

MINISTRY OF ENVIRONMENT,
SOLID WASTE MANAGEMENT AND CLIMATE CHANGE
(SOLID WASTE MANAGEMENT DIVISION)

# **Annual Report**

**FINANCIAL YEAR 2021-2022** 



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In line with the requirements of the Finance and Audit Act, the Solid Waste Management Division has prepared its Annual Report on Performance for the fiscal year 2021/2022.

Structured as per the guidelines issued by the Ministry of Finance, Economic Planning and Development, the report provides information on the Division in line with the spirit of performance-based budgeting. It is the firm belief of the Division that transparency and accountability are the basis of good governance that ultimately leads to efficient and effective performance.

This report gives an overview of the Solid Waste Management Division's main roles/functions and evaluates its key actions, major projects, programmes and measures planned for the year. It also provides a Statement on the revenue and expenditure for the financial year 2021/2022.

The Structure of the Annual Report is as follows:

#### PART I: About the Solid Waste Management Division

Part I sets out the vision, mission, role and functions of the Solid Waste Management Division as well as a gender statement.

#### PART II: Achievements & Challenges

Part II covers mainly the major achievements, status of the budget measures and key actions for the financial year 2021/2022. It also includes an Implementation Plan stating the status of actions taken and planned following the observations and recommendations of the Director of Audit upon the examination of accounts and records for financial year 2020/2021.

#### **PART III: Financial Performance**

Part III provides the financial highlights for the year, an overview of major changes and statements of revenue and expenditure.

#### Part IV: Way Forward

Part IV highlights the trends, challenges and the strategic directions of the Division.



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#### STATEMENT OF MINISTER

have the pleasure to present the Annual Report on the performance of the Solid Waste Management Division of my Ministry for the Financial Year 2021-2022.

My vision for this sector is to initiate a paradigm shift in the treatment of wastes by moving from a linear economy model to a circular economy model, for creating value out of wastes. Our country being a Small Island Developing State will thus ensure its contribution to the preservation of the eco system for the future generation. With the guick depletion of resources worldwide, there is a pressing need to curtail our high dependency on importation and strengthen our resilience. With the present model of "take, make and dispose", about 500 000 Tons of wastes are being landfilled annually. The unique sanitary landfill at Mare Chicose is saturated and procurement to expand the landfill on the same footprint is underway. The expansion works will be supported by a 15m high perimeter wall over a stretch of 1.3 km which will extend the lifespan of the landfill by 15 years. This solution will, in the long run, be inadequate should the present disposal trend persist. This is why the priority of Government remains the promotion of resource recovery and diversion of wastes from the landfill.

The new strategy which is currently being implemented, lays much emphasis on circularity and focuses on the promotion of the waste management hierarchy (i.e. reduce, reuse, recycle, recover). It also encourages waste segregation with waste being considered as a resource with economic value. The implementation of this strategy requires additional waste management infrastructures as well as new legal instruments to support the transition towards a circular economy. I am pleased to report that significant progress has been made on these two counts during the last fiscal year. A third Civic Amenity Centre (CAC) - "déchetterie" has been constructed at Poudre d'Or transfer station which serves the Northern catchment area. Individuals and SMEs can deposit specific sorted wastes like construction and demolition, wood, metal, plastic, paper, carton, ewaste, fluorescent tubes and used oil there. These wastes will then be channeled to registered recyclers. The two previous CACs at La Chaumière and La Laura have received more than 1000 Tons of different types of wastes since their operation, which clearly geared us towards a third facility. Other circular economy related projects in the pipeline are: the recycling of used tyres on a Public Private Partnership (PPP) basis, completion of feasibility studies for the setting up and operation of End - of - Life Vehicles Recycling Facility, an Anaerobic digestion plant for selected organic wastes and the procurement of 5000 home compost bins.

A Transaction Adviser has been recruited with the assistance of the BOT Projects Unit prepare biddina to documents to invite promoters to finance, design, build and operate regional compost plants and sorting units on PPP basis. The success of composting the and sorting facilities will largely depend on the segregation of waste at source. All households, economic operators, institutions, manufacturing and



hospitality sector will be required to sort their wastes at source. The necessary enabling regulatory framework, namely the Waste Management and Resource Recovery Bill has been drafted and other regulations pertaining to source segregation, management of construction and demolition wastes and licensing of End - of - Life Vehicles recycling facility are being developed concurrently. Moreover, 5000 compost bins have been procured for distribution to individuals and organisations to further promote widespread composting.

Furthermore, the concept of Extended Producer Responsibility is being applied to the management of E-wastes and beverage containers (PET and aluminium cans) and regulations are accordingly being drafted. Additionally, some 538 Tons of hazardous wastes have been collected and stored at the Interim Hazardous Waste Facility, a state-of-the-art facility at La Chaumière which has been ensuring the safe storage of collected hazardous wastes and exportation since its operation in 2017. My Ministry has sensitized more than 100 organisations on the importance of ensuring sound management of hazardous wastes. Moreover, the hazardous waste regulations are being reviewed to meet new challenges, domesticate the provisions of Basel Convention and ensure better protection of the environment and human health.

The foundation for establishing the circular economy has been laid and my Ministry has a clear plan to roll out the different elements of the new strategy in a coordinated approach with private sector engagement. For the period under review, the projects being implemented are well on track and my Ministry is committed to bringing the paradigm shift towards recovery of resources.

#### MESSAGE OF THE PERMANENT SECRETARY

The financial year 2021-2022 was paved with an unwavering commitment to further raise the bar and enhance the services of the Solid Waste Management Division. Staff upheld their dedication to our mission to ensure an efficient and sustainable management of solid and hazardous waste for the present and future generations. Our services remained consistent despite difficult economic times.

The Division maintained its focus on the protection of the public health and environment in spite of the numerous challenges that came along the way. During this financial year some important ones were met like the drafting of a Waste Management and Resource Recovery Bill which will transform the Solid Waste Management Division into a Department of Waste Management and Resource Recovery; the drafting of regulations based on the Extended Producer Responsibility mechanism for the management of electrical and electronic wastes and the commissioning of feasibility studies on the anaerobic digestion process for the management of organic wastes and a scrapyard facility for the management of end-of-life vehicles, to name a few.



The following new projects have also emerged:

- Waste segregation at source through the provision of 3 bins to each household;
- Setting-up of regional composting plants and sorting units which will decrease the load on the Mare Chicose landfill; and
- Procurement of some 5,000 compost bins for distribution to households in the near future.

Financial year 2021-2022 marks a strong turning point in the history of solid waste management as steps have been initiated to shift towards a circular economy. Although we are still at the inception stage of the concept, Civic Amenity Centres have already made their way through our services. As at date, there are three of these centres and new ones will come up soon so that each part of the island is provided with such facilities. Such an achievement represents a leapfrog in the Division's dream for proper sorting of waste and is a key step towards the creation and adoption of a circular economy for the reuse and recycling of waste. These centres are yet another cog in the wheel of progress.

