

# Environment Statistics - 2021

## 1. Introduction

This issue of Economic and Social Indicators presents statistics on Environment for year 2021 based on data gathered from various institutions.

The main environment indicators for the years 2020 and 2021 are given in Table 1, while technical notes are given at Annex. Figures presented in the tables may not add up to totals due to rounding.

## 2. Forestry and Agriculture

### 2.1 Forestry

Preservation of forests is vital for the protection of the ecosystem. Total forest area decreased by 5 hectares from 47,011 hectares in 2020 to 47,006 hectares in 2021. Some 22,006 hectares (46.8%) of the total forest area in 2021 was state-owned and the remaining 25,000 hectares (53.2%) was privately-owned (Table 2).

Out of the 22,006 hectares of state-owned forest area, 11,774 hectares (53.5%) were planted areas, while the Black River Gorges National Park and the nature reserves accounted for 6,574 (29.9%) and 799 (3.6%) hectares respectively. “Pas Geometriques” covered about 589 hectares (2.7%), other nature parks, 908 hectares (4.1%), Ramsar sites, 46 hectares (0.2%) and other forest lands, 1,316 hectares (6.0%).

The 25,000 hectares of privately-owned forest lands consisted of 18,447 (73.8%) hectares of plantation, forest lands, scrub and grazing lands, and 6,553 (26.2%) hectares of mountain, rivers and nature reserves.

### 2.2 Agriculture

The area harvested of sugar cane decreased from 43,711 hectares in 2020 to 41,897 hectares in 2021. The production of sugar cane went up by 1.9% from 2,620,874 tonnes in 2020 to 2,669,667 tonnes in 2021. The average yield has increased by 6.3% from 59.96 tonnes per hectares in 2020 to 63.72 in 2021 (Table 3).

The production of sugar went down by 5.6% from 270,875 tonnes in 2020 to 255,818 tonnes in 2021. Compared to 10.34% in 2020, the average extraction rate was 9.59% in 2021, representing a decrease of 7.3%.

The area under food crops harvested increased by 7.8% from 7,352 hectares in 2020 to 7,922 hectares in 2021. Production of foodcrops increased by 6.8% from 95,029 tonnes in 2020 to 101,537 tonnes in 2021.

The area under tea plantation in 2021 was 685 hectares same as in 2020. The production of green tea leaves went down from 5,105 tonnes in 2020 to 5,034 tonnes in 2021, representing a decrease of 1.4% .

### 2.3 Import of fertilisers and pesticides

Intensive use of chemical based fertilisers and other agro-chemicals may contribute to the pollution of the environment through the leaching of nitrate to ground water.

From 2020 to 2021, import of fertilisers increased by 31.1% from 26,991 tonnes to 35,395 tonnes. Import of pesticides decreased by 9.1% from 2,700 tonnes to 2,455 tonnes (Table 4).

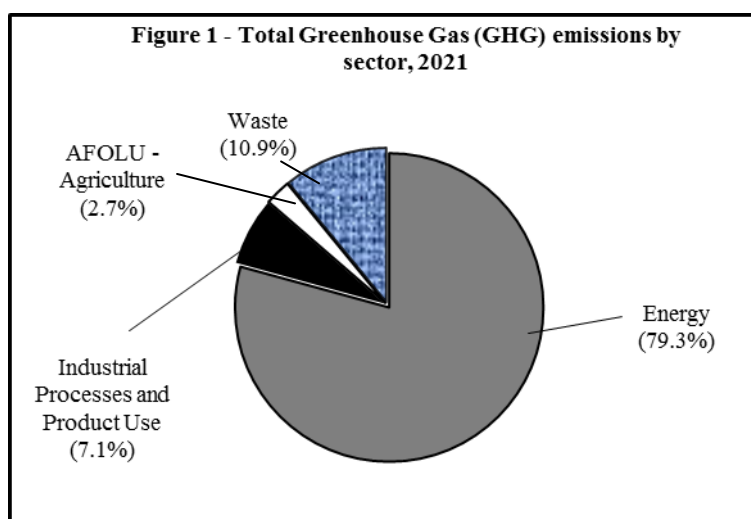
## 3. Greenhouse Gas (GHG) Emissions

GHG are gases occurring naturally and also resulting from human-induced activities (anthropogenic emissions from production and consumption). They contribute directly or indirectly to global warming. Some main GHG are Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>) and Nitrous Oxide (N<sub>2</sub>O).

