

Reduction of Unintentionally Produced Persistent Organic Pollutants (UPOPs) emissions by improving waste management practices at landfills

Landfill stakeholder roles and responsibilities

GEF Project ID: 5558 – Component 2 - Development and Implementation of a Sustainable Management Mechanism for POPs in the Caribbean

11 October 2021



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Human Resources – Staff roles, responsibilities, training and competency



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Landfill staffing plan, tasks and responsibilities

Following slides show a typical sanitary landfill staffing plan and Tasks and Responsibility Matrix

This is an example, but is useful benchmark to compare to.

Service Area / Position		Permanent Staff	External Support	Daily Working Time		
				1st Shift	2nd Shift	3rd Shift
				08:00 - 16:00	16:00 - 24:00	00:00 - 08:00
Management & Support	General Manager	1		x		
	Management Assistant HR, M&E, Reporting	1		x		
	Public Relations and Communication Officer	1	x	x		
	Financial Manager	1		x		
	Financial Accountant	1		x		
	Operational Manager	1		x		
	Legal Affairs		x			
	IT Maintenance		x			
	Subtotal	6				
Landfill	Landfill Site Supervisor	1		x		
	Weigbridge Operator	2		x	x	
	Heavy Equipment Operator	3		x	x	
	Leachate Treatment Technician	1	x	x		
	Maintenance Technician	2	x	x		
	General Laborer	5		x	x	
	Environment, Health and Safety Supervisor	1		x		
	Site Security Staff	3		x	x	x
	Subtotal	18				
Transfer	Transfer Station Operator	3		x		
	Haulage Equipment Operator	3		x		
	Subtotal	6				
TOTAL STAFF COST		30				

Position	General Manager	Operational Manager	M&E Reporting Legal Affairs	Financial Accountant	Landfill site supervisor	Leachate Technician / EHS Supervisor
Post holders						
Management (overall responsibility)	X					
Responsibilities/Tasks allocation	X					
Representation of CWSA / SWMU to the outside	X					
Policy and Guidelines of CWSA / SWMU	X					
Coordination with Board	X					
Financial Budget Responsibility	X					
Cooperate with clients and partners	X					
Manage CWSA / SWMU image	X					
Data management (collection, storage, interpretation)	X	X	X	X	X	X
Sign official letters	X					
Reporting to the Board	X					
Business Plan	X	X	X	X		
Internal Workflows (overall responsibility)	X					
Effective and Efficient Workflow	X					
Delegation of tasks	X					
Monitoring of adequate task implementation	X					
Prepare action plan	X	X	X	X	X	X
Personnel (overall responsibility)	X					
Recruit/sanction/terminate cooperation	X					
Delegate tasks	X					
Staff capacity development	X	X				
Adequate staff training	X					
Adequate monitoring of staff performance (feedback)	X	X				
Cooperate with Consultants	X	X	X	X	X	X
Financial (overall responsibility)	X					
Financial management	X			X		
Budget preparation	X			X		
Budget monitoring	X	X	X	X	X	X
Asset Management	X			X		
Prepare tariff calculations for Board	X			X		

	Position	General Manager	Operational Manager	M&E Reporting Legal Affairs	Financial Accountant	Landfill site supervisor	Leachate Technician / EHS Supervisor
Implement tariffs for Commercial customers		X			X		
Manage service agreements		X			X		
Accounting		X			X		
Prepare balance sheet and P&L statement		X			X		
Inform Supervisory council on <u>Financial</u> issues		X			X		
Stakeholder cooperation and coordination		X			X		
Contractors		X			X		
Payment management		X			X		
Service providers		X			X		
Legal Issues (overall responsibility)		X					
Contract management		X		X			
Procurement		X	X	X			
Legal conflict management		X		X			
Representation in front of court		X		X			
Landfill O & M (overall responsibility)		X					
Operation			X				
Development of a Landfill O & M Plan			X			X	
Determination and expedition of work procedures			X			X	
Preparation of a staff and work schedules			X			X	
Recommendation of rules, regulations, policies, and procedures for landfill operations						X	X
Operation data management			X			X	
Reporting and documentation			X				
Operation staff development			X			X	
Fulfilment of all legal requirements			X				
Supervision of all <u>landfill</u> operational staff						X	
Issuing written and oral instructions						X	
Assignment of duties						X	
Examination of work for exactness and neatness						X	
Monitoring of conformance to policies and procedures						X	
Studying and standardising procedures to improve efficiency						X	
Maintaining harmony among workers and resolving grievances						X	