The amount of waste that can be recycled may be comparatively low; however, we continue to raise awareness about recycling in order to develop that culture in the population. Segregation of waste at source proves to be an important step towards a sustainable waste management culture. The project to supply compost bins to encourage sorting at source at the level of households is well on its way. We remain committed to reduce our environmental carbon footprint. The Division is confidently moving towards an era where used goods and waste can be recycled to be reused instead of gradually allowing them to accumulate and deteriorate the global environment. Our solid waste landscape will gradually be transformed and it will be a strong legacy to our future generation.

The budget of this financial year has increased to Rs705 M compared to Rs 631M of last year. Although this is still inadequate for the number of projects in the pipeline to be able to progress quickly, but it is a step in the good direction.

Our Division provides an essential service to the people and community, yet, it often goes unnoticed. It is our people- administrators, technical and support officerswho make it happen. There can be no progress in the absence of a strong foundation and staff commitment. This is why, with the timely support of the Hon Prime Minister, a number of staff both administrative and technical, were trained in Public Private Partnership (PPP) and contract management by experts from UK Government to enable the development of a waste management system with appropriate infrastructure through the PPP. Further, a capacity building workshop on the feasibility study on anaerobic digestion was conducted by the Climate Technology Centre & Network (CTCN). Training was also dispensed in contract management by an expert in the field- Hon, former Judge Dr S. Domah- as contract allocation and management is one of the linchpins of the Division. I take this opportunity to thank our foreign and local collaborators for their priceless support. We strongly focus on people development to ensure that staff acquire the necessary skills and competencies to drive our projects with a professional outlook and in order to ensure adherence to the mission and values of the Division.

There is still a lot to be done to ensure that we progress towards the achievement of a sustainable environment but I am confident that the necessary building blocks have already been laid to safeguard continuity. It is with a sense of accomplishment that my journey at Solid Waste Management Division ends. I express my heartfelt gratitude to the Hon. Minister for his unconditional support. I also thank the staff of the Division for their commitment and dedication.

I wish the staff of Solid Waste Management Division success in their endeavors.

#### Mrs. Sewah K. DOORGAKANT

Permanent Secretary Ministry of Environment, Solid Waste Management and Climate Change (Solid Waste Management Division) 26.08.2022



# **PART I**

# ABOUT SOLID WASTE MANAGEMENT DIVISION



# **VISION, MISSION AND CORE VALUES**

#### **Vision**

To achieve a sustainable, healthy and vibrant Circular Economy in Mauritius.

#### **Mission**

- To ensure an efficient and sustainable management of solid and hazardous waste;
- To protect public health and environment.

#### **Core Values**

The Solid Waste Management Division is committed to uphold the following core values:

INTEgRITY	Keeping the highest standards of professional ethics
INNOVATION	Paving the way by fostering a working environment where creative thinking is encouraged
ADAPTABILITY	Being flexible and capable to adapt to changing corporate environment and working conditions
SUSTAINABILITY	Managing our Landfill, Transfer Stations, Interim Hazardouswaste facility and other facilities professoinally to protect theenvironment and preserve safety and health in the country
TEAMWORK	Fostering synergy among staff, promoting communication and information sharing

#### ROLE AND FUNCTIONS OF THE SOLID WASTE MANAGEMENT DIVISION

#### Role

The Solid Waste Management Division is responsible for the protection of the environment and public health through a proper management of solid and hazardous wastes.

# **Key Functions of the Division**

1	Devise policies, strategies and develop programmes for the environmentally sound management of different waste streams, including hazardous wastes.
2	Control and supervise waste management facilities (transfer stations, Civic Amenity Centres, interim hazardous waste storage facility and sanitary landfill) in Mauritius.
3	Promote Circular Economy through Prevention, Re-use, Recycling and Resource Recovery.
4	Enforce legislations related to solid and hazardous waste management.
5	Register Scavenging Contractors, Recyclers and Exporters of wastes.
6	Ensure cleaning of a number of public beaches and amenities

Figure 1: Key Functions of the Division

#### **Services Provided**

1	Examine and register waste carrier vehicles
2	Examine and register waste oil carrier vehicles
3	Disposal of condemned goods
4	Disposal of hazardous wastes (chemical, pharmaceutical, pesticides, E-wastes, waste oils, etc)
5	Remove asbestos/materials from ex-CHA/EDC houses

# **Units of the Solid Waste Management Division**



Figure 2: Units of the Solid Waste Management Division

#### **Key Legislations Pertaining to Solid Waste Management**

- Environment Protection (Amendment) Act 2008
- i. Environment Protection (Standards for Hazardous Wastes) Regulations 2001
- ii. Environment Protection (Collection, Storage, Treatment, Use and Disposal of Waste Oil) Regulations 2006.
- Local Government (Amendment) Act 2021
- i. Local Government (Dumping and Waste Carriers) Regulations 2021.
- ii. Local Government (Registration of Scavenging Contractors) Regulations 2004.
- iii. Local Government (Registration of Recycler and Exporter) Regulations 2013

#### **Upcoming Legislations**

- 1. Waste Management and Resource Recovery Bill
- 2. Regulation on Source Segregation of Wastes
- 3. Regulation on Licensing of End-of-Life Vehicles Recycling Facility
- 4. Regulation on Management of Construction and Demolition Waste
- 5. Regulation on Extended Producer Responsibility (EPR) for Management of electronic wastes
- 6. Regulation on Extended Producer Responsibility (EPR) on Management of Beverage Containers

#### **ABOUT OUR PEOPLE**



The Minister of Environment, Solid Waste Management and Climate Change is the political head of the Ministry and determines the policy direction and priorities of the Ministry.

The Permanent Secretary is the administrative head and the Accounting Officer of the Solid Waste Management Division. She is assisted in her functions by a Deputy Permanent Secretary and a Director.

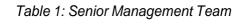
The Director is assisted by a Deputy Director, two Principal Project Officers, Project Officers/Senior Project Officers, Technical Officers and Technical Enforcement Officers for management of solid and hazardous wastes, supervision and control of the waste management facilities as well as the enforcement of regulations falling under the purview of the Solid Waste Management Division.

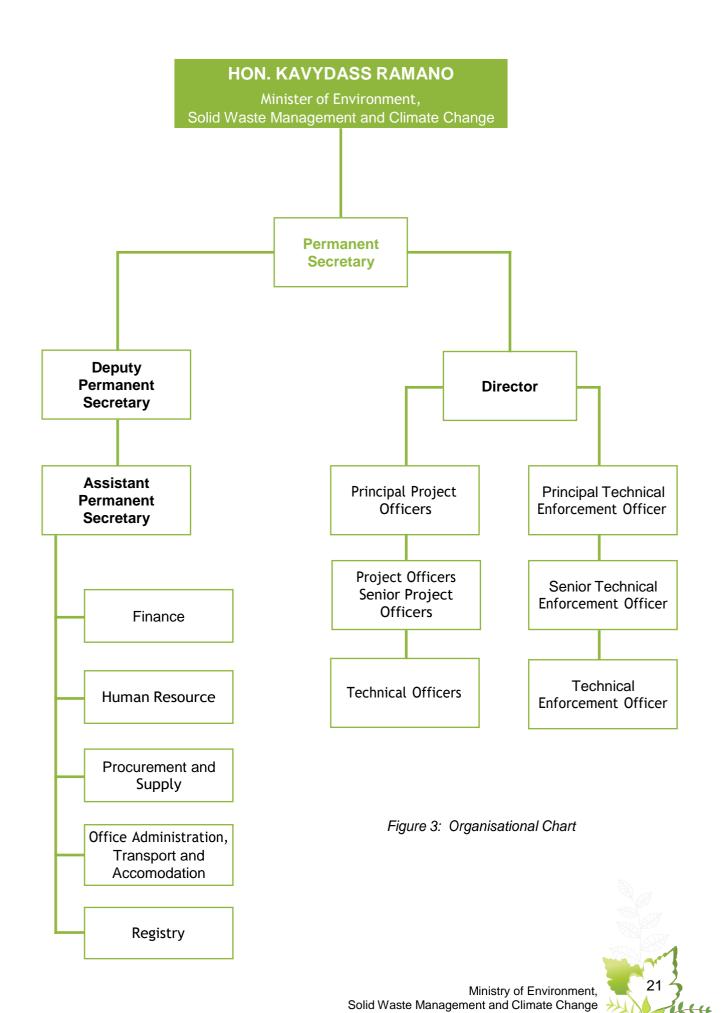
The Deputy Permanent Secretary is assisted by an Assistant Permanent Secretary, a Manager, Procurement and Supply, an Assistant Manager, Financial Operations and a Human Resource Executive.

