NATIONAL IMPLEMENTATION PLAN MODULE

Executive summary

1. Introduction (YJ)

1.2 Initial National Implementation Plan

[Placeholder for narrative]

Table [insert number]. Status of initial NIP transmission and technical and financial resources received for NIP development

			Financial	Reasons for	
			assistance from	not receiving	
			the Global	GEF funding	Implementing agency
			Environment		from which GEF's
Development	Transmission	Date of	Facility (GEF)		financial assistance
status	status	transmission	received		was received
				[] Not qualified	[] Food and Agriculture
				for GEF	Organization (FAO)
				funding.	[] International Fund
				[] Funding	for Agricultural
				available from	Development (IFAD)
				national	[] United Nations
				sources.	Development
				[] Funding	Programme (UNDP)
				obtained from	[X] United Nations
				other sources.	Environment
				[] Have not	Programme (UNEP)
				requested	[] United Nations
				funding.	Industrial
				[] Other reason	Development
					Organization (UNIDO)
	[X]				[] World Bank
	Transmitted				[] Regional
[X] Yes	[] Pending				Development Banks
[] Currently	approval for				 Directly accessed
being	transmission				from the Global
developed	[] In the		[X] Yes		Environment Facility
[] No	process of		[] No		(GEF)
[] Other	transmission	July 10, 2007	[] Other		[] Other

1.2 Updated National Implementation Plan

[Placeholder for narrative]

Table [insert number]. Status of updated NIP transmission and technical and triggers for its review and update

Reviewing				
and updating	Version(s) of	Status of	Transmission	Trigger for the review and updating of
status	the update	transmission	Date	the NIP
[X] Yes				
[] Currently				
being				
developed				
[] No				New POPs listed by decisions SC-4/10-
[] Other	1 st	Transmitted	June 18, 2021	SC-4/18.

1.3 Financial assistance from the Global Environment Facility to review and update the national implementation plan

[Placeholder for narrative]

Table [insert number]. Status of receiving financial assistance for NIP updating

Receiving	Objective of the updating of your NIP	Implementing agency that you received the GEF's
financial		financial assistance from
assistance from		
the GEF to		
review and		
update the		
national		
implementation		
plan		

[X] Yes	For updating the national	[] Food and Agriculture Organization (FAO).
[] No	implementation plan to address the 9 new POPs listed by decisions SC-4/10- SC-4/18.	[] International Fund for Agricultural Development (IFAD).
		[] United Nations Development Programme (UNDP).
		[] United Nations Environment Programme (UNEP).
		[X] United Nations Industrial Development Organization (UNIDO).
		[] World Bank.
		[] Regional Development Banks.
		[] Directly accessed to the Global Environment Facility (GEF).
		[X] Other.
	For updating the national	[] Food and Agriculture Organization (FAO).
	endosulfan listed by decision SC-5/3.	[] International Fund for Agricultural Development (IFAD).
		[] United Nations Development Programme (UNDP).
		[] United Nations Environment Programme (UNEP).
		[X] United Nations Industrial Development Organization (UNIDO).
		[] World Bank.
		[] Regional Development Banks.
		[] Directly accessed to the Global Environment Facility (GEF).
		[] Other.
	For updating the national implementation plan to address	[] Food and Agriculture Organization (FAO).
	hexabromocyclododecane listed by decision SC-6/13.	[] International Fund for Agricultural Development (IFAD).

		[] United Nations Development Programme (UNDP).
		[] United Nations Environment Programme (UNEP).
		[] United Nations Industrial Development Organization (UNIDO).
		[] World Bank.
		[]Regional Development Banks.
		[] Directly accessed to the Global Environment Facility (GEF).
		[]Other.
	For updating the national	[] Food and Agriculture Organization (FAO).
	Implementation plan to address hexachlorobutadiene listed by decision SC-7/12.	 International Fund for Agricultural Development (IFAD).
		[] United Nations Development Programme (UNDP).
		[] United Nations Environment Programme (UNEP).
		[] United Nations Industrial Development Organization (UNIDO).
		[] World Bank.
		[] Regional Development Banks.
		[] Directly accessed to the Global Environment Facility (GEF).
		[X] Other.
	For updating the national	[] Food and Agriculture Organization (FAO).
	Implementation plan to address pentachlorophenol and its salts and esters listed by decision SC-7/13.	 International Fund for Agricultural Development (IFAD).
		[] United Nations Development Programme (UNDP).
		[] United Nations Environment Programme (UNEP).

		[] United Nations Industrial Development Organization
		(UNIDO).
		[] World Bank.
		[] Regional Development Banks.
		 Directly accessed to the Global Environment Facility (GEF).
		[X] Other.
	For updating the national	[] Food and Agriculture Organization (FAO).
	implementation plan to address polychlorinated naphthalenes listed by decision SC-7/14.	 International Fund for Agricultural Development (IFAD).
		[] United Nations Development Programme (UNDP).
		[] United Nations Environment Programme (UNEP).
		 United Nations Industrial Development Organization (UNIDO).
		[] World Bank.
		[] Regional Development Banks.
		[] Directly accessed to the Global Environment Facility (GEF).
		[X] Other.
	For updating the national	[] Food and Agriculture Organization (FAO).
	implementation plan to address any other changes.	 International Fund for Agricultural Development (IFAD).
		[] United Nations Development Programme (UNDP).
		[] United Nations Environment Programme (UNEP).
		 United Nations Industrial Development Organization (UNIDO).
		[] World Bank.

	[] Regional Development Banks.
	[] Directly accessed to the Global Environment Facility (GEF).
	[X] Other.

2. Country baseline

This chapter describes the current situation and the level of knowledge on POPs in the country, and the status of institutional and other capacities to address the issues related to the sound environmental management of chemicals in Saint Lucia.

2.1 Country profile

This section gives a brief country profile to place the NIP strategies and action plans in context. It summarises information on geography and population, membership in regional and sub-regional organisations, economic and political profile of the country, profiles of potentially important economic sectors in the context of POPs and, environmental conditions in Saint Lucia.

2.1.1 Geography and population

Saint Lucia is situated in the Lesser Antillean Arc of the Caribbean Archipelago at latitude 13° 53' north and longitude 60° 68' west (refer to Figure 2-1). It is situated on a volcanic ridge between the French island of Martinique to the north and Saint Vincent and the Grenadines to the south. Saint Lucia has a land area of 616.4 km², (238 sq. miles) with maximum dimensions of 42 km (27 miles) long and 22 km (14 miles) wide.

Saint Lucia's landscape is characterized by a mountainous interior and flatter terrain along its coastline. Saint Lucia is rich in biodiversity with its mountainous interior being home to a wide variety of tropical plants and birds, including the indigenous Saint Lucian Parrot, the *Amazona Versicolor*. In addition to its rich biodiversity, Saint Lucia is also home to a World Heritage Site, the Pitons Management Area (PMA) (Figure 2-2). The PMA is located in the western coastal town of Soufriere and is one of few World Heritage Sites to have both a land and marine component. The marine component forms part of the Soufriere Marine Management Area and is home to one of the Island's more vibrant and healthy coral reef systems.



Figure 0-1: Map of the Caribbean showing the location of Saint Lucia Source: GeoMinds and CREDP-GIZ, 2013



Figure 2-2: Map of Saint Lucia Source: Google Maps

Saint Lucia experiences year-round warm, humid climatic conditions, which is usually associated with the tropical marine climate. Located within the northeast Trade Wind belt, the island is normally under an easterly flow of moist, warm air with an average temperature of 28°C and relative humidity of 75%. Temperatures rarely rise above 32°C or fall below 21°C. The highest temperatures are recorded around August to October, and the lowest in the months of January to March¹.

Sunshine levels over Saint Lucia are at a maximum from February to May and a minimum around September. Radiation values vary widely over the island and this is partially due to varied cloud cover².

The island experiences two climatic seasons, a wet season which extends from June to November, while the dry season runs from December to May. Tropical disturbances (waves, depressions, storms, hurricanes), account for the greater amount of recorded rainfall during the rainy season. Local convectional showers and other weather systems account for the remainder. The geographic influence of rainfall on the island is quite pronounced. Mean annual rainfall varies from 1,265 mm in relatively flat coastal regions, to 3,420 mm in elevated interior regions³.

Population

The projected midyear population for Saint Lucia in 2020 is 181,192 with an approximate ratio of 49.62% males to 50.38% females.

Table 2-1: Statistics on population in Saint Lucia

Population (Number	<mark>Census (Year)</mark>	Percent of Women vs.	Percent of people living in rural vs.
<mark>of inhabitants)</mark>		<mark>Men</mark>	<mark>urban areas</mark>
181,192	2020	50.38% to 49.62%	Data not available

Source: Saint Lucia Annual Statistical Digest 2020, Central Statistical Office of Saint Lucia

2.1.2 Political profile

Saint Lucia gained independence from Great Britain on February 22, 1979, inheriting a Westminster System of Government with a constitution and a well-established parliamentary democracy. The country has a multi-party structure, dominated by two (2) political parties. Elections are constitutionally due every five (5) years. Its bicameral parliament comprises the

¹ Cited from Saint Lucia's Third National Communication (SNC) to the United Nations Framework Convention on Climate Change (UNFCCC) (2017).

² Ibid

³ lbid p. 23

Senate or Upper House comprising eleven (11) members and the House of Assembly comprising seventeen (17) district representatives elected by the House of Parliament. The Governor General represents the Queen as the Head of State; however, this role is generally ceremonial.

2.1.3 Economic profile and economic sectors in the context of the POPs issue

Saint Lucia's economy grew moderately in the last few decades, with GDP growth rate averaging around 1.4% annually between 2006 and 2017 (The Central Statistical Office of Saint Lucia, 2019). The island's economy has, and continues to be, impacted by several externalities such as changing trade regimes and rising fuel prices. Global trading arrangements have eroded traditional markets for trade in primary products (specifically bananas), and cheaper imports continue to threaten local industries and increase the food import bill and balance of trade deficit.

Over the last two (2) decades, the country's economy has undergone significant adjustment from being agrarian-based to service-based. The tourism sector as of writing, leads economic growth. Manufacturing and industry have remained as important productive sectors. The manufacturing sector contributed to 4.6% of the country's GDP in 2006 and showed steady growth until 2014 (5.57%). Since 2014, contribution of manufacturing to GDP has declined to 5.42%. The construction sector's contribution to GDP averaged 8.28% between 2006 and 2017. This sector's GDP contribution has declined however, from 11.42% in 2006 to 7.57% in 2017 (The Central Statistical Office of Saint Lucia, 2019). For the foreseeable future, Saint Lucia's economic growth and development will continue to be centered on tourism and other service-oriented sectors, agriculture, infrastructural development and commercial sectors.

Traditionally, Saint Lucia's economy has been dependent on exports of agricultural commodities (primarily bananas and previously sugar). However, following the loss of preferential market access to the European Union in 1995, the banana industry on the island has declined significantly. As a result, the share of agriculture in the economy has fallen, dropping from 2.88% of GDP in 2006 to 2.08% by 2017 (The Central Statistical Office of Saint Lucia, 2019).

Tourism is the main component of the services sector. Saint Lucia hosted between 5 to 6 times its 2018 population in visitors yearly, from 2006 to 2017. A significant amount of the island's resources is therefore allocated to the tourism sector. The industry relies on the island's natural aesthetic and unique heritage to attract visitors. Thus, the state of the environment directly impacts economic growth. The direct contribution of hotel and restaurant services to the GDP of Saint Lucia averaged 9.64% between 2006 and 2017 (The Central Statistical Office of Saint Lucia, 2019).

2.1.4 Environmental Overview

Key economic drivers of environmental degradation in Saint Lucia are:

• Tourism;

- Agriculture, Livestock and Forestry; and
- Construction.

The main environmental concerns relate to:

- Pollution of the marine and coastal systems and its impacts on human and ecosystem health as well as on biodiversity;
- Adaptation to the negative impacts of climate change; and
- Land degradation due to poor land management and clear land use zones.

The development and operation of ports and marinas have significant negative impacts on coastal/marine resources. Unplanned and uncontrolled settlements also foster degradation of supporting coastal systems, through inadequate sewage and grey water treatment and general waste disposal. Other land-based activities such as near-shore development, deforestation and agricultural activities also affect freshwater and saltwater quality in Saint Lucia. Leaching of agrochemicals into the soil, water-tables and river systems is of concern due to the island's relatively high agricultural activity.

The most important climate change impacts on marine ecosystems are gradually increasing sea surface temperature (SST), sea level rise (SLR) and ocean acidification. In addition, the increased intensity of storms and associated run-off of fresh water, nutrients and suspended sediments will also cause negative impacts. This issue is amplified by the destruction of mangroves, which act as natural filters for surface runoff from the mainland, for developmental purposes. Furthermore, Saint Lucia's coastal waters are not isolated from the rest of the region; both nutrients and pollutants are washed into the Caribbean Basin from South America and neighbouring islands.

Degradation of air quality has also become a concern for the island in recent years. Key drivers include greater demand for vehicles, institutional and commercial buildings, electricity, housing and expansion of the manufacturing sector. Air quality is further degraded by the yearly influx of Saharan dust and forest fires during the dry season. Furthermore, proper ventilation systems for large buildings are often not considered, which reduces indoor air quality.

As a small island developing state (SIDS), it is imperative that Saint Lucia manages its natural environment to sustainably support the country's growth and development for the foreseeable future. Much of the county's income-earning activities depend on natural resources.

2.2 Institutional, policy, and regulatory framework

This section presents a description of the institutional, policy, and regulatory framework within which the NIP will be implemented.

2.2.1 Policy and regulatory framework

Owing to Saint Lucia's commitment to preserving life on Earth, Saint Lucia is Party or signatory to several multilateral environmental agreements (MEAs) and regional agreements. Much of the progress that Saint Lucia has made in managing its environment has been the result of technical and financial assistance received as a Party to these agreements. Table 2-2 presents these agreements relevant in the context of POPs and chemicals management.

Agreement	Notes
Minamata Convention on Mercury	A global treaty to protect human health and the environment from the adverse effects of mercury, particularly from anthropogenic releases. Acceded January 23^{rd} , 2019.
St. George's Declaration on Principles of Environmental Sustainability	Sets out principles for environmental sustainability for the OECS countries. First adopted in April 2001, then revised in November 2006. Currently under revision to encapsulate new and emergent issues such as the Sustainable Development Goals.
Stockholm Convention	Seeks to eliminate the use of POPs. Acceded October 4 th , 2002.
Rotterdam Convention ⁴	Promotes shared responsibility among Parties in the international trade of hazardous chemicals through information exchange. Signed January 25 th , 1999.
Basel Convention	Addresses the transboundary movement and environmentally sound disposal of toxic and hazardous waste. Acceded December 9 th , 1993.
Montreal Protocol	Seeks to phase out the consumption of ozone depleting substances. Acceded July 28 th , 1993.
Cartagena Convention	Protects Caribbean waters form pollution, 1984.
The Strategic ApproachtoInternationalChemicals Management	A policy framework to promote environmentally sound chemicals management.

Table 2-2: Relevant regional and international agreements

Adapted from GoSL, 2006

The Sustainable Development Goals (SDGs) are targets to be reached by 2030, which promote a unified framework for improving human quality of life and environmental responsibility. Sound management of chemicals and waste (SMCW) is a specific target under SDG 12 on Sustainable

⁴ On the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

Consumption and Production. SMCW is also referred to under SDG 3 on Good Health and Wellbeing and SDG 6 on Clean Water and Sanitation. SMCW is relevant for, and supports, the implementation of many of the other SDGs, or possibly all, due to the interconnectedness of the targets. Goals and targets in the area of food security, health or sustainable cities, for example, cannot be reached without SMCW. Upgrading industrial processes based on the principles of green chemistry can help to achieve SDG 9 on Industry, Innovation and Infrastructure (United Nations Institute for Training and Research, 2019). The Sustainable Development Goals National Coordinating Committee (SDGNCC) is the guiding body for Saint Lucia's implementation of these goals. The Committee comprises of the DSD, the Ministry of Agriculture, Fisheries, Physical Planning, Natural Resources and Co-operatives (MOAFPNRC) and others⁵.

Regulatory Framework

The main existing laws relevant to POPs and chemicals management in general, are the Pesticides and Toxic Chemicals Control Act (PTCCA), Chapter 11.15 and the Waste Management Act (WMA) Chapter 6.05). The Labour Act, Chapter 16.04 also plays a significant role with the management and use of chemicals in the workplace with respect to worker health and safety.

The PTCCA is the most comprehensive single piece of legislation dealing with chemicals in Saint Lucia including POPs; however, it is limited in addressing national obligations under the Stockholm Convention. While the PTCCA addresses some of the national obligations related to the intentional use and production of POPs (Article 3); it does not address any of the national obligations related to the unintentional production (Article 5), stockpiles and wastes (Article 6). The PTCCA also allows for the regulation of the manufacture, trade and use of POPs pesticides but does not address many of the industrial POPs.

The Pesticides and Toxic Chemicals Control Board (PTCCB) is the appointed local authority for the import, export and sale of pesticides and toxic chemicals, while the Pharmacy Council is responsible for the regulation of pharmaceuticals. POPs pesticides are the only group of POPs for which there is some degree of import regulation and for which a monitoring system exists. This monitoring system is guided by the PTCCA and focuses on imports. An Officer from the Ministry of Agriculture who is assigned as an inspector, is responsible for conducting inspections at ports. An overview of the PTCCB's operations is summarized in Annex B to this NIP.

When an individual or company wishes to import a pesticide, they must first ensure that the pesticide is registered for use then acquire a license for import in accordance with the stipulations of the PTCCA. When the pesticide arrives:

⁵ Department of Education, Innovation and Gender Relations; Department of Economic Development, Transport and Civil Aviation; Department of Finance; Central Statistical Office; Ministry of Equity, Social Justice, Empowerment, Youth Development, Sports and Local Government; Office of the Prime Minister; Department of External Affairs; Sir Arthur Lewis Community College; Civil Society Organisation (represented by the Coalition of Civil Society Organisation and the Caribbean Youth Environment Network); The Private Sector.

- The Customs Department contacts the MOAFPNRC for an inspection.
- If the pesticide is registered for use in Saint Lucia and is deemed acceptable under the guidelines of the PTCCA, the item is released. If the chemical is deemed unacceptable or unregistered, it is confiscated.
- If the confiscated quantity is relatively small, it is kept in a storage unit at the MOAFPNRC's Research Division. A larger quantity in the past, would be kept in a sealed container at the port.

In practice, the established import monitoring system for POPs pesticides is enforced; however, illegal pesticides may still be smuggled into the country or be falsely labelled⁶.

In general, legislative support for existing environmental management policies is inadequate. While there are relevant sectoral laws, some with accompanying regulations and statutory instruments, many are not effectively applied and enforced. In addition, there is no overarching legislative framework for environmental or chemicals management; however, a draft Environmental Management Act (EMA) is currently being prepared that will support improved legal and administrative coordination of diverse sectoral initiatives necessary to support improved environmental management in Saint Lucia. The draft EMA and its regulations are to be administrated by the Department of Sustainable Development and make provisions to prevent and mitigate environmental pollution, including the control of hazardous substances, the management of wastes and responses to environmental accidents.

Notable policy and/or legislative gaps include the involvement of the private sector, civil society and the general public in chemicals management.

Roles and Responsibilities

The Department of Sustainable Development (DSD) is responsible for the coordination of sustainable development issues in the country with strong emphasis on thematic areas related to environmental sustainability, including the sound management of chemicals and wastes. However, environmental management is not only vested in this Department- various agencies including governmental, non-governmental and community-based organizations also share this role (Table 2-3).

Environmental Issue	Responsible Agency/ies
Water	MOAFPNRC, WASCO, MEHUC, MEIGRSD
Air and pollution	MOAFPNRC, OHSU, MEHUC, CARPHA, MEIGRSD
Climate	MOAFPNRC, MEIGRSD

 Table 2-3: Agencies responsible for key environmental issues

⁶ Consultation with Hannah Dupal-Romain, Ministry of Agriculture, 2019.

Environmental Issue	Responsible Agency/ies
Land	MOAFPNRC, MEHUC, MEIGRSD
Waste Management	SLSWMA, MEIGRSD
Coastal and Marine	MOAFPNRC, MEHUC, SMMA, MEIGRSD
Energy/Renewable Energy	MEHUC, LUCELEC, MEIGRSD

CARPHA- Caribbean Public Health Agency; LUCELEC- Saint Lucia Electricity Company; MOAFPNRC- Ministry of Agriculture, Fisheries, Physical Planning, Natural Resources and Co-operatives; MEHUC- Ministry of Economic Development, Housing, Urban Renewal, Transport and Civil Aviation; MEIGRSD- Ministry of Education, Innovation, Gender Relations and Sustainable Development; SLSWMA- Saint Lucia Solid Waste Management Authority; SMMA- Soufriere Marine Management Association; WASCO- Water and Sewerage Company.

2.2.1.1 Legal/administrative measures for chemicals listed in Annex A to the Convention

Table 2-4: Status of legal/administrative measures taken for chemicals listed in Annex A of th	e
Convention	

	Legal/	administrative measure (select all that		
	apply)			
Chemicals			Year	Remarks
	[]	Restriction in accordance with Annex A.		Restricted, not
	[]	Prohibition on production.		prohibited, under the
	[x]	Prohibition on all uses.	Before 2001	Pesticides and
	[x]	Prohibition on import.	2001	toxic Chemicals
	[]	Prohibition on export.		Control Act
				(PTCCA, 2001) -
				export license
				required
				however; use
				banned in
Aldrin	[]	Currently being developed.		1970s-1980s
	[]	No legal/administrative measures taken.		
	[]	Restriction in accordance with Annex A.		
	[]	Prohibition on production.		
	[]	Prohibition on all uses.		
	[]	Prohibition on import.		
Alnha	[]	Prohibition on export.		
hexachlorocyclohexane	[]	Currently being developed.		
	[x]	No legal/administrative measures taken.		
Beta	[]	Restriction in accordance with Annex A.		
hexachlorocyclohexane	[]	Prohibition on production.		

	[]	Prohibition on all uses.		
	[]	Prohibition on import.		
	[]	Prohibition on export.		
	[]	Currently being developed.		
	[x]	No legal/administrative measures taken.		
	[]	Restriction in accordance with Annex A.		Restricted, not
	[]	Prohibition on production.		prohibited
	[x]	Prohibition on all uses.	Before 2001	(2001)-import
	[x]	Prohibition on import.	2001	and export
	[]	Prohibition on export.		license required
Chlordane	[]	Currently being developed.		however; use
chlordane	0	No legal/administrative measures taken.		1970s-1980s
	[]	Restriction in accordance with Annex A.		
	[]	Prohibition on production.		
	[x]	Prohibition on all uses.	2001	Restricted, not
	[x]	Prohibition on import.	2001	prohibited
	[]	Prohibition on export.		under the PTCCA
Chlordecone	[]	Currently being developed.		and export
	[]	No legal/administrative measures taken.		license required
	[]	Restriction in accordance with Annex A.		Restricted, not
	[]	Prohibition on production.		prohibited
	[x]	Prohibition on all uses.	Before 2001	(2001)-import
	[x]	Prohibition on import.	2001	and export
	[]	Prohibition on export.		license required
Dieldrin	[]	Currently being developed.		however; use
	[]	No legal/administrative measures taken.		1970s-1980s
	[]	Restriction in accordance with Annex A.		Restricted, not
	[]	Prohibition on production.		prohibited
	[x]	Prohibition on all uses.	Before 2001	(2001)-import
	[x]	Prohibition on import.	2001	and export
	[]	Prohibition on export.		license required
Fndrin	[]	Currently being developed.		nowever; use banned in
	[]	No legal/administrative measures taken.		1970s-1980s
	[]	Restriction in accordance with Annex A.		Restricted, not
	[]	Prohibition on production.		prohibited
	[x]	Prohibition on all uses.	Before 2001	(2001)-import
	[x]	Prohibition on import.	2001	and export
	[]	Prohibition on export.		license required
Hentachlor	[]	Currently being developed.		nowever; use
	[]	No legal/administrative measures taken.		1970s-1980s
Hexabromobiphenyl	[]	Restriction in accordance with Annex A.		