### 3.1 Total GHG emissions by sector

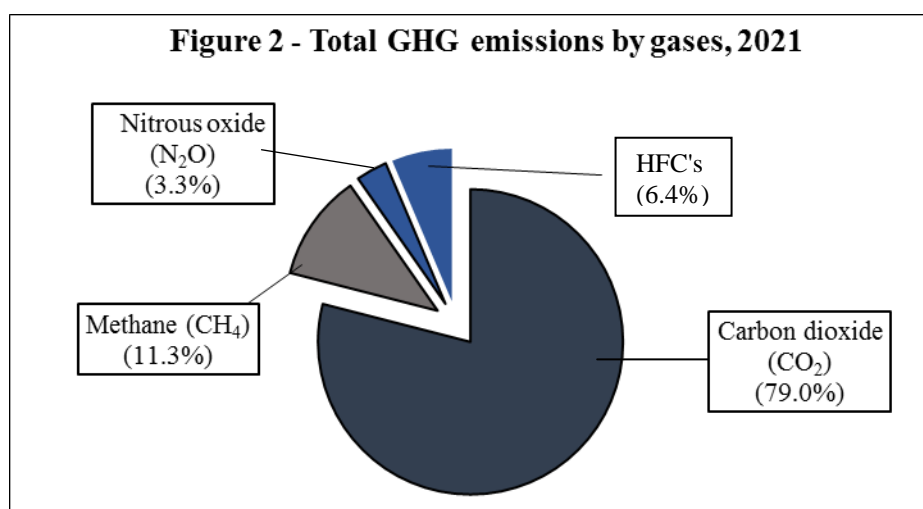
The total GHG emissions (excluding Forestry and Other Land Use) in 2021 were 5,471.8 Gg carbon dioxide equivalent (CO<sub>2</sub>.eq) compared to 5298.0 Gg CO<sub>2</sub>.eq in 2020, representing an increase of 3.3 %. In 2021, there was a rise in emissions from the energy and waste sectors (Table 6). However, a decrease of 6.5% in emissions has been observed in the agriculture forestry and other land use sector in 2021. The contribution of GHG to total global GHG emission stood at 0.01% (Source: United Nations Environment Programme(UNEP), Emissions Gap Report 2020).

The energy sector remains the largest contributing sector and accounted for 79.3 % (4,336.6 Gg CO<sub>2</sub>.eq) of the total emissions followed by the waste sector with 10.9 % (598.8 Gg CO<sub>2</sub>.eq), the industrial processes and product use sector with 7.1 % (388.2 Gg CO<sub>2</sub>.eq) and the agriculture sector, 2.7% (148.2 Gg CO<sub>2</sub>.eq) - (Figure 1).



### 3.2 Total GHG emissions by type gases

In 2021, carbon dioxide (CO<sub>2</sub>) was the main GHG representing 79.0 % (4,324.8 Gg) of total GHG emissions. Methane (CH<sub>4</sub>) contributed 11.3 % (616.1 Gg CO<sub>2</sub>-eq), hydrofluorocarbons (HFCs) 6.4% (348.9 Gg CO<sub>2</sub>-eq), and nitrous oxide (N<sub>2</sub>O) 3.3 % (182.0 Gg CO<sub>2</sub>-eq)-(Figure 2).



### 3.3 Net GHG emissions

In 2021, GHG emissions have increased mainly due to a higher fuel consumption in electricity generation activities from the Energy sector. On the other hand, an increase was observed in GHG removals due to a decrease in the local production of logs, poles and fuelwood and a significant drop in forest fires. The overall net GHG emissions, after accounting for the removal of Carbon Dioxide by Forestry and Other Land Use sector, stood at around 5,136.2 Gg CO<sub>2</sub>-eq in 2021, up by 3.2% from 4,974.6 Gg CO<sub>2</sub>-eq in 2020. (Table 6).

### 3.4 Energy and Greenhouse gas (GHG)

#### 3.4.1 Energy sector

Though vital for economic development and households, the production and consumption of energy release greenhouse gases. Carbon dioxide is the main component of greenhouse gases.

#### 3.4.2 Primary energy requirement

Total primary energy requirement (total primary energy requirement = local production + imports of primary energy - re-exports of primary energy – international bunkers – stock changes) was 1,367.1 thousand tonnes of oil equivalent (ktoe) in 2021, 2.5% higher than in 2020 (1,334.0 ktoe) - (Table 5).