# **SENIOR MANAGEMENT TEAM**

Designation Name	Tel No	E-mail address
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Administration				
Permanent Secretary	Mrs Sewah K. Doorgakant	201 2741 (thru CS) Fax 201 3574	sdoorgakant@govmu.org	
Deputy Permanent Secretary	Mrs Nulini Devi Kinnoo	201 1219 (thru CS) Fax 201 3881	nkinnoo@govmu.org	
Assistant Permanent Secretary	Mr Devendranath Joymungul	201 2502	djoymungul@govmu.org	
Technical Section				
Director	Mr Bhaguthsing Beerachee	201 3683 (thru CS)	bbeerachee@govmu.org/ bbeera@hotmail.com	
Deputy Director	outy Director Mr Deochan Dookee 201 2743 gdookee@gn		gdookee@gmail.com	
Principal Project Officer	Ms Kreshny Guriah 201 3914		kguriah@govmu.org	
Principal Technical Enforcement Officer	Mr Jeetendranath Jokhoo	201 3521	jjokhoo@govmu.org	
Financial Operations				
Assistant Manager, Financial Operations  Mrs B. Moontaze Moolye		201 2742	mmoolye@govmu.org	
Procurement and Supply				
Manager, Procurement and Supply	Mr Rahmataly Auleear	201 1320	rauleear@govmu.org	
Human Resources				
Human Resource Executive  Mrs Aansha Teeluckdharry		213 4097	anteeluckdharry@govmu.or	
Registry				
Registry	Mrs. Vidisha Poonyth- Maunick	201 1667 Fax 201 3748	swmd@govmu.org	





# **HUMAN RESOURCE**

As at 30 June 2022, the Solid Waste Management Division had a workforce of 90 officers as follows:

		Male	Female	Total
Administrative Cadre		1	2	3
Director, SWMD		1	0	1
Deputy Director, SWMD		1	0	1
Financial Operations Cadre		0	4	4
Human Resources Cadre		0	1	1
Procurement and Supply Cadre		2	2	4
Internal Control Cadre		0	1	1
Technical Cadre		12	12	24
General Services Staff		12	16	28
Labourer on contract		1	0	1
Workmen's class		20	0	20
Trainees under the Youth Employment Programme		1	1	2
	Total	51	39	90

Table 2: Human Resources as at 30 June 2022

The gender distribution is shown below:

#### **Employees' Breakdown by Gender**

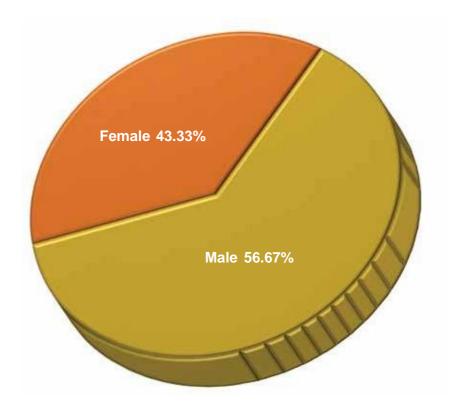


Figure 4: Employees Gender Distribution

#### Recruitment

One Assistant Financial Officer and Thirteen Management Support Officers were recruited for the period 2021-2022.

#### Retirement

During the financial year, the former Director of Solid Waste Management Division, one Principal Financial Operations Officer and two Confidential Secretaries have retired from the service.

#### **Training**

As far as possible, training opportunities are provided to all employees of the Solid Waste Management Division on an alternate basis.

In this respect, employees have benefitted from training and capacity building programmes, both locally and overseas (online) during the period under review.

#### **Local Training and Capacity Building Programmes**

36 employees have benefitted from training courses dispensed by the Civil Service College Mauritius and sponsored by the Ministry of Public Service, Administrative and Institutional Reforms. In March 2022, officers of Solid Waste Management Division attended a workshop on Public Private Partnership and Waste Management facilitated by the Foreign Commonwealth and Development Office and Infrastructure and Project Authority. In addition, an in house six half days training course on Contract Management was organised by the Division and the course was delivered by Former Justice S. Domah.

The list of training programmes and the number of employees who have benefitted from each programme are listed below:

Training Programme	Participants
Tender Preparation and Evaluation	2
Induction of newly recruited Management Support Officers	6
Training Programme on Capacity Building Programme for Frontline/Supervisory/ Technical Grades	9
UK Green Cities and Infrastructure Course on Waste Management Infrastructure and Private Participation	12
Safety and Health in the Workplace	14
Fire Safety and Fire Risk Management	5
Contract Management	19
Total	67

Table 3: Local Training Programmes



Figure 5: Training Course by Former Justice S. Domah

### **Overseas Training and Capacity Building Programmes**

Officers from the Technical Enforcement Unit followed online training that was fully sponsored by the Japan International Cooperation Agency and Government of India.

Programmes	Category	Number of Employees	Duration
Online Course on "Solid Waste Management Course towards Recycle oriented Society (Japan International Cooperation Agency)	Technical Enforcement Officer	1	35 Days
E- ITEC Course on Solid Waste Management (Government of India)	Technical Enforcement Officer Project/ Senior ProjectOfficers and Technical Enforcement Officers	7	15 Days
Online Course on Sustainable Solid Waste Management in Island Area B (Japan International Cooperation Agency)	Senior Technical Enforcement Officer	1	26 Days

Table 4: Online Training Programme

### Workshops

# **Capacity Building Workshop**

As part of the Technical Assistance from the Climate Technology Centre & Network on the feasibility study on anaerobic digestion, a capacity building workshop with staff from the Solid Waste Management Division, the Ministry of Energy and Public Utilities and the Ministry of Agro-Industry and Food Security was held at the Caudan Arts Centre on 28th April 2022. The Consultants for the feasibility study namely the Council of Scientific and Industrial Research and the University of Mauritius presented the main findings of the feasibility study report and the basic principles of the anaerobic digestion process.