	1			
	[]	Prohibition on production.		
	[]	Prohibition on all uses.		
	[]	Prohibition on import.		
	[]	Prohibition on export.		
	[]	Currently being developed.		
	[x]	No legal/administrative measures taken.		
	[]	Restriction in accordance with Annex A.		
	[]	Prohibition on production.		
	[]	Prohibition on all uses.		
Hexabromodiphenyl	[]	Prohibition on import.		
ether and	[]	Prohibition on export.		
ether	[]	Currently being developed.		
	[x]	No legal/administrative measures taken.		
	[]	Restriction in accordance with Annex A.		
	[]	Prohibition on production.		
	[]	Prohibition on all uses.		
	[]	Prohibition on import.		
	[]	Prohibition on export.		
Hexabromocyclododec	[]	Currently being developed.		
	[x]	No legal/administrative measures taken.		
	[]	Restriction in accordance with Annex A.		
	[]	Prohibition on production.		
	[x]	Prohibition on all uses.	Before 2001	
	[]	Prohibition on import.		
	[]	Prohibition on export.		
Hexachlorobenzene	[]	Currently being developed.		
Tiexaciliorobenzene	[]	No legal/administrative measures taken.	administrative measures taken.	
	[]	Restriction in accordance with Annex A.		
	[]	Prohibition on production.		
	[]	Prohibition on all uses.		
	[]	Prohibition on import.		
	[]	Prohibition on export.		
Hexachlorobutadiene	[]	Currently being developed.		
	[x]	No legal/administrative measures taken.		
	[]	Restriction in accordance with Annex A.		Use banned in
	[]	Prohibition on production.		1970s-1980s
	[x]	Prohibition on all uses.	Before 2001	Lindane HCH is
	[x]	Prohibition on import.	2001	prohibited
	[]	Prohibition on export.		however; the
Lindane	[]	Currently being developed.		following forms
	[]	No legal/administrative measures taken.		are restricted: -

Image: Perturbation of the probabilities of the production of the production. Image: Conservent of the production of the production. Image: Conservent of the production of the production. Image: Conservent of the production of the producti					Lindane 99%
PentachlorobenzeneImport, Trohibition on production.Import, manufacture, storage or use is prohibited on in accordance with Annex A.Import, manufacture, storage or use is prohibited on in accordance with Annex A.Import, manufacture, storage or use is prohibited on in accordance with Annex A.Import, manufacture, storage or use is prohibited on in accordance with Annex A.Import, manufacture, storage or use is prohibited on in accordance with Annex A.Import, manufacture, storage or use is prohibited on in accordance with Annex A.Import, manufacture, storage or use is prohibited under the PTCCAPentachlorobenzeneIProhibition on import.2001Import, manufacture, storage or use is prohibited under the PTCCAIProhibition on import.2001Import, manufacture, storage or use is prohibited under the PTCCAINo legal/administrative measures taken.IImport, and exportIProhibition on production.IIIProhibition on production.IIIProhibition on production.IIIProhibition on production.IIIProhibition on production.I					Gamma HCH -
Image: series of the series					50% wetable
Image: series of the series					powder - 20%
Image: section of the section of th					emulsifiable
Image: constraint of the section of					concentrate
[]Restriction in accordance with Annex A.Image: Control of the sector of the sec					
[]Prohibition on production.Before 2001[x]Prohibition on all uses.Before 2001[x]Prohibition on import.2001[]Prohibition on export.1000[]Prohibition on export.1000[]Currently being developed.and export[]No legal/administrative measures taken.1000[]Prohibition on production.1000[]Prohibition on all uses.1000[]Prohibition on import.2001[]Prohibition on all uses.1000[]Prohibition on export.1000[]Prohibition on export.1000[]Prohibition on export.1000[]Prohibition on export.1000[]Prohibition on export.1000[]No legal/administrative measures taken.1000[]Prohibition on production.1000[]Prohibition on export.1000[]Prohibition on export.1000[]Prohibition on production.1000[]Prohibition on all uses.1000[]Prohibition on all uses.1000[]Prohibition on all uses.1000 <t< td=""><td></td><td>[]</td><td>Restriction in accordance with Annex A.</td><td></td><td></td></t<>		[]	Restriction in accordance with Annex A.		
[x]Prohibition on all uses.Before 2001Restricted, not prohibited under the PTCCA (2001)-importMirex[]Prohibition on export.IIInder the PTCCA (2001)-import and exportMirex[]Currently being developed.Iand export[]No legal/administrative measures taken.IIcense required[]Restriction in accordance with Annex A.II[]Prohibition on production.IImport, manufacture,[]Prohibition on all uses.IImport, manufacture,[]Prohibition on export.2001Import, manufacture,[]Prohibition on export.2001Import, manufacture,[]No legal/administrative measures taken.IUnder the PTCCA[]Prohibition on import.2001Import, manufacture,[]Prohibition on export.Iunder the PTCCA[]No legal/administrative measures taken.IUnder the PTCCA[]No legal/administrative measures taken.IUnder the PTCCA[]Prohibition on production.II[]Prohibition on production.II[]Prohibition on all uses.II[]Prohibition on all uses.II		[]	Prohibition on production.		
[x]Prohibition on import.2001prohibited under the PTCCA (2001)-import and exportMirex[]Prohibition on export.(2001)-import and export[]No legal/administrative measures taken.IIicense required[]Restriction in accordance with Annex A.IIicense required[]Prohibition on production.IImport, manufacture, storage or use is prohibited under the PTCCAPentachlorobenzene[]Prohibition on export.Import, manufacture, storage or use is prohibited under the PTCCA[]No legal/administrative measures taken.(2001)Import, manufacture, storage or use is prohibited under the PTCCAPentachlorobenzene[]No legal/administrative measures taken.(2001).[]Restriction in accordance with Annex A.(2001).[]Prohibition on production.(2001).[]Prohibition on production.(2001).[]Prohibition on all uses.I[]Prohibition on all uses.I[]Prohibition on all uses.I		[x]	Prohibition on all uses.	Before 2001	Restricted, not
[]Prohibition on export.Inder the PTCCA (2001)-import and export.[]Currently being developed.and export[]No legal/administrative measures taken.license required[]Restriction in accordance with Annex A.Import,[]Prohibition on production.Import,[]Prohibition on all uses.Import,[]Prohibition on export.2001[]Prohibition on export.storage or use is prohibited[]Prohibition on export.prohibited[]No legal/administrative measures taken.(2001).[]Restriction in accordance with Annex A.Import,[]Prohibition on export.prohibited[]Prohibition on production.(2001).[]Restriction in accordance with Annex A.(2001).[]Prohibition on production.Import,[]Prohibition on all uses.Import,[]Prohibition on all uses.Import,[]Prohibition on all uses.Import,[]Prohibition on production.Import,[]Prohibition on production.Import,[]Prohibition on all uses.Import,		[x]	Prohibition on import.	2001	prohibited
Mirex[]Currently being developed.and export[]No legal/administrative measures taken.license required[]Restriction in accordance with Annex A.license required[]Prohibition on production.limport,[]Prohibition on all uses.limport,[]Prohibition on import.2001[]Prohibition on export.storage or use is[]Prohibition on export.storage or use is[]Currently being developed.under the PTCCA[]No legal/administrative measures taken.(2001).[]Restriction in accordance with Annex A.limport,[]Prohibition on production.under the PTCCA[]Prohibition on production.limport,[]Prohibition on production.under the PTCCA[]Prohibition on all uses.limport,[]Prohibition on production.under the PTCCA[]Prohibition on production.limport,[]Prohibition on production.under the PTCCA[]Prohibition on production.limport,[]Prohibition on production.under the PTCCA[]Prohibition on all uses.limport,		[]	Prohibition on export.		(2001)-import
[]No legal/administrative measures taken.license required[]Restriction in accordance with Annex A.[][]Prohibition on production.[][]Prohibition on all uses.[][]Prohibition on import.2001[]Prohibition on export.storage or use is prohibited[]Currently being developed.under the PTCCA[]No legal/administrative measures taken.(2001).[]Restriction in accordance with Annex A.(2001).[]Prohibition on production.[][]Prohibition on all uses.[]	Mirex	[]	Currently being developed.		and export
[]Restriction in accordance with Annex A.Import,[]Prohibition on all uses.Import,[]Prohibition on import.2001[]Prohibition on export.storage or use is[]Prohibition on export.under the PTCCA[]No legal/administrative measures taken.(2001).[]Restriction in accordance with Annex A.Import,[]Prohibition on export.Import,[]No legal/administrative measures taken.(2001).[]Prohibition on production.Import,[]Prohibition on all uses.Import,[]Prohibition on all uses.Import,		[]	No legal/administrative measures taken.		license required
[]Prohibition on production.Import, manufacture, storage or use is prohibited under the PTCCA[]Prohibition on export.2001[]Prohibition on export.storage or use is prohibited under the PTCCA[]No legal/administrative measures taken.(2001).[]Restriction in accordance with Annex A.Import, storage or use[]Prohibition on production.Import, storage or use[]Prohibition on export.Import, storage or use[]No legal/administrative measures taken.(2001).[]Prohibition on production.Import, storage or use[]Prohibition on production.Import, storage or use[]Prohibition on all uses.Import, storage or use		[]	Restriction in accordance with Annex A.		
[]Prohibition on all uses.Import, manufacture, storage or use is prohibited under the PTCCAPentachlorobenzene[]Prohibition on export.storage or use is prohibited under the PTCCA[]No legal/administrative measures taken.(2001).[]Restriction in accordance with Annex A		[]	Prohibition on production.		
[x]Prohibition on import.2001manufacture, storage or use is prohibited under the PTCCAPentachlorobenzene[]Currently being developed.Image: constraint of the PTCCA[]No legal/administrative measures taken.(2001).[]Restriction in accordance with Annex A.Image: constraint of the PTCCA[]Prohibition on production.Image: constraint of the PTCCA[]Prohibition on all uses.Image: constraint of the PTCCA		[]	Prohibition on all uses.		Import,
[]Prohibition on export.storage or use is prohibitedPentachlorobenzene[]Currently being developed.under the PTCCA[]No legal/administrative measures taken.(2001).[]Restriction in accordance with Annex A.[]Prohibition on production.[]Prohibition on all uses.		[x]	Prohibition on import.	2001	manufacture,
Pentachlorobenzene [] Currently being developed. profibited under the PTCCA (2001). [] No legal/administrative measures taken. (2001). [] Restriction in accordance with Annex A. – [] Prohibition on production. – [] Prohibition on all uses. –		[]	Prohibition on export.		storage or use is
[] No legal/administrative measures taken. (2001). [] Restriction in accordance with Annex A. (2001). [] Prohibition on production. (2001). [] Prohibition on production. (2001). [] Prohibition on production. (2001).	Pentachlorobenzene	[]	Currently being developed.		under the PTCCA
[]Restriction in accordance with Annex A.[]Prohibition on production.[]Prohibition on all uses.		[]	No legal/administrative measures taken.		(2001).
[]Prohibition on production.[]Prohibition on all uses.		[]	Restriction in accordance with Annex A.		
[] Prohibition on all uses.		[]	Prohibition on production.		
		[]	Prohibition on all uses.		
[] Prohibition on import.		[]	Prohibition on import.		
Dentes level and [] Prohibition on export.	Dentechlenenhenel and	[]	Prohibition on export.		
its salts and esters [] Currently being developed.	its salts and esters	[]	Currently being developed.		
[x] No legal/administrative measures taken.		[x]	No legal/administrative measures taken.		
[] Restriction in accordance with Annex A.		[]	Restriction in accordance with Annex A.		
[] Prohibition on production.		[]	Prohibition on production.		
Image: Prohibition on all uses.		[]	Prohibition on all uses.		
Prohibition on import.		[]	Prohibition on import.		
[] Prohibition on export.		[]	Prohibition on export.		
Polychlorinated	Polychlorinated	n n	Currently being developed.		
[x] No legal/administrative measures taken.	biphenyis (PCB)	[x]	No legal/administrative measures taken.		
[] Restriction in accordance with Annex A.		[]	Restriction in accordance with Annex A.		
[] Prohibition on production.		[]	Prohibition on production.		
Image: Prohibition on all uses.		n	Prohibition on all uses.		
[] Prohibition on import.		n	Prohibition on import.		
[] Prohibition on export.		n	Prohibition on export.		
Polychlorinated	Polychlorinated	n	Currently being developed.		
[x] No legal/administrative measures taken.	naprunaienes (PCN)	[x]	No legal/administrative measures taken		

	[]	Restriction in accordance with Annex A.			
	[]	Prohibition on production.			
	[] Prohibition on all uses.			Restricted, not	
	[x]	Prohibition on import.	2001	prohibited	
Technical endosulfan	[]	Prohibition on export.		under the PTCCA	
and its related isomers	[]	Currently being developed.		and export	
	[]	No legal/administrative measures taken.		license required.	
	[]	Restriction in accordance with Annex A.			
	[]	Prohibition on production.			
	[]	Prohibition on all uses.			
Tetrabromodiphenyl	[]	Prohibition on import.			
ether and	[]	Prohibition on export.			
ether	[]	Currently being developed.			
	[x]	No legal/administrative measures taken.			
	[]	Restriction in accordance with Annex A.			
	[]	Prohibition on production.		_	
	[x]	Prohibition on all uses.		Restricted, not	
[x]		Prohibition on import.		prohibited	
	[]	Prohibition on export.		(2001)-import	
Toxaphene	[]	Currently being developed.		and export	
	[]	No legal/administrative measures taken.		license required	

2.2.1.2 Legal/administrative measures for chemicals listed in Annex B to the Convention

Table 2-5: Status of legal/administrative measures taken for chemicals listed in Annex B of the Convention

	Legal	administrative measure (select all that		
Chemicals	apply		Year	Remarks
	[]	Restriction in accordance with Annex B.		Restricted, not
	[]	Prohibition on production.		under the
	[]	Prohibition on all uses.		PTCCA (2001)-
	[x]	Prohibition on import.	Before 2001	import and
	[]	Prohibition on export.		export license
DDT (1,1,1-trichloro-2,	[]	Currently being developed.		however; use
2-bis (4-chlorophenyl)				banned in
ethane)				1970s- 1980s
	[]	No legal/administrative measures taken.		
	[]	Restriction in accordance with Annex B.		
Perfluorooctane	[]	Prohibition on production.		
sulfonic acid, its salts	[]	Prohibition on all uses.		

and perfluorooctane	[]	Prohibition on import.	
sulfonyl fluoride	[]	Prohibition on export.	
	[]	Currently being developed.	
	[x]	No legal/administrative measures taken.	

2.2.1.3 Strategies/action plan/measures for polychlorinated biphenyls (PCBs) management

Table 2-6: Status of strategies/measures for management of PCBsNational Report Cycle 4 Section XIArticle 13 Part CSection1 Article 6

Strategy/measure	Status	Vear	Elements included in the
strategies for identifying stockpiles consisting of or containing greater than 0.005% (50 ppm) PCB Q1	[x] Yes [] Currently being developed [] No	[before 2009/2018]	 [] Media campaign. [x] Regulatory and enforcement policies. [] Incentives. [x] Partnerships with stakeholders. [x] Identification of relevant sectors. [x] Database (electronic or paper copy). [] Formal communication. [] Informal communication. [] Door to door search. [] Other :
strategies for identifying products and articles in use and wastes consisting of, containing or contaminated with greater than 0.005% (50 ppm) PCB Q2	[] Yes [] Currently being developed. [x] No	Π	 [] Media campaign. [] Regulatory and enforcement policies. [] Incentives. [] Partnerships with stakeholders. [] Identification of relevant sectors. [] Database (electronic or paper copy). [] Formal communication. [] Informal communication. [] Door to door search. [] Other :
strategies for identifying products and articles containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (e.g. cable-sheaths, cured caulk and painted objects), Q3	[x] Yes [] Currently being developed. [] No	[2020]	 [] Media campaign. [] Regulatory and enforcement policies. [] Incentives. [x] Partnerships with stakeholders. [x] Identification of relevant sectors. [x] Database (electronic or paper copy). [x] Formal communication. [x] Informal communication. [] Door to door search. [] Other :

measures to ensure PCB or products and articles containing greater than 0.005% (50 ppm) PCB identified as wastes are managed in an environmentally sound manner Q4	[x] Yes [] Currently being developed. [] No	[2020]	 [x] Handled in an environmentally sound manner. [x] Collected in an environmentally sound manner. [x] Transported in an environmentally sound manner. [x] Stored in an environmentally sound manner. [x] Disposed of in such a way that the persistent organic pollutant content is destroyed or irreversibly transformed, or otherwise disposed of in an environmentally sound manner, in accordance with paragraph 1 (d) (ii) of Article 6 of the Convention.
strategies for identifying sites contaminated by greater than 0.005% (50 ppm) PCB Q5	[x] Yes [] Currently being developed. [] No	[2020]	
taking measures to identify and label, where appropriate, equipment in use containing greater than 0.005% (50 ppm) PCB Q7	[x] Yes [] No	[2020]	 Constitution of task force. Questionnaire survey. Legislation/regulation. Development of inventory. Other :
taking measures to identify and/or label, where appropriate, wastes liable to contain greater than 0.005% (50 ppm) PCB Q8	[x] Yes [] No	[2020]	 [x] Use of labels for identification. [x] Use of screening test for identification. [x] Use of laboratory analysis for identification. [] Other :
taking measures to identify articles containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (e.g. cable- sheaths, cured caulk and painted objects) Q9	[x] Yes [] No	[2020]	 [] Constitution of task force. [] Questionnaire survey. [] Legislation/regulation. [] Development of inventory. [x] Other : ongoing management plan for decommissioned equipment has been developed and includes securing of financial support from an ongoing initiative (GEF 5558)for the acquisition of PCB analysing equipment

Table 2-7: Status of developing a specific plan for the management, phase-out and disposal of PCB

Status of developing a specific plan for the management, phase-out and disposal of PCB	Vear	Difficulties encountered in the implementation of the specific plan for the management, phase-out and disposal of PCB	Main problem sources
			[] Lack of institutional or policy
			framework.
			[] Lack of financial resources.
			[] Limited human resources.
			[] Insufficient technical capacity.
			[] Lack of disposal facilities.
			[] Lack of storage facilities.
[x] Yes		[] Yes	[] Lack of analytical laboratories.
[] No	[2020]updated	[x] No	[] Other :

Table 2-8: Status of promoting any measures to reduce exposures from the use of PCB Q 13

Status of promoting	Year	
any measures to		
reduce exposures		
from the use of PCB		Measures promoted
	[]	[] Use only in intact and non-leaking equipment and only in areas
		where the risk of environmental release can be minimized and quickly remedied.
		[] No use in equipment in areas associated with the production or processing of food or feed.
		[] When used in populated areas, measures are in place to protect
		from electrical failure which could result in a fire.
		[] When used in schools, measures are in place to protect from
		electrical failure which could result in a fire.
		[] When used in hospitals, measures are in place to protect from electrical failure which could result in a fire.
		[] When used in populated areas, regular inspection of equipment is made for leaks.
		[] When used in schools, regular inspection of equipment is made for
		leaks.
		[] When used in hospitals, regular inspection of equipment is made
[] Yes		for leaks.
[x] No		[] Other :

2.2.1.4 Strategies/action plan/measures for POP-PBDEs management

Table 2-9: Strategies/action plan/measures for POP-PBDEs management

			Description of actions or
Strategy/action plan/measure	Status	Year	control measures

			 Develop regulatory framework for POP-BFRs and impacted product/waste Development/ update of inventory of POP-BFRs Sound lifecycle
	[x] Yes [x Hexabromodiphenyl ether and [x]heptabromodiphenyl ether [x] Tetrabromodiphenyl ether and [x]pentabromodiphenyl ether [] Currently being developed		 management of POP-BFR containing products and waste categories Assessing and selecting the most suitable alternatives to POP-BFRs Application of BAT/BEP in the ESM of POP-BFRs Awareness raising and
	[] No		education for relevant stakeholder groups
taking actions or control	resources		- Analysis and
measures to eliminate brominated diphenyl ethers	[] Lack of technical capacity		in the environment, food
contained in articles	[] Other	2020	and humans

2.2.1.5 Strategies/action plan/measures for DDT

Table 2-10: Status of development of laws and regulations for DDT purchase and use

Status of development of national laws and regulations governing and restricting the purchase or use of DDT	National laws and regulations governing and restricting the purchase or use of DDT fully enforced	Quality control of DDT produced or imported
[x] Yes	[x] Yes	[] Yes
[] No	[] No	[x] No
		[] Not applicable

Table 2-11: Status of Integrated vector management strategy development and implementation

Integrated vector management (IVM) strategy	IVM strategy implemented throughout the
	country
[] Yes	[x] Yes
[x] No	[] No

2.2.1.6 Strategies/action plan/measures for PFOS, its salts and PFOSF management (3.3.7 NIP)

Table 2-12: Status of developing and implementing an action plan for reduction/eliminating PFOS, its salts and PFOSF

Strategy/action plan/measure	Status	Year
developing and implementing an action plan with the goal of reducing and ultimately eliminating the	[x] Yes [] Currently being developed.	
production and/or use of PFOS	[] No	[2020]

Table 2-13: Strategies/action plan/measures for PFOS, its salts and PFOSF management

			Description of the alternative	
Strategy/action			substances or	Main problem
plan/measure	Status	Use	methods	sources
		[] Photo-imaging		
		[] Photo-resist and anti- reflective coatings for semi- conductors		
		[] Etching agent for compound semiconductors and ceramic filters		
		[] Aviation hydraulic fluids		
		[] Metal plating (hard metal plating) only in closed-loop systems		[x]
		[] Certain medical devices (such as ethylene tetrafl uoroethylene copolymer (ETFE)		Unavailability of information on alternative
		production, in-vitro diagnostic medical devices, and CCD		methods. [x] Lack of
taking any actions to		colour filters)		financial
PEOS as safer		[x] Fire-fighting foam		resources.
alternative substances		[] Insect baits for control of		technical
or methods have	[x] Yes	leaf-cutting ants from Atta spp.		capacity.
become available,	[] No	and Acromyrmex spp		[] Other :

[] Photo masks in the semiconductor and liquid crystal display (LCD) industries	
[] Metal plating (hard metal plating)	
[] Metal plating (decorative plating)	
[] Electric and electronic parts for some colour printers and colour copy machines	
[] Insecticides for control of red imported fi re ants and termites	
[] Chemically driven oil production	
[] Carpets	
[] Leather and apparel	
[] Textiles and upholstery	
[] Paper and packaging	
[] Coatings and coating additive	
[] Rubber and plastics	
[] Other uses	

Table 2-14: Status of promoting research and development of alternatives to PFOS, its salts and PFOSF management Cross reference 2.3.9.5 NIP p.30

Action	Status	Action taken	Main problem sources
taking action to promote research on and development of safe alternative chemicals and non-chemical products and processes, methods and strategies to the use of PFOS as parties are encouraged to do so in accordance with paragraph 4 (c) of Part III of Annex B	[] Yes [x] No	[]	 [x] Unavailability of information on alternative substances or methods. [x] Lack of financial resources. [x] Insufficient technical capacity. [] Other :
taken action to build the capacity of countries to transfer safely to reliance on alternatives to PFOS, its salts and PFOSF in accordance with paragraph 5 (d) of Part III of Annex B	[x] Yes [] No	[Assessment of alternatives is ongoing. Planning for transition to safer alternatives]	 [] Unavailability of information on alternative substances or methods. [x] Lack of financial resources. [] Insufficient technical capacity. [] Other :

2.2.1.7 Strategies/action plan/measures for unintentional POPs management

 Table 2-15:
 Status of developing an action plan to identify, characterize and address releases of chemicals listed in Annex C (3.3.9 NIP)

	_		Difficulties in the implementation	
Action Plan	Status	Year	of the action plan	Main problem sources
				[x] Lack of institutional or
				policy framework.
		Development		[x] Lack of financial
		of the action		resources.
		plan: 2006		
action plan designed to	[x] Yes			[x] Limited human resources.
identify, characterize and	[] Currently	Review and		[x] Insufficient technical
address the release of the	being	updating of		capacity.
chemicals listed in Annex	developed.	the action	[x] Yes	[] Insufficient information.
С	[] No	plan: 2020	[] No	[] Other :

Table 2-16: Status of participating in regional/sub-regional action plan identify, characterize and address releases of chemicals listed in Annex C (11.1 NR cycle4)

		Name of regional or sub-	
Action	Status	regional action plan	Starting year
		GEF 5558 Project -	
		Component 2; Output	
		2.1(uPOPs reduction	
		through the improvement	
		of landfill practices in	
		Antigua & Barbuda,	
		Barbados, Saint Kitts &	
		Nevis, Saint Lucia and Saint	
		Vincent and the	
participating in any regional or	[x] Yes	Grenadines)	
sub-regional action plan	[] No		2019

 Table 2-17: Status of evaluating efficacy of the laws and policies adopted to manage releases of unintentionally

 POPs

|--|

evaluation of the efficacy of the laws and policies	[x] Yes	
adopted to manage releases of unintentionally	 Currently being developed. 	
produced persistent organic pollutants	[] No	[2018]

Table 2-18: Status of promoting or introducing requirements for use of best available techniques (BAT) and best environmental practices (BEP) for new sources and existing sources

Section 4 Article 5 Q 14 NR

Measure	Status	New sources	Existing sources
		[] Require use of BAT for all	[] Require use of BAT for
		source categories.	all source categories.
		Starting year:	Starting year:
		[] Require use of BAT for identified priority source categories only. Starting year:	[] Require use of BAT for identified priority source categories only. Starting year:
		[] Promote use of BAT for all source categories. Starting year:	[] Promote use of BAT for all source categories. Starting year:
		[] Promote use of BAT for identified priority source categories only. Starting year:	[] Promote use of BAT for identified priority source categories only. Starting year:
		[] Promote use of BEP for all	[] Promote use of BEP for
		source categories.	all source categories.
promoted or introduced	[] \/	Starting year:	Starting year:
requirements for use of best	[] Yes		
available techniques (BAT) and	[] Currently	[] Promote use of BEP for	[] Promote use of BEP for
(PED) for now sources and	being	categories only	cotogorios only
evisting sources		Starting year	Starting year
promoted or introduced requirements for use of best available techniques (BAT) and best environmental practices (BEP) for new sources and existing sources	[] Yes [] Currently being developed. [x] No	 i) Promote use of BAT for identified priority source categories only. Starting year: [] Promote use of BEP for all source categories. Starting year: [] Promote use of BEP for identified priority source categories only Starting year: 	 all source categories. Starting year: [] Promote use of BAT fidentified priority source categories only. Starting year: [] Promote use of BEP fi all source categories. Starting year: [] Promote use of BEP fidentified priority source categories only. Starting year: [] Promote use of BEP fidentified priority source categories only.