In 2021, some 12.3% (169 ktoe) was met from locally renewable energy sources (hydro, wind, landfill gas, photovoltaic, bagasse, fuelwood and charcoal), while 87.7% (1,199 ktoe) were from imported fossil fuels (petroleum products and coal).

In 2021, there was a decrease of 5.0 % in energy supply from local renewable sources. Energy sources from bagasse decreased by 5.2% from 147 ktoe in 2020 to 139 ktoe in 2021, hydro decreased by 8.0% from 10.0 ktoe to 9.2 ktoe, landfill gas decreased by 23.8% from 2.1 ktoe to 1.6 ktoe, photovoltaic increased by 4.0% from 12.5 to 13.0 ktoe while wind decreased by 18.8% from 1.6 to 1.3 ktoe. Fuelwood decreased by 4.5% from 4.4 ktoe to 4.2 ktoe.

From 2020 to 2021, energy supply from imported fossil fuels increased by 3.6% from 1,157 to 1,199 ktoe. Energy supply from petroleum products decreased by 0.7% from 747 ktoe in 2020 to 742 ktoe in 2021. Supply from coal increased by 11.5% from 410 ktoe to 457 ktoe (Table 5).

### *3.4.3 Electricity generation*

Total electricity generated increased by 3.8% from 2,882 GWh in 2020 to 2,992 GWh in 2021. In 2021, around 41.9% of electricity was generated from coal, 36.5% from diesel and fuel oil, and 21.5% from renewable sources. Electricity generated from coal increased by 10.3% from 1,138 GWh in 2020 to 1,255 GWh in 2021; that from diesel and fuel oil together increased by 3.5% from 1,056 GWh in 2020 to 1,094 GWh in 2021 (Table 8).

Electricity generated from renewable sources decreased from 688 GWh to 642 GWh, down by 6.7%. Landfill gas decreased by 23.4% from 25 GWh to 19 GWh, hydro decreased by 7.7% from 116 GWh to 107 GWh and photovoltaic increased by 3.8% from 146 GWh to 151 GWh. Electricity generated from bagasse decreased by 8.8% from 384 GWh to 350 GWh and wind decreased by 14.9% from 18 GWh to 15 GWh (Table 8).

### *3.4.4 Fuel input for electricity generation*

Fuel input for electricity generation from petroleum products, coal and bagasse as shown in Table 9 indicates that:

- In 2021, coal (55.7%) was the major fuel used to produce electricity followed by fuel oil (27.6%) and bagasse (16.5%);
- Between 2020 and 2021, fuel input increased by 6.6% from 725 ktoe to 773 ktoe;
- Input of fuel oil increased by 4.7%, from 204 ktoe in 2020 to 213 ktoe in 2021 and that of coal increased by 11.8%, from 386 ktoe in 2020 to 431 ktoe in 2021;
- Some 128 ktoe of bagasse was used to produce electricity in 2021 compared to 135 ktoe in 2020, down by 5.5%.

### 3.4.5 Energy sector emissions

In 2021, GHG emission from the energy sector stood at 4,337 Gg CO<sub>2</sub>-eq, up by 3.8% from 4,179 Gg CO<sub>2</sub>-eq in 2020. Within the energy sector, the sub-sector that contributed most of the GHG emission was the electricity generating industries which accounted for 55.3 % (2,396 Gg CO<sub>2</sub>-eq) of the total emissions. Next came the transport sector which made up 31.2% (1,353 Gg CO<sub>2</sub>-eq) of the total emissions, the manufacturing industries and construction making up another 7.5% (325 Gg CO<sub>2</sub>-eq) and the other sectors accounting for the remaining 6.0% (262 Gg CO<sub>2</sub>-eq) - (Table 7).

