional dump fires in these countries are likely to contribute to UPOPs releases.

In this activity, targeted awareness campaigns will be carried out to emphasize health and environmental risks and exposure hazards from open burning. The audience for the campaign will be relevant stakeholder groups within the agricultural sector and waste management sector such as scrap metal dealers and companies involved in the management of WEEE, ELVs and halogenated plastics such as PVC. Awareness materials will also be targeted towards generators of these waste streams, such as persons in the construction industry, to ensure their compliance with ESM of these waste streams in an effort to prevent open burning. This activity will use the outputs from Activities 2.2.1 ? 2.2.3 to promote BAT/BEP in the awareness raising campaign. An awareness raising plan focused on open burning will be developed by building on the Regional Communication Strategy to manage POPs which was developed under the GEF 5558 project and implemented nationally. The POPs Communications Toolkit for the GEF 5558 project, which includes brochures, infographics and a dedicated POPs website, already exists and will be expanded to be aligned with this campaign. The awareness raising plan will be launched via a regional workshop, which may be held either virtually or face-to-face. All materials will become available to other SIDS via the GEF ISLANDS 10266 Project. This activity will therefore be closely linked to Activity 4.1.1.

Output 2.2 Capacity to manage other hazardous waste streams specific to the Caribbean improved

The management of hazardous waste in the project countries, and in the region as a whole, tends to focus on landfilling for final disposal or storage until export to an appropriate facility can be arranged. Activity 2.2.1 will therefore seek to implement national waste management strategies in order to divert hazardous waste streams from landfills and dumpsites, thereby avoiding the emission of UPOPs and harmful chemicals into the environment. The implementation of these strategies would require integration of rural areas into the wider national waste management systems and infrastructural support (Activities 2.2.2 and 2.2.3). Further, given that the waste management systems of Caribbean SIDS are often disrupted by natural disasters such as hurricanes

and earthquakes, consideration must also be given to ensuring that environmentally sound management mechanisms for hazardous waste are instituted during recovery phases (Activity 2.2.4). This output therefore aims to provide a comprehensive framework for ensuring the management of current and future stockpiles of waste. Activities planned under Output 2.2 have a greater focus on national issues as compared to other project activities. However, activities will be executed at the regional level with outputs being developed for each country.

Activity 2.2.1: Develop roadmaps for the implementation of model national hazardous waste management plans in three (3) project countries

None of the project countries have strategies for municipal or hazardous waste management. Under this activity, regional guidelines developed under GEF 10279 will be used to support the project countries with a streamlined approach to hazardous waste management through integrated management systems. Existing national guidelines and current practices as it relates to source-segregation and hazardous waste storage (with a focus on the wastes and chemicals under the BRS and Minamata Conventions) will be examined against current best practices for ESM of hazardous waste streams. This will include an analysis of the infrastructural, technical, financial and institutional gaps and barriers to the effective implementation of the available national guidance documents.

Consultations will be undertaken to understand the existing waste management infrastructure at waste recovery and recycling sites, as well as at disposal sites such as landfills and incinerators. Key stakeholders will include, but not be limited to, those in environmental management, waste management, disaster management, public health and tourism. At these consultations, documents developed under GEF 10279, namely the regional model for the development or enhancement of waste management strategies to include strategic hazardous waste management planning in the sector and the regional guidelines for the management of specific hazardous waste streams, will be examined to understand which aspects should be adopted for each country, or whether different guidance materials should be consulted or developed. Round table discussions will be held at this workshop with each project country in order to assess the most applicable guidelines to their national situations. Discussions will also consider co-financing opportunities available to each project country for incorporating regionally appropriate technology into hazardous waste management storage facilities, which will support the execution of Activity 2.2.3.

Following these assessments and consultations, model national waste management plans will be developed for the management of at least two (2) priority hazardous waste streams for each project country. National roadmaps will be created to support the effective implementation of these plans. This will include an overview of the key activities, resource requirements, identification of potential funding opportunities and detailed stakeholder mapping needed for the successful implementation of the plan. Consideration will be given to the need for a cost benefit analysis (where the cost of inaction is clearly demonstrated) and a monitoring and evaluation plan. Finally, the national roadmaps will be presented to the management of the waste management entities and key decision makers within the waste management sector. Technical backstopping will also be provided in order to support requisite endorsements and high-level political buy-in.

Activity 2.2.2: Demonstrate one aspect of the national hazardous waste management strategy in at least one rural area in each project country

In response to the constraints associated with ESM of hazardous waste in the rural areas of the countries, the project will seek to assess and then strategize the incorporation of these areas into the national waste management plans and national roadmaps to the management of prioritized hazardous waste streams developed under Activity 2.2.1. These constraints are different across the three project countries due to their unique geography. In the Bahamas, the archipelagic make-up of the country presents logistical challenges for mainstreaming hazardous waste management, even though hazardous waste is generated on the Family Islands where agriculture is widely practised. Logistical challenges in Cuba are related to the large geographic size of the country and issues with accessing interior areas having difficult terrain. Similar challenges are faced in Dominica; although it is a much smaller country, the mountainous topography and dispersed populations in some rural areas are less easily accessed than urban areas. There is a recognized need for customized hazardous waste management systems in rural areas, as traditional urban systems may not be suitable.

The activity will also seek to understand the disadvantages faced in these communities, their unique contributions to the mismanagement of chemicals and wastes and address their susceptibility/vulnerability to the human health and environmental concerns from hazardous wastes and chemicals. Concerns surrounding open burning and illegal dumping will also be addressed through the promotion of waste prevention and rural sustainability in order to reduce the exposure of these communities to hazardous chemicals and waste.

The activity will assess all aspects of the waste management infrastructure in rural areas, including collection, separation, recycling and disposal and will consider the priority hazardous waste streams in these areas. It will also define the gaps and barriers as it relates to the integration of the rural and interior areas into the national hazardous waste management system and examine the contribution and exposure of these communities to chemicals and hazardous wastes. Following this assessment, at least one (1) aspect (e.g., collection, source segregation, recycling) of a model national waste management plan developed under Activity 2.2.1 will be demonstrated in a rural area of each project country. Considerations for the three (3) pilot demonstration projects (one in each country) include rural agricultural communities in Cuba, a Family Island in The Bahamas, and Dominica?s Kalinago Territory. The demonstration will also consider the management of agrochemical waste based on regional guidelines on Management Options for Empty Containers, and Toolkit for Management of Empty Pesticide Containers at the farm level and include or examine gender considerations.

Activity 2.2.3: Improve the capacity and infrastructure for the management of hazardous wastes in Cuba and Dominica in order to prevent the emission of POPs, UPOPs or Hg

In the current scenario, the Fond Cole Sanitary Landfill is used for the interim storage of hazardous wastes, including WEEE, until solutions for their disposal at facilities abroad can be arranged. Some waste hazardous chemicals, such as obsolete pesticides, are also stored at an improvised location in Dominica Botanic Gardens. In Cuba, hazardous waste is handled internally by CITMA-designated facilities or stored in Casablanca Town until its disposal can be arranged. Both Cuba and Dominica have indicated that support is required to improve infrastructure and institute best available technologies for the management of hazardous waste in their countries.

Following from the analysis and recommendations of Activity 2.2.1 on the infrastructural capacity required and the financial opportunities available to each project country, this activity will seek to develop roadmaps for enhancing infrastructural capacity in Cuba and Dominica. These roadmaps

will be created to guide the process of siting and constructing an interim storage facility for hazardous waste for medium-term storage periods, that is, three to five years, for each country. It will also consider how each country should access financial resources required for construction, operation and maintenance, trainings and labour costs. Plans will therefore be scaled in accordance with financial resources available at the time of execution. This project will support countries in implementing these roadmaps through the development of design reports and subsequently, front-end engineering design (FEED) plans for the interim storage facilities for the hazardous waste. During the design phase, the reports on the technical capacity in each country for the management of waste will be analysed to determine which technologies for pre-processing of waste should be incorporated into the facility?s design. The FEED plans will consider technical specifications and schematic designs for the sites. The waste streams to be considered for storage will include, but not be limited to, halogenated plastics such as PVC and BFRs used in casings of WEEE, agricultural plastics and waste plastics, and mercury added products and hazardous waste streams separated from post-disaster debris. In this activity, reference will be drawn to the GEF 5558 Project where the improvement of landfill practices at five (5) Caribbean SIDS (Antigua and Barbuda, Barbados, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines) demonstrated the reduction of UPOPs emissions, the segregation of hazardous waste streams from the landfills/waste treatment sites and the need for improved capacity and infrastructure related to interim hazardous waste storage was addressed.

In addition, a training plan on BAT/BEP practices for interim storage of materials containing POPs and Hg will also be developed and all project countries will be invited to the training workshop. The Bahamas? New Providence Ecology Park (NPEP) hazardous waste facility will be considered as a stakeholder in providing guidance for this training workshop. A case study on NPEP?s development and operation, as well as lessons learnt during their operation, will be developed and shared in the workshop to facilitate knowledge transfer among the project countries. The roadmaps and case study will also be shared with other SIDS via the GEF 10266 Project.

Activity 2.2.4: Assess sites that can be used for the management of post-disaster wastes and Construction and Demolition (C&D) wastes in the three (3) project countries

In the current scenario, during the recovery phase of disaster management, debris is ultimately disposed of at landfills and dumps, through open burning or via dumping into waterways. This poses significant environmental and human health risks as the debris is mixed with hazardous wastes which may contain POPs, PVC, Hg and Hg-added products. Another waste stream that should be considered in parallel with the management of post-disaster waste is C&D waste. Unlike post-disaster waste, C&D waste may be used as fill in landfills or in other projects and may occasionally be sorted. However, in a similar fashion to post-disaster waste, hazardous components such as PVC may be comingled in C&D waste and may leach toxic chemicals into the environment from landfills. The appropriate management of the POPs and Hg waste streams in the context of disaster waste and C&D waste of concern should be incorporated both into disaster management plans and national waste management plans. Therefore, the objective of this activity is to create sustainable systems for the management of disaster waste and C&D waste in the project countries, which is driven by the principles of climate resilience and ESM of chemicals and waste.

Under the GEF 10279 Project, regional guidelines may be developed for the management of post-disaster wastes. In order to prioritise the sections of the regional guidelines that should be considered for national implementation, national consultations will be undertaken with agencies

involved in supporting post-disaster waste management in each country, including, but not limited to, offices of disaster preparedness and management, environmental agencies and waste management facilities. Consultations will also seek to identify the sites which were previously used for the storage of post-disaster wastes and to understand the basis upon which these sites were chosen, the procedures for processing post-disaster waste, challenges faced during the processing of post-disaster waste at the sites and the final methods of recovery or disposal of the post-disaster waste. Discussions will also gauge how previous efforts matched the directives suggested in draft documents for the management of emergencies, such as Dominica?s ?Draft Management of Post-hurricane Disaster Waste? document and The Bahamas?s ?Draft National Chemical Emergency Plan?. Consultations will also seek to understand how C&D waste is managed in each project country, with a focus on segregation of hazardous wastes contained therein and options for their ESM. This will inform the development of an assessment of the enabling environment for the management of post-disaster and C&D waste in each country, and the BAT/BEP applied to same.

A recommendations report will then be developed for each project country to indicate the criteria for sites which should be used to store post-disaster waste, best management practices at these sites and how the processing of post-disaster waste can be incorporated into the national hazardous waste management system. Model updates to the aforementioned documents of The Bahamas and Dominica and any equivalent document in Cuba, as it relates to the management of hazardous waste streams, will also be considered in the report. A similar report will be developed to guide the segregation of hazardous waste streams from C&D waste. This activity will be synergised with Activity 3.3.2, which considers the material flows of PVC in the project countries from various sources, including post-disaster waste and C&D waste. Tools will be developed to support coordinated efforts for post-disaster waste management and C&D waste management, including guidance documents for classifying hazardous waste streams in C&D waste and post-disaster waste, the development of a post-disaster debris calculator, options for recycling C&D and post-disaster waste and criteria for storage areas in order to support the efficient use of the site for storage of C&D waste and post-disaster waste. An examination of the potential for the segregation of post-disaster and C&D wastes to enable recovery of viable materials by established recycling facilities that exist in participating ISLANDS project countries (including the facilities involved in the execution of Component 3 hereunder) will also be considered.

Component 3 ? Safe Management of Products entering SIDS/Closing Material and Product Loops for Products

Caribbean-centric strategies are required to impede the further build-up of harmful materials and chemicals in the region. To achieve this, the ISLANDS Programme aims to work together with project countries to establish relevant and effective circular and life-cycle management systems in partnership with the private sector. Relationships will be built with regional financial institutions where appropriate. This is the overarching goal of Component 3, which will be achieved through three (3) Outputs.

Specifically, activities under Outputs 3.1 through 3.3 will aim to:

i. **develop Reverse Supply Chain (RSC) system and regional approaches to manage Waste Electrical and Electronic Equipment (WEEE) via reverse logistics (Output 3.1);**

ii. **promote the environmentally sound management of end-of-life vehicles (ELVs) (Output 3.2), and;**

iii. **improve the management of plastics (including PVC) through the life-cycle approach and coordination with the public and private sectors (Output 3.3).**

Component 3 includes regional and national level activities as well as linkages to the GEF 10266 project which are detailed below.

Output 3.1 Strategies for Reverse Supply Chain Schemes for WEEE Management developed

WEEE is often retrieved for its metal components, while other components such as plastics, which may contain POP-PBDEs and HCBD, may be burned or disposed of via the landfill, thus releasing harmful chemicals into the air or soil via leaching. One approach to divert WEEE from landfills is to revert the responsibility of its management to the previous links in the supply chain, that is from consumers to the manufacturers and distributors. Given that Caribbean SIDS are reliant on importation for the supply of EEE, the responsibility in this context will fall to the suppliers/distributors of the products. This output intends to develop and test a strategy to manage WEEE via a regional or national approach, as appropriate for the project country. The strategy will facilitate coordination with suppliers of EEE, that is, it will consider reverse supply chain (RSC) schemes, also known as Extended Producer Responsibility (EPR) schemes.

Although Cuba has indicated that WEEE management is not a priority for the country, assessments on WEEE flows will still be undertaken for all countries under Activity 3.1.1 as this may support with quantifying POP-PBDEs and HCBD. Activity 3.1.1 will also involve a national-level take-back scheme in The Bahamas. The development of a mobile software application to support this scheme will also be considered (refer to Activity 3.1.2). The lessons learnt from these demonstration projects will be communicated to the other countries through output 4.1 and to the other regions through the CCKM project 10266.

Under this output there will be a strong collaboration with local private sector operators to ensure they have the capacity to adequately treat WEEE. Suppliers and distributors will be engaged throughout the execution of the activities. This includes local businesses as much as possible, such as a computer manufacturing company identified in Cuba. The project will also work closely with shipping companies under Activities 3.1.2 and 3.1.3 if a regional approach is developed. Finally, the project will actively enage the tourism sector, as hotel chains in the region such as Iberostar Group have identified WEEE as an area of possible collaboration.

Activity 3.1.1: Conduct a Material Flow, Economic, Infrastructural and Technical Assessment on WEEE management, focusing on a Reverse Supply Chain (RSC) Approach

This is a foundation activity for this output and will inform the subsequent two activities. It will consider the lifecycle management of EEE, from import to distribution, use, recovery and disposal. Given that some EEE are manufactured in Cuba, such as computers, the assessment for Cuba will also consider the material flow of these categories of EEE. One component of this study will follow the generation of WEEE from the tourism industry, especially hotels which regularly replace equipment such as television sets, minibars and air-conditioning units. All assessments will indicate the quantities of different categories of EEE which are imported and the quantities which are properly managed, as well as the facilities available and the economic viability of the facilities. Specifically, the assessments will analyse the: (i) collection, storage and transport capacity; (ii) WEEE streams currently treated; (iii) current capacity of treatment; (iv) BAT/BEP in place; (v) technologies used for WEEE treatment and installed capacity for treating WEEE; (vi) level of

training of the personnel involved in WEEE management; (vii) informal sector involvement; (viii) final disposal alternatives; (ix) Basel Convention procedures followed; and (x) data collection and data management.

WEEE management will also be assessed within the context of RSC. Stakeholder consultations will be undertaken with public and private stakeholders involved in various stages of the lifecycle of WEEE management here to understand the technical and financial capacity for comprehensive WEEE management through RSC schemes. Stakeholders in the tourism sector will be invited to contribute to the discussions of the latter event. These discussions will form the basis for the development of recommendations around facilitating public-private partnerships and economic instruments to manage and finance the RSC system. These consultations will also be used to assess whether RSC should be implemented in the project countries as a national or regional initiative.

For RSC in particular, this assessment report will include a cost-benefit analysis of implementing a Take-Back system or Advanced Deposit Fee (ADF) for WEEE, or their combination, considering the peculiarities of each country. The report should provide policy makers and stakeholders with sufficient information on the alternative scenarios of implementation, considering, at a minimum, the following costs:

1. **Costs for establishing a separate e-waste collection system;**
2. **Net costs for e-waste management, including transport, recovery and final disposal;**
3. **The cost to dispose of accumulated hazardous wastes (POPs, mercury and others);**
4. **Administrative costs, i.e. costs linked to the running of Producer Responsibility Organisation (PRO)s;**
5. **Costs for public communication and awareness-raising (on waste prevention, litter reduction, separate collection) as long as producers have a say in their design and implementation, and;**
6. **Costs for the appropriate monitoring of the system (including auditing and measures against free riders).**

Activity 3.1.2: National strategies for ESM in WEEE via a regional approach and the implementation of RSC systems developed for each project country

Appropriate RSC mechanisms for EEE in each project country and the feasibility of regional versus national approaches will be recommended under Activity 3.1.1. In order to support the implementation of the RSC mechanism suggested under Activity 3.1.1, a national strategy for the implementation of the RSC scheme will be developed for each country under this activity. Further, under the GEF 10279 Project, a regional hub will be established to facilitate a standardized approach to WEEE management across the region. An analysis of the strengths, weaknesses, opportunities and threats (SWOT Analysis) will be undertaken to understand the prospects and challenges to the integration of each project country into the regional hub to be designed under GEF 10279 for WEEE management. Should it be determined that it is technically and economically feasible that countries be integrated into the regional hub, the national strategy being developed will also consider how this can be facilitated. This will be embedded in an overall

national strategy for WEEE management to be developed for each country. National and regional organisations will be consulted during the development of this activity, including various Chambers of Commerce and other representative groups involved with the target categories of WEEE.An analysis of EEE/WEEE management initiatives in other regions, such as the GEF funded UNIDO implemented project in 13 Latin American countries, the STEP initiative and UNEP projects in Africa, will be reviewed for their effectiveness and their successes and lessons learnt will factor into the proposed WEEE management strategy.

Although RSC can be either voluntary or mandatory, it has been demonstrated that legislation and enforcement schemes should be established if effective and sustainable results are sought. Model RSC legislation, which will be applicable for implementation in the Caribbean context, will be developed under the GEF 10279 Project. A detailed roadmap will be developed for each project country to cover: policy/action plan/regulation/White Paper for RSC legislation considering inputs of activities in Output 1.1; roles of stakeholders; priority categories of e-waste to be addressed; and function and monitoring of the governance system (e.g. PROs). The roadmap will also consider the development or use of an existing reliable system for securing adequate funds to ensure the environmentally sound management and disposal of these wastes when a critical mass has been collected and establish a procedure for appropriate disposal or recovery strategies.

A pilot project will be designed and executed in The Bahamas to test the applicability and effectiveness of the implementation of a take-back system for mobile phone and personal computing devices (including desktops, laptops and tablets). The intention is to establish the enabling environment and test/implement the mechanism for one specific product through a pilot project. Experiences and lessons learnt from this project can be scaled up and applied to other categories of WEEE such as large household appliances and batteries, as well as to other categories of waste such as packaging. This pilot project will be executed with guidance from CANTO. A national training workshop will be held for actors involved in the RSC scheme and a report on same will be shared with other project countries, as well as with the GEF 10266 project. A mobile software application (app) may be developed specifically for connecting waste generators with upstream actors in the supply chain, such as distributors and importers, who wish the be involved in collection of the devices. The app can be used facilitate communication between generators and handlers to coordinate handling of the waste under the RSC scheme. Considerations for the use of the app as a platform for awareness-raising can also be integrated into its functionality. The utility of the app and resources required by upstream actors to fulfil the purpose of the app will be expounded during stakeholder consultations.

Activity 3.1.3: Improve the WEEE management capacity in all project countries

Under this activity, BAT and BEP guidance for WEEE management facilities will be analysed to develop technical guidelines specific to the national situation for WEEE management in Dominica. For example, the BRS Secretariat?s ?Technical Guidelines for the ESM of e-waste, specifically the differentiation between waste and non-waste? will be consulted. These documents will be used to develop training material and training plan for the management of WEEE, with a view to ensuring that POPs and mercury-containing components are safely dismantled and disposed of. It will also seek to include informal sector workers in the training to facilitate their migration into the formal industry. Synergies will be established here with The Bahamas? New Providence Ecology Park to share lessons learnt during the successful implementation of their existing WEEE management model in a Caribbean SIDS. The materials will also be shared with other SIDS through GEF

ISLANDS 10266 Project. The aim is to train at least 15 waste management professionals in all project countries, of which at least 40% female.

Two pilot projects will be considered under this activity. They will also be informed by the materials flow assessment conducted under Activity 3.1.1. The first involves the demonstration of the ESM of WEEE in accordance with the developed guidelines through the collection and treatment of at least 5 tonnes of WEEE from the public and private sectors of Dominica, including the tourism sector. This activity will have strong ties to the GEF 10279 Project as it will access the regional hub developed under the project to facilitate a regional approach to WEEE management. Formal coordinating mechanisms will be established to ensure that all necessary statutory requirements are adhered to and that the operation is conducted in a technically sound manner. This activity will also serve to test the inter-institutional communication tools developed under Activity 1.3.2.

The second pilot project for consideration will seek to divert WEEE generated in hotel chains in tourism-intensive regions of Cuba from landfills. Although Cuba has indicated that WEEE is not a national priority, this pilot project will facilitate collaboration with Cuba?s private sector to avoid their potential emissions of POP-PBDEs, HCBD and UPOPs. Given that these POPs are found in the plastic casings of WEEE, this pilot project will have strong synergies with the one planned under Activity 3.3.2, which will build on the assessment of plastic flows from the hotel industry in Cuba. This pilot will also support the quantification of POP-PBDEs and HCBD for future updates of Cuba?s NIP. Varadero, in Cuba, is one of the largest resort areas in the Caribbean, and as such has been identified as an ideal location for a collaboration. Stakeholders for this activity will also include the Iberostar Group, a global tourism hotel group which operates in Cuba and has set out to achieve a Zero Waste to Landfill target by 2025. Similarly, the Bahamas is home to several sprawling, highly waste-generating resorts; Paradise Island, for example, holds a resort that makes up nearly a quarter of the island. Therefore, possible expansion of this pilot project to The Bahamas will be considered.

Output 3.2 Strengthened Capacity for the ESM of ELVs in The Bahamas and Dominica

This project output supports the ESM of ELVs in The Bahamas and Dominica, as the management of ELVs was not identified as a national priority for Cuba. Activities under this output will address the lack of information regarding quantities and flows of vehicles and ELVs; the lack of formal inter-ministerial and inter-stakeholder coordination mechanisms and exchange of information and weak institutional frameworks for ELVs management; the lack of specific policies and legal framework to ensure ESM of ELVs; the lack of formal processes for the deregistration of vehicles or for their disposal; the lack of storage and treatment capacity and inadequate final disposal alternatives; the difficulties to reach economies of scale in ELVs treatment; and the high level of used vehicle imports.

The lessons learnt from these demonstration project will be communicated to the other countries through Output 4.1 and to the other regions through the CCKM project 10266. Under this output, the project will work with local private sector operators to ensure they have the capacity to adequately treat ELVs. The project will also actively collaborate with regional shipping companies if a regional approach is developed.

Activity 3.2.1 Conduct a Material Flow, Technical, Infrastructural and Economic Assessment in order to design ELVs management scheme, considering a regional approach.

This is a foundation activity for this output and will inform the subsequent two activities. Under this activity, a material flow, technical and economic assessment will be undertaken to understand ELVs management in The Bahamas and Dominica. Focus will also be placed on trade flows and inter-regional flows of ELVs and of the materials obtained from its treatment. The output here will assess the environmental, economic and technical capacities in place and gaps in the project countries in terms of: (i) ELVs generation and detailed materials flow; (ii) the capacity of facilities involved in collection, dismantling and disposal of ELVs; (iii) need of establishing authorized treatment facilities (ATF) in order to receive and issue Certificates of Disposal; (iv) BAT/BEP implementation; (v) technologies used; (vi) level of training of the personnel involved in ELVs management; (vii) informal sector involvement; (viii) final disposal alternatives; (ix) capacity of treating or disposing of residual waste; and (x) Basel Convention procedures followed.

The economic aspect of this assessment will consider mechanisms for the financing of ELVs management, for example through a national fund or a national or regional RSC scheme, and will include designs of an appropriate scheme for each country, based on consultations with national stakeholders. The activity will also identify gaps to be addressed and opportunities for improvement in terms of ELVs management to support the development of the ELV legislation (including improvement in current schemes of levies/taxes on certain imports, implementation of an RSC approach, and regional approach to ELVs treatment). This assessment will also consider the findings of Output 1.1, where the policies and legislation developed to support management of ELVs are addressed (considering the import age of used vehicles; emission standards of imported vehicles; vehicle deregistration, and regulation of destruction/dismantling facilities).

Consideration will also be given here to the role of the provisions of the Basel Convention in addressing transboundary shipments of hazardous materials, the global trend of stimulating and encouraging the use of new, less polluting technologies for vehicles, and the need for requisite management systems (e.g. Antigua and Barbuda?s GEF EMobility Project). Existing infrastructure in non-participant Caribbean countries will be considered (i.e. Guadeloupe).

Activity 3.2.2: Improve ELVs treatment capacity in The Bahamas and Dominica through training on best environmental practices

Under this activity, training materials will be developed on the BAT and BEP guidelines for collection, storage, transport and treatment facilities, with special emphasis on the proper management of POPs. Training materials will also be designed to address health and safety issues surrounding informal sector involvement. The issues surrounding the de-pollution process (sometimes depollution and dismantling are being carried out together and identified as dismantling) and the handling of hazardous materials will be addressed to include strict health and safety rules and proper storage and labelling to prevent contamination of the environment. Training materials will be disseminated to relevant stakeholders (who will be identified through a stakeholder mapping exercise) via a regional training workshop. At least 10 waste management professionals from both project countries will be trained, of which at least 40% female, and to support the regularization of existing downstream handlers / informal scrap iron dealers. In order to ensure that these trainings are incorporated into practice even after this project, members of the public must also champion the ESM of ELVs. In this regard, awareness-raising materials will also be developed on the importance of the ESM of ELVs and the dangers of their improper

management. This can be communicated through the existing ?Stop the POPs? Campaign developed under the GEF 5558 Project.

Based on the results of activity 3.2.1, a roadmap for establishing the adequate and sufficient ELVs management infrastructure will be designed for the two project countries based on the material flows, technical and economic assessments conducted under 3.2.1. The feasibility of managing ELVs via a national versus regional approach will also be considered. If a regional approach is defined, recommendations will be made for establishing synergies with the countries in the GEF 10279 Project which will be undertaking similar activities.

Activity 3.2.3: Demonstrate improvement of two (2) existing national ELV treatment facilities in The Bahamas and Dominica

Under this activity, detailed assessments of two (2) existing facilities in both The Bahamas and Dominica will be undertaken to support the upscaling of their activities. The facilities chosen must demonstrate efforts towards ensuring the sound handling of vehicles and spare parts. A set of indicators such as legal status, certifications, volumes, range of services, existing customers, facility, processes, documentation, and willingness for cooperation and full transparency, are proposed as appropriate to conduct the screening process. The practices of these facilities will be assessed against international criteria for BAT/BEP for ESM of ELVs (with a focus on the POPs treated components). The assessment will also seek to identify any gaps against international criteria for BAT/BEP for ESM of ELVs and prepare a customised roadmap for establishing an adequate and sufficient ELVs treatment facility. These roadmaps will outline the required equipment and processes to ensure an environmental treatment of streams such as: lead-acid batteries, coolants, engine oils, tyres, plastics and foam.

Technical backstopping, training and improvement of the enabling environment will be provided to support the pilot projects in two (2) countries to upgrade existing facilities. Regional solutions for funding mechanisms for the procurement of the requisite equipment will be explored. These solutions will include, but not be limited to, the IDB. The two pilots will be documented in a systemized manner, compiling lessons learned and experiences, in order to facilitate the replication of the up-scaling process in later stages among other facilities and countries. As mentioned in Activity 3.2.2, if a regional approach is defined, then in the case of Dominica (which expressed interest in a regional approach) this activity will focus on integrating the country into the regional approach. This information will be shared with the CCKM in GEF ISLANDS 10266 through Output 4.1.

Output 3.3 Improved management of plastics (including PVC) through the life-cycle approach and coordination with the public and private sectors.

This output seeks to address two areas: plastic waste from the cruise ship industry, and halogenated plastics used in land-based operations, which when burnt produces dioxins and furans and is a contributor to marine plastic litter. Halogenated plastics include PVC, polychloroprene (CR or Neoprene) and chlorinated polyethene (CPE). In the Caribbean, PVC is among the most widely used halogenated polymers. The baseline also noted that no project country has policies or legislation to manage halogenated polymer waste or promote its separation from general waste streams, whether considered as part of construction and demolition waste, RSC or as standalone policies. As such, they are typically comingled with regular waste and sent to the landfills and

illegal dumpsites where they may contribute to UPOPs production due to open burning or enter the ocean via water courses. If PVC wastes are collected separately for environmentally sound management and thus diverted from these sites, UPOPs emissions from the burning of these waste, which have a high chlorine content, will be reduced. The reduction of UPOPs, through the management of PVC plastic waste, will be examined by conducting an inventory to understand the existing situation and propose informed options to manage PVC waste in an environmentally sound manner and in coordination with the private sector.