2.2.1.8 Strategies/measures for POPs stockpiles and waste management (3.3.10 in NIP)

Table 2-19: Status of developing strategies and taking measure to identify and manage stockpiles
 consisting of, or containing, chemicals listed in either Annex A or Annex B to the Convention

			Year	Туре	Year
		Main problem	Pesticides listed	Industrial chemicals listed	
Strategy/measures	Status	sources	in annexes A or B:	in annexes A or	В:

developing strategies for identifying stockpiles consisting of, or containing, chemicals listed in either Annex A or Annex B to the Convention	[x] Yes [] Currently being developed. [] No	 [x] Lack of institutional or policy framework. [x] Limited financial resources. [x] Limited human resources. [x] Insufficient technical capacity. [] Other : 	[]	[]	[]
taking any measures to manage stockpiles in a safe, efficient and environmentally sound manner	[x] Yes [] No		Π	0	0

Table 2-20: Status of developing strategies and taking measure to identify and manage products and articles in use and wastes consisting of, containing, or contaminated with chemicals listed in Annex A, B <mark>or C, including contaminated sites</mark> (3.3.9 NIP)

Strategy/measures	Status	Main problem sources	Year Pesticides listed in annexes A or B:	Type Industrial che listed in anne B:	Year emicals exes A or	Year Unintentional chemicals listed in annex C
developing		[x] Lack of				
strategies for		financial				
identifying		resources.				
products and		[x] Limited				
articles in use and		human				
wastes consisting	[x] Yes	resources.				
of, containing, or	[] Currently	[x] Insufficient				
contaminated with	being	technical				
chemicals listed in	developed.	capacity.				
Annex A, B or C	[] No	[] Other	[]	[]	[]	[]
taking any						
measures to						
manage wastes,						
including products						
and articles upon	[x] Yes					
becoming wastes	[] No		[]	[]	[]	[]

developing					
strategies for					
identifying sites	[x] Yes				
contaminated by	[] Currently				
chemicals listed in	being				
Annex A, B or C	developed.				
,	[] No				
(3.3.11 in NIP)					
		[]	[]	[]	[]

2.2.2 Institutional framework

This section presents a description of the institutional, policy, and regulatory framework within which the NIP will be implemented.

Policy Framework

Owing to Saint Lucia's commitment to preserving life on Earth, Saint Lucia is Party or signatory to several multilateral environmental agreements (MEAs) and regional agreements. Much of the progress that Saint Lucia has made in managing its environment has been the result of technical and financial assistance received as a Party to these agreements. Table 2-2 presents these agreements relevant in the context of POPs and chemicals management.

Agreement	Notes
Minamata Convention on Mercury	A global treaty to protect human health and the environment from the adverse effects of mercury, particularly from anthropogenic releases. Acceded January 23 rd , 2019.
St. George's Declaration on Principles of Environmental Sustainability	Sets out principles for environmental sustainability for the OECS countries. First adopted in April 2001, then revised in November 2006. Currently under revision to encapsulate new and emergent issues such as the Sustainable Development Goals.
Stockholm Convention	Seeks to eliminate the use of POPs. Acceded October 4 th , 2002.
Rotterdam Convention ⁷	Promotes shared responsibility among Parties in the international trade of hazardous chemicals through information exchange. Signed January 25 th , 1999.
Basel Convention	Addresses the transboundary movement and environmentally sound disposal of toxic and hazardous waste. Acceded December 9 th , 1993.
Montreal Protocol	Seeks to phase out the consumption of ozone depleting substances. Acceded July 28 th , 1993.

Table 0-11: Relevant regional and international agreements (Need to review table numbers)

⁷ On the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

Agreement	Notes
Cartagena Convention	Protects Caribbean waters form pollution, 1984.
The Strategic Approach to International Chemicals Management	A policy framework to promote environmentally sound chemicals management.

Adapted from GoSL, 2006

The Sustainable Development Goals (SDGs) are targets to be reached by 2030, which promote a unified framework for improving human quality of life and environmental responsibility. Sound management of chemicals and waste (SMCW) is a specific target under SDG 12 on Sustainable Consumption and Production. SMCW is also referred to under SDG 3 on Good Health and Well-being and SDG 6 on Clean Water and Sanitation. SMCW is relevant for, and supports, the implementation of many of the other SDGs, or possibly all, due to the interconnectedness of the targets. Goals and targets in the area of food security, health or sustainable cities, for example, cannot be reached without SMCW. Upgrading industrial processes based on the principles of green chemistry can help to achieve SDG 9 on Industry, Innovation and Infrastructure (United Nations Institute for Training and Research, 2019). The Sustainable Development Goals National Coordinating Committee (SDGNCC) is the guiding body for Saint Lucia's implementation of these goals. The Committee comprises of the DSD, the Ministry of Agriculture, Fisheries, Physical Planning, Natural Resources and Co-operatives (MOAFPNRC) and others⁸.

Regulatory Framework

The main existing laws relevant to POPs and chemicals management in general, are the Pesticides and Toxic Chemicals Control Act (PTCCA), Chapter 11.15 and the Waste Management Act (WMA) Chapter 6.05). The Labour Act, Chapter 16.04 also plays a significant role with the management and use of chemicals in the workplace with respect to worker health and safety.

The PTCCA is the most comprehensive single piece of legislation dealing with chemicals in Saint Lucia including POPs; however, it is limited in addressing national obligations under the Stockholm Convention. While the PTCCA addresses some of the national obligations related to the intentional use and production of POPs (Article 3); it does not address any of the national obligations related to the unintentional production (Article 5), stockpiles and wastes (Article 6). The PTCCA also allows for the regulation of the manufacture, trade and use of POPs pesticides but does not address many of the industrial POPs.

The Pesticides and Toxic Chemicals Control Board (PTCCB) is the appointed local authority for the import, export and sale of pesticides and toxic chemicals, while the Pharmacy Council is responsible for the regulation of pharmaceuticals. POPs pesticides are the only group of POPs for which there is some

⁸ Department of Education, Innovation and Gender Relations; Department of Economic Development, Transport and Civil Aviation; Department of Finance; Central Statistical Office; Ministry of Equity, Social Justice, Empowerment, Youth Development, Sports and Local Government; Office of the Prime Minister; Department of External Affairs; Sir Arthur Lewis Community College; Civil Society Organisation (represented by the Coalition of Civil Society Organisation and the Caribbean Youth Environment Network); The Private Sector.

degree of import regulation and for which a monitoring system exists. This monitoring system is guided by the PTCCA and focuses on imports. An Officer from the Ministry of Agriculture who is assigned as an inspector, is responsible for conducting inspections at ports. An overview of the PTCCB's operations is summarized in Annex B to this NIP.

When an individual or company wishes to import a pesticide, they must first ensure that the pesticide is registered for use then acquire a license for import in accordance with the stipulations of the PTCCA. When the pesticide arrives:

- The Customs Department contacts the MOAFPNRC for an inspection.
- If the pesticide is registered for use in Saint Lucia and is deemed acceptable under the guidelines of the PTCCA, the item is released. If the chemical is deemed unacceptable or unregistered, it is confiscated.
- If the confiscated quantity is relatively small, it is kept in a storage unit at the MOAFPNRC's Research Division. A larger quantity in the past, would be kept in a sealed container at the port.

In practice, the established import monitoring system for POPs pesticides is enforced; however, illegal pesticides may still be smuggled into the country or be falsely labelled⁹.

In general, legislative support for existing environmental management policies is inadequate. While there are relevant sectoral laws, some with accompanying regulations and statutory instruments, many are not effectively applied and enforced. In addition, there is no overarching legislative framework for environmental or chemicals management; however, a draft Environmental Management Act (EMA) is currently being prepared that will support improved legal and administrative coordination of diverse sectoral initiatives necessary to support improved environmental management in Saint Lucia. The draft EMA and its regulations are to be administrated by the Department of Sustainable Development and make provisions to prevent and mitigate environmental pollution, including the control of hazardous substances, the management of wastes and responses to environmental accidents.

Notable policy and/or legislative gaps include the involvement of the private sector, civil society and the general public in chemicals management.

2.2.3 Stakeholders roles

The Department of Sustainable Development (DSD) is responsible for the coordination of sustainable development issues in the country with strong emphasis on thematic areas related to environmental sustainability, including the sound management of chemicals and wastes. However, environmental management is not only vested in this Department- various agencies including governmental, non-governmental and community-based organizations also share this role (Table 2-3).

 Table 2-22: POPs management stakeholders and related roles

|--|

⁹ Consultation with Hannah Dupal-Romain, Ministry of Agriculture, 2019.

MOAFPNRC, WASCO, MEHUC,	Water
MEIGRSD	
MOAFPNRC, OHSU, MEHUC, CARPHA,	Air and pollution
MEIGRSD	
MOAFPNRC, MEIGRSD	Climate
MOAFPNRC, MEHUC, MEIGRSD	Land
SLSWMA, MEIGRSD	Waste Management
MOAFPNRC, MEHUC, SMMA,	Coastal and Marine
MEIGRSD	
MEHUC, LUCELEC, MEIGRSD	Energy/Renewable Energy
MOAFPNRC, WASCO, MEHUC,	Water
MEIGRSD	

CARPHA- Caribbean Public Health Agency; LUCELEC- Saint Lucia Electricity Company; MOAFPNRC- Ministry of Agriculture, Fisheries, Physical Planning, Natural Resources and Co-operatives; MEHUC- Ministry of Economic Development, Housing, Urban Renewal, Transport and Civil Aviation; MEIGRSD- Ministry of Education, Innovation, Gender Relations and Sustainable Development; SLSWMA- Saint Lucia Solid Waste Management Authority; SMMA- Soufriere Marine Management Association; WASCO- Water and Sewerage Company.

2.3 Assessment of the POPs issue in the country

This section outlines the current state of knowledge about POPs in Saint Lucia, including inventory information, technical management and monitoring capacity, and provisions for sharing information and raising public awareness. This is mainly informed by the 2016 POPs Inventory Reports conducted for Saint Lucia (BCRC-Caribbean, 2017 a-e).

2.3.1 Assessment of POPs pesticides (Annex A, Part I)

At its entry into force in 2004, the Stockholm Convention listed nine (9) pesticides within its Annexes (A, B, and/or C)¹⁰. Subsequently, in 2009 and then in 2011, an additional five (5) pesticides were added to the Annexes of the Convention. These additional pesticides were: chlordecone, lindane and the principal isomers found in technical hexachlorocyclohexane (HCH) including also alpha-and beta-HCH, pentachlorobenzene (a contaminant found in specific types of pesticides) in 2009, endosulfan in 2011 and PCP in 2015.

2.3.1.1 Production

Saint Lucia is not a producer or exporter of POPs pesticides but has been importing pesticides for use primarily in the agricultural sector. Several of these pesticides appear in the PTCCA Cap. 11.15, under Schedule Five (5)¹¹. Thus, these POPs pesticides cannot be manufactured, sold or imported without the requisite licenses prescribed in sections 28, 29 and 31 of the PTCCA Cap. 11.15. Alternatives to lindane

¹⁰ Aldrin; chlordane; dichlorodiphenyltrichloroethane (DDT); dieldrin; endrin; heptachlor; hexachlorobenzene; mirex; and toxaphene.

¹¹ Endrin, Aldrin, Dieldrin, Chlordane, DDT, Mirex, Toxaphene, Lindane, Chlordecone and Endosulfan

(for control of head lice and scabies) and chlodecone (insecticide in the banana industry) have been registered for use in Saint Lucia.

The most current inventory (2016) indicates that of the sixteen (16) POPs pesticides currently listed under the Stockholm Convention, none are in use or currently registered for use in Saint Lucia (BCRC-Caribbean, 2017a). In addition, lindane, has been prohibited, and HCB is banned. In Saint Lucia, DDT was banned for use in the 1970s - 1980s through an administrative measure to ban DDT imports however, this ban is not articulated in the PTCCA Cap. 11.15. Information on the historic use of PCP in Saint Lucia, including the use of PCP treated electrical poles, was not confirmed.

		х		Not			
				applicable	Year in	Year in	Estimated
				(this is	which the	which the	total
				not under	production	production	production
Chemicals	Yes		N/Av*	SC-ERS)	started	ended	[kg]
Aldrin		х					
Alpha		х					
hexachlorocyclohexane							
Beta		х					
hexachlorocyclohexane							
Chlordane		х					
Chlordecone		х					
Dieldrin		х					
Endrin		х					
Heptachlor		х					
Hexachlorobenzene		х					
Lindane		х					
Mirex		х					
Pentachlorobenzene		х					
Pentachlorophenol and its salts and esters		х					
Technical endosulfan and its related isomers		х					
Toxaphene		х					
DDT (1,1,1-trichloro-2, 2-bis (4-chlorophenyl) ethane)		x					
Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride		x					

Table 2-23: Production of POPs pesticides in Saint Lucia in/during 2016

2.3.1.2 Import (NIP p 18)

Table 2-24: POPs pesticides imports in/during 2016

Status	Year	Chemical	Purpose	Countries of origin	Total annual import (kg/year)
[] Yes					
[x] No					

2.3.1.3 Export (NIP p17)

Table [2-25]. POPs pesticides exports in/during [2016]

Status	Year	Chemical	Purpose	Destination Countries	Total annual export (kg/year)
[] Yes					
[x] No					

2.3.1.4 Use (2.3.1.1 NIP p18)

Table [2-26]. POPs pesticides use in/during [2016]

Status	Year	Chemical	Purpose	Total annual use (kg/year)
[] Yes				
[x] No				
[] Information not				
available				

2.3.1.5 Alternatives

Table [2-27]. Status of using alternatives in/during [insert year/period]

				Risk assessment against
Year	r of Type of		Total annual	POPs criteria listed in
intro	oducing alternati	ve Purpose	use (kg/year)	Annex D

Status of alternatives	the alternative		
use			
[] Yes			
[] No			
[x]			
Information			
not available			

2.3.2 Assessment of PCBs (Annex A, Part II) 3.3.4 NIP

The SC allows for PCBs to be used in equipment (e.g. transformers and capacitors), while setting out priorities for action toward the goal of eliminating their use by 2025 and elimination by 2028 (subject to review by the COP).

2.3.2.1 Production

Saint Lucia does not produce or directly import PCBs (BCRC-Caribbean, 2017b). PCB containing components such as capacitors in EEE, may still be imported into the country. Saint Lucia Electricity Services Company (LUCELEC) is the only major agency that historically used large quantities of transformers containing PCB oils. LUCELEC has indicated that as a matter of due diligence, a previous initiative was conducted to identify, phase-out and dispose of PCB containing transformers and oils (approximately 34.80 tonnes) in its possession. In July 2019, the obsolete stocks of transformer oils and potentially PCB contaminated equipment at LUCELEC's facilities in Vieux Fort and Union were analysed as part of a regional POPs management project. The exercise confirmed that the obsolete stocks are PCB-free. Further to that exercise, a management plan will be developed for the ongoing management of decommissioned equipment. Sustainability is considered in the project as the LUCELEC's laboratory capacity would be improved through support for the acquisition of PCB analysing equipment.

Table	[2_22]	Production	of DCBs in	[Spint Lucia	lin/during	lincort voor	(noriod
Iable	[2-20].	FIGURE	ULL CD2 III		aj in/uuring	Linsert year	penou

Chemicals	Yes	No	N/Av*	Year in which the production started	Year in which the production ended	Estimated total production [kg]
Polychlorinated biphenyls (PCB)		x				

SCCPs were recently (2017) listed in Annex A with a range of exemptions. SCCPs have substituted PCBs and PCNs in a wide range of open applications (e.g. paints, coatings, sealants, plastic additive/flame retardant, rubber, lubricants, and metal-working fluids). Although data is not available, it is assumed that PCBs in 'open applications' such as paints, caulking and hydraulic systems, have been used in the past. Since the recent listing of PCNs and SCCPs as POPs in 2015 and 2017 respectively, open applications of PCBs also must be assessed for these POPs.

Stockpiles, Waste and Contaminated Sites

Currently, there are no known stockpiles of PCB oil or PCB containing equipment. The potentially PCB contaminated sites include LUCELEC's historic PCB storage site (in Union) and at a site in the Black Bay area where there was the minor potential for the unintentional production of PCBs from past informal thermal copper cable/wire reclamation.

2.3.2.2 Import for destruction

Table [2-29]. Imports for destruction of the PCBs contained in equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) in/during [insert year/period] Check NR

Import for destruction of the PCBs contained in equipment, liquids, or other wastes containing greater than 0.005% (50 ppm):	PCBs contained in:	Year	Quantity (Metric Tons):
[] Yes			
[x] No			

2.3.2.3 Export for destruction

Table [2-30]. Exports for destruction of the PCBs contained in equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) in/during [insert year/period]

Export for destruction of the PCBs contained in equipment, liquids, or other wastes containing greater than 0.005% (50 ppm):	PCBs contained in:	Year	Quantity (Metric Tons):
[] Yes			
[x] No			

2.3.2.4 Use NIP p. 61 Table 3-4

Table [2-31]. Status on developing the inventory of PCB in equipment (e.g. transformers, capacitors or other receptacles containing liquid stocks), articles, oils and waste

Status on developing the inventory of PCB in equipment (e.g. transformers, capacitors or other receptacles		
containing liquid stocks), articles, oils		
and waste	Type of inventory	Main problem sources
		[x] Lack of institutional or policy
		framework.
		[x] Lack of financial resources.
[x] Yes	[] Complete inventory.	[x] Lack of human resources.
 Currently being developed. 	[x] Preliminary	[x] Lack of technical capacity.
[] No	inventory.	[] Other :
Table [2-32]. Inventory of PCB containing equipment in/during [2016] (Q14.2 cycle 4 NR) p.57 (Need to inform LUCELEC)

Fourse	C+	tue of onvincent	Year of	Number of	Total mass of equipment	Mass of solid parts of equipment (equipment without oil)	Mass of liquids (oil)	PCB content in oil	Total mass (kg)
Source	510		Inventory	equipment	[~8]	[^8]	[^8]	(/0)	(^ g)
Equipment containing	IJ	Equipment in service	2016	0					
greater than 10% (100,000 ppm) PCB and volumes	[]	Equipment out of service		0					
greater than 5 litres	[]	Unspecified		0					
Equipment containing	[]	Equipment in service		0					
ppm) PCB and volumes	[]	Equipment out of service		0					
greater than 5 litres		Unspecified		0					
Equipment containing	[]	Equipment in service		0					
ppm) PCB and volumes	[]	Equipment out of service		0					
greater than 0.05 litres.	[]	Unspecified		0					
Equipment containing an	[]	Equipment in service		0					
PCB	[]	Equipment out of service		0					
	[]	Unspecified		0					
Stored liquids (oil)	[]	Equipment in service		0					
containing PCB	[]	Equipment out of service		0					
	[]	Unspecified		0					
Other wester centaining	[]	Equipment in service		0					
PCB	[]	Equipment out of service		0					
PCB		Unspecified		0					

2.3.3 Assessment of POP-PBDEs (Annex A, Part IV and Part V), HBB (Annex A, Part I) and HBCD (Annex A, Part I and Part VII)

2.3.3.1 POP-PBDEs NIP 3.3.5 p,62-

2.3.3.1.1 Production

Table [2-33]. Production of POP-PBDEs in [insert country name] in/during [2016-2021]

Chemicals	Yes	No	N/Av	Year in which the production started	Year in which the production ended	Estimated total production [kg]
Hexabromodiphenyl ether and						
heptabromodiphenyl ether		х				
Tetrabromodiphenyl ether and						
pentabromodiphenyl ether		х				

2.3.3.1.2 Import

Table [2-34]. POP-PBDEs imports in/during [2016] (2016 inventory report)

Status	Year	Chemical	Purpose	Countries of origin	Total annual import (kg/year)
[] Yes					
[x] No					

Table [2-35]. Total estimated POP-PBDEs in articles/products imported in/during 2016 (NIP 2.3.4) Check inventory report for countries of origin

Status	Year	Type of article/product containing POP-PBDEs	Countries of origin	Total annual import of article/product containing POP- PBDEs (tonnes/year)	Total estimated of POP-PBDEs content in the imported articles/products (tonnes/year)
[] Yes [] No	2016	CRT computer			
[x]	2010				
not					
available*					

*Information in Table 2-4 of the NIP (2020) p. 22 provides an estimate of CRT monitor imports but does not indicate the proportion of the imports that are second-hand and thus impacted by POP-PBDEs.

2.3.3.1.3 Export

Table [2-36]. POP-PBDEs exports in/during [insert year/period]

Status	Year	Chemical	Purpose	Destination Countries	Total annual export (kg/year)
[] Yes					
[x] No					

Table [2-37]. Total estimated POP-PBDE in articles/products exported in/during [insert year/period]

Status	Year	Type of article/product containing POP-PBDEs	Destination countries	Total annual export of article/product containing POP- PBDEs (tonnes/year)	Total estimated of POP-PBDEs content in the exported articles/products (tonnes/year)
[] Yes					
[x] No					
[]					
Information					
not available					

Does this table refer to previously imported products which are now being exported for repair/ disposal/ donation?