#### 3.4.5.1 Energy industries (electricity generation)

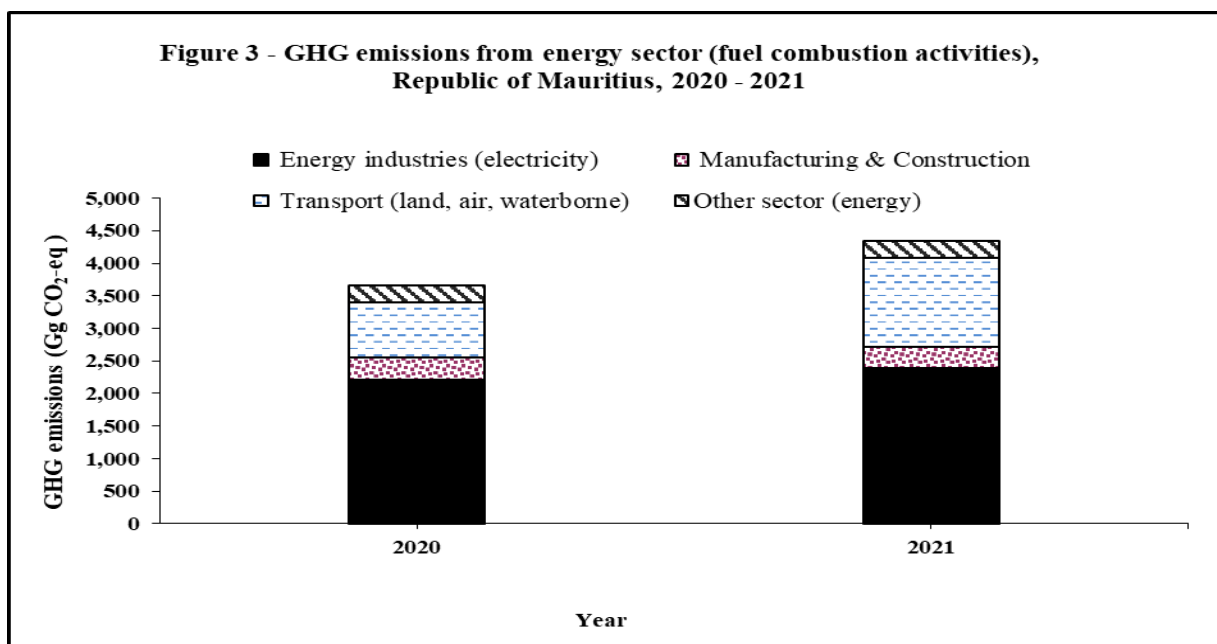
GHG emission from the generation of electricity (energy industries) stood at 2,396 Gg CO<sub>2</sub>-eq in 2021 compared to 2,186 Gg CO<sub>2</sub>-eq in 2020, representing an increase of 9.6% (Table 7). This is mainly attributed to a 4.7% increase (from 204 ktoe to 213 ktoe) in the amount of fuel oil used to produce electricity (Table 9).

#### 3.4.5.2 Transport industries

In 2021, GHG emission from transport industries was estimated at 1353 Gg CO<sub>2</sub>-eq compared to 1,411 in 2020, down by 4.1% (Table 7). It is to be noted that, though the number of registered motor vehicles went up by 3.8% from 600,053 in 2020 to 622,988 in 2021 (Table 11), the energy consumed by transport sector decreased by 4.4% from 396 ktoe to 378 ktoe - (Table10).

#### 3.4.5.3 Manufacturing industries and construction

Manufacturing industries and construction registered a decrease of 1.7% in GHG emissions in 2021, from 331 to 325 Gg CO<sub>2</sub>-eq (Table 7). The amount of coal consumed by the sector increased from 24.1 ktoe to 25.7 ktoe and consumption of fuel oil, diesel and LPG decreased from 70.4 ktoe to 66.6 ktoe (Table10).



## 4. Temperature

Table 12 indicates that, in 2021, the annual mean temperature, the annual maximum mean temperature and the annual mean minimum temperature were all above their respective long term (1981-2010) means except for the month of September. March was the warmest month of the year with an average maximum of 30.6 °C and August the coolest month with an average minimum of 16.9 °C.

The highest maximum temperature recorded was 36.1 °C, recorded on 17 January 2021 at Rivière Noire. The lowest minimum temperature was 8.0 °C, which was recorded on 03 August 2021 at Ferret (Near Pamplemousses).

## 5. Water

Water, being a basic support element for human life and ecosystems, is of vital environmental and biological importance.

### 5.1 Rainfall

During the year 2021, the mean amount of rainfall recorded around the Island of Mauritius was 2,025 millimetres (mm), representing an increase of 1.6% compared to 1,993 mm in 2020. The average rainfall was almost the same as the long term (1991-2020) mean of 2,018 mm.

The wettest month in 2021 was April with a mean of 495 mm, which represented a surplus of 240% relative to the long term (1991-2020) mean of 206 mm. November was the driest month with a mean of 12 mm of rainfall, registering a deficit of 86% compared to the long term (1991-2020) mean of 85 mm (Table 13).