This output includes two (2) national-level activities. Activity 3.3.1 is a national-level demonstration activity in The Bahamas, which is a very popular port of call for cruise ships. Activity 3.3.2 is a regional-level activity. The lessons learnt from the demonstration project will be communicated to the other countries through output 4.1 and to the other regions through the CCKM project 10266. Under this output, the project will work together with Carnival Cruise Line and other cruise lines as relevant. The project will also work together with local construction businesses with regard to PVC management, and other tourism operators as appropriate.

Activity 3.3.1: Assess plastic waste generation from the cruise ship sector in The Bahamas, developing strategies to process cruise ship plastic streams parallel to municipal waste in an environmentally sound manner

In order to provide the onboard experiences for which cruise ships are renowned, resources commensurate to the numbers of guests and crew, are consumed, thus leading to the generation of high volumes of waste aboard the ships. For all international shipping, with cruise being a subset of that industry, in accordance with international maritime environmental regulations (MARPOL), the waste management plans of cruise ships rely heavily on the acceptance of waste at port reception facilities onshore; this puts the onus of the management of ship wastes on the countries which receive them. Therefore, while this activity generates revenue for a country via tourist arrivals, in a limited number of Caribbean SIDS, it creates another problem for which financial and technical resources must be marshalled, that is, the expansion of its national waste management capacity. Given that many Caribbean SIDS are already struggling to manage the wastes which they generate locally due to limited capacity and technology at their landfills, the additional non-resident waste serves to exacerbate issues surrounding these shortcomings. Therefore, a concerted effort between international shipping and cruise line associations and Caribbean governments is required to ease the burden placed by the international shipping and cruise industries on Caribbean SIDS with respect to waste management. Technical support and collaboration for this activity will also be provided by Carnival Cruise Line, who is a shareholder in the port at which its ships dock in The Bahamas. Lessons learnt will be shared with other SIDS through the GEF 10266 Project

This activity will assess plastic waste flows from the cruise ship/international shipping sector in The Bahamas and provide recommendations on the environmentally sound co-management of plastic waste with municipal waste management stakeholders. The first step here will be confirming the ports which receive the most calls from cruise ships and the average gross tonnage of the ships which call at these ports. Next, a stakeholder mapping exercise must be conducted to understand which waste management facilities serve the cruise lines which dock in The Bahamas. Consultations with stakeholders will assist in understanding the cruise lines? waste management plans for plastic waste streams, as well as the how the waste is managed from the point of offloading, onwards. Records from cruise ships as well as from port reception facilities or local

waste management companies will be examined to assess the quantity and types of plastic wastes which are generated onboard and offloaded for management onshore.

A draft national strategy for the management of cruise ship plastics will be developed in collaboration with government stakeholders, national stakeholders in The Bahamas? private sector with interest in plastic waste management and heads of the major cruise ship lines which dock in The Bahamas. Recommendations will follow 3R and circular economy approaches for ensuring compliance of the cruise ship sector with The Bahamas? recently promulgated legislation on the control of plastic pollution, that is, the Environmental Planning and Protection (Control of Plastic Pollution) Act, 2019. A pilot project will be executed at Freeport to demonstrate the strategy. Specifically, the development of policy that can be adapted to national contexts and adopted across regions would be greatly beneficial.

Activity 3.3.2: Assess the material flow of plastic wastes, including PVC from the tourism and industrial sectors in The Bahamas, Cuba and Dominica and demontrate environmentally sound management options

This activity will focus on the management of plastic wastes which can lead to the emission of UPOPs, such as halogenated plastics and plastic packaging used in agriculture. The aim of this activity is to determine: the quantities and types of harmful plastics produced and waste generated in the project countries; the generators of the waste; the activities or products which produce the waste; and existing disposal methods, if any. Focus will be placed on PVC, which is used widely in the construction sector and is a waste stream of concern in C&D waste and post-disaster waste. In this regard, there will be a nexus between this activity and Activity 2.2.4, in which sustainable management mechanisms for post-disaster and C&D wastes will be considered. PVC-containing packaging waste will be partially addressed through Activity 2.1.3 since it is a contributor to UPOPs emissions and thus will be the focus of an awareness campaign on the dangers of open burning and UPOPs and targets the household level. Safe and non-regrettable alternatives to PVC, if any are available on the market or are being designed for the market, will be considered under Activity 1.5.3. Another plastic waste stream of concern which will be considered is plastic used in the agricultural sector as packaging and as coverings in the banana industries of Cuba and Dominica. In this case, collaboration will be established with the Emergency Agriculture Livelihoods and Climate Resilience Project which is being executed in Dominica by the World Bank. The WEEE assessment in Output 3.1 will be taken into consideration when conducting the inventory in order to synergise the efforts.

The material flow for the plastic wastes from the hotel industry, agricultural, manufacturing and construction sectors will be assessed in all three countries. Further, an assessment of the possible options to manage plastic wastes from the targeted sectors will be conducted, as informed by the material flow results. This will include: disposal options; recycling technologies; markets available for recycled products; feedstock quantities; separation and collection mechanisms; and national, sub-regional or regional approaches. Consultations will be hosted with stakeholders in the private sector in order to understand how they can support the ESM of this waste stream and possible business opportunities from its ESM. Based on the recommendations of the report, national model strategies will be developed to divert PVC waste and agricultural plastic waste from landfills in each country and to ensure environmentally sound disposal.

Two pilot projects will be designed and conducted under this activity. The first will consider the demonstration of recommendations for the diversion of PVC waste from landfills. The country in

which this project will be demonstrated will be determined during project execution based on the material flow assessment. Should Cuba or Dominica be chosen for this project, synergies will be established with Activity 2.2.4 in order to facilitate the integration of the interim storage facility into the pilot project designed. The second pilot project will collaborate with Varadero in Cuba to identify ways to divert plastics generated by the hotel industry from landfills and to promote their recycling or proper disposal. Recommendations will follow 3R and circular economy approaches, including the complete phase-out of single-use plastics by hotels. The expansion of this pilot project into The Bahamas will also be considered.

Component 4 - Knowledge Management and Communication

A key component of the project is the overall coordination, knowledge management, communication and information exchange, within and outside of the Caribbean Region. This will be facilitated by the CCKM under the GEF 10266 Project. The GEF 10266 Project is responsible for receiving and disseminating knowledge from all projects and will provide templates for the development of knowledge assets. It is also responsible for executing the programmatic communication strategy which sets out and monitors the overall coordination and communication of knowledge generated by Child Projects of the ISLANDS Programme.

Under **Output 4.1**, activities will be undertaken to consistently share information generated by the project with the GEF 10266 Project to facilitate their development into knowledge products as well as to share knowledge products developed by for the project (Activities 4.1.1 and 4.1.2). The GEF 10266 Project will then disseminate knowledge to the wider Programme. One activity will specifically focus on changing behaviours related to waste management, through extensive community education, and specific activities targeted at youth and indigenous peoples (Activity 4.1.3). Monitoring and evaluation of project activities under this project will be coordinated under this output through quarterly and annual reporting to the CCKM (Activity 4.1.4), which will serve as the central coordination centre for all child projects under the GEF ISLANDS Programme. Finally, this output will seek to share knowledge products and project information generated by other child projects under the ISLANDS Programme with Caribbean SIDS (Activity 4.1.5).

One activity is planned under **Output 4.2**, the aim of which is to ensure that resources from this project are allocated to support the CCKM in its functions, as described in Appendix 3A (10266 Activities implemented under 10472). Given that these project countries (as well as three additional Atlantic SIDS) were added to the programme following the initial design of the CCKM, financial resources had to be allocated towards the integration of these countries into the CCKM. Activity 4.2.1 will therefore provide support for activities under the GEF 10266 Project as they relate to the countries involved in this project. Component 4 is made up of regional-level outputs and activities which will be fed into the CCKM project 10266.

Output 4.1 Caribbean communities are informed and engaged to promote the sound management of chemicals and waste

For projects under the ISLANDS Programme to be truly effective, active engagement with Caribbean communities is needed. This will ensure that project activities are widely supported throughout and beyond the project execution timeline, as well as that the most affected demographics (youth, indigenous peoples and the informal sector) benefit from project activities. Finally, engagement with Caribbean SIDS, as well as with SIDS in other regions, is critical to

ensure regional and international collaboration and cooperation, as these countries have additional resources which would allow them to cooperate with the countries of the project. These are the roles of this output, broken down into the activities below.

Activity 4.1.1: Creation and dissemination of knowledge products based on project implementation

Knowledge products are important tools to ensure that the material that is developed is shared in a manner that allows for action by the user. This project will generate a significant amount of information which must be packaged into knowledge products which will be shared with a wider audience through the CCKM of the GEF 10266 Project. This audience will include SIDS participating in the ISLANDS Programme from other regions, as well as European Overseas Countries and Territories and other Caribbean SIDS not participating in the ISLANDS Programme.

Information generated from the activities of this project will be shared with the GEF 10266 project to allow for the curation of case studies and knowledge products under Project Sub-component 4.2 of the GEF 10266 Project thereby ensuring synergies within the Programme. Activities from which the GEF ISLANDS 10266 Project can generate knowledge products for dissemination through the CCKM include, but are not limited to, roadmaps, training plans, and the results of pilot projects. The databases developed under the BCRC-Caribbean?s online repository and database under Activity 1.2.4 will also be a critical tool for facilitating information exchange in this activity.

Following the transformation of project information into knowledge products, the BCRC-Caribbean will then share these knowledge products through its website and its social media pages in accordance with the guidance developed under Sub-component 4.1 of the GEF 10266 Project; that is, when sharing the knowledge products to our media, the BCRC-Caribbean will follow all requirements related to ensuring brand visibility and visual identity, stakeholder engagement and gender mainstreaming. The GEF 10266 Project will also disseminate the knowledge products to a wider audience via the CCKM.

Activity 4.1.2: Development of knowledge products for stimulating behavioural change for a POPs and Hg free Caribbean including indigenous peoples and Civil Society Organisations (CSOs)

Behavioural communication change is an interactive process with communities and organisations (as integrated with an overall program) to develop tailored messages and approaches using a variety of communication channels to develop positive behaviours; promote and sustain individual, community and societal behaviour change; and maintain appropriate behaviours. Under Components 1 through 3 of this project, several knowledge products will be created, such as videos to be used as training materials and awareness-raising materials. These knowledge products will help to stimulate behavioural change by highlighting behaviours which cause harm to human health and the environment through improper management and suggesting positive alternative behaviours and practices. They will support community education in the Caribbean region through the expansion of the existing campaign for a Mercury and POPs Free Caribbean and include engagement with youth groups, CSOs and indigenous peoples and will ensure gender mainstreaming. This campaign will build on the existing materials developed under the Minamata Initial Assessments conducted in the Caribbean as well as the BCRC ? Caribbean?s Stop the POPs campaign. Considerations will be made to revisit the inclusivity of the target audiences while simultaneously examining the gender considerations of this campaign. For example, the nuance of

Indigenous Peoples that exists in Dominica?s Kalinago Territory can be incorporated in the cast of characters developed to promote awareness on the impacts of hazardous waste management on their communities. More importantly, this will assist in ensuring the engagement of indigenous communities in the project activities. The knowledge products will be branded and shared in accordance with Sub-component 4.1 of the GEF 10266 Project. They will also be shared with the GEF 10266 Project to facilitate dissemination to a wider audience.

Activity 4.1.3: Raising awareness on plastic pollution among Caribbean youth through implementation of the Tide Turners Challenge Badge

The UN Environment Tide Turners Plastic Challenge Badge is a successful global programme to raise awareness on the impact of plastic pollution with youth movements such as the World Organization of Scout Movement, Junior Achievement and the World Association of Girl Guides and Girl Scouts. The Challenge is related to raising awareness among youths to prevent the production of waste of single use plastics in the region, and to shift behaviour and support young people in having advocacy skills to raise these issues with key decision makers. The Tide Turners Plastic Challenge has already successfully been piloted in three countries in the Caribbean region, namely Saint Lucia, Belize and Antigua and Barbuda. Under the GEF ISLANDS 10472 Project, similar groups and non-governmental organisations will be engaged to implement the challenge within their countries among a targeted age group of children between 8 and 25 years of age. Considerations for modifying the Toolkit will be considered where appropriate; for example, reference will be made to India?s national implementation of the Challenge due to its success with implementation in targeted groups, namely university students. The aim is to reach up to 5,000 participants, of which a minimum of 2,500 females, would take part in the Tide Turners Plastic Challenge during a two-year period of 2022-2024.

Activity 4.1.4: Quarterly reporting to the Communication, Coordination and Knowledge Management Project on project activities

For projects under the ISLANDS Programme to equate to something greater than the sum of their parts, effective coordination is required. The CCKM will serve as the ?Control Room? for all child projects under the ISLANDS Programme by monitoring the progress of technical activities planned under projects, tracking and analysing project results, and documenting financial activities. Given that the CCKM is responsible for the overall monitoring of the ISLANDS Programme, this output will focus on supporting the coordination activities of the CCKM.

This child project will use templates developed under the GEF 10266 Project to provide quarterly financial reports and annual progress reports to the CCKM. The BCRC-Caribbean will also comply with requirements under the annual Project Implementation Review (PIR) and calls to share progress on a quarterly basis. The BCRC-Caribbean will also subscribe to any trainings required to efficiently fulfil its duties related to monitoring and evaluation under the ISLANDS Programme.

Activity 4.1.5: Regular receipt of knowledge assets and information from Communication, Coordination and Knowledge Management Project packaged and distributed to relevant stakeholders

Knowledge products received through the CCKM from the Indian Ocean, Atlantic and Pacific regions, as well as the other Caribbean projects will be used or modified as needed for adoption or implementation in the Caribbean region, and/or for distribution to relevant stakeholders. Where practical, the BCRC-Caribbean will implement lessons learnt by other SIDS which the CCKM will share.

Output 4.2 Support for the CCKM under GEF 10266

The GEF 10266 Project is responsible for coordinating communication and knowledge management activities across the GEF ISLANDS child projects. The project is being executed by the Green Growth Knowledge Platform (GGKP) and includes the establishment of knowledge hub and a series of communities of practice to facilitate SIDS learning. The proposed projects? knowledge management component is designed to complement and extend the scope of GEF 10266. Under this project, Activity 4.2.1 will support the execution of the project activities under GEF 10266, which are provided as Annex 3A.

Activity 4.2.1: Resource allocation to the CCKM Child Project

Under this activity, resources will be diverted to the implementation of the CCKM, which will direct the development of a brand identity of the knowledge products to be developed and shared under child project in the ISLANDS Programme and the development of programmatic documents such as stakeholder engagement plans and gender action plans, reporting templates (Annex 3A, Project Sub-component 4.1). Further to this, resources will be developed to share knowledge on best practices and technologies related to chemicals and waste management for SIDS, for example on the BAT/BEP in WEEE or ELV management, facilitating private sector collaboration, for example with pilot projects being developed in partnership with the cruise ship industry, the packaging of project information into knowledge products and disseminating same to a wider audience (Annex 3A, Project Sub-component 4.2). Finally, support will be provided to ensure coordination among all Child Projects under the ISLANDS Programme through annual and quarterly reporting and midterm reviews (Annex 3A, Sub-component 4.3).

d) Alignment with GEF Focal Area and/or Impact Program Strategies

The GEF Chemicals and Wastes Focal Area (CWFA) is mandated to support the elimination of chemicals covered under the Stockholm Convention, Minamata Convention, and the Montreal Protocol, and to support the implementation of specific priorities under the Strategic Approach to International Chemicals Management (SAICM). Under GEF-7, the GEF CWFA will seek to optimize maximum benefits in its approach by integrating the work of the conventions rather than addressing individual chemicals. Synergies will therefore be established to deal with, *inter alia*, marine litter and microplastics, industrial pollution and agricultural policy. Further, it intends to efficiently address chemicals and waste management issues in Least Developed Countries (LDCs) and SIDS on national levels through innovative locally developed and scaled technologies and practices, including the design of financial mechanisms as sub-national, national and regional levels, thereby ensuring sustainability of project outputs. The GEF recognises that the engagement of the private sector is critical to the successful implementation of the aforementioned. The

ISLANDS Programme and by extension, this child project, is designed in alignment with GEF-7 Programming direction on SIDS[63], which supports:

? Implementing Sustainable Low and Non-Chemical Development Strategies in SIDS and LDCs;

? Promoting Best Available Technologies (BAT) and Best Environmental Practices (BEP) to reduce UPOPs releases from sectors relevant to the Minamata and Stockholm Conventions in SIDS and LDCs;

? Promoting cleaner health-care waste management based on the lessons learnt from GEF funded healthcare waste projects to reduce UPOPs and mercury releases;

? Strengthening the management system for WEEE, addressing all stages of the life cycle (i.e. acquisition of raw materials, design, production, collection, transportation and recycling) in SIDS and LDCs;

? Phasing out of mercury-containing products;

? Undertaking gender mainstreaming and project monitoring and evaluation, and;

? Developing a strategy to ensure that technical assistance and investments are solidly linked to enhance countries? ability to deal with the management of POPs and mercury in a sustainable manner.

The GEF ISLANDS 10472 Child Project is aligned with the GEF-7 investment framework, as well as the GEF-7 principles of cost-effectiveness; sustainability; innovation; private sector engagement; promotion of resource efficiency (including circular economy approaches); and building on the use of existing networks. In response, the Project?s components were designed to facilitate meeting the aims of the investment framework in the Caribbean through engaging with specific sectors.

In Component 1, i.e., *preventing the future build-up of chemicals*, the project will focus on assisting countries with:

•instituting legislative measures to provide for the lifecycle management of chemicals and including controlling imports and ensuring the environmentally sound management of harmful chemicals from priority waste streams;

•providing guidance on the implementation the chemicals and waste MEAs,

•the identification of harmful chemicals imported into national territories and the implementation of product and labelling standards to support same, and;

•establishing sustainable procurement mechanisms.

In Component 2, i.e., *managing and disposing of existing hazardous chemicals, products and materials*, the project will build national and regional capacities to eliminate emissions and releases of harmful chemicals through the execution of strategies focussed on the disposal and stabilization of chemicals prioritized by each country. Given that the facilities for the management of these harmful chemicals are not available regionally, the project will also provide guidance on the development of facilities for the intermediate storage of hazardous waste, pending their export for environmentally sound disposal. This will divert harmful chemicals from landfills, thereby avoiding their emission and unintentional release into the environment.

In Component 3, i.e., *preventing the future build-up of chemicals entering SIDS through the development of closed loop systems*, activities will support sustainable partnerships with the private sector to address potentially hazardous wastes, such as reverse supply chain schemes for WEEE and plastic waste streams which emit UPOPs. Opportunities for integration into regional recycling systems will also be considered in partnership with the private sector, where feasible. Support will also be provided to facilities involved in the management of WEEE, ELVs and plastics in order to ensure that BEP and BAT are instituted into their operations in order to reduce the emission of harmful chemicals and UPOPs. These activities will also consider the regularization of the informal sector and collaboration with NGOs, as far as practically possible.

In Component 4, i.e., *knowledge management and communication*, the project will generate, communicate and share the knowledge developed from the above components among SIDS, through the Communication, Coordination and Knowledge Management (CCKM) Child Project. Resources will also be allocated to directly support the expansion of the CCKM in its execution of project activities as noted in the GEF 10266 Project (as discussed in Annex 8).

e) Incremental/Additional Cost Reasoning and Expected Contributions from the Baseline, the GEFTF, LDCF, SCCF, and Co-Financing

Globally, there is a significant need for investment in the waste management sector in SIDS. According to the 2015 Global Waste Management Outlook, of the funding made available to support improved waste management in the last decade, two-thirds of this has been invested in just ten (10) middle-income countries[6]. Making the necessary finance for investment available to LDCs and SIDS which face unique challenges and often lack basic infrastructure is a major challenge which this ISLANDS Programme aims to overcome.

In the case of chemicals and wastes management in SIDS, GEF financing has a significant catalytic role in orientating countries onto a more sustainable development pathway. That catalytic effect is achieved through the focusing on achieving global environmental benefits (GEBs). In all child projects under the ISLANDS Programme the achievement of the GEBs will be based on activities linked to promoting the avoidance of specific chemicals through stronger import controls and promotion of alternatives, the integration of principles such as circularity at national and regional level, through investment in waste collection and associated recycling systems and, through the strengthening and where possible harmonization of national policies and regulations at the regional level.

The ISLANDS Programme is proposed as a cost-effective way to link a series of individual, yet interlinked chile projects in four (4) SIDS regions that will amplify the results throughout each of the SIDS regions by ensuring that BAT/BEPs are applied consistently across all regions. By ensuring coordination and exchange of knowledge at the global, regional and national level among SIDS and subsequently supporting the introduction of best practices, approaches and technologies for chemicals and wastes management in SIDS, it is anticipated that the programme will achieve at scale, positive impacts on the global environment, with benefits to all regions. The outcomes of this programme are intended to equate to more than the sum of the outcomes of each individual child project by building the capacity to leverage larger number of investments and through exchange of knowledge and experiences among SIDS through the global project.

GEF financing under this project is focused on enabling Caribbean SIDS to align and integrate priorities in a manner that will minimize trade-offs in generating GEBs, while achieving

sustainability and development goals. All outputs proposed deliver both local and global benefits. The relationship of the national and regional level outputs to global benefits, that is, GEF?s incremental contribution, is outlined in Table 8, below. These global environmental benefits are expected to contribute to healthier terrestrial and marine ecosystems in the Caribbean (e.g. increased biodiversity), which will lead to socio-economic benefits through associated environmental services (e.g. the Caribbean Sea as tourism product).

Table 8: Incrementality of proposed project outputs

Project Component	Outputs	GEBs achieved through interventions at national level

1. Preventing the Future Build-Up of Chemicals Entering SIDS	1.1: The legislative and institutional framework is developed to support the environmentally sound management of hazardous chemicals in materials, products and wastes at national levels in the Caribbean 1.2: Sustainable training programme is developed to assist countries with implementing the Chemicals and Wastes MEAs at a national level 1.3: National, institutional and technical capacity to reduce/control the current and future trade of chemicals and products containing hazardous chemicals is strengthened 1.4: Increased capacity for the development and implementation of national and regional chemicals and products standards including GHS 1.5: Sustainable Procurement is promoted to key stakeholders to reduce the manufacture/import of products containing hazardous chemicals	a. Indirectly reduced emissions, through improved management of wastes b. Toxic chemicals reduced, through ? reduction and avoidance of chemicals of global concern c. Reduction/elimination of Mercury

2. Safe Management and Disposal of Existing Chemicals, products and materials	2.1: Capacity for environmentally sound management of SC POPs and MC Hg products strengthened, and obsolete pesticides and chemicals, PCBs and DDT eliminated 2.2: Capacity to manage other hazardous waste streams specific to the Caribbean improved	d. Reduction/elimination of mercury e. Toxic chemicals in the environments of Caribbean SIDS reduce, through disposal/stabilisation of chemicals of global concern and their waste in and in processes, materials and products f. Toxic equivalent TEQ reduced through - reduction, avoidance of emissions of POPs and UPOPs to air g. To facilitate investment mobilization by develop banks
3. Safe Management of Products entering SIDS/Closing Material and Product loops for Products	3.1 Strategies for Reverse Supply Chain Schemes for WEEE Management developed 3.2 Strengthened Capacity for the ESM of ELVs in The Bahamas and Dominica 3.3 Improved management of plastics (including PVC) through the life-cycle approach and coordination with the public and private sectors	h. Toxic chemicals reduced, through disposal/elimination of chemicals of global concern and their waste in the environment and in processes, materials and products i. Avoidance of marine litter j. Toxic equivalent TEQ reduced through - reduction, avoidance of emissions of POPs to air
4. Knowledge Management and Communication	4.1 Caribbean communities are informed and engaged with in the sound management of chemicals and waste 4.2 Support for the CCKM under GEF 10266	k. Increased beneficiaries resulting from project interventions l. Avoidance of marine litter m. Reduction/elimination of Mercury

It is recognized that GEF resources are limited so the use of this to leverage additional support to Caribbean SIDS and identify opportunities for future investment into the public and private sector is a key element in the projects? designs. Of the three beneficiary countries in this project, The Bahamas will also be able to leverage financial support through the IDB-implemented ISLANDS Project, GEF 10258, in which it is also involved. In the Caribbean it is expected that Governments and project partners, including the private sector, will provide substantial and significant co-financing. These leveraged contributions are expected to include investments in modernizing and extending the waste recycling and closed loop systems, as well as the production and (where necessary) importation of sustainable product alternatives.

There have been many initiatives on chemicals and wastes across the Caribbean countries and other SIDS. These have largely been delivered discretely and thus have failed to share and learn from experience (both positive and negative) and resources. For example, in the Pacific region national unintentional POPs (uPOPs) action plans have been developed under a regional project, but no mechanism or platform exists for sharing these resources that can be tailored to, and then replicated for other SIDS including countries in the Caribbean. Under the ISLANDS programme, the GEF resources will be targeted to address both deficiencies, thus ensuring true incrementality. The developed activities under this GEF 10472 Project are intended to build on existing and past work, as identified in the alternative scenario, to supplement GEF resources. Additionally, Component 4 of the project will develop knowledge products and promote SIDS learning, through transfer of these products to the global CCKM Child Project. The CCKM will develop a repository for knowledge and communicate this knowledge to child projects in all regions. This will extend the benefit of project investments and thereby ensure important and costly resources developed under the project are available to all relevant stakeholders. Better use of resources means additional SIDS beneficiaries for a marginal investment.

A collaboration with the Cartagena Convention Secretariat is particularly relevant in the Caribbean region. The Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (WCR) or Cartagena Convention is a regional legal agreement for the protection of the Caribbean Sea. The Convention is supported by three Protocols, of which the one on pollution from land-based sources and activities (LBS Protocol), is particularly relevant. Within the framework of the LBS Protocol, the Cartagena Convention Secretariat is developing a new project proposal for 3-5 Caribbean SIDS to address the management of plastic waste and specifically plastic pollution of the coastal and marine environment to be financed by the Government of Germany. ISLANDS will work together with the Secretariat to ensure that activities under this project are in synergy with the Convention?s plastic pollution project. The Secretariat also co-hosts the Regional Marine Litter Node for the Caribbean with the Gulf and Caribbean Fisheries Institute (GCFI) and has developed a Regional Marine Litter Action Plan and Strategy which will complement the work of this project. The joint Regional Activity Centre?RAC REMPEITC Caribe?that the Secretariat shares with the International Maritime Organization (IMO) further supports the Caribbean Governments with the implementation of pollution related IMO Conventions including MARPOL and the London Convention, and will be an additional strategic partner. Furthermore, ISLANDS will consult and engage with the Secretariat before and during execution of Output 3.3 (on cruise ship plastic waste and PVC plastic waste) and in Component 4 (knowledge management and communications).

Some of the initiatives on chemicals and wastes across the Caribbean countries specifically have been identified for their relevance to the ISLANDS Programme. For example, the cruise industry is a potential partner in the Caribbean region with relevant initiatives for ISLANDS. Cruise ships have sometimes been compared to ?floating cities,? due to the number of persons at any given time sailing aboard as either passengers or crew. The waste streams generated by cruise ships are governed by several international protocols (especially MARPOL) and domestic laws, regulations, and standards, but in general there is no single law for cruise ship waste. However, the cruise industry has voluntarily undertaken initiatives to prevent pollution by adopting waste management guidelines and procedures and researching new technologies. Consultations with Carnival Corporation presented a unique chance to improve the municipal waste management in Freeport, Grand Bahama, a transit cruise port in The Bahamas in which Carnival Corporation is a shareholder. A pilot project will therefore be developed alongside Carnival Corporation under

Activity 3.3.1 to strengthen the enabling environment as it relates to the ESM of plastic waste from cruise ships in order to comply with The Bahamas? legal framework on this waste stream. A collaboration with the ISLANDS Programme would help to establish partners and assist in establishing links with chemicals-containing products and other potentially hazardous waste streams. This project will mirror a similar activity planned with Carnival Corporation for Amber Cove in the Puerto Plata Province, Dominican Republic. A collaboration with ISLANDS could also help to establish best practices and guidelines for future plans in other destinations where either Carnival operates ports or visits with cruise ships.

Land-based tourism operators are also potential partners in the Caribbean region with relevant initiatives for ISLANDS. The hotel industry is a large and growing industry in the Caribbean. Single-use plastics have been in the limelight recently as hotel chains have made steps to eliminate them from their resorts, including eliminating travel-sized toiletries. However, other types of plastics such as construction plastics have yet to be addressed. Similarly, the hotel industry produces relatively large amounts of e-waste, such as from air-conditioning, minibars, and television sets, that can put pressure on small island states? limited and often over-stretched existing infrastructure. Therefore, a concentrated aim to divert hotel waste from landfills is needed and is already supported by hotel chains. Consultations with Iberostar Group?a leading hotel chain with a zero waste to landfill by 2025 goal?presented a unique chance to establish joint waste management practices that will identify ways to divert hotel waste from landfills and promote their recycling or proper disposal in Varadero, Cuba, one of the largest resort areas in the Caribbean. Activities can be extended to include the Bahamas, which is also home to a number of sprawling, highly waste-generating resorts. The development of policy that can be adapted to national contexts and adopted across regions would be especially beneficial.