2.3.3.1.4 Use

A Electric and electronic equipment (EEE) (2.3.4.1.2 Table 2-5 p. 23 NIP)

Table [2-38]. Total estimated POP-PBDEs content in the EEE articles/products in use in/during [2016]

				Total estimated		Main
				polymeric		problem
				fraction	Total estimated	sources
			Total quantity of	containing POP-	POP-PBDEs	
		Type of	articles/products	PBDEs in the	content in the	
		article/product	containing POP-	articles/products	articles/products	
Status		containing	PBDEs in use	in use	in use	
	Year	POP-PBDEs	(tonnes/year)	(tonnes/year)	(tonnes/year)	

[x] Yes	2016	EEE	4,194	406	0.378	[] Lack of
[] No						legal,
[]						institutional
Information						or policy
not						framework
available						[] Lack of
						financial
						resources
						[] Lack of
						human
						resources
						[x]Lack of
						technical
						capacity
						[] Other

B Transport sector

Table [2-39]. Total estimated POP-PBDEs content in the transport sector articles/products in use in/during [2016] (2.3.4.2.2 p. 25 NIP)

Status	Year	Type of article/pro duct containing POP-PBDEs	Total quantity of articles/produ cts containing POP-PBDEs in use (tonnes/year)	Total estimated polymeric fraction containing POP-PBDEs in the articles/produ cts in use (tonnes/year)	Total estimated PUR foam containing POP-PBDEs in articles/pro ducts in use (tonnes/yea r)	Total estimated POP-PBDEs content in the articles/produ cts in use (tonnes/year)	Main problem sources
[x] Yes	2016	PUR foam	(tonnes) year)	(tonnes) yeary	6.72	0.556	[] Lack of
[] No [] Informa tion not availabl e							legal, institutional or policy framework [] Lack of financial resources [] Lack of human resources Lack of technical capacity [x] Other Insufficient statistical data to calculate POP-PBDEs content

2.3.3.1.5 Recycling (2.3.4.2.4 p.25 NIP)

Table [2-40]. Status of recycling articles that contain or may contain brominated diphenyl ethers and actions or control measure taken to ensure that recycling is carried out in an environmentally sound manner

Status of recycling articles that contain or may contain brominated diphenyl ethers	Year	Description of actions or control measures taken to ensure that recycling is carried out in an environmentally sound manner	Type of articles that have been recycled	Main problem sources
[] Yes [x] No [] Information not available				 [x] Lack of legal, institutional or policy framework [x] Lack of financial resources [] Lack of human resources [] Lack of technical capacity [] Other
Status of putting in place measures to separate articles containing brominated diphenyl ethers before recycling	Year	Chemical	Description of the measure	Main problem sources
[] Yes [] Currently being developed [x] No		[] Hexabromodiphenyl ether and heptabromodiphenyl ether [] Tetrabromodiphenyl ether and pentabromodiphenyl ether		[x] Lack of financial resources [x] Lack of technical capacity [] Other

	[] Combined	
	brominated diphenyl	
	ethers	

Table [2-41]. Status of using articles manufactured from recycled materials that contain or may contain brominated diphenyl ethers

Status of using articles manufactured from recycled materials that contain or may contain brominated diphenyl ethers	Year	Information available on the articles
[] Yes		
[x] No		
[] Other		

Table [2-42]. Status of taking steps to prevent the export of articles manufactured from recycled materials that contain levels or concentrations of brominated diphenyl ethers exceeding those permitted for the sale, use, import or manufacture of those articles

Status of taking steps to prevent the export of articles manufactured from recycled materials that contain levels or concentrations of brominated diphenyl ethers exceeding those		Description of the measures
permitted for the sale, use, import or		
manufacture of those articles	Year	
[] Yes		
 [] Hexabromodiphenyl ether and heptabromodiphenyl ether [] Tetrabromodiphenyl ether and pentabromodiphenyl ether [] Combined brominated diphenyl ethers [] Currently being developed [x] No 		
 [x] Lack of financial resources [x] Lack of technical capacity [x] Lack of legal, institutional or policy framework [] Other 		

A Electric and electronic equipment (EEE)

Table [2-43]. Total estimated POP-PBDEs content in the EEE articles/products recycled in/during [insert year/period]

Status	Year	Type of article/product containing POP- PBDEs recycled	Total quantity of articles/products containing POP- PBDEs recycled (tonnes/year)	Total estimated POP-PBDEs content in the articles/products recycled (tonnes/year)	Total estimated polymeric fraction containing POP- PBDEs in the recycled articles/products (tonnes/year)
[] Yes					
[x] No					

B Transport sector

Table [2-44]. Total estimated POP-PBDEs content in the transport sector articles/products recycled in/during [insert year/period]

Status	Year	Type of article/product containing POP-PBDEs recycled	Total quantity of articles/products containing POP- PBDEs recycled (tonnes/year)	Total estimated POP-PBDEs content in the articles/produc ts recycled (tonnes/year)	Total estimated polymeric fraction containing POP-PBDEs of recycled articles/prod ucts (tonnes/year)	Total estimated PUR foam containing POP- PBDEs in the recycled articles/products (tonnes/year)
[] Yes						
[X] NO						

2.3.3.2 HBCD (2.3.5 p.26 NIP)

2.3.3.2.1 Production

Table [2-45]. Production of HBCD in [insert country name] in/during [insert year/period]

				Year in	Year in	Estimated
				which the	which the	total
				production	production	production
Chemicals	Yes	No	N/Av	started	ended	[kg]
Hexabromocyclododecane		x				

2.3.3.2.2 Import

Table [2-46]. HBCD imports in/during [insert year/period]

Status	Year	Chemical	Purpose	Countries of origin	Total annual import (kg/year)
[] Yes					
[x] No					

Table [2-47]. Total estimated HBCD content in articles/products imported in/during [insert year/period]

Status	Year	Type of article/product containing HBCD	Countries of origin	Total annual import of articles/products containing HBCD (tonnes/year)	Total estimated of HBCD content in the imported articles/products (tonnes/year)
[] Yes					
[x] No					

2.3.3.2.3 Export

Table [2-48]. HBCD exports in/during [insert year/period]

Status	Year	Chemical	Purpose	Destination Countries	Total annual export (kg/year)
[] Yes					
[x] No					

Table [2-49]. Total estimated HBCD containing articles/products exported in/during [insert year/period]

Status	Year	Type of article/product containing HBCD	Destination countries	Total annual export of article/product containing HBCD (tonnes/year)	Total estimated of HBCD content in the exported articles/products (tonnes/year)
[] Yes					
[x] No					

2.3.3.2.4 Use

Table [2-50]. HBCD used in/during [insert year/period]

Status	Year	Chemical	Purpose	Total annual use (tonnes/year)
[] Yes				
[x] No				

Table [2-51]. Total estimated HBCD content in articles/products in use in/during [insert year/period]

Status	Year	Type of article/product containing HBCD	Total quantity of articles/products containing HBCD in use (tonnes/year)	Total estimated HBCD content in the articles/products in use (tonnes/year)
[] Yes				
[x] No				

2.3.3.2.5 Alternatives

Table [2-52]. Status of using alternatives in/during [insert year/period]

Status of alternatives use	Year of introducing the alternative	Type of alternative	Purpose	Total annual use (kg/year)	Risk assessment against POPs criteria listed in Annex D
[] Yes					
[] No					
[x]					
Information					
not available					

2.3.4 Assessment of HCBD (Annex A, Part I) (2.3.6 p.26 NIP)

2.3.4.1 Production

Table [ins2-53]. Production of HCBD in [insert country name] in/during [insert year/period]

				Year in	Year in	Estimated
				which the	which the	total
				production	production	production
Chemicals	Yes	No	N/Av	started	ended	[kg]
Hexachlorobutadiene		x				

2.3.4.2 Import

Table [2-54]. HCBD imports in/during [insert year/period]

Status	Year	Chemical	Purpose	Countries of origin	Total annual import (kg/year)
[] Yes					
[x] No					

Table [2-55]. Total estimated HCBD containing articles/products imported in/during [insert year/period]

Status	Year	Type of article/product containing HCBD	Countries of origin	Total annual import of articles/products containing HCBD (tonnes/year)	Total estimated of HCBD content in the imported articles/products (tonnes/year)
[] Yes					
[x] No					

2.3.4.3 Export

Table [2-56]. HCBD exports in/during [insert year/period]

Status	Year	Chemical	Purpose	Destination Countries	Total annual export (kg/year)
[] Yes					
[x] No					

Table [2-57]. Total estimated HCBD containing articles/products exported in/during [insert year/period]

Status	Year	Type of article/product containing HCBD	Destination countries	Total annual export of article/product containing HCBD (tonnes/year)	Total estimated of HCBD content in the exported articles/products (tonnes/year)
[] Yes					
[x] No					

Table [2-58]. HCBD use in/during [insert year/period]

Status	Year	Chemical	Purpose	Total annual use (tonnes/year)
[] Yes				
[x] No				

Table [2-59]. Total estimated HCBD content in articles/products in use in/during [insert year/period]

Status	Year	Type of article/product containing HCBD	Total quantity of articles/products containing HCBD in use (tonnes/year)	Total estimated HCBD content in the articles/products in use (tonnes/year)
[] Yes				
[x] No				

2.3.5 Assessment of PCNs (Annex A, part I) (2.3.7 p. 26 NIP and 2.3.2.1 p. 20 NIP)

2.3.5.1 Production

Table [2-60]. Production of PCNs in [insert country name] in/during [insert year/period]

Chemicals	Yes	No	N/Av	Year in which the production started	Year in which the production ended	Estimated total production [kg]
		x				

2.3.5.2 Import

Table [2-61]. PCNs imports in/during [insert year/period]

Status	Year	Chemical	Purpose	Countries of origin	Total annual import (kg/year)
[] Yes					
[x] No					

Table [2-62]. Total estimated PCN containing articles/products imported in/during [insert year/period]

Status	Year	Type of article/product containing PCN	Countries of origin	Total annual import of articles/products containing PCN (tonnes/year)	Total estimated of PCN content in the imported articles/products (tonnes/year)
[] Yes					
[x] No					

2.3.5.3 Export

Table [2-63]. PCNs exports in/during [insert year/period]

Status	Year	Chemical	Purpose	Destination Countries	Total annual export (kg/year)
[] Yes					
[x] No					

Table [2-64]. Total estimated PCN containing articles/products exported in/during [insert year/period]

Status	Year	Type of article/product containing PCN	Destination countries	Total annual export of article/product containing PCN (tonnes/year)	Total estimated of PCN content in the exported articles/products (tonnes/year)
[] Yes					
[x] No					

2.3.5.4 Use

Table [2-65]. PCNs use in/during [insert year/period]

Status	Year	Chemical	Purpose	Total annual use (tonnes/year)
[] Yes				
[x] No				

Table [2-66]. Total estimated PCN content in articles/products in use in/during [insert year/period]

Status	Year	Type of article/product containing PCN	Total quantity of articles/products containing PCN in use (tonnes/year)	Total estimated PCN content in the articles/products in use (tonnes/year)
[] Yes				
[x] No				

2.3.5.5 Alternatives

Table [2-67]. Status of using alternatives in/during [insert year/period]

Status of alternatives use	Year of introducing the alternative	Type of alternative	Purpose	Total annual use (kg/year)	Risk assessment against POPs criteria listed in Annex D
[] Yes					
[] No					
[x]					
Information					
not available					

2.3.6 Assessment with respect to DDT (Annex B, Part II) (2.3.8 p. 27 NIP)

2.3.6.1 Production

Table [2-68]. Production of DDT in [insert country name] in/during [insert year/period]

Chemicals	Yes	No	N/Av	Not applicable (not in SC- ERS)	Year in which the productio n started	Year in which the production ended	Estimated total productio n [kg]
		x					

Table [2-69]. Production of DDT per facility in/during [insert year/period]

No	Production facility and location	Total production capacity (kg)	Net output per year	Formulation (type and % of active ingredient)	% of in- country use
х					

Table [2-70]. Status of reformulating/repackaging DDT in the country in/during [insert year/period]

Status of reformulating/repackaging DDT in the country	Origin of active ingredient & repackaging/reformulation facility	Formulation (type & % active ingredient)	Quantity per year (kg)
[] Yes			
[x] No			

2.3.6.2 Import

Table [2-71]. DDT imports in/during [insert year/period]

Status	Year	Chemical	Purpose	Countries of origin	Total annual import (kg/year)	Name of manufacturer	Formulation (type and % of active ingredient)
[] Yes							
[x] No							

2.3.6.3 Export

Table [2-72]. DDT exports in/during [insert year/period]

Status	Year	Chemical	Purpose	Destination Countries	Total annual export (kg/year)	Facility	Formulation (type and % of active ingredient)
[] Yes							
[x] No							

2.3.6.4 Use

2.3.6.4.1 Use in agriculture

Table [2-73]. DDT use in agriculture in/during [insert year/period]

Status	Year	Chemical	Purpose	Total annual use (tonnes/year)
[] Yes				
[x] No				

2.3.6.4.2 Use for disease vector control

Table [2-74]. DDT use for disease vector control in/during [insert year/period]

Status of use for disease	Planning to introduce the use of DDT in	Status of use for other	Total amount o annually for diseas (kg)	Non-government agencies (e.g. private agencies, NGOs)	
vector	the future	purpose	Formulation	•	involved in using DDT
control		besides disease	(type and % of	Amount	for disease vector
		vector control	active ingredient	(Kg)/year	control purposes
[] Yes	[] Yes	[] Yes			[] Yes
[x] No	[x] No	[x] No			[x] No

Table [2-75]. Disease, main vector species targeted and percent of population at risk that is covered by DDT Not applicable

Disease	Main vector species targeted	% total national population at risk that is covered by DDT use per year

Table [2-76]. Status of training facilities and training conducted on insecticide use for disease vector control, and entomology laboratories used for vector resistance testing (2014 DDT report)

Existence of training facilities on insecticide use for disease vector control	Training being conducted on insecticide use for vector control	Existence of formal mechanisms for inter-sectoral collaboration for disease vector control and collaboration being implemented	Entomology laboratory used for vector resistance testing	Entomology laboratory recognized internationally
[] Yes	[x] Yes	[] Yes	[] Yes	[] Yes
[x] No	[] No	[x] No	[x] No	[x] No

2.3.6.5 Alternatives (2014 DDT report)

Table [2-77]. Status of research into the development or testing of locally appropriate alternative interventions to DDT and type of research/testing

Status of research into the development or testing of	Type of research/testing
locally appropriate alternative interventions to DDT	
[] Yes	[] Microbial insecticides
[x] No	[] Residual chemical insecticide(s)
	[] Chemical larvicides
	[] Larvivorous fish
	[] Other

Table [2-78]. DDT alternatives currently used (2012-2014 DDT report)

Alternative control interventions	Disease targeted	Product formulation, % active ingredient, quantity per year	Source (country) (import/local)	Resistance management strategy implemented
Microbial larvicides & biological control	Dengue Fever Chickungunya	Bactivec aq. Suspension 0.6% oil 164 litres (2012- 2014)	Cuba (import)	[] Yes [] No consult with envi. health
Indoor residual spraying with insecticides other than DDT				
Insecticide-treated nets	Dengue Fever Chickungunya Malaria	Malathion 50 EC 266 litres (2012- 38 l) (2013- 120 l) (2014- 108 l)	USA Jamaica	
Others				

Table [2-79]. DDT alternatives used but no longer in use (consult env health/registrar of pesticides board)

Alternative control	Disease targeted	Year of last use &	Reason why the use was stopped
interventions		quantity	(import/local)
Microbial larvicides			
& biological control			
Chemical larvicides			
Indoor residual			
spraying with			
insecticides other			
than DDT			
Insecticide-treated			
nets			

Environmental		
management		

2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III) (2.3.9 p. 27 NIP p. 61 NR)

2.3.7.1 Production

2.3.7.1.1 Acceptable purposes

Table [2-80]. Production of PFOS, its salts and PFOSF for the acceptable purposes listed in Annex B of the Convention in Saint Lucia in/during 2016. (NR p60) (2.3.9.1 NIP p. 27)

Chemicals	Produce	d PFOS?		Estimated total p	oroducti	on (kg)								
Photo-imaging	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
		х												
Photo-resist and anti- reflective coatings for	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
semi-conductors.		Х												
Etching agent for compound	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
semiconductors and ceramic filters.		x												
Aviation hydraulic	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
fluids.		х												
Metal plating (hard metal plating) only in	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
closed-loop systems.		х												
Certain medical devices (such as ethylene	Ves	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
tetrafluoroethylene copolymer (ETFE) layers and radio- opaque ETFE production, in-vitro diagnostic medical devices, and CCD colour filters).		x				2010	2011	2012		2014	2013			2010
Fire-fighting foam.	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
		х												

Insect baits for control														
of leaf-cutting ants	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
from Atta spp. and														
Acromyrmex spp.		х												

2.3.7.1.2 Specific exemptions

Table [2-81]. Production of PFOS, its salts and PFOSF for the specific exemptions listed in Annex B of the Convention in [Saint Lucia] in/during [2016] (NR p.60, 2.3.9 NIP p.27)

Chemicals	Produce	d PFOS?		Estimated total p	oroducti	on (kg)								
Photo masks in the semiconductor and	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
liquid crystal display (LCD) industries.		x												
Metal plating (hard	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
metal plating).		х												
Metal plating	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
(decorative plating).		x												
Electric and electronic parts for some colour	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
printers and colour copy machines.		x												
Insecticides for control	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
ants and termites.		x												
Chemically driven oil	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
, production.		х												
Carpets	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
		х												

leather and apparel.	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
		х												
Textiles and	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
uphoistery.		x												
Paper and packaging.	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
· · · · · · · · · · · · · · · · · · ·		х												
Coatings and coating	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
additive		x												
	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
Rubber and plastics.		<u>x</u>												
Other uses.	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
		х												

2.3.7.2 Import (2.3.9.1... p. 27 NIP)

Table [2-82]. PFOS, its salts and PFOSF imports in/during [2016]

Status	Year	Chemical	Purpose	Countries of origin	Total annual import (kg/year)
[] Yes					
[x] No					

Table [2-83]. Total estimated PFOS, its salts and PFOSF containing articles/products imported in/during [2016] (2.3.9.2 NIP p.28)

Status	Year	Type of article/product containing PFOS, its salts and PFOSF	Countries of origin	Total annual import of articles/products containing PFOS, its salts and PFOSF (tonnes/year)	Total estimated of PFOS, its salts and PFOSF content in the imported articles/products (tonnes/year)
[x] Yes		Fire fighting	Check PFOS		
[] No	2016	foam	inventory	0.342	0.241 -0.723

2.3.7.3 Export

Table [2-84]. PFOS, its salts and PFOSF exports in/during [2016]

Status	Year	Chemical	Purpose	Destination Countries	Total annual export (kg/year)
[] Yes					
[x] No					

Table [2-85]. Total estimated PFOS, its salts and PFOSF containing articles/products exported in/during [2016]

					Total estimated of
					PFOS, its salts and
		Type of		Total annual export of	PFOSF content in the
		article/product		articles/products	exported
Status		containing PFOS,	Countries of	containing PFOS, its salts	articles/products
	Year	its salts and PFOSF	origin	and PFOSF (tonnes/year)	(tonnes/year)
[] Yes					

[x] No

2.3.7.4 Use

2.3.7.4.1 Acceptable purposes NR p.61

Chemicals	Use PFOS?			Estimated total use (kg)										
Photo-imaging	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
			х											
Photo-resist and anti- reflective coatings for	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
semi-conductors.			х											
Etching agent for compound	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
ceramic filters.			x											
Aviation hydraulic fluids.	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
· · · · · · · · · · · · · · · · · · ·			х											
Metal plating (hard metal plating) only in	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
closed-loop systems.			х											
Certain medical devices (such as ethylene tetrafluoroethylene copolymer (ETFE) layers	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
and radio-opaque ETFE production, in-vitro diagnostic medical devices, and CCD colour filters).			x											
Fire-fighting foam.	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
5 5	х											722.78		

Table [2-86]. Use of PFOS, its salts and PFOSF for the acceptable purposes listed in Annex B of the Convention

Insect baits for control														
of leaf-cutting ants from														
Atta spp. and	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Acromyrmex spp.														
	Х													

Table [2-87]. Total estimated PFOS, its salts and PFOSF content in articles/products in use for acceptable purposes in/during [2016]

Status	Year	Type of article/product containing PFOS, its salts and PFOSF	Total quantity of articles/products containing PFOS, its salts and PFOSF in use (tonnes/year)	Total estimated PFOS, its salts and PFOSF content in the articles/products in use (tonnes/year)
[x] Yes [] No	Check year	Check inventory		

2.3.7.4.2 Specific exemptions (2.3.9.3 p 29 NIP)

Table [2-88]. Use of PFOS, its salts and PFOSF for the specific exemptions listed in Annex B of the Convention

Chemicals	Use PFOS?			Estimated total u	se (kg)									
Photo masks in the semiconductor and	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
liquid crystal display (LCD) industries.			x											
Metal plating (hard	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
metal plating).		х												
Metal plating	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
(decorative plating).		х												

Electric and electronic parts for some colour printers and colour	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
copy machines			x											
Insecticides for control of red imported fire	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
ants and termites.		х												
Chemically driven oil	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
production.		х												
Carpets	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
			х											
Leather and apparel.	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
			х											
Textiles and	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
uphoistery.			x											
Paper and packaging	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
			х											
Coatings and coating	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
additive			x											
Rubber and plastics.	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015			
			x											
Other uses.	Yes	No	N/Av*	Before 2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
			х											

Table [2-89]. Total estimated PFOS, its salts and PFOSF content in articles/products in use for specific exemptions in/during [2016]

Status	Year	Type of article/product containing PFOS, its salts and PFOSF	Total quantity of articles/products containing PFOS, its salts and PFOSF in use (tonnes/year)	Total estimated PFOS, its salts and PFOSF content in the articles/products in use (tonnes/year)
[] Yes [x] No				

2.3.7.5 Alternatives

Table [2-90]. Information on progress in building the capacity of countries to transfer safely to reliance on alternatives and research/development of safe alternatives

1. Progress in building the capacity of countries to transfer safely to reliance on alternatives	A phase out plan for the use of PFOS/PFOAS?? containing firefighting foams is currently being developed.
2. Research/development of safe alternatives	Currently not undertaken in Saint Lucia

Table [2-91]. Information on alternatives to PFOS, its salts, PFOSF and their related chemicals (chemical/non-chemical alternatives or processes) **Not Applicable**

1. Application	Acceptable purpose	Metal plating (hard metal plating) only in closed-loop systems
	 Photo-resist and anti-reflective coatings for semi-conductors 	Certain medical devices
	 Etching agent for compound semi-conductors and ceramic filters 	Fire-fighting foam
	Aviation hydraulic fluids	Insect baits for control of leaf- cutting ants from <i>Atta spp</i> . and <i>Acromyrmex spp</i> .

	Specific exemptions Image: Photo masks in the semiconductor and liquid crystal display industries		Insecticides for control of red imported fire ants and termites				
	 Metal plating (hard metal plating) 		Chemically driven oil				
	Metal plating (decorative plating)		production				
	Electric and electronic parts for some colour printers		Carpets				
	and colour copy machines		Leather and apparel				
			Textiles and upholstery				
			Paper and packaging				
			Coatings and coating additives				
			Rubber and plastics				
	Other use (please specify)						
2. Description of the alternative	Chemical name:						
	AS number and trade names of the alternative:						
	Name of the chemical substituted:						
	Quantities of production of the alternative in kg/year:						
	Quantities of use of the alternative in kg/year:						
	Characteristics of the non-chemical alternatives or process	es:					
3. Economic viability of the alternative	Information on economic viability of the alternative:						
	Information on cost-effectiveness, including environmenta	l, hea	alth and socio-				
	economic costs:						
	Information on the general price of the alternative (e.g. US	D/kg	;):				
4. Technical feasibility and efficacy of the alternative	Information as to whether the alternative has demonstrate provides similar product performance characteristics:	ed eq	uivalent function and				
	Information on efficacy, including performance, benefits a alternative:	nd lir	nitations of the				

	Information on whether the alternative has actually been implemented or is at the trial or proposal stage:
5. Availability and accessibility of the alternative on the market	Existence of the alternative on the market and readiness for immediate use: Geographic, legal or other limiting factors affecting the usage of the alternative:
6. Health/environmental effects including POPs characteristics and other hazards	Classification according to the Global Harmonization System or other systems: Data used for assessing POPs characteristics (persistence, bioaccumulation, potential for long-range environmental transport, adverse effects) or other hazards: Information on exposure (e.g. monitoring data) and environmental fate of the chemical:
7. Risks, taking into account the criteria in Annex D for POPs characteristics and other hazard indicators	Information on whether the alternative has been thoroughly tested or evaluated to avoid inadvertently increasing risks to human health/environment:
8. Socio-economicconsiderations9. Other information	Information on socio-economic impacts associated with the alternative:

2.3.8 Assessment of releases of unintentional produced chemicals (Annex C) (2.3.10 NIP p.30)

Table [2-92]. Status of developing source inventories and release estimates of the chemicals listed in Annex C

		Main problem sources
Action	Status	
developing source inventories		
and release estimates of the		[] Lack of financial resources.
chemicals listed in Annex C to		[] Limited human resources.
the Convention taking into		[] Insufficient technical capacity.
consideration the source	[x] Yes	[] Insufficient information.
categories identified in Annex	[] No	[] Other:

2.3.8.1 PCDD/PCDF

Table [2-93]. Status of developing an inventory of polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/PCDF)

			Information	
Action	Status	Reference year	source	Other published sources
developing an				National Inventory Report for
inventory of				Inventory of Unintentionally Released
polychlorinated				POPs (UPOPs) in Saint Lucia (2017);
dibenzo-p-dioxins	[x] Yes			Government of Saint Lucia
and dibenzofurans	[] No		UNEP-Toolkit	
(PCDD/PCDF)		2016	2013	

Table [2-94]. PCDD/PCDF release estimates in/during 2016 (12.1.2 NR)p17

Source group	Inventory						
Waste incineration	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[x]	0.000	0.000	0.000	0.000	0.000
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					

	2003	[]					
	2002	[]					
	2001	[]					
Ferrous and non-ferrous metal production	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]	0.096	0.000	0.000	0.000	0.000
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]	0.001				
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Heat and power generation	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					

	2018	[]					
	2017	[]					
	2016	[]	0.009	0.000	0.000	0.000	0.000
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Production of mineral products	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[x]	0.000	0.000	0.000	0.000	0.000
	2015	[]					
	2014	[]					

	2013	[]					
	2012	[]					
	2011						<u> </u>
	2011	IJ					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]	0.059				0.480
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Transportation	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017						
	2017	IJ					
	2017	[]	0.007	0.000	0.000	0.000	0.000
	2017 2016 2015	[] [] []	0.007	0.000	0.000	0.000	0.000
	2017 2016 2015 2014	[] [] []	0.007	0.000	0.000	0.000	0.000
	2017 2016 2015 2014 2013	L) [] [] [] [] []	0.007	0.000	0.000	0.000	0.000
	2017 2016 2015 2014 2013 2012	U D D D	0.007	0.000	0.000	0.000	0.000
	2017 2016 2015 2014 2013 2012 2011	0 0 0 0	0.007	0.000	0.000	0.000	0.000
	2017 2016 2015 2014 2013 2012 2011 2010	U 0 0 0 0 0	0.007	0.000	0.000	0.000	0.000