Figure 6: A Capacity Building Workshop with Staff of the Solid Waste Management Division

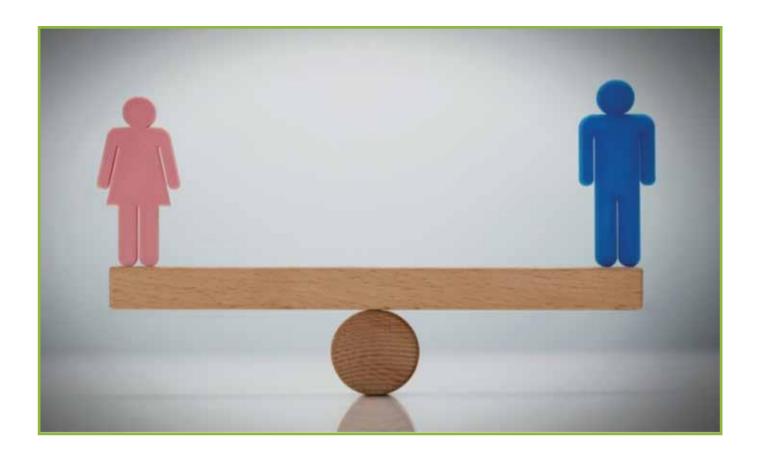


#### UK Green Cities and Infrastructure Course on Waste Management Infrastructure and Private Participation

As part of the Technical Assistance from the Climate Technology Centre & Network on the feasibility study on anaerobic digestion, a capacity building workshop with staff from the Solid Waste Management Division, the Ministry of Energy and Public Utilities and the Ministry of Agro-Industry and Food Security was held at the Caudan Arts Centre on 28th April 2022. The Consultants for the feasibility study namely the Council of Scientific and Industrial Research and the University of Mauritius presented the main findings of the feasibility study report and the basic principles of the anaerobic digestion process.



Figure 7: Certificate of Participation for Public Private Partnership (PPP) and Waste Management



#### **GENDER STATEMENT**

The Solid Waste Management Division acknowledges that Mauritius has ratified numerous international and regional human right treaties, and signed declarations and commitments that call on the State to respect, promote and fulfill human rights.

The Division re-affirms its unflinching support to Government's commitment to promote gender mainstreaming in all spheres of socio-economic development with a view to closing the equality gap between men and women, particularly in terms of fair representation in decision-making processes and forums. It is guided by the Government's Gender Policy and subscribes to the broad principles of the National Gender Policy Framework 2008.

In order to foster gender equality, gender justice and non-discrimination, gender mainstreaming shall always remain a priority for the Solid Waste Management Division. Equality of treatment in the provisions of training opportunities, grant of leave and overtime work is ensured without any discrimination.

The Solid Waste Management Division has left no stone unturned to adhere to the principles articulated in guidelines on gender mainstreaming of the Ministry of Gender Equality and Family Welfare.

The staff of the Solid Waste Management Division has been sensitized to ensure that they adopt a gender-neutral approach in the performance of their duties. The participation of staff of both genders is ensured in Committees and meetings. Female staffs are empowered to aspire for higher responsibilities through appropriate training and exposure.



PART II
MINISTRY'S ACHIEVEMENTS AND CHALLENGES



#### **MAJOR ACHIEVEMENTS**

# 1. Operation and Management of the Mare Chicose Landfill

The Mare Chicose landfill is the sole sanitary landfill of Mauritius. It is located in the south eastern part of the island, extending over an area of 50 Ha. This engineered landfill that has been designed based on best current practice, including the Environmental Protection Agency (EPA) Landfill Manual, to ensure containment of waste and protection of human health and the environment.



Figure 8: Mare Chicose Landfill site

The landfill site is operated by a private Contractor under the supervision of a Consultant.

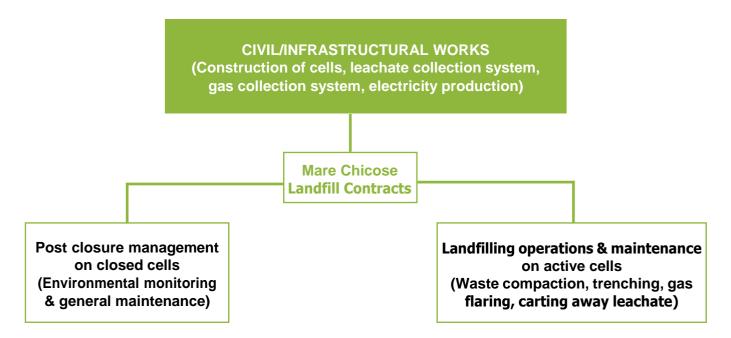


Figure 9: Overview of the Mare Chicose landfill contracts

# Achievements for the period of July 2021 – June 2022

Activity	Amount Design	
Wastes landfilled	513,667.6 tonnes	
Trenched wastes	1,358.4 tonnes	
Landfill gas extracted	9,761,572 Nm3	
Landfill gas flared	493,179 Nm3	
Landfill gas used to produce electricity	9,268,393 Nm3	
Estimated green electricity produced	16,851 MW	

Table 5: Landfilling operations for period July 2021 to June 2022

**Note**: Revenue to Government is generated from trenched wastes as waste generators have to pay an amount of Rs 850/ton for disposal of trenched wastes.

#### **Construction of Cell 9**

The Construction of a new Waste Cell, namely Cell 9, has been completed. The Cell 9 is located at the North-West of the landfill site and covers an area of about 6000m2 along with an access road. The new cell 9 is expected to provide disposal capacity for some 6 months.

# 2. Operation and Management of Transfer Stations

The following five Transfer Stations are operated in Mauritius:

- 1. La Laura Transfer Station
- 2. Poudre D'Or Transfer Station
- 3. La Brasserie Transfer Station
- 4. La Chaumière Transfer Station
- 5. Roche Bois Transfer Station



Figure 10: Location of Transfer Stations and Landfill in Mauritius

Household wastes from Municipal Councils and District Councils are transferred to the five Transfer Stations where they are placed in truck trailers for final disposal at the Mare Chicose Landfill. Solid wastes collected in the southern part of Mauritius are directly transferred to the landfill.

The amount of wastes transported for period 1 July 2021 to 30 June 2022 are summarized in Table 6.

Transfer Station	Amount transported to Mare Chicose Landfill (Tons)
Roche Bois	105,866
La Chaumière	122,235
La Laura	49,968
La Brasserie	93,425
Poudre D'Or	75,838

Table 6: Wastes transferred to and from the Transfer Stations



Figure 11: La Brasserie Transfer Station



Figure 12: La Laura Transfer Station



Figure 13: La Chaumière Transfer Station



Figure 14: Roche Bois Transfer Station



Figure 15: Poudre D'Or Transfer Station

# 3. Operation and Maintenance of Interim Hazardous Waste Facility

# **Hazardous Wastes Management**

# **Background**

As part of its strategy for hazardous waste management in Mauritius and in its capacity as enforcing agency for hazardous wastes in Mauritius and the competent authority for the Bamako and Basel Conventions in Mauritius, the Solid Waste Management Division has set up an Interim Storage Facility for Hazardous Wastes at La Chaumière, Bambous



Figure 16: Interim Storage Facility for Hazardous Wastes

The facility, which is operated by Polyeco S.A, started operations on 24 April 2017 and has provided the necessary infrastructure for the receipt, regrouping, repackaging and safe storage of hazardous chemicals waste collected from hazardous waste generators all around the island prior to their exportation for recovery and disposal to licensed facilities in Europe.