Other potential partners include IGOs such as the OECS. Unsustainable waste management practices in the Eastern Caribbean region have had a direct impact on the resilience of marine ecosystems through an increase in marine litter. Therefore, the OECS in collaboration with the Norwegian Government, through its Ministry of Foreign Affairs, has developed the ?Building Resilience in the Eastern Caribbean through a reduction in Marine Litter? (ReMLit) project in the Eastern Caribbean, including the following countries: Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Lucia, and Saint Vincent and the Grenadines. This project aims to contribute to building resilience in marine ecosystems through a waste management focused approach. In particular, the project aims to update and enhance the enabling environment for waste management, reduce plastics and Styrofoam use, encourage reduce, recycling and reuse where appropriate, undertake public awareness campaigns, and improve the transboundary movement of waste. In Dominica specifically, it is working to establish the Kalinago Territory as a Zero Waste Community. A collaboration with the ISLANDS Programme would support these activities in Dominica, especially as a pilot project is already being planned to improve waste management capacity in the Kalinago Territory. This will assist in establishing links with chemicals-containing products and other potentially hazardous waste streams, thus reducing uPOPs emissions. A collaboration with ISLANDS would also ensure there is no duplication of efforts and provide mutual support in regional initiatives such as the transboundary movement of waste and promotion of transnational recycling enterprises.

In 2019, the World Bank indicated that of the various waste streams which contribute to marine pollution, up to 80 % is made of plastic[64][64]. This has adverse impacts on the health of ocean

ecosystems, the integrity of food supplies and people?s livelihoods. SIDS are particularly vulnerable to plastic debris because of their dependence on fisheries and tourism and because of the isolation and inaccessibility associated with islands. The World Bank currently executing the ?Emergency Agriculture Livelihoods and Climate Resilience Project? in Dominica, the aim of which is to contribute to restoring agricultural livelihoods and enhancing climate resilience of farmers and fisher folk affected by Hurricane Maria in Dominica. Rebuilding initiatives include the rehabilitation of agricultural infrastructure in accordance with improved safety standards to reduce climate and weather risks and enhancing institutional capacity of agricultural agencies and farmers through the establishment of training centres[65][65]. This presents opportunities for collaboration between the World Bank and the ISLANDS Programme under two thematic areas, namely the management of agricultural plastics and the management of post-disaster waste. Such a collaboration would support existing and future work on avoidance of marine litter in Dominica and will also support the improvement of policy efficacy other Caribbean SIDS who, in the face of the COVID-19 pandemic, may be looking towards agriculture as a means of filling the gaps which have been left by the tourism sector in their economies.

In addition to plastic litter, marine pollution is also caused by other forms of agricultural run-off are considered as a danger to marine life. This project will seek to address the disposal of HHPs and will seek to provide guidance on alternatives to same. A large majority of HHPs in Cuba is stored in Pinar del R?o, one of the provinces in which the JICA is executing a project on ?Improvement of Agricultural Extension System for Grain Production in Cuba?. Collaboration between the ISLANDS Programme and this project can in order to reduce the release of harmful chemicals into the environment JICA can help to amplify knowledge on infrastructural capacity and BAT/BEP in this sub-sector of Cuba?s agricultural sector. Lessons learnt can also be shared with other countries through ISLANDS.

Finally, in the French Department of Guadeloupe, the local directorate for the environment (Direction de l?Environnment, de l?Am?nagement et du Logement DEAL) has been very proactive in supporting the local Small and Medium-size Enterprises in the management of locally generated waste. Innovative solutions, adapted to the volume of waste generated in the context of a small island, have been successful in the management of ELVs, the collection of PETs recycling of used oils and the transformation of sargassum into H2 and bio fertiliser. Lessons learnt from this local experience will be beneficial to the project.

f) Global Environmental Benefits (GEFTF) and/or Adaptation Benefits (LDCF/SCCF)

The GEF is the financial mechanism for the Minamata Convention on Mercury and the Stockholm Convention on Persistent Organic Pollutants (POPs) and provides some funding for the Strategic Approach to International Chemicals Management (SAICM). GEF investments in the chemicals and wastes focal area seek to prevent a toxic legacy through both reducing existing stockpiles and preventing the use and emissions, both current and future, of the chemicals covered under the Minamata and Stockholm Conventions. The GEF 7 results framework has set out its GEB targets in the following terms:

n. ***Reduction****, disposal/destruction, phase out,* ***elimination*** *and avoidance of* ***chemicals of global concern*** *and their waste in the environment and in processes, materials and products (thousand metric tonnes of toxic chemicals reduced)*

o. Reduction, avoidance of emissions of POPs to air from point and non-point sources (grams of toxic equivalent, gTEQ)

The programme is designed to provide support to SIDS to improve chemicals and waste management in line with international commitments and national plans (as outlined in Section 13). The programme is the first integrated attempt to assist SIDS across several regions to address chemicals and waste issues at the sectoral level. By addressing objectives of the Stockholm and Minamata Conventions and SAICM, the programme will look to broaden the scope of interventions to address the wider chemicals and waste management issues unique to SIDS. This will also be achieved through ensuring the GEF investment is fully integrated with the large number of other ongoing and planned interventions across the regions in this sector.

Using a broad array of national and regional interventions (outlined in Section 1a. 3), in accordance with the GEF mandate, the GEF 10472 Child Project will lead to the following measurable global environmental benefits:

? Elimination and avoidance of hazardous chemicals in Caribbean SIDS (including POPs, Hg, pesticides and other hazardous chemicals including those contained in products);

? Improved chemicals and wastes management in Caribbean SIDS leading to reduced releases of POPs, UPOPs, Hg and other hazardous chemicals/releases to the global environment;

? Disposal of obsolete stockpiles of chemicals that are POPs, including the improved management and treatment of mercury containing products;

? Through the management of land-based sources of waste, address the issue of chemicals and products in oceans and pollution of coral reefs, mangroves, and other fragile water systems;

? Replacement of POPs, mercury and relevant HHPs used in the global food supply chain, with alternatives, preferably non-chemical alternatives, and;

? Reduction in generation of non-biodegradable and hazardous waste generated and landfilled through diversion of recyclables and reusable material.

The GEF 10472 Child Project, through a combination of regional and country level activities, is anticipated to lead to:

- 302.68 metric tonnes of toxic chemicals reduced, through - reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products;

- 32,115 metric tonnes of chemicals in products reduced and avoided;

- reduction/elimination of 1 metric tonne of Mercury and at least 67.5 metric tonnes of POPs;

- 480.0 grams of toxic equivalent TEQ of emissions of POPs to air from point and non-point sources reduced or avoided, - avoidance of 7,400 metric tonnes of marine litter.

g) Innovativeness, Sustainability and Potential for Scaling Up

To date, the GEF has not yet financed a holistic project relating to chemicals and waste management in SIDS. Therefore, the ISLANDS programme, by its very nature, is innovative. Furthermore, the ISLANDS Programme is unique in its geographical and topical scope with thirty-three (33) SIDS participating from four (4) regions. The combined comparative experience that is brought by the different GEF implementing partners to the programme, coupled with the involvement and contributions made by key regional partners, ensures a wide range of perspectives without giving up the focused and unique qualities of each partner. In this way, the programme ensures that the identified barriers are addressed through adequate and relevant interventions, sourced from a broad range of expertise.

The ISLANDS programme is focused on developing robust public-private sector partnerships, combined with national level sustainable financial mechanisms. This approach will be optimised through the direct involvement of the IDB as a co-financer and implementing agency for one of the Caribbean Child Projects that includes the Bahamas. Close collaboration with other agencies, such as CROSQ, and donor-funded chemicals and wastes activities in the regions is expected to create additional synergistic solutions based on coordination of the public and private sectors. This allows for an innovative approach to waste management that builds on new technologies and approaches, rather than duplications of the often-expensive waste management solutions found in larger countries, without sacrificing the concept of waste as a resource.

Individually, Caribbean SIDS do not have sufficient resources to develop and maintain economically viable infrastructure projects to manage all waste streams at the local or national level. As such, most wastes continue to be landfilled and the economic value contained in waste is not realised. For a region so far characterised by fragmented waste management practices, regionally focused solutions are an innovative approach to sustainable and scaled up activities for environmentally sound chemicals and waste management. However, comprehensive regional collaboration on chemicals and waste management, including between the European Overseas Territories and independent countries, and between the English-, French- and Spanish-speaking countries, has not existed on a significant scale until now. The ISLANDS Child Projects will identify and develop innovative regional solutions, such as material recovery hubs, which would support increased regional capacity to manage generated waste streams on a larger scale. Solutions developed at the regional level ensure sharing of knowledge, resources and lessons learned. The Child Project envisions innovative solutions will run parallel with the establishment of effective circular and life-cycle management systems in partnership with the private sector. This would assist in minimising the quantities of difficult to manage waste streams ending up in landfills, especially WEEE and ELVs.

The Child Project will take advantage of technological advancements to engender stakeholder participation in executed activities. The effectiveness of using virtual platforms to conduct remote meetings was demonstrated during the COVID-19 pandemic when meetings had to be conducted remotely due to travel restrictions put in place to protect countries. Moving forward, where possible, project meetings and consultations will be conducted remotely to engage as many stakeholders as possible without bearing the costs associated with regional travel. Similarly, an online training platform will be developed to host online training material that can be accessed by regional stakeholders during and after the project?s execution.

Overall, the Child Project will consider innovative and sustainable solutions for the environmentally sound management of chemicals and waste on a national and regional level and support the implementation of these solutions in the project countries. The project activities will also seek to identify opportunities for scaling up the project outputs to other Caribbean countries

not benefiting from the Child Projects and to ensure that the outputs are sustainable and can be continued even after the project is concluded.

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[60] The GMP is working on custom code harmonization for mercury added products.

[61] This will utilise training material developed under the GEF 5558 Project on the ?Detection, Identification, and Classification of POPs by Border Control Agencies?.
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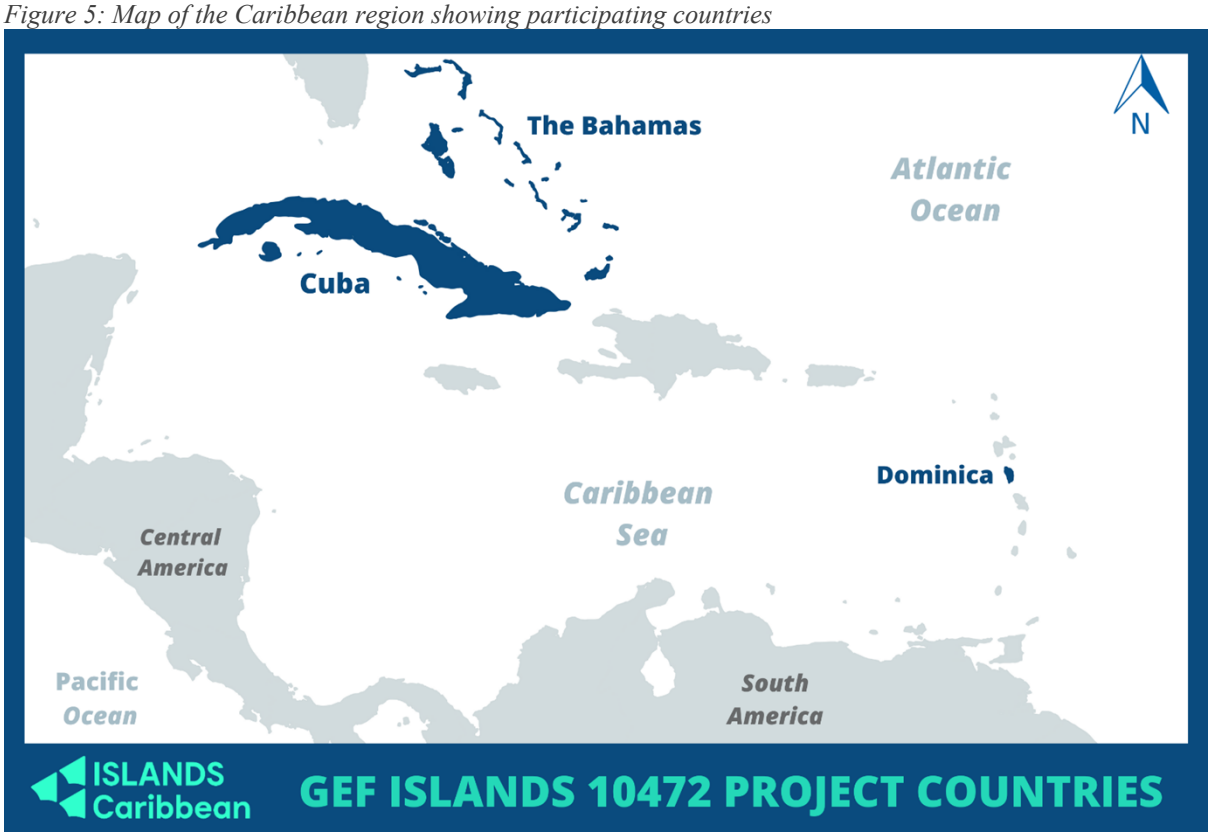
1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Figure 5: Map of the Caribbean region showing participating countries



1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

This Child Project is the UNEP implemented Caribbean Child Project under the ISLANDS Programme. The objective of the ISLANDS Progamme is to prevent the build-up of materials and chemicals in the environment that contain POPs and mercury and other harmful chemicals in SIDS, and to manage and dispose of existing harmful chemicals and materials in SIDS. The intervention logic for the ISLANDS Programme and the theory of change are included as Figure 6, below.

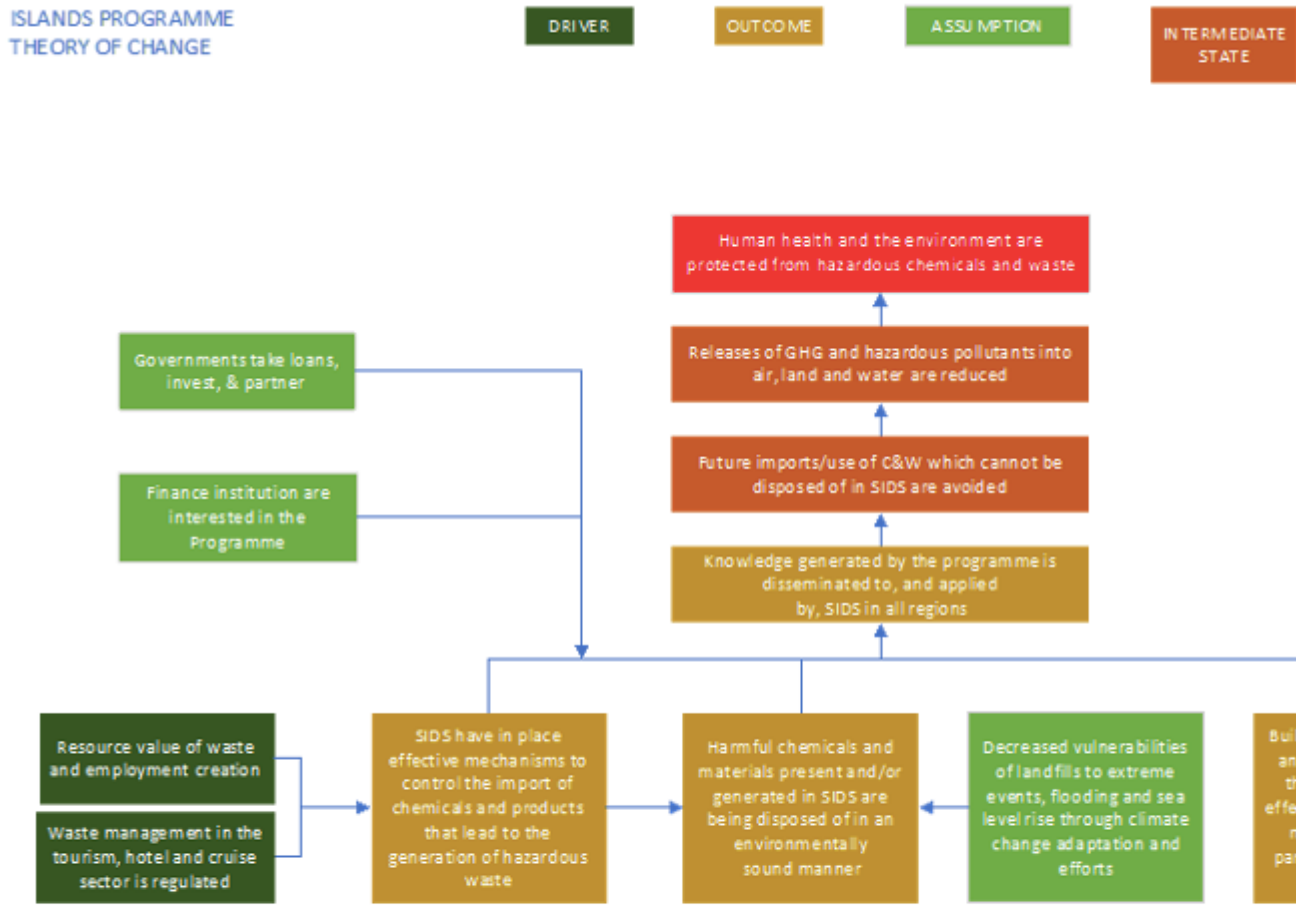


Figure 6: ISLANDS PFD Theory of Change

This Child Project?s objectives are similar to that of the Global Programme with a focus on the three (3) participating countries in the Caribbean region; i.e. to prevent the build-up of materials

and chemicals in the environment that contain POPs and mercury and other harmful chemicals in Caribbean SIDS, and to manage and dispose of existing harmful chemicals and materials in Caribbean SIDS. The relationship of each project component to the overall programmatic impact is outlined below.

Activities under Component 1 are intended to achieve the outcome of Caribbean SIDS having in place effective mechanisms to control the import of chemicals and products that lead to the generation of hazardous waste. The activities are focused on providing support to the participating countries to improve legislation for chemicals and waste management, building capacity for implementing chemicals and waste MEAs and strengthening regulatory and institutional capacities for controlling the trade and procurement of chemicals and products containing chemicals. Outputs will include the development and implementation of policies and legislation to support hazardous chemicals and waste management, the development of a training programme on the chemicals and waste MEAs including an online training platform, updated restricted and prohibited import lists, regional project standards and green procurement strategies including the identification of suitable alternatives to POP-pesticides, POP-PBDEs and HBCD, PFAS, and MAPs.

Activities under Component 2 are intended to achieve the outcome of environmentally sound disposal of harmful chemicals and materials present and/or generated in Caribbean SIDS. Activities include the update of POPs and mercury inventories, destruction of obsolete chemicals including PCBs, pesticides and DDT stockpiles and products containing harmful chemicals, awareness raising to promote best available techniques and best environmental practices to minimize UPOPs emissions from open burning and building national and regional capacity for managing hazardous waste streams.

Activities under Component 3 are intended to achieve the outcome of preventing the build-up harmful materials and chemicals through the establishment of effective circular and life-cycle management systems in partnership with the private sector. Activities under this component include development of and enabling framework for RSC for WEEE and capacity building for WEEE, ELVs and PVC management.

Component 4 is intended to achieve the outcome of dissemination and application of knowledge generated by the programme to SIDS in all regions. Knowledge assets generated under the Child Project will be shared with the CCKM in addition to being linked to the BCRC-Caribbean?s existing platforms. Developed communications material will be disseminated to public and private sector stakeholders based on a comprehensive awareness raising strategy to be developed under this Component. Further, this activity will facilitate coordination among all child projects under the ISLANDS Programme through progress and financial reporting.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

The table below identifies key project stakeholder groups critical to project implementation in the project countries. The table also highlights the present relevant role of the stakeholders in the project?s area of influence, and their expected engagement and contribution to the project execution. It is noted that the table represents a summary of the project?s stakeholders and a detailed list, identified by country, is included as Appendix 6.

Table 9: Stakeholder Assessment for Project Implementation

Stakeholder Group	**National Role**	**Engagement in and Contribution to Child Project**	**Potential Impact**
Government stakeholders *- Government stakeholders have a role to ensure that key issues are brought to the attention of decision makers across line Ministries. Coordination across involved Ministries will be important with exchange of information and sensitization of senior government officials being a key feature of the proposed stakeholder engagement strategy.*			
Environment Divisions within the Ministries with responsibility for the Environment and/or Sustainable Development	Partner agency for chemicals MEAs (some national focal points are within this Ministry, e.g. DEPP Bahamas, while some Ministries are the focal points, e.g. CITMA, Ministry of Environment, Rural Modernization and Kalinago Upliftment) Responsible for environmental management which includes monitoring and enforcement of pollution and hazardous emissions into the environment	Key stakeholder for all activities and national project implementing partner Continuous consultation on national priorities and to support data collection on impacts of pollution and environmental health, public awareness raising of chemicals and products of concern and the project Collaboration for the development and implementation of legislation, standard operating procedures, guidelines and strategies	High
Agencies with responsibility for Waste Management (including municipal/local governments, where relevant)	Responsible for solid and hazardous waste management including oversight of waste collection and disposal activities, e.g. Dominica Solid Waste Management Corportation In some countries, municipal/local governments have oversight over local waste collection and management, e.g. Provincial Directorates and Municipal Directorates in Cuba Some national entities are also responsible for national recycling efforts	Key stakeholder for all activities related to waste management Continuous consultation to gather information on national waste streams and existing public and private sector waste management activities and priorities Collaboration for the development and implementation of legislation, standard operating procedures, guidelines and strategies Pilot waste management projects will be supported by these agencies in collaboration with others, where relevant	High

Ministries with responsibility for Agriculture including Pesticides Boards (Ministry of Agriculture and Marine Resources, Bahamas; Ministry of Agriculture, Cuba; Ministry of Blue and Green Economy, Agriculture and National Food Security, Dominica)	Partner agency for chemicals MEAs Responsible for aspects of pesticides management including permitting of licences for import and use, monitoring and enforcement of national legislation	Key stakeholder for activities related to pesticides management Consultation, as needed, to support data collection on the use and impact of pesticides and raising awareness among importers, users and disposers of pesticides	High
Customs and Excise Departments within the Ministries with responsibility for Trade (The Bahamas Customs Department, General Customs of the Republic of Cuba (AGR), Dominica Customs and Excise Division)	Primary border control agency responsible for the monitoring and enforcement of imports and exports These departments are supported by chemicals authorities for inspection and testing of imported chemicals at port facilities	Key stakeholder for activities related to trade in chemicals, products containing chemicals and waste, particularly Output 1.3 Departments to provide import and export data and information on operational procedures in place at the national entry points Collaboration to support the development and implementation of Standard Operating Procedures (SOPs) for pre-screening and inspection of imports and formalised institutional coordination mechanisms and training on developed SOPs	High
Bureaux of Standards (Bahamas Bureau of Standards and Quality, Oficina Nacional de Normalizaci?n, Cuba, Dominica Bureau of Standards)	Responsible for the development, implementation and monitoring of standards, nationally Bureaux of Standards have the capacity to test products to ensure compliance with developed standards	Key stakeholder for activities related to product standards, particularly Output 1.4 Bureaux to provide information on existing standards and procedures for developing and implementing new standards Collaboration to support the national implementation of regional standards	High

Ministries with responsibility for Health (Ministry of Health, Bahamas; Ministry of Public Health, Cuba; Ministry of Health, Wellness and New Health Invenstment, Dominica)	Directs policies on medical waste management and the management of some chemicals Responsible for ensuring public health including mitigation of negative health impacts that may be caused by chemicals use and disposal, pollution and harmful emissions to the environment Provides oversight on national guidelines for mitigating the effects of the COVID-19 pandemic	Key stakeholders for all activities, particularly those related to public health, medical waste and chemicals management (for example, will assist in assessing national permissible levels of mercury in MAPs such as cosmetics) Consultation, as needed, to support health impact data collection and collection of data on medical waste management and chemicals, where relevant Collaboration in support of awareness raising on the negative health impacts of exposure to hazardous chemicals and waste	High
Ministries with responsibility for Legal Affairs (Office of the Attorney General and Ministry Legal Affairs, Bahamas; Ministry of Justice, Cuba; Ministry of Governance, Public Service Reform, Citizen Empowerment, Social Justice and Ecclesiastical Affairs)	Responsible for drafting and reviewing national policies, legislation and regulation Provides guidance on agenda of legislative priorities	Key stakeholder for activities under each output related to the development of model policies, legislation and regulations related to chemicals and waste management and the review of existing relevant laws Consultation for collection of information on existing legislative framework, gaps and opportunities to integrate model legislation into national laws Collaboration to support development and implementation of RSC schemes	High
Ministries with responsibility for Finance (Ministry of Finance, Bahamas; inistry of Finance and Prices, Cuba; Ministry of Finance and Investment, Dominica)	Approves use of national funds	Approval needed regarding co-financing from various government agencies and departments Buy-in is needed from this Ministry to ensure adequate future national budget allocations to the chemicals and waste management sector; this is especially important for the execution of Activity 2.2.3 in Cuba and Dominica Guidance and buy-in required on the development of levies (as needed) and to support national investment opportunities for private sector initiatives Consultations with these Ministries needed to inform possibility of implementing levies and taxes to support ESM of waste generated from imported products	High

Ministries with responsibility for National Security (Ministry of National Security, Bahmas; Direcci?n General de Inteligencia, Cuba; Ministry of National Security and Home Affairs, Dominica)	Provides direction and funding for national safety and security issues, such as Fire Services	Fire Services may be involved in handling PFOS/PFOA in fire-fighting activities Key stakeholder for Outputs 1.5 and 2.1 Key stakeholder for awareness-raising activities	High
Ministries with responsibility for Tourism (Ministry of Tourism and Aviation, Bahamas; Ministry of Tourism, Cuba; Ministry of Tourism, International Transport and Maritime Initiatives, Dominica)	Provides oversight of the tourism sector, including hotel and cruise ship industries, and ensures compliance with relevant legislation	Ministries to support quantification of waste generated by this sector and identification of opportunities for collaboration for integrated waste management	Medium
Ministries with responsibility for Education (Ministry of Education, Bahamas; Ministry of Education, Cuba; Ministry of Education, Human Resource Planning, Vocational Trianing and National Excellence, Dominica)	Supports national education programs and various public awareness initiatives, including environmental awareness in some countries	Ministries to support with raising awareness on the project objectives and sharing developed educational and training tools to students at all levels	Medium
Japan International Cooperation Agency	JICA has ongoing waste management projects throughout the Caribbean and specifically in the Cuba.	ISLANDS project activities are harmonized / coordinated with ongoing JICA activities.	Low
Norwegian Embassy in Cuba	The Norwegian Embassy in Cuba has some ongoing waste management projects in the Caribbean region.	ISLANDS project activities are harmonized / coordinated with ongoing activities.	Low

US Agency for International Development	USAID has ongoing waste management/ocean plastics projects in the Caribbean.	ISLANDS project activities learn from ongoing USAID activities in the Caribbean	Low
US Environmental Protection Agency	USEPA has ongoing waste management/ocean plastics projects in the Caribbean.	ISLANDS project activities learn from ongoing US EPA activities	Low
UK DEFRA	UK DEFRA has some ongoing waste management projects in the Caribbean Commonwealth.	ISLANDS project activities learn from ongoing UK DEFRA activities.	Low
OCT Governments	OCT Governments are likely to use models developed under this project to advance their own chemicals and waste management frameworks.	Communications and knowledge management takes place in collaboration and cooperation with OCTs.	Low
DEAL Guadeloupe	Representative of the Ministry of Environment in the Department of Guadeloupe. In charge of environmental certification	Will provide links to successful examples of chemicals and waste management in the small islands context especially for Component 3.	Medium
Private Sector *? Public-private partnerships and co-financing for waste management and recycling systems are an expected outcome of the project?s execution. To ensure these are feasible and sustainable post-project, the project will seek to engage and learn from potential private sector partners. In each Caribbean SIDS private sector stakeholders have been identified, together with the external drivers of their activities, the constraints they currently face, and their underlying interest. This information and further ongoing consultation will guide the development of interventions.*			
Importers and retailers of chemicals and products containing chemicals (including plastics, EEE and vehicles)	Minimal manufacturing of chemicals and products containing harmful chemicals is done in the project countries As such, importers and retailers are the primary source of these hazardous materials in the project countries	Key stakeholder for all activities, particularly for Components 1 and 3 Entities to provide data on quantities and types of imported chemicals and products containing chemicals (including EEE and vehicles) Consultations on potential RSC, take-back systems, levies and tax schemes to support environmentally sound disposal of generated waste, incentives for procurement of green alternatives to harmful chemicals	High

Private Waste Managers and Recyclers (including informal waste handlers)	Private entities that collect and transport waste and operate landfills, waste storage and treatment centres and recycling initiatives, sometimes through contracts with governments and businesses, e.g. New Providence Ecology Park in The Bahamas, which operates under a public-private partnership	Key stakeholder for all activities Entities to provide information on national waste streams and existing public and private sector waste management activities and priorities Pilot waste management projects will be supported by these entities in collaboration with others, where relevant Consultations needed to verify their role and capacity for chemicals and waste management and supporting the regularization of the informal sector	High
Chambers of Commerce	Responsible for providing guidance to the private sector, monitoring their activities and ensuring compliance with national regulations	Key stakeholder for activities in which private sector support is needed Chambers to provide support with developing and implementing green procurement strategies (Output 1.5), and RSC schemes (Outputs 3.1 and 3.2)	High
Carnival Cruise Line	Significant amounts of waste generated in the Caribbean	Carnival will be directly engaged in the activities planned for Output 3.3	High
Iberostar Group	Significant amounts of waste generated in the Caribbean	Iberostar Group will be directly engaged in the activities planned for Outputs 3.1 and3.3	High
New Providence Ecology Park	Manages landfill and hazardous waste management facility in New Providence, Bahamas	Will be directly engaged in activities under Output 3.1 as it relates to supporting the pilot project on testing a take-back system in The Bahamas	High
Private industries in the tourism sector	Significant amounts of waste generated by these sectors, e.g. Varadero and Iberostar in Cuba	Key stakeholder for Outputs 2.2, 3.1 and 3.3 Industries to provide information on quantities and types of waste generated and mechanisms in place to minimise and manage the waste generated Can support the development and implementation of guidelines for managing waste streams specific to the tourism sector	Medium