	Position	General Manager	Operational Manager	M&E Reporting Legal Affairs	Financial Accountant	Landfill site supervisor	Leachate Technician / EHS Supervisor
Adjusting errors and complaints						X	
Overseeing all projects and daily operations at the landfill						X	
Training of personnel concerning proper landfill operations methodology						X	
Assisting with any landfill surveying work			X				
Assuring the proper operation of the leachate treatment						X	X
Assuring the proper operation of the LFG collection and treatment						X	
Maintenance							
Overseeing the maintenance of all landfill equipment						X	
Overseeing the maintenance of all landfill facilities						X	
Management of maintenance contracts			X				
Assuring an adequate supply of equipment, supplies, and materials necessary for ongoing landfill operations			X				
Keeping record of spare and wear parts as well as consumables						X	
Approving the utilisation of the spare and wear parts as well as consumables						X	
Identification of any need for repair and scope of repair						X	X
Preparation of technical specifications for procurements			X			X	X
Monitoring and Reporting							
Overseeing waste inspection and enforcing waste disposal standards						X	
Monitoring and reporting of the environmental indicators			X			X	X
Monitoring and reporting of the staff performance			X			X	
Monitoring and reporting of the landfill volume utilisation			X				
Monitoring and reporting of the utilisation of consumables			X			X	
Monitoring and reporting of the spare and wear parts						X	
Occupational Health and Safety (overall responsibility)	X						
Preparation of an OHS plan			X				X
Implementation and monitoring of the OHS plan			X				X
PR and Communications (overall responsibility)	X						
Communication with the Board	X						
Communication with donors	X						
Communication with governmental institutions	X						

Position	General Manager	Operational Manager	M&E Reporting Legal Affairs	Financial Accountant	Landfill site supervisor	Leachate Technician / EHS Supervisor
Preparation of a PR budget	X					
Citizen communication	X					
Press communication	X					
Grievance system management	X					
CWSA / SWMU website and social media management	X					
IT Management (overall responsibility)	X					
Maintenance of the IT hardware						X
Maintenance of the IT software						X
Backup of data						X
Maintenance of ERP system through service provider				X		
Maintenance of internet and telephone connections		X				
Training of new staff on IT utilisation						X
Other responsibilities (overall responsibility)	X					
Development of waste treatment technologies		X				
Management and maintenance of CWSA / SWMU archive			X			

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Stakeholder roles and responsibility mapping (Example from Saint Vincent and the Grenadines)



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Entity	Roles and Responsibilities	Function
Ministry of Finance, Economic Planning, Sustainable Development and Information Technology	<ul style="list-style-type: none"> Establish National environmental policy Allocate and audit budget to CWSA Issue waste management operator licences 	<ul style="list-style-type: none"> Policy Maker Regulator (Financial and Technical) Revenue Collector
Ministry of Health and Environment	<ul style="list-style-type: none"> Establish Waste Management policy and regulate the waste management sector (including CWSA) 	<ul style="list-style-type: none"> Policy Maker Planner Regulator (Environmental)r
Public Health Department (PHD)	<ul style="list-style-type: none"> Approves technologies and design standards for the waste sector 	<ul style="list-style-type: none"> Regulator (Technical)
	<ul style="list-style-type: none"> Conducts street cleaning 	<ul style="list-style-type: none"> Operator
Public Health Department (PHD) and Physical Planning Department	<ul style="list-style-type: none"> Assess and issue permits and licenses (for waste management operators and landfill). 	<ul style="list-style-type: none"> Planner Regulator (Technical)
Central Water & Sewerage Authority (CWSA)	<ul style="list-style-type: none"> Establish the budget and procurement systems for the SWMU 	<ul style="list-style-type: none"> Planner
	<ul style="list-style-type: none"> Collects Environmental Levy for waste management via the water bill 	<ul style="list-style-type: none"> Revenue Collector

Entity	Roles and Responsibilities	Function
Solid Waste Management Unit (SWMU)	<ul style="list-style-type: none"> Provides household and institutions waste collection 	<ul style="list-style-type: none"> Client Service provider
	<ul style="list-style-type: none"> Owns and operates Landfill sites on Saint Vincent and the Grenadine islands of Bequia, Union Island and Canouan 	<ul style="list-style-type: none"> Operator Operator
	<ul style="list-style-type: none"> Provides medical waste management services 	
	<ul style="list-style-type: none"> Responsible for providing hazardous waste services 	<ul style="list-style-type: none"> Client Operator
	<ul style="list-style-type: none"> Responsible for producing sectoral plans, <u>tasks</u> and schedules to accomplish the national waste sector goals (responsible for planning new waste treatment and management facilities) 	<ul style="list-style-type: none"> Planner
CWSA and PHD	<ul style="list-style-type: none"> Establishes waste management service provider performance standards, supervises <u>performance</u> and manages contracts to 'ensure' services are delivered to the required standard, coverage and environmental performance 	<ul style="list-style-type: none"> Regulator (technical)
Public Health Department and Police	<ul style="list-style-type: none"> Follow-up and enforce the provisions contained within the Waste Management Act (issues penalties and fines, and prosecutes malpractice) 	<ul style="list-style-type: none"> Regulator (Environmental)