Geographical Location	La Chaumiere, Bambous
Storage Capacity	1,600 tonnes of hazardous wastes
Year of Construction	2015-2016
Cost of Construction	USD 6.5 Million
Present Contractor	Polyeco S.A
Contract Value (Operation)	USD 9 Million
Contract Duration	5 years
Start of Operation	24 April 2017

The Contract which expired on 23 January 2022 has been extended for a period of six months as from 24 January 2022, i.e. up to 23 July 2022.

# Permitted wastes at the facility

The facility has been designed to receive hazardous chemical wastes such as laboratory and industrial chemical wastes (acids, alkalis, heavy metals, spent organic solvents, organic sludges), paint wastes, obsolete pesticides, pharmaceutical wastes, waste gas cylinders and waste aerosols, amongst others, which cannot be disposed of locally.

# **Mode of Operation of the Facility**

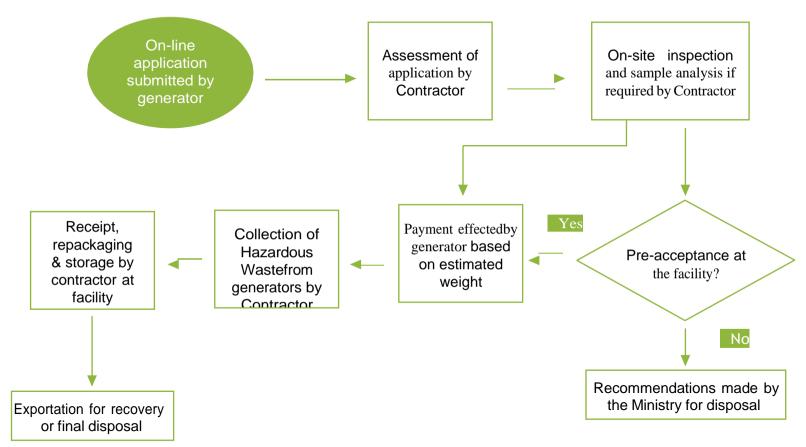


Figure 17: Mode of Operation of the Facility

Application for disposal of Hazardous waste can be made on: https://hwc.polyecogroup.com/Producers/login

Contact details of Facility: hwa@polyecogroup.com or 230 4522162

Payment for disposal fee of hazardous wastes at the facility is **Rs 100 per kilogram**of hazardous wastes and an additional fee of Rs 2500 for quantity of hazardous wastes exceeding one tonne.



# List of prohibited wastes at the facility

- Municipal Solid Wastes
- Non-hazardous industrial wastes
- · Radioactive wastes
- Explosive wastes
- · Infectious healthcare wastes
- E -waste

# For the Financial Year 2021-2022

· No. of applications received: 101

No. of inspections carried out by the Contractor: 81

Total weight of hazardous wastes collected: 76.95 tonnes

Type of hazardous wastes	Weight (Tons)
Expired medicines	8.764
Waste Aerosols	0.781
Waste Solvent & paint material	21.580
Chemical waste	30.783
Laboratory waste	4.470
Paint related wastes	9.122
Waste Filters	0
Contaminated soil	1.450

Table 7: Types and amount of hazardous wastes collected by Polyeco

• Total quantities of hazardous wastes exported: 82.7 tonnes

Type of hazardous wastes	Weight (Tons)	Countries of destination
Expired medicines	0	
Waste Aerosols	3.52	
Waste Pesticides	2.76	
Contaminated packaging material	8.27	
Gas cylinders	1.2	Tredi-France Polyeco S.A-Greece Indaver, Belgium
Contaminated soil with Jet A1 fuel	39.06	ilidaver, beigidifi
Waste Solvent & Paint material	16.91	
Halogenated waste (Chlorinated)	4.15	
Chemical and Laboratory waste	6.825	

Table 8: Types and amount of hazardous wastes exported by Polyeco



# HFO Contaminated solid and sludge wastes (from Wakashio Oil Spill)

Amount: 2,714 tonnes

**Carting Away:** Sorted, reconditioned and repackaged for temporary storage at the Interim Storage Facility for Hazardous Wastes at La Chaumiere prior to exportation to licensed facilities for disposal.

**Exportation**: These wastes have been exported to Polyeco S.A in Greece from July 2021 to March 2022 for the production of alternative fuel and alternative raw material for the cement industry.

# 4. Construction of Civic Amenity Centre

With the view to shifting towards the circular economy approach in the solid waste sector, civic amenity centres are being constructed within transfer stations to allow households to dispose of their recyclable wastes such as paper, plastics, metals, wood wastes, E-wastes, waste oils, fluorescent tubes, used tyres, construction and demolition wastes. Appointed registered recyclers are then allowed to collect the recyclable materials for recycling or for exportation for eventual recycling. Since 18 November 2020, the first civic amenity centre in Mauritius is operational at La Chaumiere transfer station. A second civic amenity centre has been constructed in Financial Year 2021/2022 at La Laura Transfer Station and is operational since 28 October 2021.



Figure 18: La Laura Civic Amenity Centre

The table below shows the types and amount of waste collected for period July 2021 to June 2022 for La Chaumiere and La Laura civic amenity centres:

		Qua	ntity
SN	Types of Wastes	La Chaumière Civic Amenity Centre	La Laura Civic Amenity Centre
1.	Construction & Demolition	546.77 T	0.2 T
2.	Metal	13.47 T	1.4 T
3.	Wood	88.14 T	12.2 T
4.	PET	2.55 T	1.8 T
5.	Carton/Paper	10.84 T	7.2 T
6.	Tyres	220.29 T	32.2 T
7.	E-waste	120.91 T	1.98 T
8.	Used oil	150 L	-
9.	Batteries	500 kg	-
10.	Tubes	287 units	-

Table 9: Amount of wastes collected at La Chaumière and La Laura CAC

# 5. Asbestos Treatment Programme

The Solid Waste Management Division is also responsible for the dismantling of asbestos housing units as well as the removal and carting away of the asbestos.

Within this financial year, 65 Housing units containing asbestos have been dismantled upon requests from their owners.





Figure 19: Removal of corrugated sheets from the roof the asbestos housing unit





Figure 20: Setting up of enclosure prior to starting the dismantling of asbestos housing unit



Figure 21: Asbestos housing unit already enclosed and ready to be dismantled





Figure 22: Dismantling of cemented asbestos sheets in enclosed housing unit



Figure 23: Wrapping of Asbestos sheets in polyethylene sheets prior to carting away to the landfill



Figure 24: Loading of wrapped Asbestos sheets on lorry for carting away





Figure 25: Wrapped asbestos sheets are disposed at Mare Chicose landfill through trenching

# 6. Waste Carriers Licensing Unit

The Waste Carriers Licensing Unit is responsible for the enforcement of the Local Government (Dumping and Waste Carriers) Regulations 2021. This unit receives and processes applications for waste carrier licenses and examines the fitness of vehicles to transport solid waste and waste oil.