Importers and distributors of PVC plastics	Suppliers to construction and telecommunications industries of all project countries	Key stakeholder for Activity 3.3.2 Manufacturers to provide support for the identification of quantities and types of PVC plastics produced, generation of PVC waste and existing disposal methods, and for awareness raising on the dangers of open burning of PCV plastics	Medium
Shipping companies	Deliver freight transport by sea services in the Caribbean	Shipping companies will be identified during the inception phase and directly engaged in activities under Output 3.1, and Output 3.2 depending on if a regional strategy is developed.	Medium
<u>Civil Society Organisations (CSOs) and Non-Governmental Organisations (NGOs)</u> *- Given the importance of behavioural change in improved waste management in SIDS, engagement and well-defined roles for community groups, village leaders, and locally active CSOs and NGOs across the project countries is considered essential during the project?s execution. Such groups will be viewed in the context as execution partners, as well as beneficiaries and their support for the various initiatives to be undertaken as part of this project is seen as a key element of local and community level engagement.*			
Indigenous Communities	These groups work to ensure equitable distribution of national resources among indigenous communities, specifically Dominica?s Kalinago Territory	Key stakeholder in Activity 2.2.2 Efforts will be made to include indigenous communities in the execution of other project?s activities through consultation and, where possible, opportunities for employment, entrepreneurship and community enhancement The project will identify issues and associated mitigation/preventive measures related to indigenous communities, particularly in the context of the impacts of mercury and POPs on the populations, where applicable	High
Groups focused on Gender and Youth Affairs and other vulnerable communities	These groups work to ensure equitable distribution of national resources among vulnerable communities	Groups to support gender mainstreaming, and identification and inclusion of vulnerable communities throughout the project Engagement will support awareness raising among vulnerable communities and ensure their participation in decision making processes throughout the project	Medium

Universities and other Academic Institutions	Supports development and execution of tertiary level and/or technical educational content	Key stakeholder for the development and distribution of technical material and training content under each output Developed material and tools can be incorporated into existing coursework on hazardous chemicals and waste management and training for national staff on an as-needed basis	Medium
Environmental CSOs/NGOs	Varying aims by existing groups include lobbying for improved national environmental management, supporting national environmental management frameworks, and raising environmental awareness.	Organisations to support national awareness raising and distribution of developed communication and training material under this project Can support waste diversion efforts	Low
Regional and Inter-Governmental Institutions *? Coordination with regional and inter-governmental entities is critical to ensuring the success of this regional project by capitalising on existing initiatives and lessons learned throughout the region. Further, existing regional mechanisms can be used to facilitate the project activities and engender support from national and regional entities.*			
BCRC-Caribbean	Supports Caribbean countries in implementing their international obligations to sustainably manage wastes and chemical through technical assistance and capacity building	Project Executing Agency Facilitation of the delivery of project activities, outputs, and outcomes, coordination of communication between all project partners, and coordination of project activities with the other regional and global child projects Provision of technical, administrative, and management oversight, quality control and compliance with all UNEP reporting requirements	High
IDB	Inter-regional development bank that provides investment support to countries in the Latin American and Caribbean Regions	Implementing Agency for another Caribbean Child Project, in which The Bahamas is also involved Opportunities for optimization of resources, coordination and collaboration between the GEF 10472 Project and the IDB Child Project	High
CANTO	Regional organisation for telecommunications service providers in the Caribbean Partner in WEEE management projects in the Caribbean	Key stakeholder in Activity 3.1.2 Provides opportunities to facilitate uptake of RSC schemes for telecommunications equipment in other Caribbean countries	High

CARICOM	Political inter-governmental institution promoting economic integration and cooperation among its Caribbean member states	Provision of regional project support and lessons learned from execution of other regional activities Engagement with Legal Affairs Committee will be considered to concretize regional legislation and strategies developed	Medium
CROSQ	Regional inter-governmental organisation which coordinates the development of harmonized regional standards based on requests by members states	Provision of support with implementing two (2) regional standards (Output 1.4) Project would provide technical and financial support to establish a Technical Committee throughout the standards development process Continued cooperation between the BCRC-Caribbean and CROSQ will be established through development of a Memorandum of Understanding (MOU)	High
Organization of Eastern Caribbean States Commission	Political inter-governmental institution promoting economic integration and cooperation among its Caribbean member states, such as Dominica	ISLANDS project activities are harmonized / coordinated with ongoing OECS activities.	Medium
Cartagena Convention Secretariat	Regional legal agreement for the protection of the Caribbean Sea	Through Component 4, ISLANDS project activities are harmonized / coordinated with ongoing Cartagena Convention activities. Additionally, the Cartagena Convention Secretariat will be will be directly consulted and engaged with in the activities planned for Output 3.3.	Medium
International Organisations *? International organisations can provide technical support and oversight of the project activities in addition to co-financing through other global initiatives.*			
BRSM Secretariat	Responsible for coordinating global activities for supporting implementation of BRSM Conventions by Parties	ISLANDS project activities are harmonized / coordinated with updates to the Stockholm and Minamata Conventions	High
FAO	Responsible for coordinating global activities in support of the UN?s agenda for improved food security on an international level Implements projects in all beneficiary countries	Outputs 1.4, 1.5 and 2.1 will garner guidance from FAO, including for the update of the online database to be created under Activity 1.2.4 and the PSMS to be updated under Activity 2.1.1 ISLANDS project activities are harmonized / coordinated with ongoing FAO activities in the Caribbean	High

Global Mercury Partnership	Multi-stakeholder partnership that aims to reduce global releases and emissions of mercury	Will be engaged for assistance with investigating the requirements for regional implementation of 8-digit or 10-digit HS Codes for mercury added products (Activity 1.3.2)	Medium
IMO	Responsible for supporting Parties with their implementation of the MARPOL Convention in order to prevent pollution at sea	ISLANDS project activities will learn from IMO activities regionally and internationally	Low
International Union for the Conservation of Nature	IUCN has ongoing waste management/ocean plastics projects in the Caribbean.	ISLANDS project activities are harmonized / coordinated with ongoing IUCN activities in the Caribbean.	Low
UNEP	Responsible for coordinating global activities in support of the UN?s agenda for sustainable environmental management on an international level	Project Implementing Agency and primary GEF Implementing Agency for the global ISLANDS Programme Overall accountability for the project outcomes and fiduciary responsibility to the GEF Provision of technical backstopping, oversight and compliance with all GEF reporting requirements	High
Zero Mercury Campaign	International campaign which aims to reduce global mercury emissions to a minimal level	ISLANDS project activities will learn from ZMC activities and provide updates to ZMC on mercury-related activities	Low

Please provide the Stakeholder Engagement Plan or equivalent assessment.

As attached

Stakeholder engagement plan ? ISLANDS Child Project Template

1. Stakeholders, their relevant interests, and why they are included

GEF ISLANDS aims to collect and analyze stakeholder expectations and concerns as well as to take appropriate responsive measures throughout the Programme in order to ensure that there is enough support for the project. The tables below (Table 1; Table 2) identify social groups and persons that are associated with the project in different ways at all stages. In Table 1, under international stakeholders, ?stakeholders affected directly or indirectly by?Project implementation? are stakeholders that will be consulted in some project activities, while ?stakeholders that participate in the project? will be engaged in project execution. The roles of national stakeholders are defined in the table.

Table 1: General stakeholder classification

Stakeholders affected directly or indirectly by the outcomes of the Project implementation	Stakeholders that participate in the project directly or indirectly	Stakeholders who are able to influence and decide the outcomes and the manner of the Project implementation or make decisions based on the outputs of the project
International Stakeholders		

1. International Maritime Organization 2. World Bank 3. Caribbean Development Bank 4. CLME+ Project 5. UN World Tourism Organization 6. ReSEMBiD Project 7. Cruise Lines International Association 8. The Ocean Foundation 9. Caribbean Youth Environment Network 10. Suppliers of hazardous chemicals and products containing hazardous chemicals to be addressed under this project 11. Suppliers of sustainable and/or non-regrettable alternatives to hazardous chemicals or products containing hazardous chemicals 12. Suppliers of equipment, e.g., XRF equipment or equipment to be used RSC schemes	1. International Union for the Conservation of Nature 2. Organization of Eastern Caribbean States (OECS) 3. CARICOM COTED 4. Caribbean Association of National Telecommunication Organizations (CANTO) 5. Caribbean Hotel and Tourism Association (CHTA) 6. US Agency for International Development 7. US Environmental Protection Agency 8. Japan International Cooperation Agency 9. Norwegian Embassy in Cuba 10. OCT Governments 11. DEAL Guadeloupe 12. Cartagena Convention Secretariat 13. BRSM Secretariat 14. Shipping companies 15. Waste management facility contracted for consolidation, safeguarding, export and disposal exercises 16. Consultants contracted to execute project work 17. Mobile software application developers	1. GEF 2. UNEP 3. FAO 4. IDB 5. BCRC-Caribbean 6. CARICOM CROSQ 7. Carnival Cruise Line
National Stakeholders		

1. Project country citizens - Project country citizens will benefit from successful project implementation, through: job opportunities throughout life cycle management of chemicals; increased potential to enjoy services offered by the environment; increased environmental awareness
2. Offices of the Attorney General and other legislative bodies
3. Ministries with portfolios of environmental, health, agricultural and tourism matters in project countries
4. Focal Points and Competent Authorities for BRSM Conventions in project countries
5. Regulatory Agencies in all project countries
6. Customs and Excise Divisions in all project countries
7. Manufacturers of chemicals and products containing chemicals in all project countries
8. Importers and distributors od chemicals and products containing chemicals in all project countries
9. Waste Management Facilities in project countries
10. All companies required to comply with new regulations implemented through work under project
11. Fire Services Departments in all project countries
12. Bahamas Agricultural and Marine Sciences Institute
13. Bahamas National Trust
14. Dominica Pesticides

1. Professionals invited to the workshops and meetings for capacity building
2. Waste haulers and waste management facilities contracted to support consolidation, safeguarding, export and disposal operations
3. Farmers who participate in trainings and who provide feedback on project activities
4. Rural communities
5. Bureaus of Gender Affairs
6. Chambers of Commerce
7. New Providence Ecology Park

1. Focal Points and Competent Authorities for BRSM Conventions in project countries
2. Members of National Working Groups
3. Kalinago Council, Dominica
4. Legislative Review Committees and Chief Parliamentary Counsels for reviewing legislation and submitting to Parliament
5. Bureaus of Standards

Table 2: Key stakeholders Expectations and Concern Analysis

Stakeholder group	Key expectations	Key concerns	Recommendations for engagement
National Government	? Increased capacity for implementation of BRSM Conventions (technical and financial) and managing chemicals and wastes as per the obligations of the Conventions. ? Improved infrastructure to support implementation of Conventions.	? Maintenance of infrastructure following termination of project- lack of financial resources may stymie continuity.	Inclusion on national coordination committee
Waste Management Companies in project countries	? Increased technical and financial capacity within operations. ? Increased revenue.	? Costs for implementing BEPs and BATs. ? Cost of integrating informal sector into operations.	Members of national working groups; regular consultations through national technical assistants
Chemical Manufacturers (chemicals here also include plastics polystyrene materials)	? Increased technical and financial capacity within operations. ? Opportunities for niche market with alternative products.	**? Some chemical manufacturers may suffer losses when safer alternatives to harmful chemicals are promoted.**	Members of national working groups; regular consultations through national technical assistants
Chemical Importers	? Increased technical and financial capacity within operations. ? Opportunities for niche market with alternative products.	**? Some chemical manufacturers may suffer losses when safer alternatives to harmful chemicals are promoted.**	Members of national working groups; regular consultations through national technical assistants
Companies who use POPs and mercury in their operations	? Opportunities to safely dispose of contaminated waste with limited costs involved.	? Cost and effort required in retrofitting operations to integrate safe alternatives.	Members of national working groups; regular consultations through national technical assistants

Farmers and agro-shops	? Increased capacity regarding integrated pest management and biopesticides ? Opportunities for tapping into a niche market (e.g. persons concerned about organic content and pesticide content in food) ? Opportunities for reaching foreign markets	? Cost of IPM and biopesticides ? Appearance of food for sale (e.g. big, shiny peppers as opposed to small, dull peppers)	Members of national working groups
Gender groups	? Equality at decision-making levels	? Health effects related to exposure to chemicals and waste (e.g. on reproductive health)	Members of national working groups
Indigenous groups	? Increased quality of services offered by environment	? Assistance in managing chemicals and/or waste, if needed	Members of national working groups
Youth groups	? Increased environmental awareness ? Sustainability for the future exploitation of environment for economic benefits and leisure	? Loss of certain job opportunities	Members of national working groups
Informal sector	? Opportunities for steady incomes	? Loss of economic revenue if security measures are imposed at landfills and informal workers are not absorbed by a company	Members of national working groups
Co-financing contributors	? ISLANDS activities harmonized with other activities being executed in the region	? Project activities are coordinated with other ongoing activities	Invited as observers to national working group meetings

Waste management companies in non-project countries	? Opportunities for collaboration on knowledge sharing on ESM of waste. ? Opportunities for expansion into project countries where capacity increases. ? Opportunities for sales where project countries have no capacity/infrastructure for ESM of waste streams.	? Economic viability of sale or investment (quantity may not be feasible; logistics may thwart economics). ? Increased capacity and infrastructure in Caribbean countries may decrease opportunities for sales.	Invited as observers to national working group meetings
International private sector partners	? Ensure project activities related to recycling will facilitate involvement of private sector	? Sustainability of regional activities including RSC and Regional Hub activities	Members of national working groups
Inter-governmental organizations	? To be kept informed of project activities	? Project activities are in line with regional priorities	Members of national working groups

2. Stakeholder roles and responsibilities, and timing of the engagement throughout the project cycle:

Stakeholders will be engaged through meetings and workshops for trainings throughout the project cycle. Stakeholders at all levels will be able to access the training materials developed under this project through the online repository developed to house the materials. The BCRC-Caribbean will be responsible for establishing and maintaining this repository.

National working groups will be responsible for the review reports developed under the project. Their continued involvement will serve to increase the accuracy of the information being developed and published under the project.

National workshops and regional workshops will include round table discussions with different groups (e.g. GHS training workshops should have round table discussions with Comptrollers to understand the baseline in the first workshop and understand how GHS implementation has changed in by the second workshop). KAP surveys will also be conducted to illustrate the impacts of the project activities. Focus groups for private sector actors will also occur during workshops held throughout the project cycle in order to gain buy-in for project activities. It is important for this to start as early as possible. Updates on the project will also be shared via press releases, workshop reports and newsletters in order to ensure that the project is always seen as relevant and to therefore maintain support from all stakeholders involved.

The table below (Table 3) outlines stakeholder roles and responsibilities, and timing of the engagement throughout the project cycle, as well as detailing level of engagement during the project preparatory (PPG) stage.

Table 3: Outline of regional and national stakeholders engaged in project execution

Stakeholder	Engagement in project preparation	Engagement in child project	Timing (Years 1-5 of Project Execution)
Regional			
CROSQ	Virtual communications and consultations took place regularly throughout PPG phase	Component 1, Output 1.4	4-5
CARICOM	Virtual communications and consultations took place regularly throughout PPG phase	Component 1, Output 1.1-1.4 Component 2, Output 2.1	1-3
Carnival Cruise Line	Virtual communications and consultations took place regularly throughout PPG phase	Component 3, Output 3.3	Throughout
CANTO	Virtual communications and consultations took place regularly throughout PPG phase	Component 3, Output 3.1	2-3
COTED	Virtual communications and consultations took place prior to PPG Phase	Component 1. Output 1.3	1-2
National			

National governments	Consulted by national focal points, consultants and/or BCRC-Caribbean throughout the PPG, as well as at inception and validation workshops	All components and outputs	Throughout
Bureaus of Standards	Consulted by national focal points, consultants and BCRC-Caribbean throughout the PPG	Component 1, Output 1.4	Throughout
Chambers of Commerce	Consulted by national focal points, consultants and/or BCRC-Caribbean throughout the PPG	Component 1, Output 1.5	Throughout
Border control agencies	Consulted by national focal points, consultants and BCRC-Caribbean throughout the PPG	Component 1, Output 1.3 ? 1.4 Component 2, Output 2.2	Throughout
Waste management facilities	Consulted by national focal points, consultants and BCRC-Caribbean throughout the PPG	Component 3, Output 3.1 ? 3.23	2-5
Chemical manufacturers	Consulted by national focal points, consultants and BCRC-Caribbean throughout the PPG	Component 1, Output 1.5	Throughout

Importers and distributors of chemicals and chemical-containing products	Consulted by national focal points, consultants and BCRC-Caribbean throughout the PPG	Component 1, Output 1.5 Component 3, Output 3.1 ? 3.23	1-4
Farmers	Consulted by national focal points, consultants and BCRC-Caribbean throughout the PPG	Component 1, Output 1.5, Component 4	Throughout
Fire Services Departments	Consulted by national focal points, consultants and BCRC-Caribbean throughout the PPG	Component 1, Output 1.5	1-2
Indigenous communities	Consulted by national focal points, consultants and BCRC-Caribbean throughout the PPG	Component 2, Output 2.2	2-4
Rural communities	Consultations will take place during implementation phase when national focal points have advised on rural communities which should be targeted for particular activities	Component 2, Output 2.2	2-4

3. The budget for stakeholder engagement:

The budget for stakeholder engagement is the sum of the ?Regional Communications Consultants? budget line (BL 1216) and the sub-total for meetings and conferences (BL 3399), which totals $2,165,000.

4. Monitoring stakeholder engagement

GEF ISLANDS will monitoring stakeholder engagement as part of the monitoring activities of the CCKM project. ISLANDS is employing a harmonized set of indicators for engagement of stakeholders. The indicators in Table 9 are those proposed by the child project and are expected to be considered by the CCKM project.

Table 4: Monitoring stakeholder engagement

Proposed parameter	Reporting responsibility
No. of stakeholders attending national coordinating committee meeting (disaggregated by gender)	National technical assistant to Project Coordinator
No. of consultation meetings convened	National technical assistant to Project Coordinator
No. of international stakeholders attending national working groups (disaggregated by gender)	Project coordinator

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

Stakeholders in the context of the ISLANDS programme are defined as organizations, institutions and groups which are directly or indirectly impacted by and/or which have a direct potential financial or administrative interest in the GEF 10472 Project interventions. Thus, the identification and engagement of stakeholders for project execution focus on those who have the most relevant and direct impact on project activities and outcomes, as well as those who will be direct project beneficiaries. All the stakeholders identified can bring a diversity of perspectives and expertise, connect issues and opportunities across programs, agencies and sectors and help to ensure the success of the project within the country. Stakeholder engagement is also critical to support the institutionalisation of the project?s outcomes and to ensure its sustainability through continuation of the outputs after the project is completed.

Stakeholder groups consulted during the development of the project?s activities included government agencies, civil society, the private sector, intergovernmental, regional and international organisations with responsibility over chemicals, waste and environmental management, customs and excise, standards development, legislation, health, gender, indigenous communities and public education. These stakeholders contributed to the overall understanding of national priorities and validation of the developed activities. They will continue to play a critical role in ensuring that national priorities are effectively addressed and that the overall goals of the ISLANDS Programme are met during the project?s execution.

Stakeholders will be engaged at varying levels during the project?s execution to ensure their support and active involvement in the project?s activities, to raise awareness on the hazards associated with chemicals and waste and to highlight their role in the management of various chemicals and waste streams. National focal points, consisting of the main government agencies responsible for chemicals and waste in each country, the UNEP, as the implementing agency, and

the GEF, as the donor agency, will participate on a Project Steering Committee (PSC) that would serve as the project?s decision-making body and support monitoring and evaluation of the project. The BCRC-Caribbean, as the executing agency, will serve as the secretary to the PSC. PSC meetings will be organised on an annual basis to discuss the progress of activities and amendments to the schedule, as needed. Additionally, the BCRC-Caribbean will provide regular project updates to the PSC. The national focal points will support the organisation of National Working Groups (NWG), as necessary for specific project activities, and ensure that national stakeholders are continuously engaged and updated throughout the project. Stakeholders will be invited to national and regional meetings, training workshops and awareness raising activities and will also be engaged directly through dissemination of meeting notes, draft reports, and technical documents for their review. Regular project updates will be provided via email, meetings and online publications on the BCRC-Caribbean?s and national media platforms. Other national, regional and international stakeholders will be engaged as needed throughout the project.

The primary means of engaging the stakeholders will be through individual consultations, email correspondence and virtual meetings and workshop, as needed for project activities. Face to face communication during meetings and workshops will be considered where safety protocols can be adhered to without risking the transmission of the COVID-19 virus. Supplemental communication will be conducted through, surveys and questionnaires, where necessary.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier; Yes

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

The role of gender in chemical and waste management is an international issue and has further served to highlight gender inequalities. The current gendered nature of the waste sector is the product of attitudes and stereotypes of men and women. These gendered norms play out through the entire value chain of waste management and gender analysis can provide critical information for the development of policies and programmes for improved chemical and waste management.

Women and men are impacting the environment and are being impacted by it in different ways. Even if hazardous substances, chemicals and wastes reach and expose populations equally, factors such as: (i) poverty and socioeconomic status, (ii) gender-based and customary norms, (iii) health access and equity, and (iv) overall representation in decision-making processes and management policies relating to chemicals and wastes, determine the extent of repercussions and ramifications of these on population subgroups. In The Bahamas, Hurricane Dorian demonstrated the differences in lived realities and vulnerabilities between male-headed homes and female-headed homes46. The lessons learned from that disaster and the disaster management efforts can be applied to chemicals and waste management. Additionally, in most SIDS, women are responsible for managing household waste, making them the primary users of waste management services globally (UNEP 2015).

Gender dimensions are relevant to the success of this programme and meeting its objective of preventing the build-up of materials and chemicals in the environment, and of managing and disposing of existing harmful categories. The programme will take a gender mainstreaming approach to ensure the project activities do not (i) reinforce existing gender inequalities (that is, are Gender Sensitive /Accommodative); or (ii) attempt to redress existing gender inequalities and redefine the roles and relations of men and women (that is, are Gender Responsive / Transformative).

In the participating Caribbean countries, few people involved in this sector are conversant in the language of gender, but many understand the need for gender perspective in assessing economic and social development. The United SDGs provide guidance for these project countries to include into their national development planning process the management of chemical and waste, taking into account gender mainstreaming where the concerns and experiences of women are integrated into the design, implementation, monitoring and evaluation of policies and programs to ensure that both benefit equally. Goal 5 on gender equality has consistently been identified as a goal that is central to the achievement of all other goals.

Gender mainstreaming has been considered in some chemicals and waste projects conducted in the Caribbean SIDS which are participating in the ISLANDS Programme. A gender action plan been developed to guide gender mainstreaming in activities of the GEF 10279 (UNEP/FAO-implemented) Project and the GEF 10258 (IDB-implemented) Project under the ISLANDS Programme. This will ensure that the other Caribbean child projects do not contribute to disparities between men and women in the management of chemicals and waste in the beneficiary countries. Minamata Initial Assessments (MIAs) are currently being conducted in all three (3) project countries under this GEF 10472 Project and includes an assessment of potential gender dimensions related to the management of mercury. A ?Gender Sensitivity Guidelines for Chemicals and Waste Management in the Caribbean? was developed under the MIA Project in Dominica (GEF ID: 9865). These documents, as well as documents developed under the PPG Phase of this child project, will also provide the necessary guidance for ensuring that project activities present opportunities, rather than barriers, for bridging gender gaps. It should be noted that gender analysis reports and gender action plans commissioned for Cuba were still being validated by the Cuban National Working Group at the date of submission of this document. Therefore, some gender data for Cuba?s waste management sector are not presented below.

Population and demographic statistics of the GEF 10472 project countries reveal that (i) all three (3) project countries fall in the high human development category (HDI) with The Bahamas ahead of its fellow Caribbean SIDS; (ii) women have a higher life expectancy rate; and (iii) a slightly higher percentage of women experience poverty. In The Bahamas, female unemployment is

slightly higher than male unemployment but it is important to note that the rate of female unemployment is higher on the island of Grand Bahama as compared to New Providence and Abaco46. In Dominica, male unemployment is higher than female unemployment, however women are more likely to work for no or lower wages.

A review of the sex-disaggregated labour force statistics in The Bahamas and Dominica showed that the majority of chemical exposure occurs through the male-dominated agricultural and manufacturing sectors. Women may be exposed through their responsibilities of household management or through their roles as cleaners in hotels, health centres, hospitals and private sector cleaning companies. Any changes to the household handling of chemicals and waste must be considered from a gender perspective with the impact on women assessed. In Dominica, the EHD is responsible for monitoring waste disposal and it is noted that the majority of inspectors are female, therefore leading to a possible route of exposure to chemicals and waste for females in Dominica[1]. With regards to the informal waste management sectors in The Bahamas and Dominica, there is limited recorded data available and primary data collection proved to be difficult due to the short timeframe over which this study was undertaken as well as the restrictions caused by the global pandemic.

In terms of business support, the Government of Dominica offers direct technical and small grants to micro, small and medium enterprises (MSMEs) either to start up new businesses ? encouraging young people and young professionals who have business ideas ? or existing businesses that need support. For fiscal year 2018/2019, three hundred and forty-two (342) MSMEs benefitted from small grants, of which fifty-six percent (56%) were male, and forty four percent (44%) were female. The National Development Foundation of Dominica Ltd, in collaboration with the Caribbean Climate Innovation Center, offers the opportunity for women entrepreneurs in Dominica to gain valuable mentorship from international businesspersons through the Cherie Blair Foundation (CBF) for women which is an enterprise development programme that empowers women entrepreneurs with skills and tools to transform their businesses69.

There is general under-representation of women at the decision-making level in government and this may have implications for effective gender mainstreaming. At the public sector level, parliament is typically male-dominated in the Caribbean, however in Cuba 53.2% of parliamentary seats are held by women. In The Bahamas there is only one (1) woman in the sixteen (16)-member senate, while in Dominica there are seven (7) female parliamentarians compared to fourteen (14) males. With respect to the governance structure at the community level, a zonal evaluation of the village councils in Dominica was undertaken and over the past years, elected female councillors have surpassed elected male councillors. However, in terms of leadership, women in The Bahamas are starting and managing NGOs in the environmental sphere and hold leading positions in organisations such as the Bahamas Bureau of Standards and Quality as well as the Department of Environmental Planning and Protection.

UN Member States in Latin America and the Caribbean, including The Bahamas, have committed?in the February 2021 Declaration Number 6 by ministers and high-level authorities of national machineries for the advancement of women ahead of the 65th Commission on the Status of Women (CSW65)?to ensuring equal access to decision-making positions in all areas and at all levels for women and the necessary policies, budget allocations, and mechanisms to support it. This commitment has not yet been publicised by the Government of The Bahamas.

Looking at the Gender Inequality Index (GII), which ranks inequality in achievements between women and men using factors such as number of seats in parliament and literacy rates, The

Bahamas and Cuba rank 77 and 67 respectively out of 162 countries[2]. These values are similar to those of other Caribbean SIDS. There was not enough data to determine Dominica?s GII.

A general understanding of gender and gender implications is necessary for all decision-makers in order to design and implement plans and programs that are attentive to issues of gender. This may necessitate gender-sensitivity training and specific training on the intersections between gender and the environment. There is no national gender policy or plan in The Bahamas. The Department of Gender and Family Affairs, under the Ministry of Social Services and Urban Development, reported that it has been engaged by several bodies, asked to bring a gender perspective. It is important to note that the realities of women in New Providence are different from those of women in Grand Bahama and the Family Islands. On the other hand, Dominica has a national gender policy and has made some amendments to existing legislation as well as adoption of new ones which contribute to the positive development of women and gender in Dominica. There are two (2) established national gender agencies and one professional women?s organization in Dominica. Under the most recent National Resilient Development Strategy 2030, The Government of Dominica outlined its commitment to reinforce the improvement of women?s social status, to protect their rights and to promote opportunities for health improvement and elimination of the feminization of poverty through the development and advancement.

While various legislative and policy instruments have been developed to promote and support gender equity in all three (3) project countries, there is need for island-wide education on these to garner support for proposed programmes and encourage compliance. Incorporating gender mainstreaming into waste management processes is important to address the concerns of both women and men in management, disposal and impacts of waste on their lives and livelihood is presented below for The Bahamas and Dominica, as the gender analysis for Cuba was delayed due to national lockdowns and connectivity issues and is still under review.

The Bahamas has an estimated population of 389,410[1] - 204,120 females and 191,520 male, based on the population projections done by their Department of Statistics. These projections are used as the last census was conducted in 2010. An updated census was scheduled for 2020 but was postponed due to the devastation caused by Hurricane Dorian and the onset of the global COVID-19 pandemic.

The Bahamas ranks 58 out of 189 countries with a human development index (HDI) score of 0.814[2]. This places Bahamas ahead of its fellow Caribbean SIDS in terms of human development. The gender inequality index (GII), which ranks inequality in achievements between women and men, for The Bahamas was 0.341, placing them at 77 out of 162 countries which is comparable to those of other Caribbean SIDS.