	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]	.0118				
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Open burning processes	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]	0.754	0.000	0.026	0.000	0.000
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					

2003		[]					
	2002	[]					
	2001	[]					
Production of chemicals and consumer goods	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]	0.000	0.000	0.000	0.000	0.000
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Waste disposal	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					

	2018	[]					
	2017	[]					
	2016	[]	0.000	0.012	0.000	0.000	0.165
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Miscellaneous	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]	0.001	0.000	0.000	0.000	0.004
	2015	[]					
	2014	[]					
		-					
2013	[]						
------	----	-------	--	--------			
2012	[]						
2011	[]						
2010	[]						
2009	[]						
2008	[]						
2007	[]						
2006	[]						
2005	[]	.0006		.00003			
2004	[]						
2003	[]						
2002	[]						
2001	[]						

2.3.8.2 PCBs

Table [2-95]. Status of developing an inventory of polychlorinated biphenyls (PCB)(NR p. 25) 12.2

		Reference	Information	
Action	<mark>Status</mark>	year	source	Other published sources
				National Inventory Report for Inventory of Unintentionally Released POPs (UPOPs) in Saint Lucia (2017); Government of Saint Lucia
developing an inventory of	[x] Yes			
polychlorinated biphenyls (PCBs)	[] No		UNEP-Toolkit	
(kg/year)		2016	2013	

Source group	Inventory									
Waste incineration	Year	NR	Air	Water	Land	Product	Residue			
	Before 2001	[x]								
	2018	[]								
	2017	[]								
	2016	[]								
	2015	[]								
	2014	[]								
	2013	[]								
	2012	[]								
	2011	[]								
	2010	[]								
	2009	[]								
	2008	[]								
	2007	[]								
	2006	[]								
	2005	[]								
	2004	[]								
	2003	[]								
	2002	[]								
	2001	[]			1					
Ferrous and non-ferrous metal production	Year	NR	Air	Water	Land	Product	Residue			
	Before 2001	[x]			1					
	1	1			1		1			

Table [2-96]. PCBs release estimates in/during [2016] (NR p 25)

	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Heat and power generation	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	•		•			•	•

	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Production of mineral products	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					

	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Transportation	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					

	2003	[]					
	2002	[]					
	2001	[]					
Open burning processes	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Production of chemicals and consumer goods	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					

	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Waste disposal	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					

No No No No No No 2012 I No No No No 2011 I No No No No 2010 I No No No No 2009 I No No No No 2009 I No No No No 2007 I No No No No 2006 II No No No No 2007 II No No No No 2006 II No No No No 2007 II No No No No 2006 II No No No No 2005 II No No No No 2003 II No No No No 2004 II No No No No 2005 II No No No No 2001 II No No No No 2017 II No No No 2016 I		T			r	1	r	1
2012II<		2013	[]					
201101111112010011111120090111111120080111111112007011111111120060111111111120050111111111112004011 </td <td></td> <td>2012</td> <td>[]</td> <td></td> <td></td> <td></td> <td></td> <td></td>		2012	[]					
20100111111112009011111111120080111111111120060111111111112006011 <td< td=""><td></td><td>2011</td><td>[]</td><td></td><td></td><td></td><td></td><td></td></td<>		2011	[]					
2009 1		2010	[]					
200811<		2009	[]					
20070111111120060121111120050121111120040121111120030121111120040121111120030121111120040211111120030121111120040121111120040111111112003011111111120040111111111120040111		2008	[]					
2006[] </td <td></td> <td>2007</td> <td>[]</td> <td></td> <td></td> <td></td> <td></td> <td></td>		2007	[]					
2005[] </td <td></td> <td>2006</td> <td>[]</td> <td></td> <td></td> <td></td> <td></td> <td></td>		2006	[]					
2004[] </td <td></td> <td>2005</td> <td>[]</td> <td></td> <td></td> <td></td> <td></td> <td></td>		2005	[]					
2003[] </td <td></td> <td>2004</td> <td>[]</td> <td></td> <td></td> <td></td> <td></td> <td></td>		2004	[]					
2002[] </td <td></td> <td>2003</td> <td>[]</td> <td></td> <td></td> <td></td> <td></td> <td></td>		2003	[]					
2001[] </td <td></td> <td>2002</td> <td>[]</td> <td></td> <td></td> <td></td> <td></td> <td></td>		2002	[]					
MiscellaneousYearNRAirWaterLandProductResidueBefore 2001[X]		2001	[]					
Before 2001 [X] I <	Miscellaneous	Year	NR	Air	Water	Land	Product	Residue
2018 [] I <td></td> <td>Before 2001</td> <td>[x]</td> <td></td> <td></td> <td></td> <td></td> <td></td>		Before 2001	[x]					
2017 [] 1 1 1 1 2016 [] 1 1 1 1 2015 [] 1 1 1 1 2014 [] 1 1 1 1 2013 [] 1 1 1 1 2012 [] 1 1 1 1 2010 [] 1 1 1 1 2009 [] 1 1 1 1		2018	[]					
2016 [] I I I I 2015 [] I I I I 2014 [] I I I I 2013 [] I I I I 2012 [] I I I I 2010 [] I I I I 2009 [] I I I I		2017	[]					
2015 [] I I I I I 2014 [] I I I I I 2013 [] I I I I I 2012 [] I I I I I 2011 [] I I I I I 2010 [] I I I I I 2009 [] I I I I I I		2016	[]					
2014 []] <td></td> <td>2015</td> <td>[]</td> <td></td> <td></td> <td></td> <td></td> <td></td>		2015	[]					
2013 []		2014	[]					
2012 []		2013	[]					
2011 []		2012	[]					
2010 [] 2009 []		2011	[]					
2009 []		2010	[]					
		2009	[]					

	2008	[]			
	2007	[]			
	2006	[]			
	2005	[]			
	2004	[]			
	2003	[]			
	2002	[]			
	2001	[]			

2.3.8.3 PeCB

Table [2-97]. Status of developing an inventory of pentachlorobenzene (PeCB) (NR p. 32) IV art 5

Action	Status	Reference year	Information source	Other published sources
developing an inventory of pentachlorobenzene (PeCB) (kg/year)	[] Yes [x] No			

Table [2-98]. PeCB release estimates in/during [insert year/period] Information is not available

Source group	Inventory							
Waste incineration	Year	NR	Air	Water	Land	Product	Residue	
	Before 2001	[]						
	2018	[]						
	2017	[]						
	2016	[]						
	2015	[]						
	2014	[]						
	2013	[]						

	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Ferrous and non-ferrous metal production	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					

	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Heat and power generation	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					

	2002	[]					
	2001	[]					
Production of mineral products	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Transportation	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					

	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Open burning processes	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					

	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Production of chemicals and consumer goods	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
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	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Waste disposal	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					

	2002	[]					
	2001	[]					
Miscellaneous	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]			1		
	2001	[]					

2.3.8.4 HCB

Table [2-99]. Status of developing an inventory of hexachlorobenzene (HCB)

Action	Status	Reference year	Information source	Other published sources
developing an inventory				
of hexachlorobenzene	[] Yes			
(HCB) (kg/year)	[x] No			

Table [2-100]. HCB release estimates in/during [2016] P10 NR Cycle 4 (Not relevant, all uses prohibited)

Source group	Inventory								
Waste incineration	Year	NR	Air	Water	Land	Product	Residue		
	Before 2001	[x]							
	2018	[]							
	2017	[]							
	2016	[]							
	2015	[]							
	2014	[]							
	2013	[]							
	2012	[]							
	2011	[]							
	2010	[]							
	2009	[]							
	2008	[]							
	2007	[]							
	2006	[]							
	2005	[]							
	2004	[]							
	2003	[]					1		
	2002	[]					1		
	2001	[]					1		

Ferrous and non-ferrous metal production	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]	_				
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Heat and power generation	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					

	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Production of mineral products	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					

	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Transportation	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					

	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Open burning processes	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					

Production of chemicals and consumer goods	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Waste disposal	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					

	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Miscellaneous	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[x]					
	2018	[]					
	2017	[]					
	2016	[]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					

2010	[]		
2009	[]		
2008	[]		
2007	[]		
2006	[]		
2005	[]		
2004	[]		
2003	[]		
2002	[]		
2001	[]		

2.3.8.5 PCN (p 34 NR) Section IV. Article 5: Measures to reduce or eliminate releases from untentional production Q 12.5; 2.3.7 NIP

Table [2-101]. Status of developing an inventory of polychlorinated naphthalenes (PCN)

				Other published
Action	Status	Reference year	Information source	sources
developing an inventory of				National Inventory Report for Polychlorinated Biphenyls (PCBs) in Saint Lucia (2016); Government of Saint
polychlorinated naphthalenes (PCN) (kg/year)	[x] Yes [] No	2016	UNEP-Toolkit 2013	Lucia

Table [2-102]	. PCNs release	estimates	in/during	[2016]
---------------	----------------	-----------	-----------	--------

Source group	Inventory						
Waste incineration	Year	NR	Air	Water	Land	Product	Residue

Residue
1

2013	_					
	[]					
2012	[]					
2011	[]					
2010	[]					
2009	[]					
2008	[]					
2007	[]					
2006	[]					
2005	[]					
2004	[]					
2003	[]					
2002	[]					
2001	[]					
Year	NR	Air	Water	Land	Product	Residue
Before 2001	[]					
2018	[]					
2017	[]					
2016	[x]					
2015	[]					
2014	[]					
2013	[]					
2012	[]					
2011	[]					
2010	[]					
	2012 2011 2010 2009 2009 20006 2005 2004 2003 2002 2001 Year Before 2001 2018 2017 2016 2015 2014 2013 2011 2010	2012 [] 2011 [] 2010 [] 2009 [] 2009 [] 2007 [] 2006 [] 2005 [] 2004 [] 2003 [] 2001 [] 2002 [] 2001 [] 2002 [] 2001 [] 2001 [] 2018 [] 2017 [] 2016 [x] 2015 [] 2013 [] 2011 [] 2011 []	2012 [] 2011 [] 2010 [] 2009 [] 2008 [] 2007 [] 2006 [] 2005 [] 2004 [] 2003 [] 2004 [] 2005 [] 2001 [] 2002 [] 2001 [] 2002 [] 2001 [] 2001 [] 2017 [] 2018 [] 2017 [] 2016 [x] 2017 [] 2013 [] 2014 [] 2013 [] 2011 []	2012 [] I 2011 [] I 2010 [] I 2009 [] I 2008 [] I 2007 [] I 2006 [] I 2006 [] I 2005 [] I 2004 [] I 2003 [] I 2004 [] I 2005 [] I 2001 [] I 2002 [] I 2001 [] I 2001 [] I 2001 [] I 2018 [] I 2016 [x] I 2014 [] I 2013 [] I 2011 [] I 2010 [] I	2012 [] I I 2011 [] I I 2010 [] I I 2009 [] I I 2008 [] I I 2007 [] I I 2006 [] I I 2005 [] I I 2004 [] I I 2003 [] I I 2004 [] I I 2005 [] I I 2004 [] I I 2005 [] I I 2004 [] I I 2005 [] I I 2001 [] I I 2002 [] I I 2018 [] I I 2016 [x] I I 2014 [] I I 2013 [] I I <tr tbody=""></tr>	2012 [] I I I 2011 [] I I I 2010 [] I I I 2009 [] I I I 2008 [] I I I 2007 [] I I I 2006 [] I I I 2007 [] I I I 2006 [] I I I 2007 [] I I I 2008 [] I I I 2004 [] I I I 2002 [] I I I 2001 [] I I I 2018 [] I I I 2014 [] I I <td< td=""></td<>

	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Production of mineral products	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[x]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					

	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Transportation	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[x]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Open burning processes	Year	NR	Air	Water	Land	Product	Residue

				r	-		
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[x]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Production of chemicals and consumer goods	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[x]					
	2015	[]					

	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Waste disposal	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[x]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					

	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					
	2004	[]					
	2003	[]					
	2002	[]					
	2001	[]					
Miscellaneous	Year	NR	Air	Water	Land	Product	Residue
	Before 2001	[]					
	2018	[]					
	2017	[]					
	2016	[x]					
	2015	[]					
	2014	[]					
	2013	[]					
	2012	[]					
	2011	[]					
	2010	[]					
	2009	[]					
	2008	[]					
	2007	[]					
	2006	[]					
	2005	[]					

2004	[]			
2003	[]			
2002	[]			
2001	[]			

2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes, identification, likely numbers, relevant regulations, guidance, remediation measures, and data on releases from sites (2.3.11 NIP p. 32)

2.3.9.1 Stockpiles

Table [2-103]. Status of the identification and quantification of stockpiles consisting of, or containing, chemicals listed in Annex A or Annex B to the Convention

		Pesticides listed in annexes A or B:	Industrial chemicals listed in annexes A o B:	
Action	Status	Year	Туре	Year
identified stockpiles				
consisting of, or				
containing, chemicals				
listed in Annex A or				
Annex B to the	[] Yes			
Convention	[x] No	[2016]	Not applicable	[2016]
quantified the				
stockpiles consisting				
of, or containing,				
chemicals listed in				
Annex A or Annex B	[] Yes			
to the Convention	[x] No	[2016]	Not Applicable	[2016]

2.3.9.1.1 POPs pesticides (2.3.1.2 NIP p 18)

Table [2-104]. Status of POPs pesticides stockpiles in [2016]

Status on stockpiles existence	Year	Pesticide	Total amount stockpiled (tonnes)	State of the storage place (short description)	Location of the stockpile
[] Yes	2016				

[x] No			
[]			
Information			
not			
available			

2.3.9.1.2 PCBs (2.3.3 p. 21 NIP)

Table [2-105]. Status of PCB containing equipment stockpiled in [2016]

Status on stockpiles existence	Year	Pesticide	Total amount stockpiled (tonnes)	State of the storage place (short description)	Location of the stockpile
[] Yes					
[x] No					
[]					
Information					
not					
available					

Table [2-106]. Status of identifying articles and materials containing more than 0.005% (50 ppm) PCB contaminated through open applications in [2016]

Action	Status	Articles or materials containing PCB	Other Articles containing PCB	Year or period in which the article was identified
identifying articles and materials containing more than 0.005% (50 ppm) PCB contaminated through open applications	[] Yes [x] No			

Error: National report indicated that an inventory was currently being developed p54

2.3.9.1.3 POP-PBDEs (2.3.4 NIP p 21)

Table [2-107]. Total estimated POP-PBDEs content in the EEE articles/products stockpiled in/during [2016]

				Total estimated	Total estimated
				POP-PBDEs	polymeric fraction
		Type of	Total amount of	content in	containing POP-
Status on		article/product	articles/products	stockpiled	PBDEs of
stockpiles		containing POP-	containing POP-	articles/products	stockpiled
existence		PBDEs	PBDEs stockpiled	(tonnes)	articles/products
	Year	stockpiled	(tonnes)		(tonnes)

[x] Yes		CRT Computer			
[] No	2016	and TV monitors	1,360	0.378	406.34
[] Information					
not available					

Ref: 2.3.4.1.2 P. 23 NIP

2.3.9.1.4 HBCD (2.3.5 NIP p. 26)

Table [2-108]. Status of HBCD stockpiles in [2016]

Status on stockpiles existence	Year	Total amount of HBCD stockpiled (tonnes)
[] Yes	2016	
[] No		
[x] Information not available		

Table [2-109]. Total estimated HBCD content in articles/products stockpiled in/during [2016]

Status on stockpiles existence	Year	Type of article/product containing HBCD stockpiled	Total amount of articles/products containing HBCD stockpiled (tonnes)	Total estimated HBCD content in the articles/products stockpiled (tonnes)
[] Yes	2016			
[] No				
[x] Information not				
available				

2.3.9.1.5 HCBD (2.3.6 NIP p. 26)

Table [2-110]. Total estimated HCBD content in articles/products stockpiled in/during [2016]

Status on stockpiles				Total estimated
existence				HCBD content in
			Total amount of	the
		Type of article/product	articles/products	articles/products
		containing HCBD	containing HCBD	stockpiled
		stockpiled	stockpiled (tonnes)	(tonnes)
	Year			
[] Yes				

[x] No		
Information not		
available		

2.3.9.1.6 PCN 2.3.7 NIP p 26

Table [2-111]. Status of PCN stockpiles in [2016]

Status on stockpiles existence	Year	Total amount of PCN stockpiled (tonnes)
[] Yes		
[] No		
[x] Information not available		

Table [2-112]. Total estimated PCN content in articles/products stockpiled in/during [2016]

Status on stockpiles existence				Total estimated PCN content in
	Year	Type of article/product containing PCN stockpiled	Total amount of articles/products containing PCN stockpiled (tonnes)	the articles/products stockpiled (tonnes)
[] Yes				
[] No				
[x] Information not				
available				

2.3.9.1.7 DDT

Table [2-113]	. Status of DDT	stockpiles in	[2016]
---------------	-----------------	---------------	--------

Status on stockpiles existence	Year	Location	Total amount in storage (kg)	Formulation (type and % of active ingredient)	Conditions of storage (e.g. storage capacity, access)
[] Yes					
[x] No					
[] Information					
not available					

2.3.9.1.8 PFOS, its salts and PFOSF 2.3.9 p. 27 NIP

Table [2-114]. Status of PFOS, its salts and PFOSF stockpiles in [2016] 2.3.9.4 p. 30 NIP

Status on stockpiles existence		Total amount stockpiled (tonnes)	State of the storage place (short description)
	Year		
[] Yes	2016		
[x] No			
[] Information not available			

Table [2-115 Total estimated PFOS, its salts and PFOSF content in articles/products stockpiled in/during [2016]

Status on stockpiles existence	Year	Type of article/product containing PFOS, its salts and PFOSF stockpiled	Total amount of articles/products containing PFOS, its salts and PFOSF stockpiled (tonnes)	Total estimated PFOS, its salts and PFOSF content in the articles/products stockpiled (tonnes)
[x] Yes [] No [] Information not available	2016	Fire fighting foam	48.190* *information taken from 2.3.9.2 NIP P. 28, but need to check inventory to clarify whether or not the 342kg imported in 2016 forms part of that stockpile	0.241 – 0.723* *information taken from 2.3.9.2 NIP P. 28,

2.3.9.2 Wastes 2.3.11 p. 32 NIP

Table [2-116]. Status of disposing of wastes consisting of or containing chemicals listed in Annex A, B, or C to the Convention in an environmentally sound manner (2.3.1.2 P. 18 NIP)

			Pesticides		Unintentiona		
		Main	listed in		l chemicals		
		problem	annexes	Industrial chemicals listed in	listed in		
Measure	Status	sources	A or B:	annexes A or B:	annex C		
						Total quantity of	
------------------	----------------	-----------------	--------	-----------	--------	-------------------------	-------------
						disposal	
			Year	Туре	Year	(tonnes)	Year
		[] Wastes					
		consisting of					
		or containing					
		chemicals					
		listed in					
		Annex A, B,					
		or C have not					
disposing of		been					
wastes		identified.					
consisting of or		[] Lack of					
containing	[] Yes	financial					
chemicals listed	[] Currently	resources.					
in Annex A, B,	being	[] Limited					
or C to the	implemented	human					
Convention in		resources.					
an	[] No	[] Insufficient					
environmentall	[x]	technical		[Not		[Not	
y sound	Information	capacity.		applicabl		applicabl	[Not
manner	not available.	[] Other	[2016]	e]	[2016]	e]	applicable]

2.3.9.2.1 POPs pesticides

Table [2-117]. Status of POPs pesticides waste disposed in [2016]

Status on the waste disposal	Year	Chemical	Total disposed amount (tonnes)
[x] Yes		Ref GEF/FAO	
[] No	2016	project report	8.914
[] Information not available			

2.3.9.2.2 PCBs

Table [2-118]. Status of PCB containing waste disposed in [2016]

Action Status PCBs contained in: Year Quantity (Metric Tons)	Action Stat	PCBs contained in:	Year	Quantity (Metric Tons)
--	-------------	--------------------	------	------------------------

locally destroyed, in an				
environmentally sound				
manner, equipment,				
liquids, or other wastes				
containing greater than				
0.005% (50 ppm) PCB				
(e.g. transformers,				
capacitors or other				
receptacles containing	[] Yes			
liquid stocks) identified	[x] No	[]	[2016]	[]
destroyed abroad, in an				
environmentally sound				
manner, equipment,				
liquids, or other wastes				
containing greater than				
0.005% (50 ppm) PCB				
(e.g. transformers,				
capacitors or other				
receptacles containing	[] Yes			
liquid stocks) identified	[x] No		2016	

Table [2-119]. Proportion of waste containing greater than 0.005% (50 ppm) PCB identified managed in an environmentally sound manner

Proportion of waste containing greater than 0.005% (50 ppm) PCB identified managed in an environmentally sound manner	Year in which the environmentally sound management was completed	Approximate proportion
[] All (100%). [] Partially	[]	[] Most of the waste (greater than 50% and less than 100%)
[x] None [] Information not available.		[] Limited amount of waste (greater than 0% and less than or equal to 50%)

2.3.9.2.3 POP-PBDEs

Table [2-120]. Status of POP-PBDEs containing waste disposed in [2016]

Status of taking	Description				Total	Main problem
measures to	of				estimated	sources
dispose of articles	measures			Total amount of	POP-PBDEs	
that contain or may			Type of	waste containing	content in	
contain			article/product	POP-PBDEs	wastes	
brominated			containing POP-	disposed	(tonnes)	
diphenyl ethers in		Year	PBDEs disposed	(tonnes/year)		

an environmentally sound manner			
[] Yes			[x] Lack of financial
[x] No			resources
			[x] Lack of technical
			capacity
			[x] Other: Difficulty
			identifying articles
			with these
			chemicals

Table [2-121]. Status of disposing of articles manufactured from recycled materials that contain or may contain brominated diphenyl ethers in [2016]

Status of disposing of articles manufactured from recycled materials that contain or may contain brominated diphenyl ethers	Status of taking actions or control measures to ensure that disposal is carried out in an environmentally sound manner	Description of the action control measures
[] Yes	[] Yes	
[] No	[] Currently being implemented	
[x] Information not available	[] No	
	[] Lack of legal, institutional or	
	policy framework	
	[] Lack of financial resources	
	[] Lack of human resources	
	[] Lack of technical capacity	
	[] Other	

2.3.9.2.4 HBCD

Table [2-122]. Status of HBCD containing waste disposed in [2016]

		Type of article/product	Total amount of waste
		containing HBCD	containing HBCD disposed
Status on the waste		disposed	(tonnes/year)
disposal	Year		
[] Yes			
[] No			
[x] Information not available			

2.3.9.2.5 HCBD

Table [2-123]. Status of HCBD containing waste disposed in [2016]

Status on the waste disposal	Year	Total amount of waste containing HCBD disposed (tonnes/year)
[] Yes		
[] No		
[x] Information not available		

2.3.9.2.6 PCN

Table [2-124]. Status of PCN containing waste disposed in [2016]

Status on the waste disposal		Total amount of waste containing PCN disposed (tonnes/year)
	Year	
[] Yes		
[] No		
[x] Information not available		

2.3.9.2.7 DDT

Table [2-125]. Status of DDT containing waste disposed in [2016]

Status on the waste disposal	Vear	Total amount of waste containing DDT disposed (tonnes/year)
	real	
[] Yes		
[x] No		
[] Information not available		

2.3.9.2.8 PFOS, its salts and PFOSF

Table [2-126]. Status of PFOS, its salts and PFOSF containing waste disposed in [2016]

Status on the waste disposal	Year	Type of article/product containing PFOS, its salts and PFOSF disposed	Total amount of waste containing PFOS, its salts and PFOSF disposed (tonnes/year)
[] Yes			
[x] No			
[] Information not available			

2.3.9.2.9 Unintentional POPs

Table [2-127]. Status of uPOPs containing waste disposed in [2016]

Status on the waste disposal		Total amount of waste containing unintentional POPs disposed (tonnes/year)
	Year	
[] Yes		
[x] No		
[] Information not available		

2.3.9.3 Contaminated sites

Table [2-128]. Status of identifying sites contaminated by chemicals listed in Annex A, B or C in [2016]

		Pesticides listed in annexes A or B:	Industrial chemicals listed in annexes A or B:		Unintentional chemicals listed in annex C
Action	Status	Year	Туре	Year	Year
identifyi	[] Yes				
ng sites	[x] Currently				
contami	being				
nated by	identified.				
chemical	[] No				
s listed in	[]		[PCBs, HBCD, PBDE,		
Annex A,	Information		PFOS/related		
B or C	not available.	[2016]	chemicals]	[2016]	[2016]