For the period July 2021 to June 2022:

- 919 waste carriers' licences were issued, out of which 221 were owned by the local authorities and government bodies and 698 pertained to individuals, private companies and parastatal bodies.
- Revenue: Rs 2,160,000.
- 87contraventions have been established under the Regulations.
- Number of site visits effected to registered automobile Workshops: 588

### 6.1 Technical Enforcement Unit

The Technical Enforcement Unit (TEU) is the Enforcement arm of the Solid Waste Management Division of the Ministry. It plays a key role as its duties, amongst others, are to conduct site visits to ensure that programmes and projects that are implemented by this Division are done in accordance to contractual obligations and are in line with policies. The Technical Enforcement Unit is enforcing the following Regulations: -

- (i). Enforcement of Environment Protection (collection, storage, treatment, use and disposal of Waste Oil) Regulations 2006;
- (ii). Enforcement of Local Government (Dumping and Waste Carriers) Regulations 2021;
- (iii). Enforcement of Environment Protection (Standards for Hazardous Wastes) Regulations 2001;
- (iv). Enforcement of Local Government (Registration of Recycler and Exporter) Regulations 2013

(Refer to: https://environment.govmu.org/Pages/swmd/SWMD-Legislation.aspx)

The TEU has been examining and registering waste carriers under the Local Government (Dumping and Waste Carriers) Regulations 2003 and also Local Government (Dumping and Waste Carriers) Regulations 2021 which came into operation on 14 August 2021. The vehicles have been examined at la Laura and La Chaumiere transfer stations and also at the yard of the different Local Authorities. It is to be noted that a licence fee of Rs 1000/- per year was imposed under the Local Government (Dumping and Waste Carriers) Regulations 2003 whereas under the Local Government (Dumping and Waste Carriers) Regulations 2021 a fee varying from Rs2000/- to Rs 4000/- is being imposed depending on the gross weight of the vehicle. It is worth to note that no fee is applicable for Government and Local Authorities owned vehicles.





Figure 26: Government and Local Authorities Vehicles

Return for waste carrier license issued July 2021 to June 2022			
Period No of waste carriers License issued Payment received			
July to December 2021	405	Rs 1086000	
Jan to June 2022 399 F		Rs 1074000	
Total 804 Rs 2160000		Rs 2160000	

Table 10: Return for waste carrier license issued July 2021 to June 2022

Enforcement of the Local Government (Dumping and Waste Carriers) Regulations 2021 has been regularly effected at the transfer stations as well as at the Mare Chicose landfill. The TEU established contraventions to waste carriers which were not complying with the provisions of the Local Government (Dumping and Waste Carriers) Regulations 2021. The contraventions established are reported to the nearest Police station for eventual prosecution. The number of contraventions established is listed in the table below.

Return for contravention period July 2021 to June 2022		
Period No of Contraventions		
July to December 2021	16	
Jan to June 2022 71		
Total 87		

Table 11: Return for contravention period July 2021 to June 2022

The TEU is involved in the inspection visits for post EIA monitoring at the different proponents who have been granted an EIA licence. The purpose of the visits is to ensure that the proponents are abiding with the conditions of their licences pertaining to solid waste, hazardous waste and waste oil. The Ministry issues official letter or enforcement notice to proponent who are not complying to the conditions set in their EIA licence. Table 12 below shows the number of visits effected with regards to Post EIA monitoring.

Return for EIA period July 2021 to June 2022		
Period No of visits		
July to December 2021	131	
Jan to June 2022	106	
Total	237	

Table 12: Return for EIA period July 2021 to June 2022

Enforcement of Environment Protection (Standards for Hazardous Wastes) Regulations 2001 has been entrusted to the TEU of the Ministry. Under the present contract with Contractor Polyeco SA, supervision of the inspection and collection of hazardous waste has been carried out by the TEU for the period under report. During the site visits, the TEU ensures that the hazardous wastes are collected and transferred to the Interim Storage Facility for Hazardous waste at La Chaumiere.





Figure 27: Interim Storage Facility for Hazardous waste at La Chaumiere.

Return for Hazardous waste for period July 2021 to June 2022				
Period No of Inspection No of collection Total				
July to December 2021	66	86	152	
Jan to June 2022	38	31	69	
Total	104	117	221	

Table 13: Return for Hazardous Waste for period July 2021 to June 2022

Regular site visits have also been effected at the premises of the big and small waste oil generators across the island. The purpose of the visits was to ensure that the waste oil generators are abiding to the provisions of the Environment Protection (collection, storage, treatment, use and disposal of Waste Oil) Regulations 2006. The table below shows the number of waste oil generators visited during the period July 2021 to June 2022.

Return for Waste oil for period July 2021 to June 2022		
Period No of visits		
July to December 2021	358	
Jan to June 2022 230		
Total 588		

Table 14: Return for Waste oil for period July 2021 to June 2022

As part of their duties, the TEU has been effecting inspection visits at the different transfer stations and Mare Chicose landfill so as to ensure that the Contractors are performing as per the scope of works under their contract with the Ministry. Furthermore, the TEU submits recommendations on the performance of the Contractors for payment purposes. Below tables provide an indication of the number of visits effected at the different facilities:

### **Mare Chicose Landfill**



Figure 28 : Mare Chicose Sanitary Landfill

Return for Mare Chicose visits for period July 2021 to June 2022		
Period	No of visits (Squad + Inspection, Investigations, meetings, complaints, condemned goods, surveys)	
July to December 2021	135	
Jan to June 2022	117	
Total	252	

Table 15: Return for Mare Chicose visits for period July 2021 to June 2022



Figure 29: Locations of Waste Facilities in Mauritius

# Return for 5 Transfer Station visits for period July 2021 to June 2022 Period No of visits July to December 2021 260 Jan to June 2022 230 Total 490

Table 16: Return for 5 Transfer Station visits for period July 2021 to June 2022

# 7. Cleaning of Public Beaches and Toilet Blocks

The Ministry provides cleaning and maintenance services to 65 public beaches through service-based Contracts. The Contracts are awarded for a period of 36 months and are renewable annually based on satisfactory performance of the Contractor. The beaches are lumped into lots as follows:

SN	Contract	List of Beaches and Toilet Blocks
1	Main Beaches Lot 1	Mon Choisy, La Cuvette, Pereybere, Grand Bay, Trou aux Biches (opposite police station), Trou aux Biches (opposite ex-aquarium)
2	Main Beaches Lot 2	Belle Mare and Palmar main beaches;
3	Main Beaches Lot 3	Blue Bay and La Cambuse
4	Main Beaches Lot 4	La Preneuse, Flic en Flac/Wolmar (including Villa Caroline), and Tamarin;
5	Secondary Beaches Lot 1	Le Goulet, Bain Boeuf, Cap Malheureux, Pas Géométriques Union Ribet, Anse La Raie, Butte à L'Herbe and Grand Gaube
6	Secondary Beaches Lot 2	Poste Lafayette (near Toilet Block), Bras D'Eau, Palmar (near Surcouf), Quatre Cocos Village, Trou d'Eau Douce (main beach), Bambous Virieux (3 lots), Bois des Amourettes (Popular Beach) and Bois des Amourettes (3 lots -Public Beach).
7	Secondary Beaches Lot 3	Le Bouchon, Terracine, Gris Gris, Telfair Garden, Batelage (Popular Beach), Surinam, SSR Beach (near Souillac Cemetry), Pomponette, St Felix, Riv des Galets/ Ile St Marie, Bel Ombre, PG Bel Ombre and Riambel. Toilet Blocks: Bel Ombre & la Prairie
8	Secondary Beaches Lot 4	La Prairie, Pas Géométriques L'Embrazure, Le Morne Brabant (Trou Chenille), Pas Géométriques Le Morne (Pte Sud-Ouest), Pas Géométriques Le Morne (between Berjaya and Les Pavillons), Pas Géométriques Le Morne (nr Dinarobin), Baie du Cap, Maconde View point (popular beach)
9	Secondary Beaches Lot 5	Wolmar, P.G Albion (main beach), Petit Verger (Tilac) popular beach, Petit Verger (La Pointe), Pte aux Sables (main beach), PG Anna, P.G Mon Plaisir, Pointe aux Sables (Near Fisheries Post and Training Centre), Pointe aux Sables (Near Martello), Sables Noir, Bain Des Dames popular beach. Toilet Blocks: Sables Noir & Bain Des dames only
10	Toilet Blocks Lot 1	Le Goulet, Bain Boeuf, Cap Malheureux, PG Union Ribet, Anse La Raie, Butte a L'Herbe, Grand Gaube (New integrated beach), Pte aux piments (Nr Parking), Pte aux Piments (Nr cemetery)
11	Toilet Blocks Lot 2	Poste Lafayette (nr Toilet block), Bras D'Eau, Trou d'Eau Douce (Four à Chaux), Trou D'Eau Douce (Débarcadère)
12	Toilet Blocks Lot 3	Le Bouchon, Gris Gris, Telfair Garden (Souillac), Batelage, Riambel (SSR Beach), St Felix (Pte aux Roches), Baie du Cap and Rivière des Galets
13	Toilet Blocks Lot 4	P.G Le Morne (near Dinarobin), P.G Le Morne (between Berjaya and Les Pavillons), P.G Sud-Ouest Le Morne, Wolmar, PG Albion Main beach, Petit Verger Tilac, Albion (Mon Plaisir), Petit Verger (La Pointe), PG Anna (Flic en Flac),Pte aux Sables (main Beach), Pte aux sables (Nr Fisheries Centre)
14	Toilet Blocks Lot 5	Grand Gaube, PG Melville, Poudre d'Or, Roches Noires and Pointe des Lascars
15	Toilet Blocks Lot 6	Palmar Public Beach (Near Palmaraie Hotel), GRSE, Rivière des Créoles, Bois des Amourettes, Old Grand Port Public Beach and Petit Sable Public Beach (Portion 2).

Table 17: List of Public Beaches and Toilet Blocks maintained by the SWMD

### STATUS ON IMPLEMENTATION OF BUDGET MEASURES

In the Budget Speech 2021-2022, three measures were announced by the Minister of Finance, Economic Planning and Development pertaining to waste management. The table below depicts the status of these Measures:

Paragraph in Budget Speech	Measure Announced	Status as at 30 June 2022
374 (a)	Investing in three additional Civic Amenity Centres at Poudre D'Or, Roche Bois and La Brasserie Transfer Stations	A civic amenity centre has been constructed at Poudre D'Or and will be inaugurated on 28th July 2022.
374 (b)	Providing for the installation of some 400 eco-bins around the island and 50,000 bins to households	The project has been discontinued as a more efficient system based on the extended producer responsibility mechanism on beverage containers (PET and Aluminium cans) is being developed.
Annex to Budget Speech B4. Managing Electronic and Electrical Wastes	Guidelines will be established under the Environment Protection Act for better management of electronic and electrical wastes in close partnership with private sector organisations.	The main elements of a draft regulation on the extended producer responsibility for the management of electronic and electrical wastes were drafted in collaboration with the stakeholders and is in progress.

Table 18: Status on Implementation of Budget Measures

# STATUS ON IMPLEMENTATION OF KEY ACTIONS AND KEY PERFORMANCE INDICATORS

The table below shows the status of the key actions and key performance indicators which were included in the Budget 2021/2022.

Key Action	Key Performance Indicator	Target	Achievement	Status as at 30 June 2021
Promote waste recycling	Number of Civic Amenity Centres operational (cumulative)	3	2	3 civic amenity centres have already been constructed. Two are already operational while the third civic amenity centre will be operational at Poudre D'Or transfer station as from 28th July 2022.
Environmentally sound management of hazardous wastes	Amount of hazardous chemical wastes collected (tons)	75	83.6 tons of hazardous chemical wastes have been collected above the set target of 75 tons	collected from July 2021 to

Table 19: Status on implementation of key actions

Ministry of Environment,

Solid Waste Management and Climate Change

# **IMPLEMENTATION PLAN-DIRECTOR OF AUDIT**

SN	DOA Comments	Findings	Status of Actions Taken as at 30 June 2022	
1.	Operation of Mare Chicose Landfill - Lack of control over payments.	Monthly payments were effected to the Contractor for "carting away of leachate" and "waste operations". Some Rs 111 million were paid during financial year 2020-21 on the basis of weights. There was no evidence of cross checking by the Technical Section against any weighing reports in the computerised Libra system.	The amounts claimed by the contractor are crossed verified by the consultants. Random checks are being effected by the Technical	

SN	Issues to follow up	Proposed Measures	Status of Actions Taken as at 30 June 2022
1.	Inefficient solid waste disposal process  The annual cost to Government for solid waste disposal could be significantly reduced by segregation of solid wastes at source of generation thus facilitating their recycling by economic operations and diverting waste from landfill.	A new Solid Waste Management Strategy has been prepared with focus on source segregation, waste composting and recycling. It is expected that waste segregation at source will be implemented by 2024.	• A feasibility study is currently being carried out on the setting up of regional composting plants and sorting units and the implementation of waste segregation at source. The final feasibility study report was received by the end of July 2021.
2.	Cleaning of Public Beaches - No formal agreement with Beach Authority	It is proposed to sign a Memorandum of Understanding with the Beach Authority whereby the role and responsibilities of each party will be clearly defined for the cleaning of public beaches, including the toilet blocks located thereat.	• A Memorandum of Understanding has been prepared by Officers of the Solid Waste Management Division and submitted to the Beach Authority for consideration in August 2021. In Addition, the Beach Authority verbally informed that the Memorandum of Understanding was kept in abeyance since there was a proposal to entrust part of beach cleaning activities to Mauri Facilities Management Co Ltd.
3.	Operation of Mare Chicose Landfill - Lack of control over payments.	The existing payment procedures and protocol will be reviewed and further reinforced.	<ul> <li>The records for landfilling of wastes are checked by the Consultant prior to certifying same for payment.</li> </ul>



# **PART III**

# FINANCIAL PERFORMANCE



# **Financial Highlights**

The Solid Waste Management Division operates under the aegis of the Ministry of Environment, Solid Waste Management and Climate Change (Vote 11 -2).

Appropriation of funds for the Solid Waste Management Division was made under Sub-Head 11 -2 - 'Solid and Hazardous Waste Management'.