Although the majority of the population comprises women, men make up the majority of the country?s labour force. Female unemployment is slightly higher than male unemployment[3] and it was also noted that the rate of female unemployment is higher on the island of Grand Bahama as compared to New Providence and Abaco.

Women dominate the hotel and restaurant industry as well as the social services sector where their exposure to chemicals and waste may occur through their employment in the tourism sector as chambermaids and household employees. There is a smaller female representation in the mining, quarrying, electricity, gas, and water sectors at 23% and in agriculture, hunting, forestry, and fishing sectors at 7%. Within the fishing sector, women work at processing plants, preparing fish for export.

Female empowerment and decision-making can be seen in the environmental sphere as there are several female-led NGOs which promote recycling and improvement in the management of waste disposal. There are also leading positions in governmental organisations such as the Bahamas Bureau of Standards and Quality and the Department of Environmental Planning and Protection (DEPP) where environmental issues are largely managed.

Cuba has a population of over 11.1 million persons. The National Office of Statistics and Information (ONEI) indicated that 49.7% of the population is comprised of males and 50.3% of female. Of this, the labour force comprised of over 3.7 million men versus 3.4 million women. Cuba?s HDI value for 2019 was 0.783, which put the country in the high human development category and positioned it at 70 out of 189 countries. The Gender Development Index is 0.944 (2019) and the Gender Inequality Index is 0.304, which is lower than the regional average of 0.383 for Latin America and the Caribbean and places Cuba at 67 out of 162 countries. This suggests that the disparities between men and women and Cuba are narrower when compared to the rest of the region.

While Cuba?s legal framework makes some provisions for the safety of women in the chemicals and waste management sector (for example, there are considerations for preventing the exposure of pregnant women to high-risk clinical and biological specimens), there is a lack of sex-disaggregated data in the sector. As such, the gender analysis study was unable to indicate the percentage of men and women engaged in different industries involved in chemicals and waste management. However, the study found that women represent 19% of the labour force in the civil state sector and 34% of the private sector. In these spheres, it was noted that the total number of women in managerial positions is low and that their obligations in the domestic sphere, along with insufficient technical training, has led to women has limited their access to leadership positions with commensurately higher salaries.

Despite provisions in the legal framework for the creation of adequate working conditions for the participation of women, there are also notable gaps in the selection and hiring of personnel, especially for more labour-intensive positions such as in metal foundries and battery repair shops, which are deemed as unsuitable labour for women. Aside from the undesirable effects of women?s exposure to lead in battery repair shops, another study carried out by the National Institute of Worker?s Health showed that there was a higher percentage of women who became sick through exposure to chemicals in factories, such as in shoe factories where solvents are used. Given that Cuba is one of the more industrialized countries in the Caribbean, such beliefs can contribute to increased gaps between men and women in the labour force. It would also mean that occupational exposure to chemicals is higher in men than in women. Further to this, other local research suggested that although rural women tend to be directly or indirectly exposed to chemicals, most of the training workshops on good agricultural practices and pesticide usage tend to systematically engage men. Women may experience occupational exposure to chemicals through their roles in the beauty industry and cleaning services. It was also noted that women are more heavily involved in research and laboratory work are the primary handlers of hospital waste. Therefore, in practice and as a matter of protecting women from occupational exposure to chemicals, men are hired in roles where there are higher hazards in relation to chemical exposure. Consequently, men in Cuba have a higher risk of developing health problems due to this exposure.

Dominica has a population of 69,325 persons based on the 2011 census, with 48.9% male and 51.1% female. Of this, the labour force consists of 30,204 with 17,646 males and 12,558 females. Dominica has a high HDI, which positions the country at 72 out of 189 countries and

territories globally. Generally, there is an under representation of women at the decision-making level in government and therefore this may have implications for effective gender mainstreaming.

Employment of women is more prevalent in the wholesale, retail and trade sectors as well as in the education, human, health and social work activity and household activity. The economically disadvantaged and single women headed households as well as children and youth were highlighted as the most vulnerable groups. However, it is important to note that the impacts of poverty on gender in Dominica is different. For example, in female-headed households, where women undertake the role of being the reproductive, productive and economic providers, the challenges are greater since poor households tend to be larger and poorer women are more likely to be unemployed than men. Additionally, poor women are more likely to be employed in sectors offering much lower wages than those where men are employed. As the head of households as well as through the occupation as housekeepers, women are exposed to the effect of waste generated at home.

The agriculture, construction and waste management sectors are dominated by men in Dominica. Most chemical usage is associated with the agricultural industry and as such it can be inferred that men are more heavily exposed to harmful chemicals than women. In the Dominica Solid Waste Management Corporation, the female staff occupy the administrative department. However, the Environmental Health Unit, who is responsible for conducting periodic site visits to assess waste management methods being used by various entities where waste is generated and disposed, has more female than male inspectors. This is a possible route of exposure for women.

In the tourism sector, men are predominantly employed as taxi operators and tour guides while women mainly work in hotels and restaurants. Chemical management in this sector is minimal as chemicals are most commonly for relief from household insects and cleaning. Waste management in the health sector is the responsibility of the domestic workers who are mainly female workers in hospitals and care centers.

Gender Considerations in the Project

Project activities have been designed to consider gender dimensions in the beneficiary countries and to facilitate equal access to opportunities for both genders. Stemming from the analysis of the solid waste and chemicals management baselines and the disaggregation of genders in different economic sectors of the project countries, there is some evidence of gender roles pervading their chemicals and waste management framework. The entry point for gender mainstreaming in the project must be the creation of awareness for the need to develop gender-responsiveness in the sectors and increase the visibility of gender roles, especially women?s contributions and roles. In the development of mandates for gender mainstreaming in the sector, implementation must be a primary consideration. Towards successful implementation of gendered programmes, formalized frameworks must be developed with the national gender agencies and include women?s NGOs and other social groups such as youth and indigenous people?s representative organizations. Efforts to this end have been already initiated under the PPG Phase of the project, as the Chief of the Kalinago Territory in Dominica has been engaged during the planning and validation of project activities. Initiatives must be directed at increasing the number of women in the technical roles in the sector. For the enterprise segment of the sector it is further recommended that; (i) the chemicals and waste management sector should be demystified and destigmatized through business awareness and entrepreneurial training; (ii) leadership and business training should be conducted with women to increase their participation in the lucrative sections of the waste value chain; (iii)

funding and credit facilities specifically targeting women should be established to increase their access to credit and equipment; (iv) social programs should be leveraged to assist women waste pickers in the various countries; (v) gender awareness and equal employment opportunity training for business owners and the development of national gender seals is required; and (vi) businesses should be assisted in adapting their work environments to better accommodate both genders.

The specific ways in which gender will be considered in Child Project?s activities are outlined in the following paragraphs.

Gender consideration for Component 1 activities include ensuring that the roles of women are fully defined and understood in relation to the import of chemicals. Targets have been incorporated into project activities in order to ensure that each gender is represented appropriately in training activities for capacity building on the implementation of chemicals and waste MEAs and the identification of chemicals in imports. With respect to ensuring that gender and socioeconomic aspects are incorporated into policy solutions and standards for preventing the entry of harmful chemicals into Caribbean SIDS, women?s groups, men?s groups and indigenous communities will be engaged so as to ensure that their interests are represented at stakeholder consultations.

Activities under Component 2 will include exporting and local destruction of legacy wastes for final disposal including POPs and mercury containing products and the development of national strategies and regional guidelines for managing hazardous waste streams. Project activities will ensure that consultations with stakeholders will include the aforementioned socioeconomic groups and that their concerns are addressed in the development of strategies management of legacy wastes are considered. Activity 2.2.2 entails a pilot project with specific focus on the Kalinago Territory in Dominica. This also presents an opportunity to refine gender-relevant data through a deeper understanding of gender roles in chemicals and waste management in this community. Gender dimensions will also be designed into capacity-building activities for improving infrastructure to manage hazardous wastes in general, as well as hazardous wastes in post-disaster and C&D wastes.

Activities under Component 3 of the programme which address chemicals and wastes that cannot be avoided in SIDS will involve establishing regional or national systems, as appropriate, for dismantling, recycling and management of hazardous waste such as WEEE, ELVs and plastic wastes, including PVCs. The feasibility of such systems will be assessed during execution of the Child Project, and as part of this, gender will be considered in each stage of the value chain. Stakeholders (including women?s groups) will be consulted, and opportunities and risks to women will be clearly defined in the feasibility assessment and resultant activity design. It is recognised that in some Caribbean SIDS, the most vulnerable groups in the waste management value chain belong to the informal sector. It is essential that schemes instituted under the Child Project present accessible opportunities to these groups rather than acting as barriers to their sources of income.

Component 4 on knowledge management and communications will include the development of knowledge products that will be disseminated in participating SIDS and used to guide project activities. Further, recognizing the responsibility of women in sorting and managing waste in the homes as well as in educating family members, targeted communication materials will be developed, and local women?s NGOs will be used to assist in dissemination and education of women. The Global CCKM Child Project will ensure consistency and coherence among Child Projects? approaches to gender during execution, through the development of a programmatic gender action plan. The plan will be developed in response to the Child Projects? specific gender reviews, and be executed by Project Executing Agencies, and coordinated by the CCKM Child

Project. This will ensure that gender data is collected, monitored and evaluated; and lessons learnt, and best practices related to gender can be shared with all SIDS.

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[1] Eclipse Inc. (2021). *Gender Analysis Report?Dominica*.

[2] United Nations Development Programme (UNDP). (2020). *Gender Inequality Index (GII)*. Human Development Reports. http://hdr.undp.org/en/content/gender-inequality-index-gii

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

Like most other Caribbean SIDS, the private sector is involved in the import, distribution, end-of-life management, and to a lesser extent, manufacture of chemicals and products containing chemicals. The notable exception is Cuba, which has a larger manufacturing industry as compared to many of its fellow Caribbean SIDS. Another distinction is that the private sector plays a smaller role in the recycling and disposal of chemicals in Cuba, as this is driven mainly by local government. Regardless of these minor dissimilarities, it must be acknowledged that the private sector has a significant stake in the generation and management of end-of-life chemicals and products containing chemicals.

Recycling activities in the Caribbean tends to be dependent on private sector involvement but is largely affected by the flow of materials and prices in the international recycling commodity markets. Fluctuating market prices have been particularly inhibitive for private sector actors in The Bahamas who have attempted to export WEEE (ink cartridges) and plastics to recyclers in the United States of America. In Dominica, recyclable materials such as glass, plastics, WEEE and ELVs are generally stockpiled until it can be exported. Engaging the private sector entities responsible for these activities during the project?s execution is important to understanding ongoing initiatives and national and regional capacities for chemicals and waste management. Further, through consultations with relevant private sector entities, effective localised recommendations for best available technologies and best environmental practices can be determined to optimise processes and minimise harmful releases to the environment and opportunities to integrate these into existing initiatives can be identified.

Despite the above examples, private sector waste management in the Caribbean is generally poorly developed and there are limited public-private partnerships to support chemicals and waste management. While there is vast potential to engage the private sector in taking up the management of solid and hazardous waste streams, further intervention is required to catalyse this through the development of an enabling legislative framework to support and incentivize the creation of such initiatives. Identification, incubation and acceleration is therefore a key goal of the GEF ISLANDS Programme. The potential to further harness the comparative and competitive advantages of the private sector to improve the delivery of waste management and pollution control services is broadly recognised.

The project will seek to engage these companies in order to support data collection on the quantities and types of manufactured products and imports. Further, given that several project activities have the potential to impact current business models, as well as to create new ones, it is important to secure their buy-in for developed strategies for reducing the trade in harmful chemicals and products, development and implementation of product standards and green procurement initiatives (Component 1). Given that the tourism sector is a major contributor to the Gross Domestic Product (GDP) of all countries in this project, private sector industries such as the cruise ship industry and hotels, which generate significant amounts of waste, will also be engaged throughout the project. Through consultations with representatives from these industries, strategies for managing waste streams specific to these sectors will be developed. Further, importers and manufactures will be consulted on the development of RSC and take-back schemes and to garner their support for recommended levies and tax systems to fund the environmentally sound disposal of end-of-life products (Component 3).

To contribute to long term sustainable waste management in the Caribbean, there is a need to move private sector participation beyond consolidation and export of valuable commodities into more difficult and less valuable wastes including WEEE, ELVs and other plastic waste streams apart from single-use plastics. There is also a need to organise activities regionally to increase economies of scale and ensure the economic viability of waste management operations in all Caribbean SIDS. There are however several constraints to this including differing capacities and experiences among Caribbean countries and limited access to financial and human capital. Project activities have therefore been designed to consider the efficiency of operations and opportunities for bridging financial gaps. The GEF 10266 Project will also play an important role in developing relationships with original equipment manufacturers supplying equipment to SIDS, and other key private sector partners such as shipping lines (for export of waste) and re-insurers (on the issue of environmental insurance). The listing of relevant private sector organisations identified during the PPG Phase is included in the Stakeholder Analysis annexed to this document.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

Due to having similar geopolitical climates, SIDS tend to be exposed to similar risks and opportunities. These global risks are outlined in the following section. Regionally, specific mitigation measures for

the identified risks are included in Table 9 below. No other risk factors at regional or country level have been identified in addition to those identified in 10279.

Global risks

a. COVID-19

Direct risks from the COVID-19 pandemic to the project include travel restrictions and the generation of additional waste streams. Some Pacific SIDS, for example, have indicated plans to close their borders until 2022, while SIDS in the Caribbean and Indian Ocean continue to be subject to rolling lockdowns. Although vaccines have been developed after approximately one (1) year following the proclamation of the pandemic, the delivery and rollout of vaccination programs in Caribbean SIDS have been slow as compared to developed countries. By May 2021, Dominica had fully vaccinated approximately one-tenth of its populations[1], while The Bahamas would have provided only one dose of the vaccine to approximately one-tenth of its population[2] and started preparations for administering the second dose[3]. Although Cuba has developed two (2) of its own vaccines, for which Phase III clinical trials should be completed in June 2021, they have faced several challenges with administering them as they have been unable to procure some of the requisite apparatus (such as syringes) required for administration due United States diplomatic and trade sanctions[4]. Restrictions on traveling to and within Caribbean SIDS are therefore likely to continue and will impact project execution activities.

Additionally, delivery of project resources such as equipment and materials may also be constrained by delays due to travel restrictions. SIDS are also importing COVID-specific medical equipment, leading to increased pressure on medical waste management. These medical wastes include single use plastics and other impact-heavy waste streams that the ISLANDS programme seeks to reduce. Indirect risks caused by the COVID-19 pandemic include decreased local support due to shifted priorities and resources and impacts to SIDS economies. SIDS governments have had to prioritise COVID-19 responses over other national issues, including waste management. Tourism-dependent countries in particular are facing significant decreases in GDP, growing unemployment rates and sharp increases in state debt. In Dominica, for example, the levies charged to tourists provide financing to the operations of DSWMC. The sharp decrease in tourist arrivals has led to a decrease in funding for national waste management activities.

b. Climate change

SIDS are highly vulnerable to climate change, facing increased natural disasters and rising sea levels, which are projected to increase in the future. In particular, coral atolls and low-lying island regions, such as in the Bahamas, Barbuda, the Cook Islands, the Federated States of Micronesia, Kiribati, the Maldives, the Marshall Islands and Tuvalu are at high risk of damage to infrastructure and the economy due to rising sea levels and more frequent storm surges. SIDS globally are also at risk of extreme weather events such as tropical cyclones that may result in infrastructure damage, generation of post-disaster waste, shifts in political priorities, and delays in project outputs. For example, in recent years hurricane activity has been much more frequent and severe than the historical average in the Caribbean region.

Vulnerability to extreme climatic events poses risks to project activities. Consideration must be given to storage sites for waste, and also to the need for climate-proofing waste management infrastructure. Without such consideration, project gains in waste management improvements are at significant risk of being damaged or destroyed by extreme climate events.

All three (3) project countries face COVID-19 and climate change related risks. Regionally specific mitigation measures are needed to adequately address specific regional vulnerabilities.

Regional risks

The following table outlines the risks and proposed mitigation measures for the Caribbean region.

Table 10: Identified project risks and mitigation measures

Risk	Risk ranking	Proposed mitigation measures
COVID-19 risks		
Impacts to human health	High	Since the proclamation of the COVID-19 pandemic, approximately 2% of persons who have contracted the virus globally have died. Although vaccinations have become available, mutated and new strains of the virus have emerged, some of which have been noted to be more transmissible and more aggressive as compared to the strains identified at the beginning of the pandemic. For this reason, meetings will be held virtually as far as possible and travel will be limited to minimize physical interactions. However, where face-to-face meetings are held, international health protocols, including, but not limited to, sanitization and appropriate physical distancing will be observed.
Restricted travel	Medium	Though most Caribbean SIDS have re-opened since the first wave of the COVID-19 pandemic, intermittent lockdowns continue. Vaccination programmes have also begun in many States, including beneficiary countries. Considerations will be made for hosting meetings, workshops and consultations on virtual platforms as much as possible.
Decreased local support due to shifted priorities	Medium	Due to the impact of the COVID-19 pandemic on Caribbean economies, it is expected that political priorities and economic resources may shift to recovery from the pandemic. Project activities will be validated with national stakeholders and, where applicable, realigned to national priorities, prior to finalisation to ensure continued buy-in. Furthermore, the programme will support recovery from the pandemic through tackling medical waste management.
Increase of new waste streams	Low	Considerations for management of COVID-19 related waste have been integrated into activities proposed under the alternative scenario.
Impacts to SIDS economies (especially due to tourism reduction)	High	Discussions have been held with all relevant stakeholders to ensure COVID-19 impacts are not exacerbated by the programme and new economic opportunities are supported. Development of in-country capacity will help to mitigate impacts.
Climate change risks		

Risk	Risk ranking	Proposed mitigation measures
Infrastructure damage due to increased frequency and intensity of extreme weather events in the Caribbean	Medium	The impacts of climate change and the creation of resilience will be considered in the development and implementation of project infrastructure and strategies for sustainable chemicals and waste management.
Increase in disaster waste due to increased frequency and impacts of extreme weather events in the Caribbean	Medium	The impacts of climate change and opportunities for optimising resilience to natural disasters will be considered in the development and implementation of project infrastructure and strategies for sustainable chemicals and waste management.
Shifts in political priorities	Low	Climate change is expected to increase the need for waste management as a political priority as climate change impacts are more likely to increase rather than decrease the need for sustainable waste management. Nonetheless, the impacts of climate change will be considered in the development and implementation of project infrastructure and strategies for sustainable chemicals and waste management.
Delays in project outputs	High	Considerations will be made for changes in the project execution timeline to minimise the probability of natural disasters affecting the project timeline, thereby delaying project execution.
Operational/delivery risks		
Political priorities, will and/or buy-in are not adequate for execution of key project activities	Medium	The institutionalisation of the project?s activities will be encouraged. Government stakeholders were engaged throughout the PPG phase to ensure that national priorities were aligned with national strategic plans, thereby ensuring political buy-in for the project activities. Continuous communication and updates will be provided to the national focal point and key agencies to ensure sustained support.
Changes in governments and country personnel to persons with little awareness and buy-in to the project	Low	Project information will be disseminated to as many stakeholders as possible and multi-partite political support for the project will be sought. The formulation of Project Steering Committees will also serve to maintain continuity once the project begins, as it will include national focal points for the project and a designated alternate to same.
Private sector and/or community support and behavioural change are not adequate	Low	The private sector and CSOs/NGOs have been engaged throughout the PPG Phase and will continue to be engaged throughout the project?s execution. Members will be included on NWGs to ensure that their needs are being met. Awareness raising campaigns will be developed and executed to engender additional support from these groups. Finally, the programme will create job opportunities through new formal economic opportunities, which is expected to benefit the Caribbean private sector as well as communities.

Risk	Risk ranking	Proposed mitigation measures
High shipping and recycling costs; low market price of recyclable materials reduce the viability of establishing material recovery and recycling initiatives	Low	Market analyses will be conducted to ensure the economic viability of recommended recycling and material recovery initiatives. Financial incentives and investment opportunities will also be highlighted to support public-partner partnerships. Discussions with shipping companies were also held during the PPG Phase to understand shipping routes and how opportunities can be created to support project activities rather than inhibit them.
Technical risks		
Inadequate data available to support activities	Medium	Historically, data collection within the Caribbean region has not been consistent or reliable. Where required information is not available, the project executers and partners will work with stakeholders to collect raw data and develop mechanisms to ensure that sustainable data collection mechanisms are implemented. Furthermore, lessons learnt and information gathered from similar regional projects such as GEF 5558 will be used to fill gaps and identify needs. The use of an online database as proposed under Activity 1.2.4 will support validation of national data across the project countries.
Social risks		
Continued disregard for the environmental and health impacts of existing waste management activities	Low	Awareness raising campaigns will be developed and conducted for government and private sectors as well as the public to engage key community authorities and vulnerable groups (e.g. women, youth, Indigenous communities).
Economic displacement of informal sector workers through formalisation of chemicals and waste management systems	Low	Communities/relevant experts and the informal sector will be engaged in the execution of the project?s activities to ensure that developed and implemented strategies provide safe economic opportunities for informal recyclers. These workers will also benefit from training on best environmental practices to protect them from the negative health impacts associated with improper waste management.

[1] Our World in Data. (2021a, May). *Coronavirus (COVID-19) Vaccinations?Statistics and Research?Dominica*. Our World in Data. https://ourworldindata.org/covid-vaccinations?country=DMA

[2] Our World in Data. (2021b, May). *Coronavirus (COVID-19) Vaccinations?Statistics and Research?The Bahamas*. Our World in Data. https://ourworldindata.org/covid-vaccinations?country=BHS

[3] Office of the Prime Minister. (2021, May). COVID-19 Vaccines. Office of the Prime Minister. https://opm.gov.bs/vaccine/

[4] Augustin, E. (2021, May 12). Cuba deploys unproven homegrown vaccines, hoping to slow an exploding virus outbreak. *The New York Times*. https://www.nytimes.com/2021/05/12/world/cuba-vaccine.html

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Programme Level Coordination Framework

The ISLANDS programme is a multi-agency initiative that builds on the experience of several GEF Implementing Agencies (IA) across the Caribbean, Indian Ocean and Pacific SIDS. UNEP has been designated as the lead agency for the programme and as such will be responsible for the overall programme coordination and ensuring that the results at national / regional level benefit all regions. This role includes the monitoring of progress and delivery of programme results as well as providing a platform for knowledge sharing and exchange of information to all project beneficiaries. Making knowledge accessible to all partners and ensuring knowledge transfer between regions is seen as a major mechanism for ensuring that the programme makes progress towards achieving the objectives of preventing the build-up of harmful materials and chemicals in SIDS. UNEP will also work the other GEF implementing and executing partners to ensure equivalence of standards and adoption of international best practice across all three regions in the core components of the programme outlined in Section 1 of this document.

Under the ISLANDS programme, a series of Child projects are planned (see Figure 7). UNEP, UN Development Programme (UNDP), the Food and Agriculture Organization (FAO), and the InterAmerican Development Bank (IDB) will implement these Child projects. The identification of this group of agencies has been based on a set of criteria including comparative advantage as a GEF IA, experience of operation geographically and mandate. A summary of the four GEF IAs is provided in the following subsection.

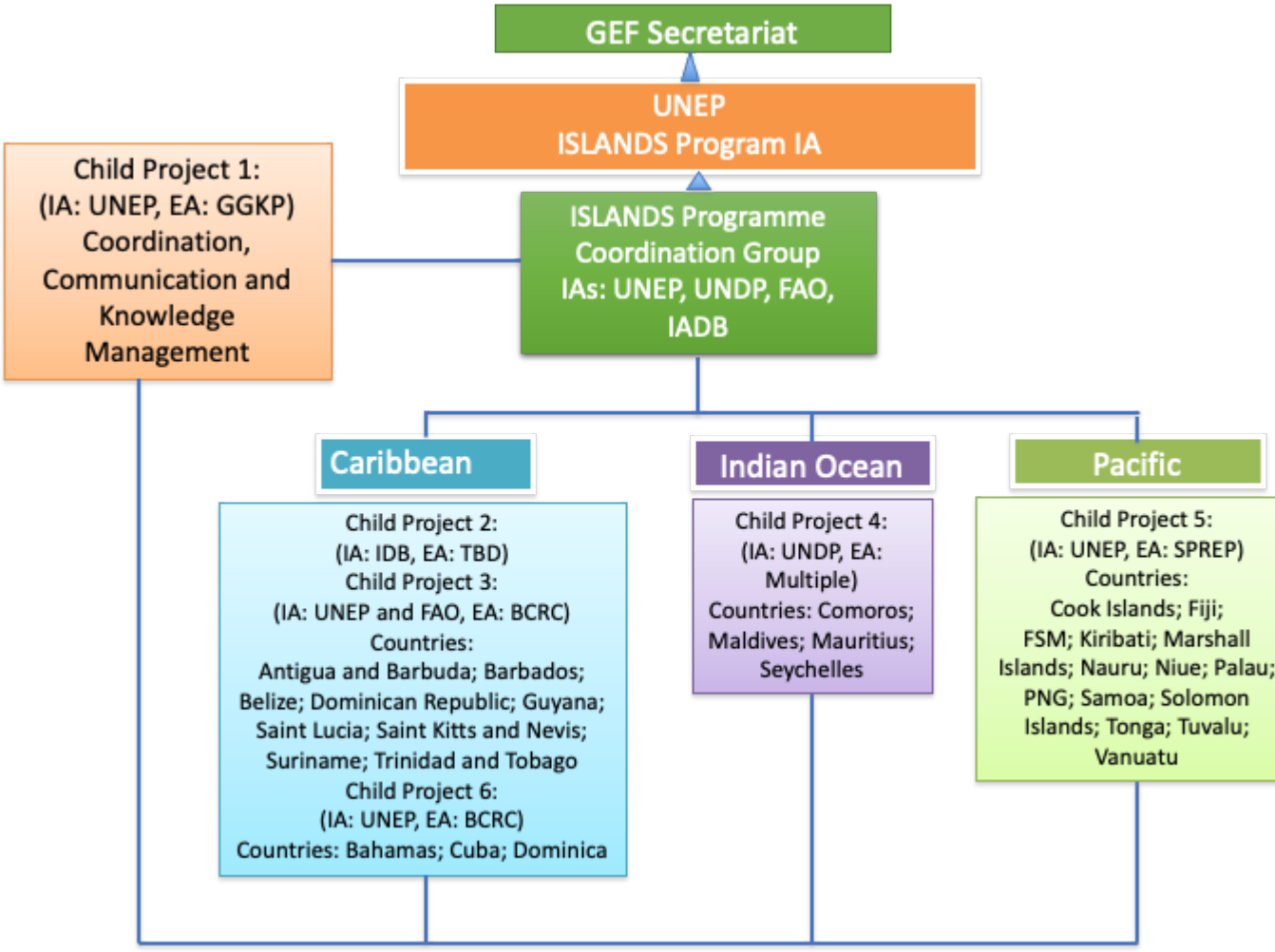


Figure 7: Global ISLANDS Programme Structure

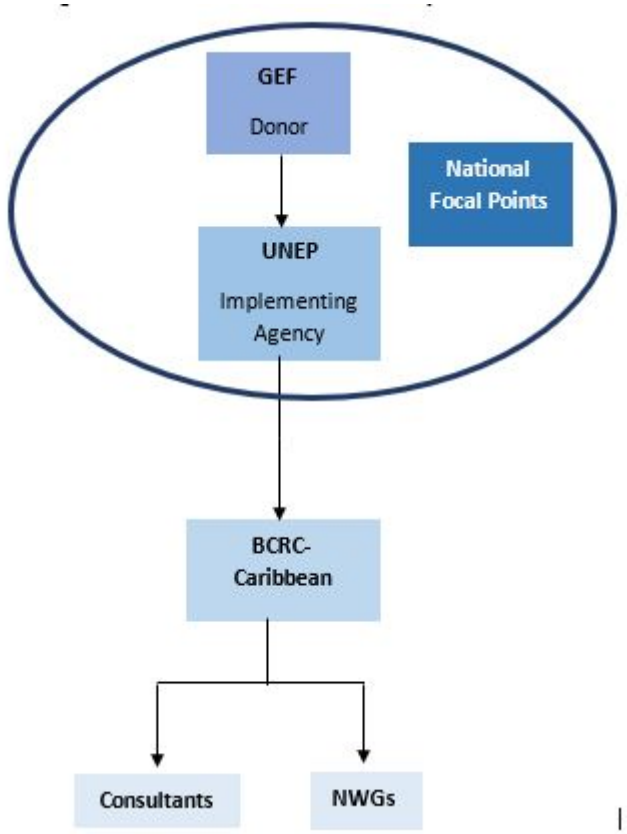
The Programme will be coordinated through a Programme Coordinating Group (PCG) which will consist of the GEF Secretariat and the Implementing and Executing Agencies for the Child Projects (UNEP, FAO, UNDP, SPREP, BCRC-Caribbean, GGKP, IDB, and a government representative from the Caribbean, Indian Ocean and Pacific regions). The PCG will meet face to face annually, taking advantage of existing events in the chemicals and wastes calendar such as Conferences of the Parties of the Basel, Rotterdam, Stockholm and Minamata Conventions and events linked to the Strategic Approach to International Chemicals Management (SAICM). This modality serves to reduce cost and provides the opportunity for further interaction with a wider network of project stakeholders from the beneficiary countries, private sector and civil society through additional parallel events. The approach also ensures close collaboration with the Conventions and SAICM Secretariats.

Programme level coordination will also be supported by global coordination grant (Child project 1, Coordination, Knowledge Management and Communication) will be implemented by the UNEP and executed through the Global Green Growth Knowledge (GGKP) platform, an independent entity hosted by UNEP in Geneva. GGKP is a multi-agency knowledge management platform with an existing large constituency.