Table [2-129]. Status of taking steps to remediate the sites contaminated by chemicals listed in Annex A, B or C in [2016] to continue

Action	Status	Phase	Main problem sources

		 Remediation plan is currently being prepared. Remediation is in progress since: 	 [] Have not yet identified sites contaminated by chemicals listed in Annex A, B or C. [] Lack of institutional or policy framework. [] Lack of financial resources.
taking steps to remediate		Year:	[] Limited human resources.
the sites contaminated by	[] Yes	[] Remediation has been	[] Insufficient technical
chemicals listed in Annex A,	[] No	completed in:	capacity.
B or C		Year:	[] Other :

2.3.9.3.1 POPs pesticides

Table [2-130]. Status of identification and remediation of POPs pesticides contaminated sites

Action	Status	Years in which the contaminated sites were identified/remediated	Remarks
identifying sites contaminated by POPs pesticides	[] Yes [] No [] Currently being developed	[]	
remediating sites contaminated by POPs pesticides	[] Yes [] No [] Currently being developed		

2.3.9.3.2 PCBs

Table [2-131]. Status of identification and remediation of PCB contaminated sites

Action	Status	Years in which the contaminated sites were identified/remediated	Remarks
identifying sites contaminated by greater than 0.005% (50 ppm) PCB	[] Yes [] No	0	
remediating sites contaminated by greater than 0.005% (50 ppm) PCB	[] Yes [] No [] Currently being developed		

2.3.9.3.3 POP-PBDEs

Table [2-132]. Status of identification and remediation of POP-PBDE contaminated sites

Action	Status	Years in which the contaminated sites were identified/remediated	Remarks
identifying sites contaminated by POP- PBDE contaminated sites	[] Yes [] No [] Currently being developed	[]	
remediating sites contaminated by POP- PBDEs	[] Yes [] No [] Currently being developed		

2.3.9.3.4 HBCD

Table [2-133]. Status of identification and remediation of HBCD contaminated sites

Action	Status	Years in which the	Remarks
		contaminated sites were	
		identified/remediated	
identifying sites	[] Yes	[]	
contaminated by HBCD	[] No		
contaminated sites	[] Currently being		
	developed		
remediating sites	[] Yes		
contaminated by HBCD	[] No		
	[] Currently being		
	developed		

2.3.9.3.5 HCBD

Table [2-134]. Status of identification and remediation of HCBD contaminated sites

Action	Status	Years in which the contaminated sites were identified/remediated	Remarks
identifying sites contaminated by HCBD contaminated sites	[] Yes [] No [] Currently being developed	0	
remediating sites contaminated by HCBD	[] Yes [] No [] Currently being developed		

Table [2-135]. Status of identification and remediation of PCN contaminated sites

Action	Status	Years in which the contaminated sites were identified/remediated	Remarks
identifying sites contaminated by PCN contaminated sites	[] Yes [] No [] Currently being developed	[]	
remediating sites contaminated by PCN	[] Yes [] No [] Currently being developed		

2.3.9.3.7 DDT

Table [2-136]. Status of identification and remediation of DDT contaminated sites

Action	Status	Years in which the contaminated sites were identified/remediated	Remarks
identifying sites contaminated by DDT contaminated sites	[] Yes [] No [] Currently being developed	[]	
remediating sites contaminated by DDT	[] Yes [] No [] Currently being developed		

2.3.9.3.8 PFOS, its salts and PFOSF

Table [2-137]. Status of identification and remediation of PFOS, its salts and PFOSF contaminated sites

Action	Status	Years in which the contaminated sites were identified/remediated	Remarks
identifying sites	[] Yes	[]	
contaminated by PFOS, its	[] No		
salt and PFOSF	[] Currently being		
contaminated sites	developed		
remediating sites	[] Yes		
contaminated by PFOS, its	[] No		
salts and PFOSF	[] Currently being		
	developed		

2.3.9.3.9 Unintentional POPs

Action	Status	Years in which the contaminated sites were identified/remediated	Remarks
identifying sites contaminated by uPOPs contaminated sites	[] Yes [] No [] Currently being developed	0	
remediating sites contaminated by uPOPs	[] Yes [] No [] Currently being developed		

2.3.10 Summary of future production, use, and releases of POPs – requirements for exemptions (2.3.12 NIP p 35)

Table [2-139]. Status of notifying the Secretariat to register for specific exemptions listed in Annex A or Annex B or for acceptable purposes listed in Annex B

Action	Status
notifying the Secretariat to register for specific exemptions listed in Annex A or Annex B or for	[] Yes [] No
acceptable purposes listed in Annex B	[] In preparation for notification.

2.3.10.1 POPs pesticides

Table [2-140]. Status of registering for POPs pesticides specific exemptions

	Specific exemption			Estimated quantity of	Purpose(s) of		
Chemical		Activity (production/use)	Expiry date	production / use	production / use	Reason for exemption	Remarks
		() · · · · · · · · · · · · · · · · · · ·		,	,		

2.3.10.2 POP-PBDEs

Status of registering for a specific exemption	Year	Status of undertaking a review of the continuing need for registration for a specific exemption for hexabromodiphenyl ether and heptabromodiphenyl ether and/or tetrabromodiphenyl ether and pentabromodiphenyl ether	Main problem sources
[] Yes [] No		 (a) Specific exemption for hexabromodiphenyl ether and heptabromodiphenyl ether [] Yes [] No (b) Specific exemption for tetrabromodiphenyl ether and pentabromodiphenyl ether [] Yes [] No 	 [] Not needed [] Not assessed [] Lack of financial resources [] Lack of technical capacity [] Assessed but lack of technical capacity [] Assessed but lack of financial capacity [] Assessed but lack of human resources [] Other

Table [2-141]. Status of registering for POP-PBDEs specific exemptions

2.3.10.3 HBCD

Table [2-142]. Status of registering for HBCD specific exemptions

Chemical	Specific exemption	Activity (production/use)	Expiry date	Estimated quantity of production / use	Purpose(s) of production / use	Reason for exemption	Remarks

2.3.10.4 PCN

Table [2-143]. Status of registering for PCN specific exemptions

Chemical	Specific exemption	Activity (production/use)	Expiry date	Estimated quantity of production / use	Purpose(s) of production / use	Reason for exemption	Remarks

2.3.10.5 DDT

Table [2-144]. Status of registering for DDT acceptable purpose

Production notification	Use notification	Date of notification	Remarks

2.3.10.6 PFOS, its salts and PFOSF

Table [2-145]. Status of registering for any of the specific exemptions related to PFOS, its salts and PFOSF

Action	Status	Specific exemption
registering for any of the specific exemptions		
related to PFOS listed in Annex B to the	[] Yes	
Convention	[] No	[]

Table [2-146]. Status of registering for any of the acceptable purposes related to PFOS, its salts and PFOSF

Action	Status	Acceptable purpose
registering for any of the acceptable purposes	[] Yes	
related to PFOS listed in Annex B	[] No	[]

Table [i2-147]. Status of reviewing the continued need for the specific exemption(s) and/or acceptable purpose(s) for PFOS, its salts and PFOSF

Action	Status	Information on the review

reviewing the continued need for the specific		
exemption(s) and/or acceptable purpose(s)	[] Yes	
for PFOS, its salts and PFOSF	[] No	[]

2.3.11 Existing programmes for monitoring releases and environmental and human health impacts, including findings

Table [2-148]. Status of undertaking any research, development, and monitoring and cooperation pertaining to persistent organic pollutants, and where relevant, to their alternatives and to candidate persistent organic pollutants

			Year(s) in which		
			started the		
			research,		
			development,		
			and monitoring and		
			cooperation	Subject for research	
			pertaining to	and	
		Type of	persistent organic	development/monit	Main problem
Action	Status	action(s)	pollutants	oring/cooperation	sources
			-	[] Sources and	
				releases into the	
				environment.	
				[] Presence, levels	
				and trends in human	
				health and the	
				environment.	
undertaking				[] Environmental	
any research,				transport, fate and	
development,				transformation.	
and monitoring				[] Socio economic	
and				and cultural impacts.	[] Lack of
cooperation				[] Effects on human	institutional or
pertaining to				health and the	policy
persistent				environment.	framework.
organic				[] Release reduction	[] Lack of
pollutants, and				and/or elimination.	financial
where relevant,				[] Harmonised	capacity.
to their				methodologies for	[] Lack of
alternatives				making inventories	human
and to				of generating	resources.
candidate		[] Research and		sources.	[] Lack of
persistent		development		[] Analytical	technical
organic	[] Yes	[] Monitoring		techniques for the	capacity.
pollutants	[] No	[] Cooperation	[]	measurement of	[] Other :

	releases.	
	[] Other :	

2.3.11.1 POPs pesticides

Table [2-149]. POPs pesticides monitoring findings/results

Chemical	Type of programme	Monitoring findings/results	Remarks
	[] Research and development		
	[] Monitoring		
	[] Cooperation		

2.3.11.2 PCBs

Table [2-150]. PCB monitoring findings/results

Chemical	Type of programme	Monitoring findings/results	Remarks
	[] Research and development		
	[] Monitoring		
	[] Cooperation		

2.3.11.3 POP-PBDEs

Table [2-151]. POP-PBDE monitoring findings/results

Chemical	Type of programme	Monitoring findings/results	Remarks
	[] Research and development		
	[] Monitoring		
	[] Cooperation		

2.3.11.4 HBCD

Table [2-152]. HBCD monitoring findings/results

Chemical	Type of programme	Monitoring findings/results	Remarks
	[] Research and development		
	[] Monitoring		
	[] Cooperation		

2.3.11.5 HCBD

Table [2-153]. HCBD monitoring findings/results

Chemical	Type of programme	Monitoring findings/results	Remarks
	[] Research and development		
	[] Monitoring		
	[] Cooperation		

2.3.11.6 PCN

Table [2-154]. PCN monitoring findings/results

Chemical	Type of programme	Monitoring findings/results	Remarks
	[] Research and development		
	[] Monitoring		
	[] Cooperation		

2.3.11.7 DDT

Table [2-155]. Status of DDT resistance monitoring

Existence of surveillance mechanism for monitoring	Description of bioassay test procedures used for
DDT resistance	detecting DDT resistance
[] Yes	
[] No	
[] Not applicable	

Table [2-156]. Vector susceptibility to DDT according to the WHO susceptibility test

Vector species	DDT concentration & exposure time (mins.)	% mortality	Year last tested	Geographical areas concerned within country

Table [2-157]. Resistance observed for other insecticides used in disease vector control

Resistance observed for other insecticides used in	Description of vector
disease vector control	
Pyrethroids	
[] Yes	
[] No	
Organophosphates	
[] Yes	
[] No	
Carbamates	
[] Yes	

[] No	
Other	
[] Yes	
[] No	

2.3.11.8 PFOS, its salts and PFOSF

Table [2-158]. PFOS, its salt and PFOSF monitoring findings/results

Chemical	Type of programme	Monitoring findings/results	Remarks
	[] Research and development		
	[] Monitoring		
	[] Cooperation		

2.3.11.9 Unintentional POPs

Table [2-159]. uPOPs monitoring findings/results

Chemical	Type of programme	Monitoring findings/results	Remarks
	[] Research and development		
	[] Monitoring		
	[] Cooperation		

2.3.12 Current level of information, awareness, and education among target groups; existing systems to communicate such information to the various groups

Table [2-160]. Status of taking any measures to implement Article 10 of the Convention

Action/measure	Status	Year	Type of measure	Main problem sources

			[] Awareness on persistent	
			organic nollutants among	
			notion and desision makers	
			Denvision to the multic of	
			[] Provision to the public of	
			all available information on	
			persistent organic	
			pollutants.	
			[] Development and	
			implementation of	
			educational programmes	
			especially for women,	
			children and the least	
			educated on persistent	
			organic pollutants, as well	
			as on their health and	
			environmental effects and	
			on their alternatives	
			[] Public participation in	
			addressing persistent	
			addressing persistent	
			their health and	
			environmental effects.	
			[] Iraining of workers,	
			scientists, educators and	
			technical and managerial	
			personnel.	
			[] Development and	
			exchange of educational	
			and public awareness	
			materials at the national	[] Lack of institutional or
			and international level.	policy framework.
			[] Development and	[] Lack of financial
			implementation of	capacity.
			education and training	[] Limited human
taking any measures			programmes at the	resources.
to implement Article			national and international	[] Insufficient technical
10 of the	[] Yes		level.	capacity.
Convention	[] No	n	[] Other :	1) Other :
taking any measures to implement Article 10 of the Convention	[] Yes [] No		tecnnical and managerial personnel. [] Development and exchange of educational and public awareness materials at the national and international level. [] Development and implementation of education and training programmes at the national and international level. [] Other :	 Lack of institutional or policy framework. Lack of financial capacity. Limited human resources. Insufficient technical capacity. Other :

2.3.13 Mechanism to report under Article 15 on measures taken to implement the provisions of the Convention and for information exchange with other Parties to the Convention

Table 2-161]. Mechanism to report under Article 15 and submission status

Mechanism/arrangements in place to prepare and submit the report under Article 15	Submission status	Main problems encountered	Remarks
[] Yes	[] 1 st Report		
[] No	[] 2 nd Report		
[] Currently under development	[] 3 rd Report		

		4 th Report		
--	--	------------------------	--	--

2.3.14 Relevant activities of non-governmental stakeholders

Table [2-162]. Relevant activities of non-governmental stakeholders

Non-governmental stakeholder	POPs related activities

2.3.15 Overview of technical infrastructure for POPs assessment, measurement, analysis, alternatives and prevention measures, research and development – linkage to international programmes and projects

Table [2-163]. Overview of technical infrastructure for POPs assessment, measurement, analysis, alternatives and prevention measures, research and development

Overview of technical infrastructu re for	POPs assessmen t	POPs measureme nt	POPs analysis	POP alternative s	POPs prevention measure	POPs research and developme nt	Main problems encounter ed
	[] Yes	[] Yes	[] Yes	[] Yes	[] Yes	[] Yes	
	[] No	[] No	[] No	[] No	[] No	[] No	
	[] Currently	[] Currently	[] Currently	[] Currently	[] Currently	[] Currently	
	under	under	under	under	under	under	
	developme	developme	developme	developme	developme	developme	
	nt	nt	nt	nt	nt	nt	

2.3.16 Overview of technical infrastructure for POPs management and destruction

Table [2-164]. Overview of technical infrastructure for POPs management and destruction

Overview of technical	POPs management	POPs destruction	Main problems encountered	Remarks
infrastructure	[] Yes	[] Yes		
for	[] No	[] No		
	[] Currently under	[] Currently under		
	development	development		

2.3.17 Identification of impacted populations or environments, estimated scale and magnitude of threats to public health and environmental quality, and social implications for workers and local communities

Table [2-165]. Identification of impacted populations or environments, estimated scale and magnitude of threats to public health and environmental quality, and social implications for workers and local communities

POPs	Impacted populations or environments	Estimated scale and magnitude of threats to public health and environmental quality	Social implications for workers and local communities

2.3.18 Details of any relevant system for the assessment and listing of new chemicals

Table [2-166]. Details of any relevant system for the assessment and listing of new chemicals

Action	Status	Year	Measure
taking measures to	[] Yes	[]	[] no regulatory and
regulate new pesticides	[] Currently being		assessment schemes for
or new industrial	developed		new pesticides or
chemicals (i.e. chemicals	[] No		industrial chemicals in
that have not yet been			place
introduced in the market			[] regulatory and
or registered in your			assessment schemes for
country), with the aim of			new pesticides or new
preventing the			industrial chemicals in
production and use of			place, but it does not take
new chemicals that			into consideration the
exhibit the characteristics			criteria in paragraph 1 of
of persistent organic			Annex D.
pollutants			

2.3.19 Details of any relevant system for the assessment and regulation of chemicals already in the market

Table [2-167]. Details of any relevant system for the assessment and regulation of chemicals already in the market

Action	Status	Year	Measure
taking into consideration	[] Yes	[]	[] no regulatory and
the criteria in paragraph 1	[] Currently being		assessment schemes for
of Annex D when	developed		existing pesticides or

conducting assessments	[] No	industrial chemicals in
of pesticides or industrial		place
chemicals currently in use		[] regulatory and
		assessment schemes for
		existing pesticides or
		industrial chemicals in
		place, but it does not take
		into consideration the
		criteria in paragraph 1 of
		Annex D.

2.4 Implementation status (2.4 NIP p. 41)

Table [2-168]. Previous NIP action plans implementation status as of [insert year]

Previous NIP Action	Previous NIP Action Plan Component	Implementation status

3. Strategy and action plan elements of the national implementation plan

3.1 Policy statement

Saint Lucia's commitment to eliminating the use of POPs and related chemicals is evident by the country becoming Party to the Stockholm Convention (SC) on POPs. Saint Lucia's commitment can be further recognised by the efforts made towards the update of the NIP and its current participation in several initiatives geared towards the sustainable management of POPs in accordance with the obligations under the SC. The objective of the NIP is to identify the institutional, policy and legislative activities that will ensure the protection of human health and the environment from negative effects of POPs and chemicals through the development and implementation of a POPs and chemicals management plan that meets the needs of Saint Lucia as the SC evolves.

Implementation of the SC in Saint Lucia falls under the portfolio of the Sustainable Development and Environment Division (SDED) within the Department of Sustainable Development (DSD). The Convention's focal point also resides with the office of the Chief Sustainable Development and Environment Officer within the Division. In addition, the SDED is significantly involved in the implementation of several other MEAs including the Basel Convention, Minamata Convention on Mercury, Montreal Protocol, SAICM and Land Based Sources of Pollution Protocol of the Cartagena Convention. As such, the NIP is integrated into the work programme of the SDED and into government's environmental policies and sustainable development strategies. Further references of the integration of POPs and chemicals management into the national agenda are:

- The National Environmental Policy/National Environmental Management Strategy (NEP/NEMS) Outcome 4 of the revised draft 2014 NEP and NEMS identifies the need for "Improved systems for managing waste and controlling pollution so as to enhance environmental health for optimised quality of life for citizens and protection of terrestrial and marine resources". The Outputs include: (i) Upgrading and implementation of solid waste management strategies; (ii) Improvement in management systems for sewage and wastewater; and (iii) Implementation of obligations under chemicals and waste MEAs to which Saint Lucia is a State Party, including the Strategic Approach to International Chemicals Management (SAICM), to ensure that sound chemicals management is achieved by 2020.
- St. George's Declaration (SGD's) on Principles of Environmental Sustainability in the OECS (2006, currently being revised) this provided a regional strategy and framework for environmental management in the OECS. Relevant Principles which address the improved management of POPs pesticides and chemicals includes: Principle 3 (Improve on Legal and Institutional Frameworks), 6 (Use Economic Instruments for Sustainable Environmental Management), 7 (Foster Broad-based Environmental Education, Training and Awareness), 10 (Prevent and Control Pollution and Manage Waste) and 17 (Negotiate and Implement Multilateral Environmental Agreements).
- The DRAFT Policy and Strategy for Environmental Health in Saint Lucia (2016 2021) under which Priority Area 5: 'Water and wastewater management, pollution prevention and development control' provides an imperative to "review, adapt and collaborate with other agencies as required, to implement the UNEP SAICM." In addition to incorporating the six (6) core activities and eleven (11) basic elements of the SAICM, the objectives specific to this ninth (9th) of eleven (11) imperatives are: (i) Develop a national strategic approach in chemicals management in collaboration with stakeholders, (ii) Develop a budget and (iii) Implement [the] strategy [developed].

Saint Lucia's national priorities for implementing the NIP are to:

- 1. Strengthen the coordination between institutions and stakeholders.
- 2. Develop specific legislation on sound management of chemicals and hazardous waste.
- 3. Increase education, training and awareness raising on chemicals management issues including hazardous and chemical waste.
- 4. Improve waste management and introduce waste hierarchy towards a circular economy and reduce unintentionally formed POPs from open burning.
- 5. Assess, manage and remediate contaminated sites.

- 6. Promote collaborations on monitoring and research related to POPs.
- 7. Manage POPs stockpiles, waste and articles in use and institute appropriate measures for disposal (POP-PBDEs, PFOS).
- 8. Update and refine inventories of POPs.
- 9. Assess alternatives to POPs.

3.2 Implementation strategy

The objective of the NIP is to protect human health and the environment from the negative effects of POPs and related chemicals, by developing a holistic and integrated approach to POPs and chemicals management in Saint Lucia. The NIP will be implemented in the context of the NEP and NEMS and its implementation will be coordinated by the SDED of the Department of Sustainable Development. The overarching implementation strategy is discussed according to the sections below.

3.2.1 Improve National Coordination Considering National Priorities

At the governmental level, all relevant ministries will be involved in the NIP implementation with clear responsibilities relevant to their functions. This inter-ministerial coordinating mechanism is considered vital in addressing chemicals and waste management issues (including POPs). Furthermore, the management of chemicals and waste is important for a range of the SDGs of the 2030 Sustainable Development Agenda. To address the national management of chemicals and waste, a coordinated approach will be adopted, with cooperation among all relevant stakeholders at all levels and sectors. Responsibilities of various stakeholder groups¹² related to the sound management of chemicals and waste as well as those related to chemical safety, will be identified and are addressed in section 3.3 below.

3.2.2 Improve Legal, Institutional, Administrative and Technical Infrastructure

Adequate legal, institutional, administrative and technical infrastructure is required for the implementation of the SC. The implementation strategy will include policy development and strengthening of institutional capacities for enforcement and supervision. The legal framework also needs to consider financial mechanisms to support chemicals and waste management. These may include Extended Producer Responsibility (EPR) and Polluter Pays Principle (PPP). Additionally, adequate technical infrastructure is needed for the management of POPs-impacted waste and the analysis and monitoring of relevant POPs in products and environmental media. Appropriate actions are presented in the action plans below.

¹² Includes private sector, industry, labour, science and public interest groups

3.2.3 Promote Synergies among related Multilateral Environmental Agreements (MEAs)

At the international level, there is established need for greater cooperation and coordination, and for measures that support more harmonized implementation of the MEAs. Saint Lucia has ratified, and is a signatory to, several other international chemicals and waste conventions and agreements and is also aware that efforts should be made for harmonized implementation at the national level. The integrated approach of this updated NIP complements SAICM.

Hazardous waste management is an important requirement for adequate implementation of both the Stockholm and Basel Conventions. However, due to capacity constraints for waste destruction at both the national and regional levels, most chemicals, products and materials imported into the country are disposed of at dumpsites at the end of their useful life with a minor fraction being recycled or exported. An integrated management approach to the import, consumption and treatment of POPs and other hazardous chemicals as well as products is therefore needed.

Furthermore, international efforts to protect the Ozone Layer (Montreal Protocol/Vienna Convention) address partly the same waste categories containing POPs: air conditioners in cars or HBCD-containing extruded polystyrene (XPS) normally contain 8% hydrofluorocarbon (HFC) as blowing agent (often HFC-134a with high global warming potential value of 1300). The inventory of vehicles, electronic waste and building insulation in the framework of the SC for POP-PBDEs and the improvement of their end-of-life management can at the same time, be used for improved management of ozone depleting substances present in these products and wastes.

3.2.4 Address POPs Phase Out and Use of Alternatives within Sustainable Consumption and Production Approach (SDG12)

Article 7(3) of the Stockholm Convention states that, "Parties shall endeavour to utilize and, where necessary, establish the means to integrate national implementation plans for POPs in their sustainable development strategies where appropriate". POPs management in the context of the sustainable consumption and production efforts (SDG 12) is considered in this regard. As detailed in the action plan, this consideration is being addressed through measures for restricting importation of POPs into Saint Lucia; improved end of life management; improved source separation, recycling and recovery; phase-out of stocks and appropriate disposal of some products.

In Saint Lucia, POPs pesticides are either banned/prohibited or are not registered for use. However, there is still potential to manufacture, sell or import different classes and formulations of several POPs pesticides with a special license, based on their listing under Schedule Five of the PTCCA. Also, endosulfan can be used with a Pest Control Operators License. In addition to the ongoing use of alternatives to POPs pesticides and more integrated approaches to managing pests, the action plan gives consideration to revision of the PTCCA to prevent the importation all POPs pesticides.

Consideration is given to the use of schemes for extended producer and importer responsibility in the case of EEE/WEEE and vehicles. Improved collection or recovery practices are also needed. The recycling efforts are directly linked to sustainable production and sustainable import of

products. Considering the challenges of managing POPs, there is need for the implementation of a policy that not only discourages or prohibits the import of products that contain POPs or similar chemicals, but also promotes the adoption of the most appropriate alternatives, considering green and sustainable chemistry principles. Currently, there are a few start-up companies involved in the collection, storage and shipment of wastes, including WEEE and metal from ELVs (for processing off-island). However, the environmentally sound management (ESM) and disposal of these products cannot be verified.