Roles and Responsibilities

Entity	Roles and Responsibilities	Function
Ministry of Transport, Works, Urban Development and Local Government. – Buildings, Roads, and General Services Authority (BRAGSA)	<ul style="list-style-type: none"> • Have assumed responsibility for the management of end-of-Life vehicle Tyres 	<ul style="list-style-type: none"> • Operator • Client
Private sector	<ul style="list-style-type: none"> • Importers of beverage bottles pay an environmental levy which is reclaimed on recovery and recycling of material. This market-based recovery is functioning well, and private sector are both financers, revenue collectors and reclaimers 	<ul style="list-style-type: none"> • Operator • Client • Revenue collector
	<ul style="list-style-type: none"> • Recyclers 	<ul style="list-style-type: none"> • Operator
	<ul style="list-style-type: none"> • Commercial and industrial waste collection 	<ul style="list-style-type: none"> • Client

Sector Regulators

Ministry of Health	<ul style="list-style-type: none"> • Policy maker and Regulator of the waste management sector including the solid waste management Act. • Minister for Health appoints the Board of the SWMC and takes board and sector planning needs to Cabinet. 	<ul style="list-style-type: none"> • Policy Maker • Regulator (Environmental and Technical)
Department of Health	<ul style="list-style-type: none"> • Hazardous waste is usually buried on site at the SWMC landfill. This action is supervised by the Dept of Health. Approval must first be sought before this activity is carried out. • Conduct Monitoring and quality checks on coastal and ground waters 	<ul style="list-style-type: none"> • Regulator
Ministry of Health	<ul style="list-style-type: none"> • Appoint the board of NSWMA • Regulate the activities of NSWMA 	<ul style="list-style-type: none"> • Regulator (Environmental and Technical)
Environmental Health Unit	<ul style="list-style-type: none"> • Conduct Environmental Monitoring of air, water and soil around landfill 	<ul style="list-style-type: none"> • Regulator (Environmental and Technical)
Fire and Rescue Services	<ul style="list-style-type: none"> • Emergency response and monitoring for compliance with fire. • Trained in general 	<ul style="list-style-type: none"> • Regulator
Fire Prevention Unit	<ul style="list-style-type: none"> • Handles all training, awareness. Trained in general firefighting but receive no specific training or preparedness assistance for fighting 	<ul style="list-style-type: none"> • Regulator

Core Waste Management Authority Business services?

Does the Waste Management Authority (or equivalent) have the finance, expertise, capacity, resilience to physically operate the recovery of all these waste streams (the diversion of which protects the core business asset of landfill space):

- Tyre recycling
- End-of-Life Vehicles
- Hazardous wastes (interim storage and export)
- Waste Electrical and Electronic Equipment
- Used oil
- Beverage Containers and other Packaging recovery
- Green garden waste
- Food waste

Suitable Operator Models

- Tyre recycling
- End-of-Life Vehicles
- Hazardous wastes (interim storage and export)
- Waste Electrical and Electronic Equipment
- Used oil
- Beverage Containers and other Packaging recovery
- Green garden waste
- Food waste

All suitable for Extended Producer Responsibility (EPR) scheme

Can be managed domestically by private sector – if right enabling environment established

Exercise

Stakeholder roles and responsibility mapping



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Assigning roles and responsibilities

Conduct a RASCI exercise for a selected landfill and an identified vulnerability / trigger factor to assign responsibility and accountability for actions to the identified human resources

RASCI Matrix

R	Responsible	The organisation, people (or person) who are expected to actively address this root cause
		Person working to mitigate this root cause
		"the doer"
A	Accountable	The organisation, person who is ultimately accountable for ensuring the root cause is mitigated
		Position with Yes/No authority
		"Approver"
S	Support	People to support the responsible organisation / person (help with collecting and compiling the data) - not used all the time
		Position that is helping out at the direction of responsible person
		"Helper"
C	Consult	People who have a particular expertise that they can contribute to specific decisions
		Position involved prior to decision or action (e.g. approving data)
		"in the loop"
I	Inform	People who are affected by the activity/decision and therefore need to be kept informed,
		Position that needs to know of the decision or action
		"Tell me after" "Notify me"

RASCI Matrix

RACI Matrix							
Task \ Role	Role	Role 1	Role 2	Role 3	Role 4	Role 5	Role 6
Task 1		R		C			S
Task 2		R		A	S	C	
Task 3		R	R	I	A		I
Task 4			S	C		R	
Task 5		A	C		I		
Task 6			I	C	C	S	R

R	Responsible
A	Accountable
S	Support
C	Consult
I	Inform