Child Project 1 will design the Child Project reporting format, as well as other procedures and modalities for sharing information across the regional and national focused child projects. This modality will allow regions to learn from each other?s experience and foster an environment of south-south cooperation through peer-to-peer learning. This child project will provide reports on progress to the PCG as part of the annual reporting and monitoring process.

GEF 10472 Child Project Institutional Arrangements

Figure 8 shows the Institutional Arrangements for the GEF ISLANDS 10472 Project.



Implementing Agency

United Nations Environment Program (UNEP) is the Implementing Agency for the Child Project. The UNEP will therefore oversee the development of the project and report to GEFSEC on progress. UNEP will coordinate dissemination of the project?s activities and outcomes with the other child projects through regular meetings of a Programme Coordination Group made up of FAO, GEF C&W Focal Area team, IDB and UNDP. As Lead IA for the Child Project as well as the overall Programme, UNEP will provide all reports to the GEF Secretariat to allow for onward report to GEF Council.

UNEP?s comparative advantage is its mandate to coordinate the work of the UN in the area of environment, and its experience as a successful and efficient IA specializing in regional and global activities. UNEP?s expertise includes proof of concept, testing of ideas, and the best available science and knowledge to form the basis of GEF investments. UNEP also serves as the Secretariat to three of the MEAs (Stockholm, Minamata and SAICM), for which GEF is the/a financial mechanism. UNEP

will take the lead in finalising the programme level data flow and reporting to the GEF Secretariat as indicated in the organo-gram in figure 7 above.

Executing Agency

BCRC-Caribbean is the Executing Agency for the GEF 10472 Child Project and will execute, manage and be responsible for the project on a day-to-day basis. The Centre will also act as the executing agency for the GEF 10279 Child Project and the executing partner of Component 1: Financing policy and regulatory enabling processes to safely manage chemicals and waste, and Component 5: Designing applied knowledge mechanisms for partnership building, of the GEF ISLANDS 10258 Inter-American Development Bank (IADB) Incubator Facility Caribbean Child ProjectThe Centre is well positioned for this role as it serves the Parties to the Basel, Rotterdam, Stockholm and Minamata Conventions within the Caribbean region, and has undertaken: provision of critical training (to relevant public officials and stakeholders) on hazardous wastes; identification and assessment of environmentally sound mechanisms for waste management; development and provision of awareness-raising activities; provision of technical support and expertise to member countries in the form of consultancy services.

The BCRC-Caribbean, from 2012-2020, secured over US $13,200,000.00 in donor funding to support over thirty-five (35)activities in training and technology transfer for the region. Further to this, the BCRC-Caribbean will receive US $11,000,000 in donor funding for the execution of the GEF 10279 Project and US $900,000 for the execution of Components 1 and 5 of the GEF 10258 Project. The total funding secured by the BCRC-Caribbean for all thirty-seven (37) aforementioned activities is therefore US $25,100,000.

BCRC-Caribbean?s Project Coordinating Unit (PCU) will constitute the necessary managerial and technical teams to execute the project, and will advertise for, hire and supervise any consultants necessary for technical activities. It will acquire any necessary equipment and monitor the project; in addition, it will organize independent audits in order to guarantee the proper use of GEF funds. Financial transactions, audits and reports will be carried out in accordance with national regulations and UNEP procedures. BCRC-Caribbean will provide regular administrative, progress and financial reports to UNEP.

As the lead Executing Agency for the Caribbean Child projects (implemented by IDB, UNEP/FAO and UNEP, respectively), the Centre will convene annual joint Project Steering Committee (PSC) meetings to ensure that the child project activities and interventions are balanced across the ultimately twelve (12) participating Caribbean countries and that activities are complimentary. These meetings will be scheduled back-to-back and in close coordination, to reduce travel and meeting related costs, and ensure prudent use of donor funds. Execution through the same agency in the region will ensure operational efficiencies and ensure integration of the three projects at regional and national level.

BCRC-Caribbean will also organize an annual financial audit of the project and transmit the report to the implementing agencies.

Regional and National Coordination

National Focal Points will be an integral part of the project?s execution as part of the decision-making body. The focal point agencies will play a key role in ensuring the relevant stakeholders are invited to and engaged at the various meetings and during public awareness activities throughout the project. Engagement in these meetings will help to secure feedback on project progress on a continuous basis

and help to facilitate a more positive project outcome. National Focal Points proposed for this project will be from the main agencies responsible for chemicals and waste management in each country. The various Government agencies expected to fill this role are as follows:

- **Bahamas ? Department of Environmental Planning and Protection under the Ministry of Housing and the Environment(DEPP)**
- **Cuba ? Ministry of Science, Technology and the Environment (CITMA)**
- **Dominica ? Ministry of Environment, Rural Modernization and Kalinago Upliftment**

*A **Project Steering Committee (PSC)*** will be established consisting of the three (3) national focal points, three (3) nominated alternatives to the focal points and one representative each from UNEP and the GEF (top group in Figure 7). Key stakeholders will be participating to the PSC to provide guidance but without decision rights. The BCRC-Caribbean will act as the secretary to the PSC. The PSC members will support the establishment of national working groups in their respective countries, as needed for each activity assign responsibilities amongst national government departments; select and nominate relevant project stakeholders; evaluate and assess the progress of the project; and provide advice, policy and institutional guidance to the implementing and executing agencies. In this regard, relevant governmental institutions will be requested to allocate the necessary human and technical resources to support project implementation through the PSC, where it does not already exist. The TORs for a PSC will be developed during the inception phase of the project. PSC meetings will be organised on an annual basis to discuss the progress of activities and amendments to the schedule, as needed. Additionally, the BCRC-Caribbean will provide regular project updates to the PSC.

National Working Groups (NWG) will be established for each country as needed at the onset of each activity. The NWGs will support information gathering from respective entities, review national project outputs and ensure that national priorities are being met. The NWGs will also provide advice, policy and institutional guidance to support the successful execution of project activities and the sustainability of the project. The NWG will consist of national stakeholders relevant for each activity, and will be chaired by the national focal point. Members will also include representatives from CSOs/NGOs, the private sector and gender affairs groups to ensure that gender mainstreaming is considered throughout the project. Composition of the NWG will be determined at inception for each country but will include gender affairs department. Indication of the composition of the NWG is provided in Appendix 4.

Coordination with Other Relevant Projects and Initiatives

GEF-funded programmes and projects have been carried out within the region, including the ?*Disposal of Obsolete Pesticides including POPs, Promotion of Alternatives and Strengthening Pesticides Management in the Caribbean?* (GEF 5407 Project), Information on the project countries has been collected under these initiatives, and stakeholder frameworks have been developed. Further, awareness raising on the Chemicals Conventions and chemicals and waste management has been conducted which would assist with the coordination of activities under this Child Project. Other GEF-funded projects are also be developed and executed, such as Minamata Initial Assessments and the ?*Global Development, Review and Update of National Implementation Plans (NIPs) under the Stockholm Convention (SC) on Persistent Organic Pollutants (POPs)?* (GEF 10785). These projects can be

considered as enabling activities for the ISLANDS Programme and will provide valuable data and guidance in the execution of project activities In this regard, the GEF 10472 Project will build on the results of work conducted through these and other international, regional and national initiatives (described in Section 1a.2) existing knowledge management platforms and south-south collaboration approaches in order to capitalize on existing information, strategies and lessons learned. Coordination with other agencies will be conducted through consultations with relevant personnel and requests for their input on executed activities and outputs under this child project. Entities contacted during the PPG phase will be invited to participate to the project meetings as observers and as members of technical working groups which may be established to support the development of different activities, for example, the implementation of a Reverse-Supply Chain Scheme in The Bahamas. TORs will also be developed for members of these technical working groups.

Exchange of experience, when relevant as mentioned above, will be sought with projects in LDCs and Cities Impact Programmes (IPs).

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

The ISLANDS Child Project was designed to be consistent with Caribbean SIDS? national, regional and international chemicals and waste management commitments and priorities as outlined in the baseline. Initial consultations with the project countries supported the identification of national chemicals and waste management priorities and areas in which technical assistance was needed[1]. Further consultations were conducted to ensure that the project was being developed in-line with the identified needs and that there was adequate buy-in from national representatives[2]. Existing National Plans and initiatives were also used to ensure consistency of the project with national strategies and ongoing activities.

National plans and activities are primarily guided by countries? commitments to achieving the SDGs and associated targets at the national level. Therefore, this project is in line with SDG 12 on Sustainable Consumption and Production; SDG 3 on Good Health and Well-being; and SDG 6 on Clean Water and Sanitation. The programme is designed to assist Caribbean SIDS to meet the following specific SDG targets:

? 12.4 by 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment; and

? 12.5 by 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse. The programme is also consistent with the guiding global policy for SIDS? development, the SAMOA Pathway. On chemicals and wastes management, the SAMOA pathway recognises the need to reduce, reuse, recycle, recover and return approaches according to national capacities and priorities *inter alia* through capacity-building and environmentally appropriate technologies.

The relationship between the developed child project and areas identified by each country (through consultations and in National Plans) as key areas requiring technical assistance under this child project are summarized below.

The Bahamas ? Consultations with national stakeholders pointed to increasing the capacities for the management of hazardous chemicals and specific hazardous waste streams such as CFLs HHPs, WEEE, and ELVs. Suitable alternatives for CFL bulbs and HHPs will be considered under Activity 1.5.2 and the disposal of these waste streams, as well as other stockpiles in The Bahamas, will be undertaken in Activity 2.1.2. The Bahamas has also indicated that the integration of rural communities into its wider waste management framework, especially those which practise agricultural activities on Family Islands, should be considered as an area for development. The awareness campaign to be developed on open burning of waste in Activity 2.1.3, as well as the pilot demonstration of a national hazardous waste management plan under Activity 2.2.3, will directly address these issues. Given that The Bahamas?s waste management systems are frequently disrupted by natural disasters such as hurricanes, Activity 2.2.4 will support the development of a more rigid approach to the remediation of the waste management systems after disasters. Capacity enhancing activities for the management of WEE and ELVs will be undertaken through activities in Outputs 3.1 and 3.2. Consultations with the New Providence Ecology Park, which manages a hazardous waste facility on New Providence, and CANTO have confirmed their interests in providing support for take-back schemes planned under Activity 3.1.2. Activity 3.3.1 has also been designed to support the alignment of the cruise industry, major stakeholder in The Bahamas? economy, with the country?s directives on the management of single-use plastics.

Cuba ? Priorities highlighted by the national working group included: (i) the development of legal standards for hazardous waste management, (ii) improved capacity for border control, (iii) building capacity on technology for the management of CFL bulbs and hazardous waste in general, (iv) the removal of pesticides from Pinar del R?o, and (v) raising awareness on the ESM of hazardous wastes among youth. The first priority identified will be addressed under Output 1.1, which focuses on the improvement of legislation for the management of hazardous chemicals and wastes within the national context of each country. Output 1.3 focuses on achieving Cuba?s second national priority and facilitating coordination among the different agencies with responsibility for border control. A pilot project will also be conducted under Activity 1.3.2 to demonstrate guidance and training materials developed on improving the detection of hazardous chemicals. Under Activity 2.1.2, safeguarding and export operations will be undertaken to remove HHPs from Cuba, 80% of which are stockpiled in Pinar del R?o, and a pilot exercise on the separation and ESM of mercury in CFL bulbs will also be demonstrated. The design of an interim storage facility for hazardous waste will also be undertaken to improve capacity for the general management of hazardous waste. In addition, an awareness-raising programme will be developed on the chemicals database which will include training materials and geo-spatial information on chemicals in Cuba. A communication strategy will be developed in order to target youth through this campaign, thereby addressing Cuba?s sixth and final priority.

Dominica ? National stakeholders have indicated that improved infrastructure is required to support the management of hazardous waste. Waste streams to be addressed include WEEE, ELVs, HHPs, post-disaster waste, medical waste and plastics. Strategies for the management of these waste streams will be designed under Components 2 and 3 of the project. An interim storage facility for hazardous waste will also be designed for Dominica through Activity 2.2.3 to support their request for improved infrastructure. Dominica has acknowledged that the facility must be constructed using national funds. Activity 2.2.4, which deals with increasing capacity for the management of post-disaster waste, may

also consider emerging waste streams such as medical wastes from the COVID-19 pandemic. Activities under Outputs 3.1 to 3.3 will seek to address concerns related to WEEE, ELVs and plastics. Two pilot projects are planned to support the improvement of capacity for the management of WEEE and ELVs in Dominica. It was also indicated that project activities should seek to integrate the Kalinago Territory as far as reasonably possible. The demonstration of the national hazardous waste management plan developed under Activity 2.2.2 will specifically involve the Kalinago Territory; however, representatives from the Kalinago Territory will be invited to consultations for all project activities to ensure that their interests are represented throughout the execution of the project.

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[1] Remote national consultations held September 07-10, 2020 and November 9-11, 2020.

[2] Remote national consultations held April and May, 2021.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

As outlined in the approved ISLANDS PFD, effective knowledge management is required to ensure that ISLANDS? Child Projects equate to more than the sum of their parts. That is, accumulated knowledge assets, derived from each of the ISLANDS Child Projects and SIDS-relevant resources from other historical and future activities, will be captured, stored, and distributed by the CCKM to key stakeholders through knowledge products, services and assets. The aim is to foster an environment of cross fertilisation between regions to: ensure best practice is applied at a global level, thus ?raising the bar? of environmental compliance; promote the use of evidence-based learning to deliver benefits across SIDS into the future; and to ensure the project acts as an efficient ?hub? to the regional child project ?spokes.?

Under the ISLANDS Programmatic knowledge management approach, each ISLANDS Regional Child Project includes Component 4*: Coordination, knowledge management and communications*. This component is expected to lead to the outcome of SIDS? experiences being available to other SIDS, and that SIDS? learning exchange is active. Figure 9 shows the information and data flow expected throughout the Programme.

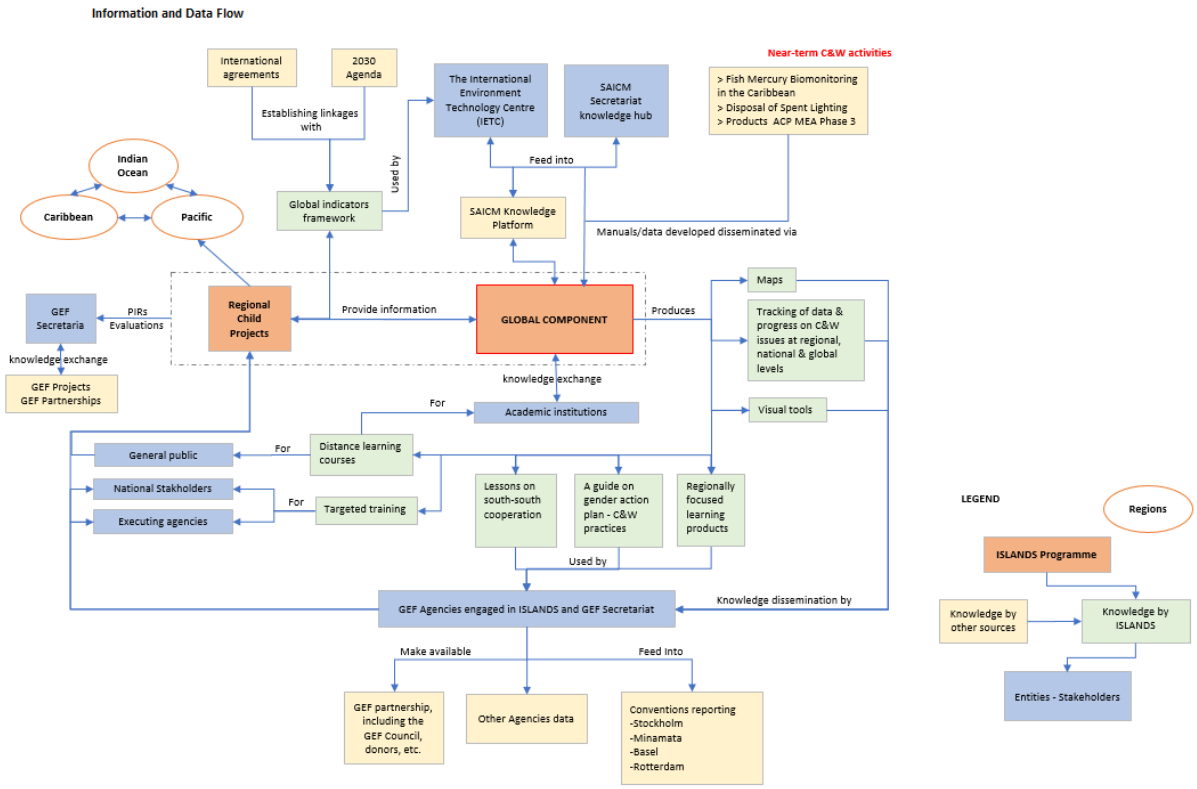

Figure 9: ISLANDS Programme flow of data and knowledge products

In the UNEP implemented Caribbean 2 Child Project, activities under Component 4 will include dissemination of knowledge within the region using tools and material developed through the project activities and the CCKM, as well as provide inputs to the CCKM for dissemination outside the region. The Caribbean 2 project includes activities dedicated to the generation of case studies and sharing of lessons learned and knowledge on best practices and technologies related to chemicals and waste management for SIDS. The Child Project will also focus on developing regionally focused learning and awareness raising products derived from its completed activities. These are outlined in the Alternative Scenario (above) and budgeted under the respective Components. Key expected knowledge products include:

? Model policies and legislation to guide management of targeted waste streams and to enable EPR for WEEE

? Training plan and materials to train key stakeholders to execute training sessions on various aspects of chemicals and waste management

? Training plan and materials to fill gaps identified for implementation of the chemicals and waste MEAs; to build capacity of customs and border control agencies; to implement best management practices for interim storage of materials containing POPs and Hg; to support the implementation of GHS; to sensitise stakeholders on the benefits of sustainable procurement; to train key stakeholders on the use of developed guidelines; and to build capacity of personnel at WEEE treatment and recycling facilities.

? Material Flow, Economic and Technical Assessment in order to design ELVs management scheme, considering a regional approach with a view to improve ELVs treatment capacity and develop pilot projects

? Strategies for improving national chemicals and waste management; implementing 8-digit or 10-digit HS Codes for specified mercury-added products; and managing and destroying PCBs, obsolete pesticides and chemicals, DDT stockpiles and selected mercury added products

? Database including findings of inventories conducted

? Guidelines to aid customs and border control agents with pre-screening and inspecting imported goods and to support countries with managing hazardous waste streams specific to the Caribbean

? Awareness raising materials for identified safe alternatives to PFAS, POP-PBDEs, SCCPs, PCBs, PCNs and mercury containing products; to promote BAT/BEP and minimise UPOPs emissions from open burning; and to inform the public on developed take-back systems and other implemented waste management pilots

Detailed case studies and fact sheets will also be developed regarding the pilot projects conducted under the Child Project and the results of other activities.

The developed knowledge products will be disseminated regionally through training workshops with key stakeholders, awareness raising campaigns and the various online platforms that will be developed or enhanced under the project. Information will also be shared with stakeholders through PWC and NWG meetings. As previously stated, the products will be shared with other SIDS through the CCKM.

The timing of the development and delivery of these deliverables will be agreed and reviewed annually with the CCKM project, as part of the execution of the programmatic communications plan (Appendix 12). This plan will outline the links between knowledge creators and knowledge users and sets out the timing of communications activities. The aim of the project?s communications work is to increase the total number of ISLANDS beneficiaries by communicating information and disseminating knowledge on chemicals and wastes, increasing awareness among target groups, stimulating behaviour change, and expanding and extending project impact.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

Periodic monitoring by the BCRC-Caribbean, as Executing Agency, will be undertaken to ensure the timely implementation of the project activities. All monitoring activities will be in line with the requirements for Full-Sized Projects outlined in the GEF?s revised Policy on Monitoring[1] (2019).

The BCRC-Caribbean will be responsible for monitoring day-to-day project activities under the guidance of the UNEP as the implementing agency and will develop and submit annual and quarterly progress and financial reports to the CCKM on their respective components. These reports will track the progress according to the workplan and budget and identify any obstacles faced during implementation and mitigating actions to be taken. Templates for the quarterly progress and financial report will be provided by the GEF 10266 Project.

The BCRC will develop the annual Project Implementation Report following a format provided by UNEP as lead implementing agency. The annual report will include progress towards programme-level

outcomes, major milestones achieved through overall programme implementation, and engagement in regional or global fora as means to advance the overall programme goal.

In-line with the GEF Evaluation requirements the project will be subject to an independent Terminal Evaluation. Additionally, a performance assessment will be conducted at the project?s mid-point. The UNEP Evaluation Office will decide whether a Mid-Term Review, commissioned and managed by the Task Manager, is sufficient or whether a Mid-Term Evaluation, managed by the Evaluation Office, is required.

The Evaluation Office of UNEP (EOU) will be responsible for TE and will liaise with the Task Manager and Executing Agency(ies) throughout the process.

The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP staff and implementing partners. The direct costs of the evaluation will be charged against the project evaluation budget. The TE will typically be initiated after the project?s operational completion. If a follow-on phase of the project is envisaged, the timing of the evaluation will be discussed with the Evaluation Office to feed into the submission of the follow-on proposal.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The final determination of project ratings will be made by the Evaluation Office when the report is finalised. The evaluation report will be publicly disclosed and will be followed by a recommendation compliance process. The evaluation recommendations will be entered into a Recommendations Implementation Plan template by the Evaluation Office. Formal submission of the completed Recommendations Implementation Plan by the project manager is required within one month of its delivery to the project team. The Evaluation Office will monitor compliance with this plan every six months for a total period of 12 months from the finalization of the Recommendations Implementation Plan.

On a regional and national level, the project will be monitored by the PSC and NWGs. The PSC will meet annually to assess the project?s progress and the effectiveness of its operations and technical outputs. Where needed, the PSC will also recommend changes to the work plan. NWGs will meet on an as-needed basis to review the project?s national outputs and monitor its national impacts.

Table 11: Project Monitoring and Evaluation plan

M&E activity	Purpose	Responsible Party	Budget (US$)	Timeframe
Inception workshop	Review of project activities, outputs and intended outcomes; detailed work planning	EA	24,000	**Within two months of project start. May be conducted remotely.**
Inception report	Provides implementation plan for progress monitoring	EA	Included in EA fee	**Immediately following Inception Workshop**
PSC meetings	Provide for project level oversight	EA	100,000	**Annually (convening virtually)**

Ongoing monitoring (project execution)	This activity will be ongoing to allow continuous monitoring of the execution of the project. This will be completed by the project coordinator and the finance and procurement officer	Project coordinator and Finance and Procurement Officer		**Ongoing**
Gender mainstreaming	A gender consultant will monitor gender mainstreaming and overall opportunities for women on an annual basis	Gender consultant	Included in activities	**Annually**
Annual reporting on progress to CCKM	This will be completed annually by the Project Coordinator	EA	Included in EA fee	**Annually**
Midterm Review	To assess project progress and to recommend corrective actions	Consultant	28,000	**At the midterm of the project**
Terminal report	Reviews effectiveness against implementation plan Highlights technical outputs Identifies lessons learned and likely design approaches for future projects, assesses likelihood of achieving design outcomes	EA	Included in EA fee	**At the end of project implementation**
Independent Terminal evaluation	Reviews effectiveness, efficiency and timeliness of project implementation, coordination mechanisms and outputs Identifies lessons learned and likely remedial actions for future projects Highlights technical achievements and assesses against prevailing benchmarks	UNEP Evaluation Office	33,000	**At end of project implementation**
Total indicative Monitoring &Evaluation cost			**$185,000**	

[1] Global Environment Facility (GEF). (2019). *Policy on Monitoring* (GEF/C.56/03/Rev.01). https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.56.03.Rev_.01_Policy_on_Monitoring.pdf

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The ISLANDS programme will follow a holistic approach to chemicals and waste management that will result in environmental, social and economic benefits for SIDS in the Caribbean, Indian Ocean, Atlantic and Pacific. The planned project will be executed in a unique context. In following this

approach, it is expected that environmental benefits for the Caribbean will stimulate better socioeconomic conditions and vice versa.

The GEF 10472 Project first aims to reduce the quantities and variety of harmful chemicals and products containing harmful chemicals entering the project countries by strengthening the national and regional legislative, institutional and technical capacity to control the current and future trade of these items. The benefits of conducting such activities are the reduction in required costs for specialized waste management once these products reach their end-of-life and the reduced pressure on national waste management systems to treat and safely dispose of these complex waste streams. Activities developed under Component 1 of the ISLANDS Programme will implement initiatives for chemicals and waste management through legislative and institutional improvements, targeting border control and environmental agencies, as well as the standards bureaux. Notable gaps in legislation for the management of WEEE, post-disaster waste and hazardous chemicals such as POPs and MAPs will be addressed. A secondary benefit will be the creation of an online repository for reliable and validated data on chemicals and waste management in Caribbean SIDS, as well as readily accessible training tools and knowledge assets to support the effective implementation of Chemicals and Waste MEAs.

Another aim of the Child Project is to support regional appropriate solutions for the environmentally sound management of hazardous chemicals and waste that cannot be avoided in the Caribbean. Achieving this aim will increase public and private sector access to safe chemicals and waste treatment and disposal options, that will lead to improved human and environmental health through reductions in pollution and toxic releases of chemicals such as POPs and mercury.

Furthermore, the project will seek to identify opportunities for creating a circular market for material recovery and recycling from various waste streams including WEEE, ELVs, post-disaster waste and C&D waste. These opportunities will also engender public-private partnerships, create jobs within the chemicals and waste management sector and improve the regulation of existing activities being conducted by informal recyclers. Training of existing recyclers and waste handlers, both formal and informal, will be facilitated to improve ongoing practices, thereby reducing occupational exposure to toxic chemicals and increasing the value of the waste handled.

Support will be given to project countries to identify sustainable financial mechanisms for implementing innovative circular economy solutions, including, but not limited to, RSC schemes. This will address the issue of limited material flows, which have previously stymied profitable recycling operations in Caribbean SIDS. From a national perspective, these activities can assist in reducing import bills and conserving foreign exchange. The involvement of private sector actors in the tourism sector will also help to promote the beneficiary countries as clean, ideal destinations.

Increased capacity for ESM of hazardous chemicals and waste in the participating countries will result in the diversion of wastes from landfills which are generally not effectively designed to hold hazardous wastes and which have limited capacities. This would relieve existing pressures on landfills and increase their remaining lifespan. Additionally, more effective land use in waste management through destruction of stockpiled obsolete chemicals and wastes, will increase land availability for more productive purposes.

Sound chemicals and waste management also increases resilience to other environmental issues such as environmental degradation and natural hazards. For example, HHP free farming and other alternative agricultural methods that make use of more environmentally friendly practices and generate less (hazardous) waste can reduce soil erodibility, a compounding cause of environmental degradation. Preventing hazardous chemicals and wastes from entering the natural environment leads to healthier ecosystems that are more resilient in the face of natural disasters. This is a significant benefit for the

participating countries, some of which have primarily tourism-based economies and all of which are vulnerable to the effects of climate change. Improved resilience will also lower the future costs to be incurred for adapting to the environmental impacts of climate change.

An additional social benefit to the Child Project will be increased public awareness and improved attitudes and practices as it relates to the ESM of hazardous chemicals and wastes. The design of the ISLANDS Programme seeks to promote information exchange among regulators, consumers and waste generators across regions, thereby promoting south-south cooperation and innovative solutions to regional challenges. On a regional and national level, this project will seek to educate importers, manufacturers, consumers and waste generator on the risks associated with hazardous chemicals and wastes, thereby empowering them to make safer decisions and avoid any negative impacts which they may have on human health and the environment. Awareness campaigns will be extended across various socioeconomic strata, thus ensuring that groups such as youths and indigenous communities are integrated into the movement towards the common goals which the ISLANDS Programme symbolize.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
	Medium/Moderate		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

GEF ISLANDS 10472
Risk Mitigation Plan

This document will serve to support the impact, probability and risk values identified in the UNEP Safeguard Risk Identification Form (SRIF) for the GEF ISLANDS Caribbean child project.

Introduction to the ISLANDS Programme

Under the Programming Directions for the 7th funding cycle of the Global Environment Facility (GEF 7), a specific allocation was made for Least Developed Countries (LDCs) and Small Island Developing States (SIDS) for chemicals and waste management. The programme entitled ?Implementing Sustainable Low and Non-Chemical Development in SIDS? (ISLANDS) was approved by the GEF Council in June 2019, and a subsequent allocation was approved for three (3) additional Caribbean countries, Bahamas, Cuba and Dominica, in December 2019. Recently, a further three (3) SIDS, hailing from the Atlantic, were added to the programme.

This global programme seeks to address the sound management of chemicals and waste through strengthening the capacity of sub-national, national and regional institutions, strengthening the enabling policy and regulatory framework in these countries and unlocking resources to implement sound management of chemicals and waste. This will be achieved by:

Implementing Sustainable Low and Non-Chemical Development Strategies in SIDS and LDCs;
Promoting Best Available Techniques (BAT) and Best Environmental Practices (BEP) to reduce mercury and Unintentional Persistent Organic Pollutants (UPOPs) releases from sectors relevant to the Minamata and Stockholm Conventions in SIDS and LDCs;
Promoting cleaner health-care waste management based on the lessons learnt from GEF-funded healthcare waste projects to reduce UPOPs and mercury releases
Strengthening the management system for e-waste, addressing all stages of the life cycle (i.e. acquisition of raw materials, design, production, collection, transportation and recycling) in SIDS and LDCs;
Phasing out of mercury-containing products;
Undertaking gender mainstreaming and project monitoring and evaluation; and
Developing a strategy to ensure that technical assistance and investments are firmly linked to enhance countries? ability to deal with the management of POPs and mercury in a sustainable manner.