Saint Lucia is giving consideration to the reduction and elimination of POPs, the use of alternatives, disposal of chemical-containing products, and management of existing stocks. The disposal of PCBs in transformer oils and the assessment of alternatives to PFOS containing firefighting foams is considered in the action plan. The use of more sustainable chemical products and practices would result in lower amounts of hazardous chemicals in consumer products and the indoor environment, lower contamination of environmental media (air, soil, sediment, ground/surface water) and lower exposure of humans and wildlife. Saint Lucia's approach is consistent with SDG 12- ensuring sustainable consumption and production pattern.

3.2.5 Integrate POPs/Chemical Management and Policy with Waste and Resource Management Considering the Waste Hierarchy

The management of POPs included in large plastic/polymer fractions such as POP-PBDEs in Waste Electronic and Electrical Equipment (WEEE) and End-of- Life Vehicles (ELVs), would require a collaborative approach for the collection, recovery and recycling of these items. Although there are a few start-up companies involved in collection, storage and shipment of these wastes (for processing off-island) and the sector is unregulated, there is potential to address recycling chains or sorting facilities on a regional scale to ensure economic feasibility. However, this would require collaboration between the SLSWMA, resource recovery companies and local businesses as well as formalisation and regulation of the resource recovery sector.

A pilot initiative, unrelated to POPs and aimed at reducing the plastic waste in surface water bodies through the collection and recycling of plastics bottles¹³, is currently underway, and lessons learnt from this approach can be potentially applied to POP-PBDEs in WEEE and ELVs. Though still in its infancy, the approach has the potential to move Saint Lucia further away from disposal of plastic bottles (base of waste hierarchy) to waste recovery and recycling (top of waste hierarchy). The initiative involves the formation of a partnership comprising the SLSWMA, a newly formed resource recovery company and four (4) local businesses. The resource recovery company has conducted a pilot activity for collection of plastics through partnership with a major supermarket chain on the island and other local sponsors. The pilot activity seeks to collect plastics at the source and gather preliminary data on waste from the public. The private company has also engaged in

¹³ Initiative is facilitated by the International Water Stewardship Programme (IWaSP) and supported by the Caribbean Aqua Terrestrial Solutions (CATS)/CARPHA

school awareness initiatives to promote proper waste management practices (reuse, reduce, recycle).

3.3 Action plans, including respective activities and strategies (NIP, P. 50)

3.3.1 Activity: Institutional and regulatory strengthening measures

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
Assess and harmonize existing legal/policy framework on POPs and hazardous chemicals (synergy with SAICM)	Assess the context for National Policy and determine policy direction (e.g. use of the regional model Act or revision of the PTCCA)	Policy Direction determined and approved	6 months	<u>SDED¹⁴, DoA¹⁵,</u> <u>PTCCB¹⁶,</u> SLSWMA ¹⁷ , OSHU ¹⁸ SLCED ¹⁹ , SLASPA ²⁰ , EHD ²¹	
Develop framework for chemical management (synergy with SAICM) and waste management (synergy with BC)	Determine mechanisms, institutional capacity, financial resources and technical resources required for the implementation of national policy	Financial and technical resources mobilized	1 year	<u>SDED, DoA,</u> <u>PTCCB</u> , SLSWMA, SLCED, SLASPA, EHD	

Table [3-1]. Activity: Institutional and regulatory strengthening measures

¹⁴ Sustainable Development and Environment Division (SDED)

¹⁵ Department of Agriculture (DoA) – under the Ministry of Education, Innovation, Gender Relations and Sustainable Development (MEIGRSD)

¹⁶ Pesticide and Toxic Chemicals Control Board (PTCCB)

¹⁷ Saint Lucia Solid Waste Management Authority (SLSWMA)

¹⁸ Occupational Safety and Health Unit, Department of Labour (OSHU)

¹⁹ Saint Lucia Customs and Excise Department (SLCED)

²⁰ Saint Lucia Air and Seaport Authority (SLASPA)

²¹ Environmental Health Department (EHD)

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
	Revise/update legislation in accordance with approved policy	Updated/revised legislation drafted Consultation meetings held Final legislation approved by Cabinet	2 years	<u>SDED, AG</u> <u>Chambers²²,</u> PTCCB, DoA, EHD	
Implement the Globally Harmonized System (GHS) in Saint Lucia (Synergy with SAICM) to support the effective exchange of information relevant to chemicals	Draft law/regulation Conduct stakeholder consultations Develop guidance materials Develop and approve national implementation strategy and associated training and awareness raising plan Notify public of regulation/ issued by government Implement GHS and related labelling	Law/regulation on national GHS adopted Final GHS implementation strategy formally adopted by the Government GHS implemented	4 years	$\frac{SDED}{SLCED},$ SLSWMA, SLASPA, SLBS ²³ , Bureau of Health Education, private sector	
Update national plans and policy to match the NIP	Update the 2004 NEMS to include key targets and activities of the NIP	NEP/NEMS updated and endorsed	4 months	<u>SDED,</u> <u>Slswma,</u> Ehd	

 ²² Legislative Drafting Unit, Attorney General's Chambers including Chief Parliamentary Council (AG Chambers)
 ²³ Saint Lucia Bureau of Standards (SLBS)

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
	Update the National Waste Management Strategy to address the management of hazardous waste streams of concern	National Waste Management Strategy updated			
Develop a mechanism for coordination,	Establish a national chemical working group ²⁴	Number of meetings held	1 year	SDED	
cooperation and collaboration for an integrated approach to chemicals management	Coordinate work programme activities among agencies with responsibility for chemicals management	Number of activities executed, and number of agencies involved	1 year	SDED	
	Develop and implement a national information exchange system	Information system developed	1 year	SDED	
Strengthen Institutions for assessment, analysis and monitoring of POPs and chemicals	Create/put in place infrastructure for POPs assessment and management ²⁵	Gaps assessment and report Training and workshops Improved Legal framework (to provide	3 years - ongoing	SDED	

²⁴ Representatives to include the cross section of agencies relevant to waste and chemicals management (similar to the Project Working Committee). Consideration will be given to streamlining the officers holding responsibilities for the national obligations to all MEAs (Multilateral Environmental Agreements) in order to synergise where possible.

²⁵ Use of recently developed SOP for Inspectors of Chemicals and SOPs for Sampling

Objectives	Activities	Key performance	Time Frame	Implementers	Resources / Needs
		requisite backstopping to SDED officers)			
Develop ESM protocols for priority areas of chemicals management	Review, revise and update protocols for identification, classification and importation of hazardous chemicals	Protocols approved and training conducted (as part of the regional training initiative)	1 year	<u>PTCCB</u> , SLCED, SLSWMA, SLASPA, SDED, EHD, DoA	
	Update national protocols for transportation, storage, handling/ use and disposal of chemicals including storage	Protocols developed and approved (using regional project manual on ESM and disposal of POPs) Training conducted	1 year	<u>SLSWMA,</u> <u>OSHU, PTCCB</u> , SDED, EHD, DoA	
	Develop and implement a monitoring programme for evaluating use and adequacy of protocols	Monitoring programme established	Ongoing	<u>SLSWMA,</u> <u>OSHU, PTCCB,</u> SDED, EHD, SLFS ²⁶	
	Update/develop contingency plan for chemical disaster management	Elements of plan developed Plan approved and implemented Resources mobilized for implementing plan	8 months	<u>NEMO²⁷,</u> SDED <u>, S</u> LFS, EHD	

 ²⁶ Saint Lucia Fire Services (SLFS)
 ²⁷ National Emergency Management Organization (NEMO)

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
		Capacity built to implement plan			

3.3.2 Activity: Measures to reduce or eliminate releases from intentional production and use NIP p. 54)

Table [3-2]. Activity: Measures to reduce or eliminate releases from intentional production and use

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
Establish regulatory and administrative measures to prohibit the use, import and export of Annex A and B chemicals with the exception of export for environmentally sound disposal (Refer to Table 3-1)	Submit recommendations to the Chair of the PTCCB and/or the Ministry of Legal Affairs to ban Annex A and B chemicals as well as those that are newly listed	Legislation banning use of chemicals in Annex A and B	1 year	<u>PTCCB</u> , AG Chambers, SDED	
Assess alternatives, develop management (phase-out) and disposal plan for POPs products/articles currently in use (detailed in Sections 3.3.4 and 3.3.7)	Phase out current use of identified POPs and promote their substitution (PCBs and PFOS)	Substitution by more sustainable chemicals and non-chemical alternatives	2 years	<u>SDED, SLFS</u> , LUCELEC, OSHU, SLSWMA, PTCCB	

3.3.3 Activity: Production, import and export, use, stockpiles, and wastes of Annex A POPs pesticides (Annex A, Part I chemicals) (NIP p. 56)

Table [3-3]. Activity: Production, import and export, use, stockpiles, and wastes of Annex A POPs pesticides (Annex A, Part I chemicals)

Objectives	Activities	Key performance	Time Frame	Implementers	Resources / Needs
		indicators			
Strengthen regulatory framework for POPs pesticides	Update existing regulations to restrict/ address all pesticides by banning (PTCCA to remove POPs Pesticides listed under Schedule 5)	See Section 3.3.1			
	Improve regulatory measures to combat illegal traffic of counterfeit pesticides	Regulations approved by Cabinet	1 year	<u>DoA</u> in collaboration with the <u>PTCCB</u> , SDED, SLASPA, SLCED	
Strengthen the capacity of Border Control to detect and seize POPs pesticides and other HHPs	Provide opportunities for capacity building and training on the detection and seizure (based on regulations) of POPs pesticides and other HHPs	Training exercises conducted Availability of HHPs and POPs pesticides reduced and/or eliminated	1.5 years	<u>MOAFPNRC</u> (<u>Lead), SLCED</u> , <u>SLASPA</u> , PTCCB, SDED	
Development/ update of pesticides and HHPs inventory	Update 2016 inventory of POPs pesticides and other HHPs (including PCP use and treated material)	Inventory updated	1 year	<u>MOAFPNRC</u> (<u>Lead), PTCCB</u> , SDED, EHD, OSHU	
Life cycle management of pesticides - equipment,	Develop/update the guidelines for storage, handling and	Guidelines for the lifecycle management of pesticides	2 years	<u>DoA, PTCCB</u> , SDED, EHD, OSHU	

Objectives	Activities	Key performance	Time Frame	Implementers	Resources / Needs
		indicators			
products,	transport of	endorsed and			
stockpiles and	pesticides	published			
waste	Establish collection and management system for empty pesticide containers (Extended Producer Responsibility)	EPR System established (roll-out on a pilot scale) Number of collection centres Tonnes collected and managed in an ES manner	2 years	DoA, PTCCB, SDED, SLASPA, SLCED, SLSWMA and relevant NGOs/farmers associations, manufacturing/ importing associations, SLCC ²⁸ , EHD, OSHU	
	Establish a system for the appropriate transportation and storage of obsolete and seized pesticides stocks at SLSWMA	MoU between PTCCB/ SLASPA/ SLCED/ SLSWMA	2 years	<u>SLSWMA</u> , in collaboration with the PTCCB, SLASPA, SLCED, EHD	
	Establish/identify a system for the appropriate disposal of containers and obsolete stockpiles	Disposal facility identified or constructed	2 years	<u>SLSWMA</u> , PTCCB, MOAFPNRC, EHD (and other regional entities)	
	Develop emergency response plans (ERP)	Emergency response plans developed for disasters and spillage Training and information dissemination on ERP	2 years	<u>NEMO, SLSWMA</u> , EHD, SDED, SLFS, OSHU	
Assess alternatives to POPs	Compile information on alternatives to	Report on assessment of alternatives to	2 years	<u>DoA</u> , SDED, Relevant NGOs/farmer	

²⁸ Saint Lucia Chamber of Commerce (SLCC)

Objectives	Activities	Key performance	Time Frame	Implementers	Resources / Needs
		indicators			
pesticides and HHPs including IPM and organic farming	POPs pesticides and HHPs (SAICM Synergy)	POPs pesticides and HHPs in Saint Lucia		associations, manufacturing/ importing associations/SLCC, Sir Arthur Lewis Community College (Department of Agriculture), EHD	
	Select the most suitable alternatives and promote their use as a measure for reducing POPs pesticides and HHP use	Report on most suitable alternatives to POPs pesticides and HHPs in Saint Lucia Implementation Plan and roll- out (pilot scale) of POPs pesticides and HHP phase out	3 years	<u>DoA</u> in collaboration with SDED, Relevant NGOs/farmers associations, manufacturing/ importing associations/SLCC, Sir Arthur Lewis Community College (Department of Agriculture), EHD	
Awareness raising and education for relevant stakeholder groups	Execute an Education Campaign on handling, use and disposal of spent pesticide containers	Number of stakeholders educated Improved treatment of spent containers	3.5 years	<i>DoA</i> , Relevant NGOs/farmer	
	Implement a programme to promote awareness on alternatives to POPs pesticides/other HHPs and Organic farming in collaboration with ongoing IPM initiatives	Number of stakeholders educated	3.5 years	associations, manufacturing/ importing associations/SLCC, Bureau of Health Education, EHD	
Analysis and monitoring of POPs	Visit farms and businesses regularly to	Designated inspectors appointed;	Ongoing	<u>DoA</u> , OSHU	

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs		
pesticides	ensure	regular visits					
usage and in	adherence to	conducted					
products and	guidelines on						
the	storage, handling						
environment	and transport of						
	pesticides						
	Work with						
	external						
	agencies to	Do 4 (Coo Table 2.4 on Institutional strongthering					
	perform analysis	of the National Diagnostic Laboratory), EHD, OSHU					
	of products, soil,						
	water, human						
	milk, etc. for						
	POPs pesticides						
Note: The action plan for POPs pesticides contaminated sites is integrated in the general action plan							
on contaminated sites in Section 3.3.11.							

3.3.4 Activity: Production, import and export, use, identification, labelling, removal, storage, and disposal of PCBs and equipment containing PCBs (Annex A, Part II chemicals) (NIP P. 60)

Table [3-4]. Activity: Production, import and export, use, identification, labelling, removal, storage, and disposal of PCBs and equipment containing PCBs (Annex A, Part II chemicals)

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
PCBs inventory development/update	Complete inventory on PCB/PCN containing equipment (in and out of service)	Inventory of transformers, capacitors and other equipment	6 months	<u>LUCELEC</u> , SDED	
	Assess past use of SCCPs in open applications (such as sealants, paints, rubber,	Assessment of use (report) Inventory of open applications	5 years	SDED	

Life cycle management of PCB equipment, products, stockpiles and waste	plastics) and where relevant, develop an inventory Develop and implement a management and phase- out plan for PCBs and PCB containing equipment	Management and phase-out plan approved and implemented	1 year	<u>LUCELEC</u> , SDED		
	Dispose of identified PCBs and PCB containing equipment	Tonnage disposed by 2025	1 year (ongoing)	<u>LUCELEC</u> , SDED, OSHU		
Awareness raising and education for relevant stakeholder groups	Educate the utility sectors, maintenance workers and industry owning transformers, on the health hazards of PCBs, PCNs and SCCPs	Number of awareness activities conducted	2 years	<u>LUCELEC</u> , SDED, OSHU		
Analysis and monitoring of PCBs/PCNs Actions to address leai	Improve lab capacity to support the monitoring and analysis of PCBs/PCNs for closed, open applications, food and environment	Laboratory equipment obtained/ upgraded	2 years	<u>LUCELEC</u> , Regional or International Collaborations ated site assessm	ents are	
addressed in synergy with Sections 3.3.1 and 3.3.11, respectively.						

3.3.5 Activity: Production, import and export, use, stockpiles, and wastes of hexaBDE and heptaBDE (Annex A, Part IV chemicals) and tetraBDE and pentaBDE (Annex A, Part V chemicals) (and HBB, where applicable (Annex A, Part I chemicals))

Table [3-5]. Activity: Production, import and export, use, stockpiles, and wastes of hexaBDE and heptaBDE (Annex A, Part IV chemicals) and tetraBDE and pentaBDE (Annex A, Part V chemicals) (and HBB, where applicable (Annex A, Part I chemicals))

Objectives	Activities	Key	Time	Implementers	Resources /
		performance indicators	Frame		Needs
Develop	Initiate the	Import		<u>SDED,</u>	
regulatory	regulatory	regulations		<u>SLSWMA</u> ,	
framework for	framework on	developed to		SLASPA, SLCED,	
POP-BFRs and	the management	address		private	
impacted	of PBDE/HBCD	EEE/WEEE and	4 years	recyclers,	
product/waste	products and	ELVs (limit on		manufacturing/	
	waste ²⁹ (WEEE,	age of		importing	
	ELVs, insulation	imported		associations,	
	foams)	vehicles)		SLCC, Ministry	
	Develop Policy to	Policy on FPR		of	
	support EPR	schemes		Infrastructure	
	schemes and	approved by	approved by 4 years (Trar	(Transport	
	disposal of POP-	Cabinet		Division), EHD	
	BFR waste				
	Establish				
	licensing system	Importation			
	for importers of	database	4 years		
	POP-BFR	developed			
	containing				
	products				
	Update inventory				
Development/	giving				
Development/		Revised			
inventory of		inventory	3 years	<u>SDED,</u>	
	inventory related	developed		<u>5L3 VVIVIA</u> , END	
POP-DENS	to textiles and				
	food containers				
Sound lifecycle	Assess the	Assessment			
management	current	Report/s			
of POP-BFR	management.	(including	3 vear	<u>SDED,</u>	
containing	recycling and	material	- ,	<u>SLSWMA</u> , EHD	
products and	disposal of	substance			

²⁹ This can be addressed in overarching legislative and regulatory activity and addressed in synergy with Section 3.3.

waste	products and	flow			
categories	waste containing	assessment			
(integrated	BFRs (including	reports)			
into a larger	EEE/WEEE, ELVs)				
framework for	Develop source				
plastic/	separation	Source			
polymer	strategy for	separation		<u>SDED,</u>	
management)	products and	strategy	5 years	<u>SLSWMA</u> , EHD,	
	waste containing	endorsed by		SLFS	
	BFRs (including	Cabinet			
	EEE/WEEE, ELVs)				
	Develop ESM				
	strategy for POP-				
	BFRs containing				
	plastic and other	EEE plastic			
	polymers in	and POP-BFRs			
	EEE/WEEE	management		<u>SDED,</u>	
	(collection,	orage, within the atment – management of WEEE	5 years	<u>SLSWIVIA</u> , SLCC,	
	storage,		- ,	WEEE	
	treatment –			recyclers, EHD	
	considering the				
	waste				
	management				
	hierarchy)				
	Develop ESM				
	strategy for POP-	Plastics in			
	BFRs containing		5 years	<u>SDED,</u>	
	plastic and other	ELVs and POP-		<u>SLSWMA</u> , SLCC,	
	polymers in ELVs	BFR		Ministry of	
	(collection,	management is addressed within the management		Infrastructure	
	storage,			(Transport	
	treatment –			Division),	
	considering the			Vehicle	
	waste	of ELVs		importers, EHD	
	management				
	hierarchy)				
				<u>SDED,</u>	
	Establish			<u>SLSWMA</u> , SLCC,	
	hazardous waste			Ministry of	
	storage facility	Hazardous		Infrastructure	
	(giving	waste storage	2 years	(Transport	
	consideration to	facility constructed	2 years	Division),	
	the requisite			Vehicle	
	requirements for			importers,	
	POP-BFRs)			WEEE	
				recyclers, EHD	

	Identify destruction and energy recovery options for POP- BFRs containing waste	Phase-out/ destruction options identified	5 years	<u>SDED,</u> <u>SLSWMA</u> , SLCC, Ministry of Infrastructure (Transport Division), Vehicle importers, WEEE recyclers, EHD			
	Develop phase out/ destruction options for identified POP- BFR sources	Phase-out/ destruction programme executed					
Assessing and selecting the most suitable alternatives to POP-BFRs	Compile information on the alternatives to HBCD containing EPS/XPS insulation Compile information on alternatives to DecaBDE	Most suitable alternatives determined	4 years	<u>SDED,</u> <u>SLSWMA</u> , SLCC, EHD			
	Phase in of sustainable alternative chemicals and non-chemical alternatives	Phase-in programme implemented	5 years	<u>SDED,</u> <u>SLSWMA</u> , SLCC, EHD			
Application of BAT/BEP in the ESM of POP-BFRs	Develop national guidelines and SOPs on the ESM, BAT/BEP and disposal of products with POP-BFRs	ESM guidelines developed	3 years	<u>SDED,</u> <u>SLSWMA</u> , EHD			
Awareness raising and education for relevant stakeholder groups	Train relevant stakeholders on the national guidelines and SOPs on the ESM, BAT/BEP and disposal of POP- BFRs. Synergised	Trainings conducted	3 years	<u>SDED,</u> <u>SLSWMA</u> , recyclers, EHD			
Analysis and monitoring of POP-BFRs in the environment, food and humans	with SAICM initiative on 'Chemicals in Products' Assess monitoring options (national/regional capacity through international collaborations e.g. GMP) Create capacity for research, measurement and analysis of POP-BFRs in the environment, food and in humans Establish monitoring	Monitoring capacity developed Monitoring programmed conducted	5 years	<u>SDED</u> , EHD			
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	Establish monitoring programme for POP-BFRs	conducted (inventory revised to reflect findings)					
Actions to addre	Actions to address contaminated site assessments are addressed in synergy with Section 3.3.11.						

3.3.6 Activity: Production, import and export, use, stockpiles, and wastes of DDT (Annex B, Part II chemicals) if used in the country (NIP P.67)

Table [3-6]. Activity: Production, import and export, use, stockpiles, and wastes of DDT (Annex B, Part II chemicals) if used in the country

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs

3.3.7 Activity: Production, import and export, use, stockpiles, and wastes of PFOS, its salts and PFOSF (Annex B, Part III chemicals)

Table [3-7]. Activity: Production, import and export, use, stockpiles, and wastes of PFOS, its salts and PFOSF (Annex B, Part III chemicals) (NIP P. 67)

Objectives	Activities	Key	Time Frame	Implementers	Resources /
		indicators			Needs
Establishing policy and regulatory framework	Improve regulatory framework to prevent the import and use of PFOS and related substances and PFAS (SAICM Synergies)	Regulation approved			
	Implement extended producer/ user responsibility by importers/users throughout lifecycle (including disposal)	EPR in place Firefighting foams: takeback and safe destruction of unused stock Other consumer products: takeback of end-of-life products and	<u>SLFS</u> , SDED, AG Chambers, EHD, SLCC		
Life cycle management of PFOS/PFAS equipment, products, stockpiles and waste	Assess management and destruction options for PFOS and other PFAS containing stocks and wastes	Management and destruction options assessed and report produced	1 year	<u>SLFS</u> , SDED, EHD	
	Environmentally safe storage of PFOS containing materials	PFOS- containing waste stored appropriately	1 year	<u>SLFS</u> , SDED, EHD	
	ESM and disposal of products and materials	PFOS- containing waste	3 years	<u>SLFS</u> , SDED, EHD	

	(destruction of exports giving consideration to Basel synergy and EPR schemes)	disposed of appropriately			
Assessment of alternatives to PFOS firefighting foams	Compile information and conduct research on environmentally friendly alternatives used in the region/ internationally	List of alternatives to PFOS chemicals established Most appropriate alternative identified Phase-in plan developed	6 months	<u>SLFS</u> , SDED, EHD, OSHU	
Training and awareness	Conduct direct training with Fire Services on the impacts of PFOS use, the use of alternatives, ESM and disposal	Training conducted	6 months	<u>SLFS</u> , SDED, EHD, OSHU	
raising with Fire Services	Compile and disseminate information to sensitize other key stakeholders (carpets, textiles, packaging industry)	Material developed and disseminated	1 year	<u>SDED, EHD</u> , SLCC, Bureau of Health Education	
Analysis and monitoring of PFOS and its related substances	Develop monitoring capacities for PFOS concentrations in products/articles suspected to contain PFOS	Monitoring approach for PFOS and its related substances developed	2 years	<i>DoA</i> , SDED, WASCO ³⁰ , EHD	

³⁰ Water and Sewerage Company Inc. (WASCO)

and its related				
substances				
(consider				
regional and				
international				
collaboration)				
Actions to address contaminated site assessments are addressed in superay with Section 2.2.11				

Actions to address contaminated site assessments are addressed in synergy with Section 3.3.11.