# **Analysis of Major Changes**

The Budget provision for Financial Year 2021-2022 was Rs 705.5 million compared to Rs 637.6 million for financial year 2020-2021.

The increase is mainly due Budget provision in respect of item Cleaning Services for Financial Year 2021/22.

The Actual Expenditure incurred for financial year 2021-2022 was Rs 663 million representing 93.98% of the total provision for the year.

# **Expenditure**

The expenditure of the Solid Waste Management Division (SWMD) is predominantly constituted of Goods and Services, in particular Cleaning Services amounting to Rs 640 million for financial year 2021/2022.

# **Statement of Expenditure**

The Statement of Expenditure has been prepared from data captured from the Treasury Accounting System (TAS). The table below provides a summary of the total expenditure incurred by the Solid Waste Management Division under Sub Head 11-2 - Solid and Hazardous Waste Management.

	2020-2021 ACTUAL RS'000	2021-2022 ESTIMATES RS'000	2021-2022 ACTUAL RS'000
11-2 Solid & Hazardous Waste Management			
Compensation of Employees	32,948	39,100	41,769
Goods and Services	597,743	658,100	619,926
Grants	1,061	1,200	1,230
Other Expenses	-	-	-
Acquisition of Non-Financial Asset	712	7,100	74
Total	632,464	705,500	662,999

Table 21: Summary of Total Expenditure

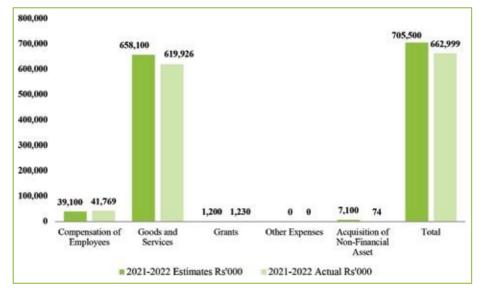


Figure 30: Statement of Expenditure

### Revenue

The revenue collected by the Solid Waste Management Division for financial year 2021-2022 constitutes of Disposable Fees amounting to Rs 14,612,210.25.

# **Expenditure Under the National Environment Fund**

Sn	PSIP Code	Solid Waste Management Programme	Actual 2020/2021 Rs 000	Estimates 2021/2022 Rs 000	Actual 2021/2022 Rs 000
	D0053	Construction of Solid Waste Disposal Facilities at Mare Chicose Landfill	57,129	290,000	58,087
	D005303	Cell 7	42,395	50,000	48,950
1	D005305	Consultancy Services for Vertical Expansion of the Landfill Sites	14,734	10,000	9,137
	D005306	Works for vertical expansion of landfill site	-	230,000	-
	D0090	Compensation for the Relocation of Inhabitants of Mare Chicose Landfill Site	-	3,400	-
2	2 D016899 Asbestos Treatment Programme in Ex CHA Houses		4,915	5,000	4,915
3	D018799	Setting up of Civic Amenity Centres / Dechetteries	2,445	9,500	3,178
4	4 D018899 Setting up of Scrapyard Facility for End of Life Vehicles		-	7,000	-
5	5 D021999 Sorting Units at Forbach & La Chaumiere (Study)		-	4,000	-
6	6 D017401 Waste Recycling Programme (including Collection of PET bottles)		-	6,000	-
		Total	64,489	324,900	66,180

# **PART IV**

# **WAY FORWARD**



# **Trends and Challenges**

The SWOT analysis below highlights the characteristics of the Solid Waste Management Division and its operating environment.

S	Strengths	<ul> <li>Qualified and dedicated staffs</li> <li>A structured solid waste management framework with a network of five transfer stations and a sanitary landfill</li> <li>100% waste collection coverage in Mauritius</li> <li>Proper landfill gas management and leachate collection system</li> <li>Landfill gas conversion to renewable electricity</li> <li>An interim hazardous waste storage facility for the environmentally sound management of hazardous wastes</li> <li>Civic amenity centre for the separate collection of waste materials for recycling.</li> </ul>
W	Weaknesses	<ul> <li>Lack of landfill space</li> <li>Land to be identified for Civic Amenity Centre (CAC) at Roche Bois</li> <li>Low to non-existent source segregation of solid organic wastes practices.</li> <li>Low to non-existent recovery of solid organic wastes.</li> <li>Low or inadequate incentive to recycling companies.</li> <li>Not enough sensitisation and education campaigns on the impacts of mismanagement of solid wastes.</li> <li>Regulations not comprehensive and outdated.</li> </ul>
0	Opportunities	<ul> <li>Implementation of source segregation of wastes through provision of separate bins.</li> <li>Solid waste management technologies for processing of solid wastes, such as composting and sorting units.</li> <li>Renewable energy production from anaerobic digestion of organic wastes.</li> <li>Reduction of greenhouse gas emissions through composting and anaerobic digestion processes.</li> <li>Creation of specialised and green jobs in composting and biogas plants.</li> <li>Ecological transition from linear to circular economy.</li> </ul>
т	Threats	<ul> <li>Loss of high valuable solid wastes.</li> <li>Further greenhouse gas emissions from decomposition of solid organic wastes.</li> <li>Saturation of the Mare Chicose sanitary landfill, with limited land space.</li> <li>Solid waste disposal emergency situation in the future.</li> </ul>

# **Strategic Direction 2022-2025**

In view to ensuring the environmentally safe and sound management of solid and hazardous wastes while shifting towards a circular economy approach in the solid waste management sector, the Solid Waste Management Division has defined its Strategic Direction with the following enablers:

# **Strategic Direction Enablers**

	<ul> <li>Increase the disposal capacity of the landfill to cater for waste disposal pending coming into operation of other waste management facilities such a composting plants and sorting units.</li> </ul>
Ensure optimum use	Expand the network of civic amenity centres from 3 to 4
of the landfill	<ul> <li>Initiate the procurement procedures for the acquisition of bins for the implementation of waste segregation at source in connection with the setting-up and operation of regional composting plants and sorting units on PPP basis.</li> </ul>
	Finalise the Waste Management and Resource Recovery Bill;
	<ul> <li>To bring all legal provisions pertaining to solid and hazardous waste under one legal framework;</li> </ul>
	<ul> <li>To empower the Minister to bring specific regulations for the implementation of circular economy in the solid waste sector;</li> </ul>
	<ul> <li>To provide strategic direction and guidance towards sustainable solid and hazardous waste management practices; and</li> </ul>
Promote a circular economy in the waste sector	<ul> <li>To empower the Solid Waste Management Division as the central body responsible for solid and hazardous wastes.</li> </ul>
	<ul> <li>Set-up a Producer Responsibility Organisation for the recycling of the electrical and electronic wastes based on Extended Producer Responsibility (EPR).</li> </ul>
	<ul> <li>Prepare the regulations on source-segregation of wastes and construction and demolition (C &amp; D) wastes under the new Waste Management and Resource Recovery Bill.</li> </ul>
	<ul> <li>Establish the criteria for the operation of scrapyard facility for end- of-life vehicles by the Private Sector.</li> </ul>
Ensure maximum collection of hazardous wastes	<ul> <li>Conduct an inventory of hazardous wastes generated at national level, including industrial and non-industrial sectors.</li> </ul>
	Carry out collection campaigns for household hazardous wastes.



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