This ISLANDS programme covers four (4) geographical regions including the Caribbean, Indian Ocean, Atlantic and Pacific Islands and is being implemented by the United Nations Environment Programme (UNEP), The United Nations Development Programme (UNDP), The United Nations Food and Agricultural Organisation (FAO) and the InterAmerican Development Bank (IDB).

The ISLANDS programmatic framework has been designed to ensure that lessons and knowledge from each of the child projects are captured and shared among SIDS globally. The aim is to facilitate the replication and scale-up of initiatives based on lessons learnt, the demonstration of best practices and fostering increased south-south cooperation. Overall, the ISLANDS programme will support thirty-three (33) SIDS, including twelve (12) Caribbean nations. SIDS not included in the ISLANDS programme will be informed of the results of the programme. Three (3) child projects are being executed in the Caribbean. The focus of this plan is Child Project 6, which was added to programme approximately six (6) months after initial

allocations were made. The SIDS covered in this child project are The Bahamas, Cuba and Dominica.

Introduction to the SRIF

UNEP officially adopted the Environmental and Social Sustainability Framework (ESSF) on 31 December 2014. The ESSF was revised in February 2020. UNEP?s Safeguards approach provides a holistic framework for the identification, assessment and management of a project?s potential environmental, social and economic risks at each stage of the project cycle. Application of the Framework will help UNEP Project Managers avoid?or minimize where avoidance is not possible?potential associated negative environmental, social and economic impacts that might otherwise arise as unintended consequences of their projects. It is expected that many UNEP projects will not significantly change due to application of the safeguard requirements.

Review Notes are generated using a template available through UNEP?s Project Information and Management System. The template includes a set of screening questions based on the eight (8) Safeguard Standards presented in the Framework. This checklist is used to review the potential environmental, social and economic safeguard impacts of projects and to determine whether projects will trigger relevant safeguard policies. The eight (8) Safeguard Standards presented in the Framework are as follows:

SS1: Biodiversity, Ecosystems and Sustainable Natural Resource Management

This safeguard aims to: preserve the integrity of ecosystems; conserve biodiversity; maintain and enhance the benefits of ecosystem services; promote nature-based solutions (NBS) wherever feasible or possible; promote sustainable management and use of living natural resources; ensure the fair and equitable sharing of the benefits from the utilization of genetic resources; and respect, preserve, and maintain knowledge, innovations and practices of indigenous peoples and local communities relevant for the conservation and sustainable use of biodiversity and their customary use of biological resources.

SS2: Climate Change and Disaster Risks

This safeguard aims to: strengthen resilience of communities to address risks of climate change impacts and disasters; ensure programmes and projects integrate climate change adaptation considerations and does not exacerbate vulnerability of communities to climate change impacts or disaster risks; and minimize programme and project-related greenhouse gas (GHG) emissions and intensity and maintain carbon sinks.

SS3: Pollution Prevention and Resource Efficiency

This safeguard aims to: avoid and minimize adverse impacts on human health and the environment from pollution and the unsound management of chemicals and wastes; promote more sustainable and efficient use of resources, including circular approaches and practices of using energy, land and water; avoid or minimize programme or project-related emissions of short and long-lived climate pollutants, unintentionally produced persistent organic pollutants, and ozone-depleting substances; avoid or minimize generation of hazardous and non-hazardous waste, and promote a human rights-based approach to the environmentally sound management and disposal of

hazardous substances and wastes; avoid or minimize the generation of plastic waste in view of reducing the prevalence of marine plastic litter and microplastics in the marine environment; and promote safe, effective, and environmentally sound pest management.

SS4: Community Health, Safety and Security

This safeguard aims to: anticipate and avoid adverse impacts on health and safety of affected communities during the programme or project life cycle, from both routine and non-routine circumstances; ensure quality and safety in the design and construction of programme or project-related infrastructure, preventing and minimizing potential safety risks and accidents; avoid or minimize community exposure to disaster risks, diseases and hazardous materials associated with programme or project activities; ensure the safeguarding of personnel and property minimizes risks to communities and is carried out in accordance with international human rights standards and principles; and have in place effective measures to address emergency events, whether human-made or natural hazards.

SS5: Cultural Heritage

This safeguard aims to: protect cultural heritage from damage, inappropriate alteration, disruption, removal or misuse and support its preservation and safeguarding and protection; ensure equitable sharing of benefits generated from integration and utilization of cultural heritage in programme or project; and promote meaningful consultation with stakeholders regarding preservation, protection, utilization and management of cultural heritage.

SS6: Displacement and Involuntary Resettlement

This safeguard aims to: avoid, or where avoidance is not possible, minimize and mitigate adverse impacts from land or resource acquisition or restrictions on land or resource use; prohibit forced evictions; enhance and restore the livelihoods and living standards of all displaced persons and to improve the living conditions and overall socioeconomic status of displaced poor and persons belonging to marginalized or disadvantaged groups; and ensure that resettlement activities are planned and implemented collaboratively with the meaningful and informed participation of those affected.

SS7: Indigenous Peoples

This safeguard aims to: recognize and foster full respect for indigenous peoples and their human rights, dignity, cultural uniqueness, autonomy, identity, and aspirations; promote indigenous peoples? rights to self-determination and development with culture and identity; recognize and respect the rights of indigenous peoples to their lands, territories, and resources that they have traditionally owned, occupied, or otherwise used or acquired; recognize, respect, protect and preserve indigenous peoples? culture, knowledge, and practices; promote interventions designed, managed, and implemented by indigenous peoples; ensure that programmes and projects are designed in partnership with indigenous peoples, with their full effective and meaningful consultation and participation, and respect free, prior and informed consent (FPIC); support countries to respect, protect and fulfill the rights of indigenous peoples; avoid adverse impacts on indigenous peoples from supported activities, and minimize, mitigate and remedy adverse impacts where avoidance is not possible; and ensure indigenous peoples obtain fair and equitable benefits and opportunities from supported activities in a culturally appropriate and inclusive manner.

SS8: Labour and Working Conditions

This safeguard aims to: promote, respect and realize fundamental principles and rights at work; protect and promote the safety and health of workers; ensure projects/programmes comply with national employment and labour laws and international commitments; and leave no one behind by protecting and supporting workers in disadvantaged and vulnerable situations, including a special focus, as appropriate, on women workers, young workers, migrant workers and workers with disabilities.

Regional context

Sound chemicals management is a key cross-cutting issue for sustainable development.[1] Aside from the chemical industry?s heavy use of water and energy, chemical waste is a type of hazardous waste that can have adverse impacts on the environment and human health. Chemical waste is a high priority waste stream for SIDS in particular. Though SIDS generate only small quantities of hazardous waste, including chemical waste, they tend to lack the capacity and capability to effectively manage it and implement waste-stream specific management practices.[2]

Because of the high presence of chemicals in consumer products, chemical waste is difficult to tackle as a stand-alone waste stream. Instead, chemicals are present in a variety of waste streams, including but not limited to agricultural waste, end-of-life vehicles (ELVs), waste electrical and electronic waste (WEEE) and plastic waste. Therefore, for the sound management of chemicals it is important to have a holistic perspective on waste that includes a variety of products throughout their entire life cycle.

Several recent World Bank studies project that the Latin American and Caribbean region?s waste generation per capita will continue to increase over the next few decades, with roughly 30% more waste generation per capita in 2050 as compared to 2016.[3] This is particularly worrying for the Caribbean region, as SIDS inhabitants already generate 48% more waste than the world average.[2]

Region-wide economic reliance on tourism exacerbates these numbers. Many of the highest waste generators in the Latin American and Caribbean region are island states with active tourism-based economies. Studies conducted in the PPG Phase of the GEF 10472 Project alluded to The Bahamas being one of the highest generators of municipal solid waste in the Caribbean, which has been linked to the amount of waste generated by non-residents, that is visitors and tourists. Tourism drives an increase in consumer waste products that are difficult for SIDS to manage.[2]

Although unsound management of chemicals and waste is an urgent issue that must be tackled, Caribbean countries have specific environmental, social and economic characteristics that may pose challenges for the implementation of waste management programmes. It is important to keep these characteristics in mind when assessing the potential impacts of waste management programmes.

Waste management is one of the least recognized public policy issues in the Caribbean.[4] Often solid waste management has to compete with other pressing economic and social issues, and many times it does not receive the required priority in the political agenda. For this

reason, many countries lack among other things: consistent and reliable data about the quantity and type of solid waste being disposed of; regulations on waste discharge, collection, storage, transport, recycling and disposal; partnerships to engage private sector; policies for the environmentally sound management of hazardous waste or enforcement, and; investment opportunities.[4] Oftentimes, data on waste generation is extrapolated based on the quantity of goods imported and their average lifespans, which may lead to over-estimations or under-estimations of actual inventories.

As an example, according to regional industry professionals, a lack of policy and regulatory framework regarding the collection and processing of WEEE and ELVs has made it difficult for private waste management companies to implement more sustainable technologies. Furthermore, informal recyclers tend to strip vehicles of many valuable parts before they are brought to these companies, which further narrows opportunities for establishing profitable and sustainable business models for supporting the recovery of the costs of implementing more efficient and expensive technologies.

Another issue identified by industry professionals is the limited amount of land made available to private waste management companies by national governments. Limited land availability for waste management activities is a common feature of SIDS.[2] Available land has to compete with other land use purposes considered as priorities by governments.

Small islands worldwide face the challenge of choice of optimal location. Caribbean countries, for example, are often forced to establish landfills in the coastal area in order to minimize per capita waste haulage costs from towns or cities which are typically also located along the coasts, as well as to take advantage of more level coastal terrain for disposal. Coastal landfill sites are a particularly acute issue for SIDS because of limited land availability, proximity to oceanic waters and waterways and limited availability for soil cover. Significant health and environmental issues that can result from mismanaged coastal landfill sites include strong odours, pollution from stormwater runoff, lack of leachate control, poor access roads, scavenging and lack of security.[2] In addition, communities situated closest to landfills tend to have a lower income demographic, which makes community members more vulnerable to health and environmental impacts of the landfill.

Because of the issue of limited available space, shipping waste between islands could be a promising solution. However, it has been mentioned anecdotally by regional industry professionals that the cost of transporting waste just between neighboring Caribbean islands can be more expensive than transporting waste from Caribbean to Asian countries. Though distances between Caribbean islands are relatively short, distance explains only one fifth of the variance of freight rates. The high cost of transporting waste between Caribbean islands could be explained by low connectivity between islands and poor port infrastructure.[5] In any case, high costs to transport small amounts of wastes to a regional hub may limit the profitability of established material recovery or repurposing initiatives, and there is difficulty engaging shipping companies to find solutions for this issue.

Partly because of the aforementioned difficulties, the adequate final disposal of waste continues to be one of the most difficult solid waste management problems for Latin America and the Caribbean. Estimates for how much of the region?s solid waste is disposed in sanitary landfills runs from under 35% to 54%.[6] [7] However, numbers are assumed to

be lower for the Caribbean sub-region, as only a few Caribbean nations dispose their solid waste in sanitary landfills, and in many cases open air dumpsites?which generate serious environmental problems?are still the prevailing mechanism. Other inadequate and highly contaminating practices of solid waste final disposal in Latin America and the Caribbean include open-air burning, disposal in bodies of water and disposal as animal feed.

Within the domain of environmental sustainability, the Caribbean region faces a compounded issue thanks to the interconnectedness of environmental challenges such as land and coastal degradation, biodiversity loss, and climate change. Poor waste management can increase the vulnerability to other environmental issues and decrease resilience.[3] Specifically, poor waste management can lead to environmental degradation which can in turn directly lead to disasters or worsen the effects of natural hazards, such as by causing or exacerbating localised flooding.[8]

Prior to 2000, very few system models considered social aspects, including health impacts, of solid waste management, focusing solely on the environmental and economic spheres. None considered involving all relevant stakeholders, including local communities and informal recyclers, and none considered the full waste management life cycle.[9]

The high presence of informal recyclers in particular, is a notable characteristic of chemicals and waste management in the Caribbean region. They are highly dependent on current waste management practices which include high levels of waste generation, limited source segregation and few low-cost options for the environmentally sound management of hazardous waste streams, hence their vulnerability to waste management development.[3]

Due to lack of national data and studies on informal sector involvement in waste management, it is difficult to determine how many there are in any given country. Estimates for the Latin American and Caribbean region as a whole run from just over 400,000 (between 8 and 9 per 10,000 inhabitants) to nearly 4 million. In addition, numbers vary widely on a country-to-country basis. A lack of regulations or lack of enforcement has led to many private chemicals and waste operations that are not formalised. The displacement of informal recyclers when a new disposal site comes in operation or waste management practices are improved or formalised, is a challenge that has to be addressed in all countries. During the PPG Phase, Cuba?s Office of Regulation and Environmental Safety (ORSA) indicated that efforts are being made to regulate their informal sector.

Despite the high presence of informal recyclers, as in parts of the Arab world and Latin America, opportunities to strengthen waste institutions may be limited by the fact that solid waste management is not seen as an honorable profession.[6] This has been identified as an issue by some industry professionals in the Caribbean. There is a lack of interest for solid waste management jobs and relatively high salaries need to be paid, thereby increasing the overall cost of solid waste management in the region. A lack of human resources is a common challenge in the region and a lack of funds for remuneration may account for other possible influencing factors. Therefore, the recycling sector has been difficult to formalize in the Caribbean region.

With regards to recycling, absence of a *de facto* market for recyclables is a main constraint to the development of a formal recycling sector in the Caribbean.[3] Disposal activities, including

recycling, are also greatly influenced by social attitudes, thus there is a need for awareness-raising activities to support the implementation of new waste disposal practices.[6]

It has been widely recognized that waste management systems that ignore social components and priorities are doomed to failure. The issues of public acceptance, changing value systems, public participation in planning and implementation stages, and consumer behaviour are equally as important as the technical and economic aspects of waste management.[6]

Finally, corruption is a constraint for sustainable development in the Caribbean region. Corruption in the Latin American and Caribbean region has led to a public skepticism about privatization and its association with corruption and lack of transparency. This adds to a lack of municipal capacity to manage contracts with private waste management contractors and ensure service standards, which restricts the possibilities to increase or improve private participation.[10]

Risks of proposed interventions and management plan

SS1: Biodiversity, Ecosystems and Sustainable Natural Resource Management

The quality of water in rivers, ponds, lakes or other wetlands is expected to be improved in the long term by the ISLANDS Programme due to the expected improvements in management of chemicals and waste. However, to ensure there is no risk to biodiversity or ecosystems in the project countries, activities such as **2.1.2**, **3.1.2, 3.1.3** and **3.3.2** which include active handling of chemicals and/or waste, will be assessed for their impacts on the natural environment. Where specific chemicals and waste management practices are discouraged (such as **2.1.3**) the programme will provide alternative, more sustainable practices so that these practices are not replaced by other unsustainable practices. The use of sustainable alternatives will also be promoted under Activity **1.5.2** and **1.5.3** to avoid future possibilities of chemicals which negatively impact human health and the environment.

Finally, activities must be assessed on their location. Activities in regions with more proximity to extensive or vulnerable natural environments (or possibly, biodiversity hotspots) such as activities in rural areas (**2.2.2**), will be assessed for their possible impact on biodiversity and ecosystems. However, it should be noted that it is a project goal to decrease the environmental impact of chemicals and waste management activities. Therefore, adverse impacts are unlikely and in fact, current chemicals and waste impacts on biodiversity and ecosystems are expected to decrease.

SS2: Climate Change and Disaster Risks

Climate change disturbances and environmental disasters are frequent in the Caribbean region, be it due to climate change, erosion, prolonged droughts, or other causes. Therefore, it is important that project activities have short-term strategies in mind for disasters during the project execution phase and mid- to long-term strategies for climate change effects felt during and after project execution. To ensure the sustainability of mid- to long-term strategies in the face of climate change specifically, climate risk mitigation plans must be worked into any activities that extend beyond the

project execution, such as during the development of waste management strategies, guidelines and roadmaps (**2.1.2, 2.2.1, 2.2.3,** and **2.2.4**). These include both national and regional level activities.

Climate risk mitigation plans will vary depending on activity and location, but may include, for example, plans to increase resilience to the effects of hurricanes, such as infrastructure destruction and transport disruption, and assessments of locations and transport routes on their climate change vulnerability and/or resilience. Under this project, strategies will be developed to support countries with identifying sites for interim storage of post-disaster waste, as well as separating hazardous waste streams comingled with other post-disaster debris to ensure their proper management. Long-term solutions will bear in mind environmental changes up to and including 2050 and will use tools such as the Climate Change Knowledge Platform, Think Hazard, and others, to determine climate sensitivity, vulnerability and resilience.

SS3: Pollution Prevention and Resource Efficiency

One of the ISLANDS Programme?s goals is to prevent the release of pollutants to air, water and/or soil. This will be achieved through, for example: preventing the generation of wastes in project countries, especially hazardous waste; development of circular economy and 3R approaches for chemicals and waste management in the region; reinforcement of trade bans; and chemical release prevention. To this end, activities in all outcomes will aim at reducing pollution and increasing resource efficiency and negative environmental impacts are unlikely.

Projects implemented or supported by the ISLANDS Programme in project countries are unlikely to consume or cause significant consumption of water, energy or other resources. The ISLANDS Programme will not encourage the establishment of waste incinerator facilities or similar facilities, but if a project country decides to establish a waste incinerator facility or similar facility, the Programme could assist to ensure best available techniques and best environmental practices are used.

One possible source of pollution would be the increase of transport in the region due to the development of take-back system models and regional hub and bespoke models (**3.1.2** and **3.2.2**). However, the benefits in pollution prevention and resource efficiency are assumed to be greater than the increase in pollution caused by increased transport.

SS4: Community Health, Safety and Security

Community health, safety and security must always be protected and, where possible, improved by the programme. As such, mitigation plans for risks to community health will be included in the assessment and execution of all activities that handle potentially hazardous chemicals and waste, such as **2.1.1**, where strategies will be designed to ensure that the movement of hazardous waste will not impact community health, safety and security. Hazardous waste management plans (**2.2.1**) and their execution in rural communities (**2.2.2**) will also assess the vulnerability of affected communities and include risk mitigation measures.

SS5: Cultural Heritage

The ISLANDS programme will not be involved in the handling of cultural heritage or include activities in cultural heritage areas.

SS6: Displacement and Involuntary Resettlement

ISLANDS programme activities will not lead to displacement and/or involuntary resettlement. However, the Caribbean region has a high prevalence of informal recyclers and the ISLANDS programme may have a notable effect on informal recyclers? livelihoods due to the improvement and possibly, formalization of certain chemicals and waste management practices. Where their livelihoods may be improved or impacted, project will seek to involve informal recyclers as key stakeholders (e.g., Activities **3.1.3** and **3.2.2**).

SS7: Indigenous Peoples

Dominica has a significant Indigenous population which resides in the Kalinago Territory. One activity (**2.2.2**) has been planned to include a demonstration project in the Kalinago Territory. This activity will seek to collaborate with the ?Building Resilience in the Eastern Caribbean through a reduction in Marine Litter? (ReMLit) Project, which is being executed by the Organisation of Eastern Caribbean States (OECS) in order to support the Kalinago Territory becoming a zero-waste community.

In this regard, communications will be continued with representatives, including, but not limited to, members of the Kalinago Council in order to ensure that the Kalinago community will benefit from the improved management of chemicals and waste under the programme. Specifically, ISLANDS will reach out to Indigenous communities proactively to ensure that potential requests are addressed at the earliest stage possible.

SS8: Labour and Working Conditions

In all activities, the programme should aim to improve the labour and working conditions of current labourers/workers in the chemicals and waste sector. Notably, the labour and working conditions of informal recyclers should be assessed and improved where possible (Activities **3.1.3** and **3.2.2**). Where informal sectors are formalised, this must necessarily lead to better working conditions.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
10472 - Appendix 7 - COVID19 additional questions	**CEO Endorsement ESS**	

Title	Module	Submitted
10472 - Appendix 7 - SRIF	**CEO Endorsement ESS**	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Component 1: Preventing the Future Build-Up of Chemicals Entering SIDS					
Outcome 1	**Outcome Indicators**	**Baseline**	**Targets and Monitoring Milestones**	**Means of Verification**	**Assumptions & Risks**

Countries have adopted environmentally sound policies and control the import of chemicals, materials and products that lead to the generation of hazardous waste	1. Quantity of waste and polluting chemicals avoided by the control of imports and transition to sustainable alternatives (Impact Indicator 1.2) 2. No. of countries that endorse ESM policies for chemical wastes	Project countries have varying levels of environmental legislation and controls in place to control imports of chemicals and the generation of hazardous wastes. Levels of capacity to develop, draft, enact, implement and enforce vary. It is estimated that on an annual basis, the project countries cumulatively generate over 7,257 tonnes of WEEE; 51,886.5 tonnes plastics; 3,448 tonnes ELVs; 6,424 tonnes waste oil; 14,708 tonnes used tyres, and; 8,887 tonnes used lead acid batteries. The largest waste generator was found to be Cuba (given its land mass and population), followed by The Bahamas (given the large quantity of waste generated by tourists).	32,115 tonnes of POPs/Mercury containing waste avoided 3 countries have endorsed environmentally sound policies	Indication of endorsement via national media house/ government website/ government social medial Global trade data on UN Comtrade database	Countries fail to enact legislation within the lifetime of the project.
Component 1 Outputs	**Output Indicators**	**Baseline**	**Targets and Monitoring Milestones**	**Means of Verification**	**Assumptions & Risks**

Output 1.1: The legislative and institutional framework is developed to support the environmentally sound management of hazardous chemicals in materials, products and wastes at national levels in the Bahamas, Cuba and Dominica	3. No. of assessments of the legal framework on the management of specific hazardous chemicals and wastes at national levels (Activity 1.1.1) (Impact Indicator 4.1) 4. No. of national strategies developed for adoption and implementation of the model policies and legislation (Activity 1.1.2) (Impact Indicator 4.2)	Of the three project countries, only Cuba has an integrated legislative and institutional framework to address hazardous chemicals in products and waste management; and none specifically highlight the products and waste streams which were identified in the updated NIPs and MIAs as problematic and those that will be considered in this output, namely, EEE, ELVs and mercury containing products. A regional legislative framework at the CARICOM level does not exist.	**Mid-term** 3 x detailed national assessments of legal framework on POP-containing chemicals and products containing POP chemicals, such as EEEs, ELVs and MAPs 3 x national strategies for the for implementation of hazardous waste management **End of project** 3 x national roadmaps for endorsement and implementation of national strategies (one per country)	National roadmaps towards adopting legislation on EEE, ELVs and MAPs available on BCRC-Caribbean?s online information system and training databased and shared with CCKM Workshop reports from National Working Sessions and consultations	Assumptions: 1. Collaboration with the GEF 10279 Project for access to the regional policy developed under same 2. Each country has the empowering legislation to subsequently enact the model regulations or the parts thereof which are relevant to the country?s needs.

Output 1.2: Sustainable training programme is developed to assist countries with implementing the Chemicals and Wastes MEAs at a national level	5. No. of ag encies personnel trained through ?Training of Trainers? programme (Activities 1.2.1, 1.2.2, 1.2.3) (Impact Indicator 10.3) 6. No. of people reached through an awareness raising programme on Chemicals and Wastes MEAs Training Platform (Activities 1.2.4, 1.2.5) (Impact Indicator 8.2)	Project countries indicated that capacity building on waste and chemicals Multilateral Environmental Agreements (MEAs) will be beneficial to assist in addressing the concomitant challenge of meeting obligations under these Conventions, the limited capacity to stay abreast of the updates to the Conventions and the inherent need to improve implementation.	**Mid-term** 1 x Training Needs Assessment (TNA) (inclusive of a pre-KAP survey) **End of project** 1 x Virtual ?Training of Trainers? workshop 10 Trainers trained (at least 40 % female) 1 x awareness raising programme 40 people reached by awareness raising programme	TNA Report Press release on training from BCRC-Caribbean ?Training of Trainers? Workshop report Uniform Resource Locator (URL) of online platform Survey after the completion of the Awareness Raising Programme	Risk: Countries may consider some data as sensitive and will therefore refuse to share national data through online database Mitigation: The BCRC-Caribbean will develop standard operating procedures for information exchange and guides for validation of information prior to making content available on the online database

Output 1.3: National, institutional and technical capacity to reduce/control the current and future trade of chemicals and products containing hazardous chemicals is strengthened	7. No. of formalized arrangements for inter-agency collaboration (Activities 1.3.1, 1.3.2) (Impact Indicator 11.1) 8. No. of countries who have amended HS codes to differentiate between MAPs and Hg-free alternative products (Activity 1.3.2) (Impact Indicator 4.1) 9. No of persons trained in regional training programme on detection of POPs and MAPs in imported products (Activity 1.3.3) (Impact Indicator 10.3)	The existing national and regional frameworks related to the control of trade in chemicals, products containing chemicals and wastes governed by the various chemicals and waste MEAs are generally weak. Some countries within the region do not have standardized systems in place for the identification and quantification of chemicals or product imports containing chemicals of concern. For items that are restricted and prohibited, several barriers exist which reduce the effectiveness and enforcement of the relevant legislation.	**Mid-term** 3 x formalized arrangements for inter-agency collaboration in each project country, including requisite Terms of Reference for member agencies 1 x training plan developed for customs and border control agencies on monitoring of imported chemicals. 10 persons trained on monitoring of imported chemicals, of which 30% are female **End of project** At least 2 project countries have endorsed the amendment of HS codes to identify MAPs	Model policy Results of pilot project shared with CCKM Invoice for purchase of equipment for customs and border control agencies and official confirmation of receipt Regional training report Training materials developed for execution of pilot project shared on BCRC-Caribbean database and CCKM	Assumption: Collaboration with GEF 10279 Project to obtain relevant input from Global Mercury Partnership, CARICOM andCARICOM Council for Trade and Economic Development (COTED) on the extension of HS codes. Risk: Availability of information from Customs agencies to complete analysis of potentially hazardous imports.

Output **1.4:** Increased capacity for the development and implementation of national and regional chemicals and products standards including GHS	10. No. of persons trained in regional training workshop on GHS implementation (Activity 1.4.1) (Impact Indicator 10.3) 11. No. of roadmaps to support countries with implementing national standards developed (Activity 1.4.2) (Impact Indicator 4.1)	Each project country has a department with responsibility for the development of national standards with respect to goods, services, processes and practices. These departments also generally have responsibility for testing of products to ensure compliance with developed standards; however, limited capacity for testing in most countries has been noted. There is a need for the development and implementation of product standards which can assist countries with regulating the import of products with harmful chemicals to support the identification of imports by border control officers.	**Mid-term** 1 x Assessment of GHS implementation in each project country At least twenty (20) persons trained, of which 25% are female **End of project** 3 x national roadmaps for GHS Implementation	Training materials and knowledge products on GHS shared to BCRC-Caribbean online database and CCKM National roadmaps for implementation available on BCRC website	Risks: 1. National implementation is dependent on Cabinet and Parliamentary approvals. 2. Administrative changes and political will may affect implementation in some countries.