3.3.8 Activity: Register for specific exemptions and the continuing need for exemptions (Article 4) (NIP P. 71)

Table [3-8]. Activity: Register for specific exemptions and the continuing need for exemptions (Article 4)

Objectives	Activities	Key performance	Time Frame	Implementers	Resources / Needs
		indicators			
To establish an informed registration process for needed exemptions	Organise stakeholder consultation to establish criteria for assessment and selection of exemptions for chemicals listed under Annex A or B	Stakeholder consultation held and outcomes documented	3 years	<u>SDED</u> , PTCCB, OSHU, Other respective agencies based on the nature of the chemical being considered	
	Assess if exemptions are needed	Country assessment of current listed POPs with exemptions (report)	3 years	<u>SDED</u> , PTCCB, OSHU	
Listing of POPs where exemptions and periodic review are	Inform Secretariat of the SC/COP on the exemption needed after thorough assessment of the need and the alternative options	Notification submitted and exemption listed	As needed	<u>SDED</u> , affected stakeholders (e.g. SLFS or PTCCB), OSHU	
	Undertake periodic review to	Review report	As needed		

asses	ss the		
need	l for		
conti	inued		
exem	nptions		
and			
alter	natives,		
and t	to stop		
exem	nption		
and u	use more		
susta	ainable		
alter	natives as		
soon	as		
feasi	ble		

3.3.9 Action plan: Measures to reduce releases from unintentional production (Article 5) (NIP P. 72)

Table [3-9]. Action plan: Measures to reduce releases from unintentional production (Article 5)

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
Life cycle management of POPs waste and POPs containing material (to reduce UPOPs production from open burning) (consideration	Develop EPR schemes for priority waste streams (WEEE, ELVs and PFOS firefighting foams, etc.) to reduce waste generation rates	EPR schemes developed	5 years	<u>SLSWMA</u> (other stakeholders determined based on waste stream)	
to waste management hierarchy)	Develop ESM and disposal procedures to support SLSWMA operations	ESM and disposal procedures developed	1.5 years	<u>SLSWMA</u> in collaboration with SDED, EHD	
	Develop source separation schemes	Source separation schemes developed and implemented Supporting hazardous	2 years 5 years	<u>SLSWMA</u> in collaboration with SDED, EHD	

		waste storage infrastructure constructed			
	Determine alternative fuel source for fire simulation training exercises	Alternative fuel source identified and used	6 months	<u>SLFS</u>	
Awareness raising and education	Train landfill operators on ESM, disposal and BAT/BEP relevant to POPs waste streams (focus on UPOPs reduction)	Training conducted	2 years	<u>SLSWMA</u> in collaboration with SDED	
	Develop and disseminate public awareness information on UPOPs sources, impacts and reduction (include open burning and BAT/BEP for operations such as funeral homes)	Public awareness material distributed	1 year	<u>SLSWMA</u> in collaboration with SDED, Bureau of Health Education	
Analysis and monitoring of UPOPs in humans and the environment	Improve monitoring of waste management facilities to detect, prevent and control spontaneous fires	Monitoring plan developed and implemented	1 year	SLSWMA	
	Develop capacity to undertake research and monitoring on human exposure to UPOPs	Lab capacity developed	2 years	<u>DoA</u> , SDED, WASCO, EHD	

Actions to address contaminated site assessments are addressed in synergy with Section 3.3.11.

3.3.10 Activity: Identification and management of stockpiles, waste and articles in use, including release reduction and appropriate measures for handling and disposal (Article 6) (NIP P. 74)

Table [3-10]. Activity: Identification and management of stockpiles, waste and articles in use, including release reduction and appropriate measures for handling and disposal (Article 6)

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resource s / Needs				
Improvement of	Improvement of the legislative framework and policy to prevent the import, illegal traffic and build- up of future stocks in Saint Lucia (see Section 3.3.1)								
Identify stockpiles, products and waste consisting of, containing or contaminate d by POPs chemicals	Update inventories every four years (as needed) Assess existing stockpiles and determine jurisdictions and responsibilities	Updated POPs inventories MoU between respective parties to allow efficient management of waste streams (e.g. Seized pesticides – Customs, PTCCB/ MOAFPNRC and SLSWMA)	As needed	<u>SDED, SLSWMA</u> , OSHU <u>SLSWMA</u> , SLCED, SLASPA, PTCCB, DoA					
ESM, storage and disposal of stockpiles of POPs containing chemicals and articles in use	Assess national capacity to manage hazardous wastes Develop measures for safe handling, separation and sound disposal of stockpiles of chemicals and articles in use (including source separation, EPR schemes and hazardous waste	Guidelines for environmentall y sound management of chemical stockpiles/ articles in use Source separation/EPR scheme demonstrated Relevant stakeholders trained	2 years	<u>SLSWMA</u> , SLBS, MoH ³¹ , PTCCB/DoA, SDED <u>SLSWMA</u> , EHD, SLCC, OSHU, SLFS (Others based on relevant waste streams)					

³¹ Ministry of Health (MoH)

	storage). Particular focus can be placed on the improvement of procurement policies to prevent future build-up Develop measures to store POPs stockpiles and hazardous chemicals and wastes in a safe and environmentally sound manner (the application of BAT/BEP)				
Determine feasible options/ limitations for the destruction of POPs and hazardous chemicals	Identify feasible options/limitation s for the destruction and management of POPs and hazardous chemicals Consider appropriate material/energy recovery options (giving consideration to the synergies with BC and SAICM) Train relevant stakeholders on management and disposal options	Feasible disposal/ recovery options for each POPs group/waste stream(s) of concern identified Management/ disposal plans developed	Determine feasible options/ limitations for the destructio n of POPs and hazardous chemicals	Identify feasible options/limitation s for the destruction and management of POPs and hazardous chemicals Consider appropriate material/energy recovery options (giving consideration to the synergies with BC and SAICM) Train relevant stakeholders on management and disposal options	

3.3.11 Activity: Identification of contaminated sites (Annex A, B, and C Chemicals) and, where feasible, remediation in an environmentally sound manner (NIP P. 77)

Table [3-11]. Activity: Identification of contaminated sites (Annex A, B, and C Chemicals) and, where feasible, remediation in an environmentally sound manner

Objectives	Activities	Key	Time Frame	Implementers	Resources /				
		performance		_	Needs				
		indicators							
See section 3.3.	1 for legislative and	regulatory activiti	es. The Model I	CM Act includes c	onsideration				
for the manager	for the management of contaminated land. In addition, consideration can be given to the								
development of	development of regulations which set the criteria for determining contamination of POPs and other								
hazardous chem	iicals (e.g. regulatio	on for the current P	olluter Pays Pri	nciple (PPP) for oi	l contamination				
can be develope	ed).				Γ				
Regulatory	Develop/update								
framework for	national								
contaminated	legislation for								
sites (see also	determining								
Section 3.3.1)	contaminated								
	sites for	Draft regulation							
	relevant POPs	developed on		<u>Chambers</u>					
	and other	contaminated	4 years	PTCCB FHD					
	hazardous	sitos		SI SWMA DOA					
	chemicals	51(05		JESWINA, DOA					
	(including								
	guidelines for								
	assessments								
	and quality								
	limits)								
	Update								
	legislation on								
	liability related								
	to	Draft		<u>SDED, AG</u>					
	contamination	regulations on	4 years	<u>Chumbers</u> ,					
	and clean-up	PPP							
	procedures			SLSVVIVIA, DOA					
	(Polluter Pays								
	Principle (PPP))								
Development/	Develop								
update of	methodology to	Procedures for							
inventory of	identify, assess	cito							
POPs	and prioritise	investigation							
contaminated	sites	dovolopod							
sites	contaminated	ueveloped		SDED,					
	with Annex A, B	Methodology	2 years	SLSWMA, EHD					
	and C chemicals	for site		,					
	considering	sampling and							
	available	analysis							
	international	developed							
	best practice ³²								

³² Examples: UNIDO POPs Contaminated Site Toolkit

https://www.informea.org/sites/default/files/styles/medium/public/imported-documentsimages/thumbnail.new%3Fvault%3DStockholm%20Production%26file%3DUNIDO-POPS-TOOLK-

	Develop list of potentially contaminated sites	List of contaminated sites developed			
Secure POPs contaminated sites for remediation	Identify potential remediation technologies available	Report on the environmentally sound remediation methods available	2 years	SDED, SLSWMA, EHD and relevant agencies (e.g. LUCELEC, SLFS)	
	Develop strategies for the environmentally sound	Draft management or remediation plan- BEP and BAT for contaminated sites increased	2 years		
	management of POPs contaminated sites	Remediation of 50% of contaminated sites, from the 2016 baseline, by 2025	5 years		
	Train and upgrade skills of personnel in the assessment, securing and remediation of contaminated sites	Nationals trained	2 years	SDED, SLSWMA, EHD	
Improved capacity for analysis and monitoring of POPs contaminated sites	Develop capacity for data collection, analysis and monitoring of releases	Monitoring and reporting on state of contaminated sites to agencies every 2 years Analytical capacity improved within laboratories	4 years	SDED, SLSWMA, EHD, DoA- National Diagnostic Lab	

<u>ContaminatedSiteIM.En.pdf?itok=qxGzIynd</u> AND <u>https://toolkit.pops.int/Publish/Downloads/UNEP-POPS-TOOLKIT-2012-En.pdf</u>

3.3.12 Activity: Facilitating or undertaking information exchange and stakeholder involvement (NIP P. 79)

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
Improve international and regional information exchange on POPs and chemicals management	Develop/improve mechanism for information exchange with international and regional counterparts and regional Centres	Web based platform established or improved	2 years	SDED	
	Develop and implement an Information System Application for chemicals management	Website developed and approved Website use increased Spatial mapping of vulnerable communities	1 year	SDED	
Develop a coordinated approach to national information generation, sharing and exchange	Increase information generation and collection capacities among agencies on POPs and other chemicals in Saint Lucia	Agency identified to oversee coordinated approach Annual report on generated information prepared	1 year	<u>SDED</u> , Bureau of Health Education, OSHU, SLFS, SLSWMA, DoA	

Table [3-12]. Activity: Facilitating or undertaking information exchange and stakeholder involvement

3.3.13 Activity: Public and stakeholder awareness, information and education (Article 10) (NIP P. 81)

Table [3-13]. Activity: Public and stakeholder awareness, information and education (Article 10)

Objectives	Activities	Key performance	Time Frame	Implementers	Resources / Needs
Assess the knowledge, attitude and practice (KAP) regarding POPs and chemicals Assess the general public's, agricultural sector's and industry's KAPs regarding POPs and chemicals	Report on KAP study regarding POPs and chemicals published KAP study conducted on an as-needed basis	6 months (ongoing)	<u>SDED, SLSWMA,</u> <u>EHD, SLNT³³</u> (<u>Communication</u> <u>Department</u>), Other relevant departments based on the topic (eg. DoA for POPs pesticide		
	Develop and implement a programme to monitor KAP of industry, agricultural sector and general public.	Gaps in KAP for different target groups identified.	6 months (ongoing)	education OR SLFS for PFOS related issues)	
Public awareness and education programme for POPs and chemicals management, health and environmental impacts	Develop and implement an effective PAE programme on chemicals management Implement sustained public awareness activities on the health and environmental impacts of POPs and other toxic chemicals	KAP increased by 50% over the baseline level assessed (Public awareness and at an industry specific level)	6 months (ongoing)	<u>SDED, SLSWMA,</u> <u>EHD, SLNT</u> , Other relevant departments based on the topic (eg. DoA for POPs pesticide awareness and education OR SLFS for PFOS related issues)	
Promote safe handling of chemicals and	Develop BEP for handling chemicals	Critical control points established	6 months (ongoing)	<u>OSHU, EHD,</u> PTCCB, SDED,	
chemicals-free alternatives	Host health and safety	Workshops held annually	6 months (ongoing)	DoA	

³³ Saint Lucia National Trust (SLNT)

	workshops and BEP workshops with industry			
	Promote the use of non- chemical alternatives to the public	Community workshops and programmes on the use of non-chemical alternatives	6 months (ongoing)	
	Promote safe handling of household chemicals	Community workshops and programmes on households' use of chemicals	6 months (ongoing)	

3.3.14 Activity: Effectiveness evaluation (Article 16) (NIP P. 83)

Table [3-14]. Activity: Effectiveness evaluation (Article 16)

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
Evaluate the effectiveness of the	Develop national performance	Assessment criteria			
implementation of the	evaluation criteria	developed	4 years	SDED	
Convention	Assess implementation, progress and performance	Assessment report prepared			

The actions required to generate updated data on POPs in human milk or human blood were also addressed in the plan for the respective POPs groups. These included the improvement of the national laboratory, training and capacity building in each section.

3.3.15 Activity: Reporting (Article 15) (NIP P. 83)

Table [3-15] Activity: Reporting (Article 15)

Objectives	Activities	Key	Time Frame	Implementers	Resources / Needs
		indicators			Neeus
Establish mechanisms for Article 15 reporting and comply with Article 15 reporting	Develop a mechanism for complying with the reporting requirements by submission of reports within the given deadlines	Reports submitted within deadline	2 years	SDED	
	Establish a National information exchange system to facilitate data collection and analysis (e.g. Systematic updates from LUCELEC on status of PCBs, SLFS on use of PFOS foams, etc., and SLCED/DoA on stockpiles of seized goods, etc.)	National information exchange system functional	1 year	SDED	
	Set up responsibilities for data compilation and filling out the reporting form	Data compilation process established Responsible units within SDED identified			
	Submit statistical data of total production, import and export of the	Statistical data submitted			

chemicals		
listed in		
Annexes A and		
B of the		
Convention, or		
reasonable		
estimates of		
such data		

3.3.16 Activity: Research, development and monitoring (Article 11) (NIP P. 84)

Table [3-16]. Activity: Research, development and monitoring (Article 11)

Objectives	Activities	Key performance	Time Frame	Implementers	Resources / Needs
Improve analytical capacity	Review/update of laboratories to determine existing and potential capabilities and resources required	Laboratoris equipped with technical and financial resources and equipment for data collection, analysis and monitoring of POPs and chemical releases	1 year	SDED, DoA (National Diagnostic Lab)	
	Train staff on analytical techniques, sampling protocols and BAT/BEP related to POPs and other hazardous chemicals	Laboratory staff trained (national or regional initiative)	2 years	DoA (National Diagnostic Lab)	
Develop monitoring programme for detecting POPs and chemicals	Develop Research and Development (R&D) capabilities	National capacity for R&D developed (within MOAFPNRC)	3 years	DoA (National Diagnostic Lab), SDED, EHD, OSHU, SLBS, International/	

(consider SAICM synergies) in potable water and food	and capacities in Saint Lucia Develop a monitoring plan for analysing and detecting levels of PCBs, POPs and other chemicals in potable water and food (focus on sites potentially contaminated with PFOS)	Standards for acceptable levels of POPs and chemicals in potable water and food established and enforced		regional partner(s)	
Access technical assistance from countries with well- established POPs monitoring	Identify countries with experience in POPs monitoring and analysis (consider regional GMP participation)	Technical assistance to monitor POPs and chemical releases received	Ongoing	SDED, SLCED	
and analysis programmes	Mobilize financial and technical assistance to enable monitoring of POPs	Saint Lucia's ability to monitor POPs and chemicals releases	Ongoing	SDED	

3.3.17 Activity: Technical and financial assistance (Articles 12 and 13)(NIP P. 86)

Objectives	Activities	Key performance indicators	Time Frame	Implementers	Resources / Needs
Sourcing technical assistance	Assess technical needs	Documentation of needs	As opportunities arise	SDED	

towards the successful implementation of the Convention (Article 12)	Identify sources of technical assistance and develop project proposals	List of sources of technical assistance Proposals prepared and submitted and acceptance			
Sourcing financial assistance towards the successful	Conduct and develop an analysis of current financing mechanisms employed in chemicals management	Financing mechanisms identified	As opportunities	SDED	
implementation of the Convention	Identify potential sources of financial support relevant to Saint Lucia	List of potential donors	arise		
Develop mechanisms for sustainable financing for chemicals management	Seek sustainable financial assistance through proposals	Proposals prepared and submitted and acceptance	As opportunities arise	SDED	

3.4 Development and capacity-building proposals and priorities

Seven (7) priority areas for the implementation of the SC were identified during development of the 2016 inventory, the Stakeholder Consultation Workshops for updating the POPs NIP in Saint Lucia, the initial NIP and other subsequent consultations with relevant stakeholders and the PWC. The order of the priority areas presented below is not indicative of priority among areas.

Table [3-18]. Development and capacity-building proposals and priorities

Priority area	Capacity building proposal	Remarks
Strengthening the	The priority areas identified in section 3.4 require inter	This priority area
coordination between	and intra ministerial corporation as well as	can contribute to
institutions and	collaboration with private sector industry and other key	SDGs 3, 8, 9, 11,
stakeholders stakeholders. The strengthening and coordination of		12, 14, 15 and 16.
	such collaboration/cooperation would ensure the	
	effective implementation of the action plans towards a	
	more integrated approach to chemicals management	

Development of specific legislation for the sound management of chemicals and hazardous waste	including POPs. To address this priority, a coordinated work programme that would link programme activities and the responsibilities of the ministries/agencies to that of private sector industries/key stakeholders is necessary. In this regard, the human resource constraints within the SDED (focal point for the SC) can also be improved. The strengthening of coordination on a regional scale may also be beneficial. This can allow for sustainable project development and involvement. There is a need to introduce new or amended legislation for hazardous chemicals and waste. Additionally, an assessment of whether the proposed action plan activities can be integrated into existent regulation/policies on chemical management is needed. As is evident from sections 3.2 and 3.3, this is a priority area common to all the POPs chemicals. Of particular importance is the newly listed POPs – POP-PBDEs related to the management of ELVs and WEEE. Additionally, newly listed PFOS and its related chemicals necessitate new laws related to the restriction on importation and control that support an integrated approach to the management of these POPs and other hazardous chemicals and their waste. Effective, well- written and enforced legislation on chemical management will ensure sustainable management of both land and water resources and protection of the country's food sources and biological resources. To address this priority area, institutional capacity/personnel for drafting wastes and chemical management related legislation/policies must be strengthened, and increased efficiency in the process should be addressed.	This priority area contributes to SDGs 3, 8, 9, 11, 12, 14, 15 and 16.
Education, training and awareness raising on chemicals and hazardous waste management issues and practices	Education and awareness raising should be an integral part of any integrated approach to chemicals and waste management. The focus has to be on the groups of POPs most relevant to Saint Lucia (including the newly listed POPs). The targeted individuals for this priority area would include the public, government officials and stakeholders. In particular, continuous training for waste management staff, recyclers, customs officers, farmers and firefighters is essential and must include the use of Best Available Techniques (BAT) and Best Environmental Practise (BEP) for chemicals and waste management. Good Agricultural Practices (GAP) should also be shared with farmers and other key personnel within the agricultural sector. Education has the	The priority contributes to SDGs 1, 2, 3, 5, 8, 9, 12, 13,14, 15 and 16.

	potential to change behaviours and attitudes and can	
	lead to support/ 'buy-in' and the success of	
	environmental initiatives related to chemicals and	
	waste management	
Improvement of	There is need for improvement in the management and	The priority
waste management	disposal of derelict vehicles and electronic waste and	contributes to
and reduction of	other materials containing POPs. The perception of	SDGs 2, 3, 6, 7, 8,
unintentionally	waste as a resource is important and can create	9, 11 and 12.
formed POPs from	movement towards a waste hierarchy approach	
open burning	(circular economy) to waste management while	
	creating numerous job opportunities. However, such	
	initiatives, though promising, will require partnerships	
	with key stakeholders/private sector businesses and	
	capital investments. Regional collaboration may also be	
	considered due to the cross-cutting issues and the	
	economies of scale with waste treatment and disposal.	
	The benefits are far-reaching and linked to multiple	
	environmental and economic issues (freshwater and	
	marine pollution, air and soil pollution, water and food	
	security, job creation, innovation, etc.).	
	The reduction of releases from open burning of wastes	
	(domestic/private burning and landfill fires), through	
	the use of more integrated waste management	
	strategies, is of significance since open burning is a	
	significant source of UPOPs in Saint Lucia and other	
	Caribbean countries. Investment in appropriate	
	technology and upgrading of the sanitary landfill and	
	waste management facility are important and may	
	require external financial assistance/investment.	
Assessment	Sites potentially contaminated with POPs from all POPs	The priority and
management and	groups due to historic or current activities exist in Saint	associated
remediation of POPs	Lucia. Thus, activities related to assessment.	activities would
contaminated sites	identification, mapping, securing and remediation of	contribute to
containinated sites	these sites are considered as high priority. Among the	SDGs 3, 6, 11, 14
	sites of highest priority are the Deglos Sanitary Landfill	and 15.
	site, the Vieux Fort Waste Management Facility.	
	LUCELEC's Union Compound and several	
	authorized/unauthorized dump sites around the	
	country. Sites potentially contaminated with POPs may	
	threaten the safety of ground and surface water (PFOS),	
	grazing animals and humans that consume these	
	animals.	
Monitoring and	Small developing countries like Saint Lucia are unable to	The priority
research related to	conduct research and monitoring of the environment	contributes to
	due to financial constraints. Consequently, Saint Lucia	SDGs 1, 2, 3, 5, 8,
relies on regional and international agencies for		

POPs. and	assistance. However, Saint Lucia recognises the need	9, 12, 13, 14, 15		
collaborations	for continuous monitoring of air quality, food products.	and 16.		
	water sources and human breast milk for POPs Saint			
	Lucia is not a participant in the WHO human milk study			
	but it is believed that participation in this study will give			
	Saint Lucia quantitative baseline information on the			
	population's expective baseline information on the			
	focus to their priorities on POPs. Additionally			
	nocus to their priorities on POPS. Additionally,			
	epidemiological research on specific sectors of the			
	population that are likely exposed to POPS (firefighters,			
	solid waste management officers, recyclers, waste			
	pickers, etc.) is also an area of priority.			
Management of POPs	Stocks of POP-PBDEs (WEEE and ELVs) are prevalent in	The priority		
stocknilles waste and	Saint Lucia and are present at the Waste Management	contributes to		
articlos in use and	Saint Lucia and are present at the Waste Management	$SDG_{c} = 2 + 12 + 14$		
anticles in use, and	various communities). At present there are no	3DGS 5, 12, 14		
for disposal (DOD	manufactor and logicilation in place for environmentally			
	neasures of registration in place for environmentally			
PDDES, PPOS	sound management for these stockpiles. These may			
	even be burnt to collect valuable resources. As such,			
	besides releasing POPs, these practices contribute to			
	the release of co-pollutants (soot, Polycyclic aromatic			
	hydrocarbon (PAHs), metals, etc.) and degradation of			
	terrestrial, fresh water and marine habitats and			
	together with POPs, can enter food chains.			
	The firefighting service and the oil storage company are			
	the major users of PFOS/PFAS related foam; however,			
	the largest quantities are stored (and in use) at the fire			
	service stations. Most of the fire service's stock is old			
	and was obtained through donations. Added to the fact			
	that these foam stocks are not used regularly and are			
	used in small quantities, such stocks will be around for			
	some time. In the near future, Saint Lucia will look to			
	phase-out the use of these foams for POPs-free			
	alternatives. This undertaking would also include			
	environmentally sound disposal of the existing stocks			
	and would be expensive. Thus, Saint Lucia would			
	require both technical and financial assistance from			
	regional or international organizations			
	Currently, the use of PFOS noses a threat to the			
	individuals that use the foam for training or firefighting			
	residents that live in the areas where such activities			
	occur or where there may be contamination from			
	waste management facilities /dumpsites through			
	releases into pearby water sources, and wildlife			
	Notwithstanding a first massure would be to refine the			
	Notwithstanding, a first measure would be to refine the			
	2016 inventory and perform a Her 3 analysis on the			

firefighting foams, and soil and water analysis in	
potentially contaminated areas.	

3.5 Timetable for implementation strategy and measures of success (NIP P.90)

The individual action plan items in subchapter 3.2 consist of individual timeframes for implementing the corresponding activities. The timeframes vary from short term (4 months – 1 year) to medium/long term (2/5 years) and include ongoing activities.

Table [3-19]. Timetable for implementation strategy and measures of success

Objective	Action/activity	Key performance indicators	Time frame	Remarks

3.6 Resource requirements (NIP P. 90)

Subchapter 3.6 would detail the projected costs of measures included in the NIP. Incremental costs for measures would be identified and potential sources of funding for both incremental costs and baseline costs would be noted. In accordance with Article 13 of the Convention, alternate sources of funding would be considered, as appropriate, by countries that are seeking development assistance.

Table 3-20]. Resource requirements for NIP implementation

Objective	Action/activity	Source of funding	Baseline costs	Incremental costs	Remarks

Annexes

Annexes could be used to provide detailed background data and information, specific action plans, and other relevant information to meet the objectives of the NIP while keeping the main document clear and simple in structure. Such annexes might include:

- A1: Government and key stakeholder endorsement documents
- A2: Record of stakeholder and public consultation
- A3: Representative public information materials
- A4: Supporting information on chemicals
- A5: Details of relevant international and regional treaties
- A6: Country history in addressing the POPs issue/status of Convention implementation to date