Output 1.5: Sustainable Procurement is promoted to key stakeholders to reduce the manufacture/import of products containing hazardous chemicals	12. Number ofnon-regrettable alternatives available for PFAS, POP-PBDEs, SCCPs/PCBs/PCNs and mercury added products identified/assessed (Activities 1.5.1, 1.5.2) (Impact Indicator 1.2) 13. No. of persons trained on selection of sustainable alternatives (Activity 1.5.3) (Impact Indicator 10.3)	The Bahamas and Dominica have phased out the use of PCBs and Cuba is in the process of doing same but there are emerging chemicals of concern to be considered. There are relatively low levels of investment in funding for alternative and sustainable production practices. Governments are limited by resources and information exchange, especially given frequent updates to the lists of chemicals of concern.	**End of project** 3 x sustainable suitable alternatives toPFAS, POP-PBDEs, SCCPs/PCBs/PCNs and/or mercury added products assessed and selected 1 x regional training workshop on the selection of suitable alternatives At least 30 persons trained on the selection of sustainable alternatives, with 40% being female	1 x Assessment reports on enabling environment and suitable alternatives 1 x regional training workshop report Mobile software application available on Google Play Store and Apple App Store	Risks: Availability of suitable non-regrettable alternatives on market and ability of alternative to perform to the same standard as unsustainable product Cost of complete phase-out and introduction to the suitable alternative products constrained by national resources within the project timeframe
Component 2: Safe Management and Disposal of Existing Chemicals, products and materials					
Outcome 2	**Outcome Indicators**	**Baseline**	**Targets and Monitoring Milestones**	**Means of Verification**	**Assumptions & Risks**

Harmful chemicals and materials present and/or generated in the countries are being disposed of in an environmentally sound manner	14. Quantities of harmful chemicals and materials present and/or generated in Caribbean SIDS that are being managed and disposed of in an environmentally sound manner (Impact Indicator 1.1)	The project countries are at varying stages of ratification of the BRS and Minamata Conventions. Hazardous chemicals and waste systems in the Caribbean region are in the process of modernization, but practices vary based on income level and other limiting factors. There are large amounts of POP-pesticides and Hg products present in the countries as well as uPOPs emissions. A global project to facilitate the update of the National Implementation Plans for The Bahamas and Dominica is being considered and the development of Minamata Initial Assessments for each project country is being finalized.	**End of project** At least 301.8 tonnes of hazardous waste managed sustainably across the region and at least 120 g TEQ/year reduced PCDD/Fs emission through elimination, roadmaps and guidelines	Inventory/Stockpile verification reports Destruction certificates Safeguarding/ Shipping documentation	Risk: Accidental spills can cause damage or loss to human health and the environment Mitigation: Authorized contractors will be engaged for consolidation and safeguarding operations and health and safety protocols will be adhered to.
Component 2 Outputs	**Output Indicators**	**Baseline**	**Targets and Monitoring Milestones**	**Means of Verification**	**Assumptions & Risks**

Output **2.1:** Capacity for environmentally sound management of SC POPs and MC Hg products strengthened, and obsolete pesticides and chemicals, PCBs and DDT eliminated	15. Number of strategies developed for sound management and disposal of hazardous wastes (Activity 2.1.1) (Impact Indicator 4.2) 16. Quantities of obsolete chemicals, PCBs, DDT and mercury added products eliminated regionally (Activity 2.1.2) (Impact Indicator 1.1) 17. No. of relevant stakeholders reached through awareness campaign to promote application of BAT/BEP to minimize uPOPS emissions from open burning at illegal dumpsites (Activity 2.1.3) (Impact Indicator 8.2)	It is recognized that the project countries are heavily import-dependent with only Cuba having a more developed manufacturing sector. Component 1 dealt with implementing to control the import of avoidable hazardous chemicals and chemicals in products into the countries. However, for chemicals and products containing hazardous chemicals that are already in the countries, those that are considered intrinsic to daily life and those without suitable alternatives, systems need to be in place to safely manage them on a national level and, where possible, as a region.	**Mid-term** 1 x development of regional strategy for the destruction/stabilisation of hazardous waste **End of project** 400 people?s awareness increased on negative impacts of open burning (40% of respondents to KAP surveys) At least 2.8 tonnes of PCBs eliminated from The Bahamas. At least 298 tonnes of obsolete pesticides, DDT and other chemicals eliminated regionally. At least 1 tonne mercury added products eliminated regionally. Reduction by at least 120 g TEQ/year of UPOPs emissions regionally.	Strategy developed for disposal/ stabilization of hazardous chemicals and products Contract with company for consolidation, safeguarding, export and disposal/ stabilization of waste Destruction certificates	Risk: Shipping costs and market prices, and the proper and secure storage of equipment or chemicals, will determine the feasibility of the export operation. Mitigation: Secured site is used for interim storage of materials in order to avoid larceny Regular monitoring of containers

Output 2.2: Capacity to manage other hazardous waste streams specific to the Caribbean improved	18. No. of national hazardous waste management plans developed (Activities 2.2.1) (Impact Indicators 4.1, 4.2) 19. No. of pilot projects (Activity 2.2.2) (Impact Indicator 3.1) 20. No. of waste management professionals trained on BAT/BEP for ESM of hazardous waste (Activity 2.2.3) (Impact Indicator 10.3) 21. No. of sites assessed on management of post-disaster and C&D wastes (Activity 2.2.4) (Impact Indicator 4.1)	Project countries lack integrated waste management systems with considerations for problematic and hazardous waste streams. There are several challenges with the integration of the rural areas into the waste management systems due to logistical issues, e.g., archipelagic nature of The Bahamas, difficult/ mountainous terrain in Cuba and Dominica. In addition, the tourism industry is identified as a key contributor to waste generation rates and there is a recognized need for the current waste management systems of the region to address this and other priority and emergent waste streams such as disaster waste.	**Mid-term** 3 x national hazardous waste management plans and roadmaps for implementation of plans for prioritized hazardous waste streams (at least one for each country) 10 waste management professionals will be trained with at least 20% being female 3 x sites for storage and segregation of post-disaster and C&D waste assessed and criteria for sites developed **End of project** 3 x pilot demonstration projects (3 rural/indigenous communities)	Reports from national consultations Results of pilot projects Report on training workshop for BAT/BEP, ESM, Disposal in storage of hazardous wastes Assessment reports from site visits for assessments of sites for interim storage of hazardous wastes and post-disaster and C&D wastes	Assumption: Co-financing for construction of interim hazardous waste management facility will still be available (no reallocation of resources)
Component 3: Safe Management of Products entering SIDS/Closing Material and Product loops for Produc					
Outcome 3	**Outcome Indicators**	**Baseline**	**Targets and Monitoring Milestones**	**Means of Verification**	**Assumptions & Risks**

Build-up of harmful materials and chemicals is prevented through establishment of effective circular and life-cycle management systems in partnership with the private sector	22. Quantities of harmful materials and chemicals not disposed on dump sites and viable materials recovered for re-use/recycling (Impact Indicator 1.2) 23. No. of lifecycle management systems successfully established (Impact Indicators 4.1, 4.2)	In the project countries, private sector entities support the collection and disposal of waste and usually lead material recovery and recycling (although in Cuba, the public sector is more heavily involved). However, limited material flows and and fluctuating prices in the international recycling commodity markets inhibit recovery operations. These activities occur in several Caribbean countries for a few hazardous waste streams including waste oil, e-wastes, and spent lead acid batteries as well as the recycling of non-hazardous wastes. Nonetheless, private sector waste management in the Caribbean is generally poorly developed and there are limited public-private partnerships to support chemicals and waste management.	**End of project** At least one lifecycle management system successfully established per country 5 tonnes of WEEE recycled At least 1 tonne of plastic diverted from landfills	Confirmation of receipt of Notification Document from Basel Convention competent authorities of States concerned in transboundary movement Chain of custody forms for recyclers to indicate receipt of recovered materials	Risk: Limited shipping routes within Caribbean countries and high cost of shipping within Caribbean
Outputs	**Output Indicators**	**Baseline**	**Targets and Monitoring Milestones**	**Means of Verification**	**Assumptions & Risks**

Output 3.1: Strategies for Reverse Supply Chain Schemes for WEEE Management developed	24. No of assessments on feasibility of RSC schemes developed (Activity 3.1.1) (Impact Indicator 4.1) 25. No. of strategies for implementation of RSC scheme developed (Activity 3.1.2) (Impact Indicator 4.1) 26. No. of RSC pilot projects designed and implemented (Activity 3.1.3) (Impact Indicator 3.1)	WEEE management is a priority issue for the project countries. The baseline revealed that the private sector (formal and informal) is mainly involved in WEEE management (but less so in Cuba) and since it is unregulated, the majority of WEEE actually ends up in landfills. The baseline revealed that none of the project countries have RSC schemes in place for WEEE management.	**Mid-term** 1 x regional assessment on material flow, technical and economic feasibility of RSC for the management of WEEE 3 x national strategies for implementation of RSC scheme **End of project** 1 x pilot project on feasibility of take-back system in The Bahamas 1 x pilot project to integrate Dominica into regional hub for WEEE management At least 1 x pilot project in The Bahamas and/or Cuba to divert WEEE from landfills	M&E report for pilot project on RSC take-back scheme in Bahamas shared to BCRC-Caribbean?s online information system and training database and CCKM Training workshop report on RSC scheme in Bahamas available Training workshop report on BAT/BEP in WEEE management in Dominica available	Risks: Shipping costs and market prices will determine the feasibility of the export operation.Private sector interest may fluctuate. Limited shipping routes between countries. Mitigation: Recycling facility must provide evidence that best practices/ standards are followed for data management and ESM of WEEE National strategies for implementing RSC schemes will consider economic viability of operations

Output 3.2: Strengthened Capacity for ELVs management in The Bahamas and Dominica	27. No. of persons trained on BAT/BEP in ELV management in The Bahamas and Dominica (Activities 3.2.1, 3.2.2) (Impact Indicator 10.3) 28. No. of existing national ELV treatment facilities improved (Activities 3.2.1, 3.2.2, 3.2.3) (Impact Indicator 3.1)	There is a lack of: information regarding quantities and flows of vehicles and ELVs; formal inter-ministerial and inter-stakeholder coordination mechanisms and exchange of information and weak institutional frameworks for ELVs management; specific policies and legal framework to ensure ESM of ELVs; formal processes for the deregistration of vehicles for their disposal; storage and treatment capacity and inadequate final disposal alternatives, and; there is a high level of used vehicle imports.	**Mid-term** 2 x roadmaps developed for implementation of BAT/BEP guidelines for collection, storage, transport, and treatment at ELV management facilities 1 x Training Workshop on BEP/BAT guidelines with at least 10 waste management professionals trained on ESM of ELVs in each project country (at least 40% female) **End of project:** 2 x Detailed assessments of existing facility in The Bahamas and Dominica (1 each) based on technical, material flow and economic assessments. 2 x Customised roadmaps for establishing an adequate and sufficient ELVs treatment facilities (one in each project country) , selected based on technical, material flow and economic assessments	BAT/BEP Guidelines and training materials published on BCRC-Caribbean online information system and training database Report on BAT/BEP guidelines Training Workshop Report M&E Report on up-scaled facility	Assumption: There are enough females involved in ELV management to meet 40% gender disaggregation target Risks: Limited air and sea routes by carriers between Caribbean countries. Some shipping lines may not carry certain types of hazardous waste, e.g. wet ULABs, which are components of ELVs. Mitigation: Where regional schemes are unfeasible, sub regional or national schemes for the export of ELVs for treatments will be developed

Output 3.3: Improved management of plastics (including PVC) through the life-cycle approach and coordination with the public and private sectors	29. No. of draft national strategies developed for cruise ship waste (Activity 3.3.1) (Impact Indicators 3.1, 4.1) 30. No. of pilot projects developed to manage PVC plastics waste (Activities 3.3.2) (Impact Indicators 3.1, 4.1)	From the baseline, it is evident that project countries are taking measures to recycle certain plastic waste streams; however, there remains a gap in the knowledge and management of other types of plastics that are not typically recycled in the region nor disposed of in an environmentally sound manner. The baseline also noted that no project country has policies or legislation to manage PVC waste or promote its separation in industries such as tourism, manufacture or construction, either as RSC or as standalone policies.	**Mid-term** 1 x draft national strategy for reconciling management of plastic waste from cruise ships with legislative directives from plastics waste management in The Bahamas **End of project** 1 x pilot project demonstrate draft strategy at Freeport, Grand Bahama At least 1 x pilot project to demonstrate separation and diversion of at least one (1) tonne of PVC plastic waste from landfills (country to be determined based on material flow assessment)	Social media post and press release on recommendations enacted by the cruise industry M&E reports on pilot projects with cruise ship industry and hotel industry uploaded to BCRC-Caribbean online information system and training database and CCKM	Assumptions: Continued support and collaboration with Carnival Cruise Line Continued support from collaborators in tourism sector, e.g., Varadero and Iberostar Group in Cuba Required buy-ins and approvals obtained from national stakeholders for pilot projects on PVC waste
Component 4: Knowledge Management and Communication					
Outcome 4	**Outcome Indicators**	**Baseline**	**Targets and Monitoring Milestones**	**Means of Verification**	**Assumptions & Risks**

Knowledge generated by the project is disseminated to, and applied by, SIDS in all regions	31. No. of knowledge assets generated and disseminated to Caribbean SIDS (Impact Indicator 8.1)	Knowledge generated by projects and activities in SIDS is not currently shared, disseminated or communicated in a systematic way. As a result, and fuelled by geographic and language barriers, Caribbean SIDS rarely learn from each other, nor from the experiences of other SIDS.	At least six (6) knowledge products developed under project Knowledge products shared with at least ten thousand (10,000) recipients Feedback from at least 40 trainees (40% female) involved workshops hosted for activities under Components 1 to 3 on their implementation of BAT/BEP discussed at workshops into operations	No. of interactions on social media posts on knowledge products No. of hits on BCRC-Caribbean online informationsystem and training database List of Tide Turner Challenge Badge Earners	Assumptions: The ISLANDS programme accurately identifies SIDS stakeholders requiring information, and this information is used
Outputs	**Output Indicators**	**Baseline**	**Targets and Monitoring Milestones**	**Means of Verification**	**Assumptions & Risks**

Output 4.1 Caribbean communities are informed and engaged with in the sound management of chemicals and waste	32. No. of hits on website containing knowledge products (Activity 4.1.1) (Impact Indicator 8.2) 33. No. of beneficiaries changing practices because of improved awareness (Activity 4.1.2) (Impact Indicator 8.3) 34. No. of Tide Turner Challenge Badges issued (Activity 4.1.3) (Impact Indicator 8.2)	The ISLANDS Programme has not yet started. Therefore, no products have been developed or placed on the website yet. With respect to the Tide Turners Plastic Challenge, pilots are being implemented in three Caribbean countries, namely Saint Lucia, Belize and in Antigua and Barbuda, through CYEN and local high schools with a small seed budget of 20,000 USD. The expansion of this programme to GEF 10472 project countries will increase environmental awareness in youth and stimulate their behavioural change, which can influence the behaviour of the entire community.	**End of project** At least six (6) knowledge products developed and disseminated to Caribbean SIDS Knowledge products shared with at least ten thousand (10,000) recipients 110 trainees (minimum 40% female) indicate changing practices on the implementation of BAT/BEP into their operations because of improved awareness 500 Tide Turner Challenge Badges issued in project countries	Training materials and knowledge products uploaded to BCRC-Caribbean online database and shared to social media Dashboard reports on insights into interactions with knowledge products on social media and BCRC-Caribbean online database List of Tide Turner Challenge Badge Earners	Risks: COVID-19 pandemic is affecting attendance at school, which may affect targets for Tide Turners Challenge Badges Mitigation: Challenge can be adapted, and creative ways developed to engage youths to complete challenge within restrictions.

Output 4.2 Support for CCKM	35. Resources allocated to CCKM for execution of coordination, communications and knowledge management activities	Given the expansion of the ISLANDS Programme into these three (3) project countries, as well as into three (3) other countries in the Atlantic, additional resources are required to support the activities of the CCKM. This will be facilitated through the GEF ISLANDS 10472 Project.	**Mid-term** 1 x guide for brand identity of ISLANDS Campaign At least 1 x template for reporting developed **End of project** 100 % of project information from child projects packaged into knowledge products and disseminated across all SIDS	Branding guide used by executing agencies of child projects Templates used by executing agencies of child projects Guidance documents shared by executing agencies of child projects	**Assumptions:** SIDS are interested in cooperating and collaborating on chemicals and waste management issues.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

No comments were received from GEF Secretariat (after PFD clearance), GEF Agencies, Council Members, Convention Secretariats or STAP

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

UNEP ? implemented PPG ($200,000)

Project Preparation Activities Implemented	*GETF/LDCF/SCCF Amount ($)*		
	Budgeted Amount	*Amount Spent To date*	*Amount Committed*
Subcontract with BCRC	162,000	103,450	58,550
Lead consultant	15,000	15,000	0
CCKM Consultant	23,000	18,550	4,450
Total	195,000	137,000	63,000

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.


The Bahamas
Cuba
Atlantic Ocean
N
Dominica
Caribbean Sea
Central America
Pacific Ocean
South America
ISLANDS Caribbean
GEF ISLANDS 10472 PROJECT COUNTRIES

ISLANDS Caribbean

Potentially Contaminated Sites in

THE BAHAMAS


61°35'
61°15'
N
0 4 8 mi
0 6 12 km
15°35'
15°15'
Vieille Case
Calibishie
Portsmouth
Glanvillia
Wesley
Marigot
Colihaut
Morne Raquette
Salisbury
DOMINICA
Salibia
Castle Bruce
Saint Joseph
Pont Cassé
Mahaut
Rosalie
Massacre
Laudat
Fond Cole
Sanitary Landfill
La Plaine
Roseau
Pointe Michel
Soufrière
Berekua
CARIBBEAN SEA
ATLANTIC OCEAN
©2000, Encyclopædia Britannica, Inc.
Potentially Contaminated Sites in
DOMINICA
ISLANDS Caribbean

ANNEX E: Project Budget Table

Please attach a project budget table.

				ALLOCATION BY COMPONENT						ALLOCATION BY CALENDAR YEAR UNEP-IMPLEMENTED					
				Total	Component 1	Component 2	Component 3	Component 4	PMC	M&E	Y1	Y2	Y3	Y4	Y5	Total
UNEP BUDGET LINE/OBJECT OF EXPENDITURE				US$	US$	US$	US$	US$	US$	US$	US$	US$	US$	US$	US$	US$
10	UMOJA CODES	PROJECT PERSONNEL COMPONENT														
		1100	Project Personnel (Project Management 5% of overall total)													0.00

1161	1101	Project Coordinator	**275,000.00**	0.00	0.00	0.00	0.00	275,000.00	0.00	55,000.00	55,000.00	55,000.00	55,000.00	55,000.00	**275,000.00**
1161	1102	CCKM Administration	**85,000.00**	0.00	0.00	0.00	0.00	85,000.00	0.00	20,000.00	20,000.00	15,000.00	15,000.00	15,000.00	**85,000.00**
	1199	Sub-Total	**360,000.00**	**0.00**	**0.00**	**0.00**	**0.00**	**360,000.00**	**0.00**	75,000.00	75,000.00	70,000.00	70,000.00	70,000.00	**360,000.00**
	1200	**Consultants w/m**													
1161	1201	Regional Consulting Team on Legal, Institutional and Infrastructural Capacity	**80,000.00**	60,000.00	0.00	0.00	20,000.00	0.00	0.00	30,000.00	50,000.00	0.00	0.00	0.00	**80,000.00**
1161	1202	Regional Consulting Team on Multilateral Environmental Agreements, Border Control and Trade in Chemicals and Waste Commodities	**180,000.00**	180,000.00	0.00	0.00	0.00	0.00	0.00	20,000.00	90,000.00	70,000.00	0.00	0.00	**180,000.00**
1161	1203	National Consultant(s) on Standards Implementation	**72,000.00**	72,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72,000.00	0.00	**72,000.00**
1161	1204	Regional GHS Expert	**68,000.00**	68,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68,000.00	0.00	0.00	**68,000.00**
1161	1205	Regional Consultant on Green and Sustainable Procurement	**36,000.00**	36,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36,000.00	0.00	**36,000.00**
1161	1206	Regional Expert on Integrated Pesticide Management	**15,000.00**	15,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15,000.00	**15,000.00**

	1161	1207	Expert(s) on Sustainable /Non-regrettable Alternatives to Harmful Chemicals for National Pilot Projects	**45,000.00**	45,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30,000.00	15,000.00	**45,000.00**
	1161	1208	Regional Expert on Pesticide Stock Management System	**15,000.00**	0.00	15,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15,000.00	0.00	**15,000.00**
	1161	1209	Regional Consulting team (Hazardous waste management consultant , Socio-economic Consultant, Training Consultant, Design Engineer for Hazardous Waste Storage Facility, Post-disaster Waste Consultant)	**480,000.00**	0.00	320,000.00	0.00	160,000.00	0.00	0.00	0.00	120,000.00	205,000.00	115,000.00	40,000.00	**480,000.00**

1161	1210	Regional Consulting team (Hazardous waste management consultant, EEE Expert, ELVs Expert, Reverse Supply Chain Scheme Expert, Economics Consultant, Training Consultant, Gender, Socioeconomic Consultant)	**525,000.00**	0.00	0.00	295,000.00	230,000.00	0.00	0.00	90,000.00	195,000.00	120,000.00	60,000.00	60,000.00	**525,000.00**
1161	1211	Regional Expert on Youth Engagement	**60,000.00**	0.00	0.00	0.00	60,000.00	0.00	0.00	0.00	20,000.00	20,000.00	20,000.00	0.00	**60,000.00**
1161	1212	Regional Website Architect	**145,000.00**	10,000.00	15,000.00	0.00	120,000.00	0.00	0.00	5,000.00	65,000.00	65,000.00	5,000.00	5,000.00	**145,000.00**
1161	1213	Regional Software Consultant(s)	**189,200.00**	159,200.00	0.00	30,000.00	0.00	0.00	0.00	0.00	139,200.00	0.00	30,000.00	20,000.00	**189,200.00**
1161	1214	Regional Consulting team (Hazardous waste management consultant and Cruise Ship Sector Expert, Plastic Flows Consultant, Economics Expert, Legal Consultant)	**125,000.00**	0.00	0.00	125,000.00	0.00	0.00	0.00	0.00	75,000.00	50,000.00	0.00	0.00	**125,000.00**

	1161	1215	Regional Communications Consultants	**740,000.00**	70,000.00	35,000.00	85,000.00	550,000.00	0.00	0.00	135,000.00	155,000.00	170,000.00	150,000.00	130,000.00	**740,000.00**
	1161	1216	National Consultants	**899,000.00**	279,000.00	186,000.00	284,000.00	150,000.00	0.00	0.00	150,000.00	279,000.00	236,000.00	123,000.00	111,000.00	**899,000.00**
	1161	1217	Regional Technical Advisor(s)	**100,000.00**	28,000.00	18,600.00	28,400.00	25,000.00	0.00	0.00	17,100.00	29,900.00	25,600.00	14,300.00	13,100.00	**100,000.00**
		1299	Sub-Total	**3,774,200.00**	**1,022,200.00**	**589,600.00**	**847,400.00**	**1,315,000.00**	**0.00**	**0.00**	**447,100.00**	**1,218,100.00**	**1,029,600.00**	**670,300.00**	**409,100.00**	**3,774,200.00**
		1300	**Administrative Support**													
	1161	1301	Administrative assistant	**30,000.00**	0.00	0.00	0.00	0.00	30,000.00	0.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	**30,000.00**
		1302	HR, procurement and financial management	**140,000.00**	0.00	0.00	0.00	100,000.00	40,000.00	0.00	28,000.00	28,000.00	28,000.00	28,000.00	28,000.00	**140,000.00**
		1600	**Travel on official business (above staff)**													
	1561	1601	Travel	**390,500.00**	80,500.00	100,000.00	80,000.00	130,000.00	0.00	0.00	41,000.00	101,500.00	98,500.00	73,500.00	76,000.00	**390,500.00**
		1699	Sub-Total	**560,500.00**	**80,500.00**	**100,000.00**	**80,000.00**	**230,000.00**	**70,000.00**	**0.00**	**75,000.00**	**135,500.00**	**132,500.00**	**107,500.00**	**110,000.00**	**560,500.00**
		1999	**Component Total**	**4,694,700.00**	**1,102,700.00**	**689,600.00**	**927,400.00**	**1,545,000.00**	**430,000.00**	**0.00**	**597,100.00**	**1,428,600.00**	**1,232,100.00**	**847,800.00**	**589,100.00**	**4,694,700.00**
20		**SUB CONTRACT COMPONENT**														
		2100	**Sub contracts (UN Organizations) (*not relevant)**													
	2261	2101		**0.00**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
		2199	Sub-Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

		2200	**Sub contracts (SSFA, PCAs, non UN) (*not relevant)**														
		2201		**0.00**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
		2299	Sub-Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		2999	**Component Total**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
30		**TRAINING COMPONENT**															
		3200	**Group training (field trips, WS, etc.)**														
	3302 and 3303	3201	Training and capacity enhancing materials	**473,300.00**	128,100.00	40,200.00	110,000.00	195,000.00	0.00	0.00	40,000.00	148,000.00	145,200.00	100,100.00	40,000.00	**473,300.00**
		3299	Sub-Total	**473,300.00**	**128,100.00**	**40,200.00**	**110,000.00**	**195,000.00**	**0.00**	**0.00**	**40,000.00**	**148,000.00**	**145,200.00**	**100,100.00**	**40,000.00**	**473,300.00**
		3300	**Meetings/conferences**														
		3301	Inception workshop	**44,000.00**	0.00	0.00	0.00	20,000.00	0.00	24,000.00	44,000.00	0.00	0.00	0.00	0.00	**44,000.00**
		3302	National technical workshops	**650,000.00**	240,000.00	150,000.00	215,000.00	45,000.00	0.00	0.00	120,000.00	260,000.00	120,000.00	150,000.00	0.00	**650,000.00**
		3303	National training workshops	**240,000.00**	120,000.00	60,000.00	60,000.00	0.00	0.00	0.00	0.00	90,000.00	60,000.00	0.00	90,000.00	**240,000.00**
		3304	Regional technical workshop	**415,000.00**	75,000.00	120,000.00	160,000.00	60,000.00	0.00	0.00	50,000.00	110,000.00	90,000.00	165,000.00	0.00	**415,000.00**
		3305	Regional training workshop	**725,000.00**	275,000.00	100,000.00	50,000.00	300,000.00	0.00	0.00	50,000.00	260,000.00	225,000.00	50,000.00	140,000.00	**725,000.00**
	3302 and 3303	3306	Steering committee meetings	**100,000.00**	0.00	0.00	0.00	0.00	0.00	100,000.00	0.00	25,000.00	25,000.00	25,000.00	25,000.00	**100,000.00**
		3399	Sub-Total	**2,174,000.00**	**710,000.00**	**430,000.00**	**485,000.00**	**425,000.00**	**0.00**	**124,000.00**	**264,000.00**	**745,000.00**	**520,000.00**	**390,000.00**	**255,000.00**	**2,174,000.00**
		3999	**Component Total**	**2,647,300.00**	**838,100.00**	**470,200.00**	**595,000.00**	**620,000.00**	**0.00**	**124,000.00**	**304,000.00**	**893,000.00**	**665,200.00**	**490,100.00**	**295,000.00**	**2,647,300.00**

40		**EQUIPMENT and PREMISES COMPONENT**															
		4100	**Expendable equipment (under 1,500 $)**														
	4261	4101	Operational costs	**0.00**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
		4199	Sub-Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		4200	**Non expendable equipment**														
	4261	4201	Computer, photocopier, projector	**90,000.00**	0.00	0.00	0.00	90,000.00	0.00	0.00	30,000.00	30,000.00	30,000.00	0.00	0.00	**90,000.00**
	4261	4202	Software	**335,000.00**	175,000.00	0.00	70,000.00	90,000.00	0.00	0.00	55,000.00	105,000.00	65,000.00	45,000.00	65,000.00	**335,000.00**
		4203	XRF Equipment	**100,000.00**	100,000.00	0.00	0.00	0.00	0.00	0.00	0.00	100,000.00	0.00	0.00	0.00	**100,000.00**
	4261	4203	Alternatives	**200,000.00**	200,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100,000.00	100,000.00	**200,000.00**
	4261	4204	Consolidation, Packaging and Disposal/Stabilisation of Hazardous Waste	**1,160,000.00**	0.00	1,100,000.00	60,000.00	0.00	0.00	0.00	0.00	0.00	100,000.00	560,000.00	500,000.00	**1,160,000.00**
	4261	4205	Equipment support for RSC pilot projects	**70,000.00**	0.00	0.00	70,000.00	0.00	0.00	0.00	0.00	70,000.00	0.00	0.00	0.00	**70,000.00**
	4261	4206	Equipment support for Regional Hub upgrade	**50,000.00**	0.00	0.00	50,000.00	0.00	0.00	0.00	0.00	0.00	50,000.00	0.00	0.00	**50,000.00**
	4261	4207	Equipment to support pilot plastic projects	**200,000.00**	0.00	0.00	200,000.00	0.00	0.00	0.00	0.00	100,000.00	100,000.00	0.00	0.00	**200,000.00**
		4299	Sub-Total	**2,205,000.00**	**475,000.00**	**1,100,000.00**	**450,000.00**	**180,000.00**	**0.00**	**0.00**	**85,000.00**	**405,000.00**	**345,000.00**	**705,000.00**	**665,000.00**	**2,205,000.00**
		4999	**Component Total**	**2,205,000.00**	**475,000.00**	**1,100,000.00**	**450,000.00**	**180,000.00**	**0.00**	**0.00**	**85,000.00**	**405,000.00**	**345,000.00**	**705,000.00**	**665,000.00**	**2,205,000.00**

50		**MISCELLANEOUS COMPONENT**															
		5200	**Reporting costs (publications, maps, NL)**														
	5161	5201	Translation/ Interpretation	**347,000.00**	71,000.00	52,000.00	104,000.00	120,000.00	0.00	0.00	59,000.00	111,000.00	94,000.00	50,000.00	33,000.00	**347,000.00**
		5299	Sub-Total	**347,000.00**	**71,000.00**	**52,000.00**	**104,000.00**	**120,000.00**	**0.00**	**0.00**	**59,000.00**	**111,000.00**	**94,000.00**	**50,000.00**		**347,000.00**
		5300	**Sundry (communications, postages)**														
	5161	5301	Communications (postage, bank transfers, etc)	**0.00**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
		5399	Sub-total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		5500	**Monitoring and evalutation**														
		5501	Financial audit	**45,000.00**	0.00	0.00	0.00	0.00	45,000.00	0.00	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00	**45,000.00**
		5502	Mid term Review	**28,000.00**	0.00	0.00	0.00	0.00	0.00	28,000.00	0.00	0.00	28,000.00	0.00	0.00	**28,000.00**
		5503	Final Evaluation	**33,000.00**	0.00	0.00	0.00	0.00	0.00	33,000.00	0.00	0.00	0.00	0.00	33,000.00	**33,000.00**
		5599	Sub-Total	**106,000.00**	**0.00**	**0.00**	**0.00**	**0.00**	**45,000.00**	**61,000.00**	**9,000.00**	**9,000.00**	**37,000.00**	**9,000.00**	**42,000.00**	**106,000.00**
		5999	Component Total	**453,000.00**	**71,000.00**	**52,000.00**	**104,000.00**	**120,000.00**	**45,000.00**	**61,000.00**	**68,000.00**	**120,000.00**	**131,000.00**	**59,000.00**	**42,000.00**	**453,000.00**
		TOTAL		**10,000,000.00**	**2,486,800.00**	**2,311,800.00**	**2,076,400.00**	**2,465,000.00**	**475,000.00**	**185,000.00**	**1,054,100.00**	**2,846,600.00**	**2,373,300.00**	**2,101,900.00**	**1,591,100.00**	**10,000,000.00**

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial

Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).