### 5.2 Water Balance

In 2021, the Island of Mauritius received 3,776 million cubic metres (Mm<sup>3</sup>) of water from precipitation (rainfall), 1.6% higher when compared to 3,717 Mm<sup>3</sup> in 2020. Nearly 10 % (378 Mm<sup>3</sup>) of the water went as ground water recharge, while evapotranspiration and surface runoff accounted for 30% (1,133 Mm<sup>3</sup>) and 60% (2,265 Mm<sup>3</sup>) respectively (Table 14).

### 5.3 Water utilisation

Total water utilisation was estimated at 968 Mm<sup>3</sup> in 2021. Around 84% (815 Mm<sup>3</sup>) of the total water utilisation was met from surface water and 16% (153 Mm<sup>3</sup>) from ground water.

The agricultural sector accounted for 31% (301 Mm<sup>3</sup>) of the water utilised, domestic, industrial and tourism sector 31% (304 Mm<sup>3</sup>), and hydropower 38% (364 Mm<sup>3</sup>) - (Table 15).

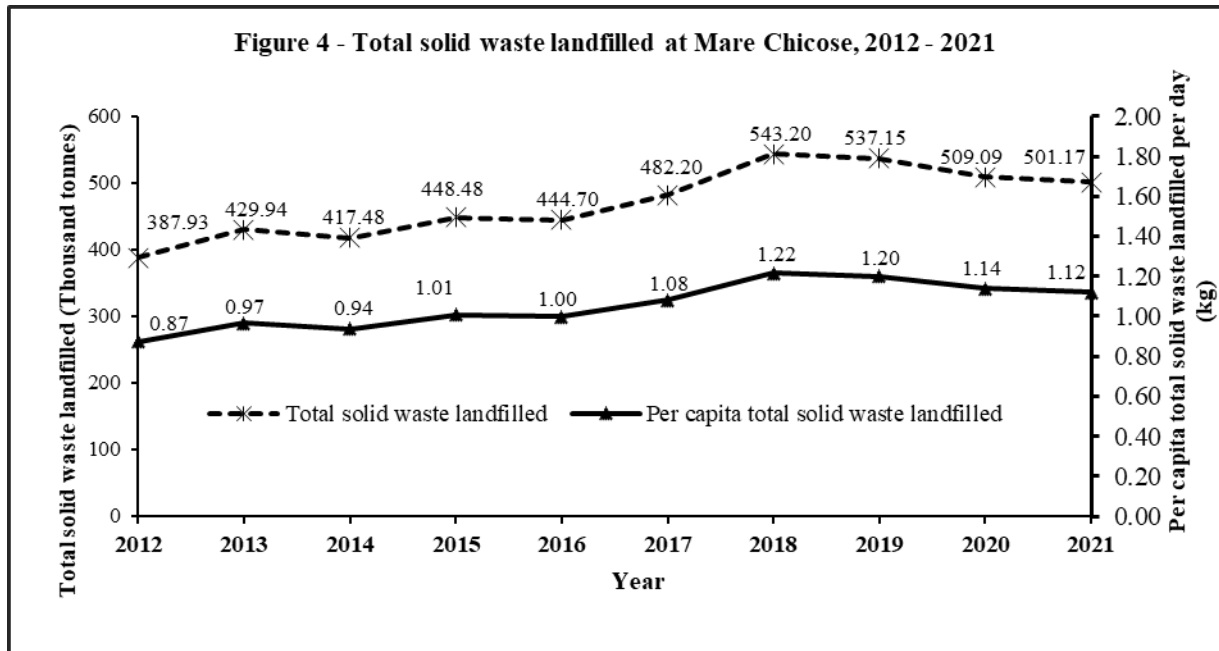
Compared to 2020, water utilisation decreased by 2.9%, from 997 to 968 Mm<sup>3</sup> with changes as follows:

- agriculture (-1.3%);
- domestic, industrial and tourism (+0.3%); and
- hydropower (-6.4%).

## 6. Waste

### 6.1 Waste disposal at Mare Chicose Landfill

The total amount of solid waste landfilled at Mare Chicose decreased by 1.6% from 509,094 tonnes in 2020 to 501,167 tonnes in 2021 (Table 16). The trend of the total amount of solid waste landfilled and the per capita solid waste landfilled are as shown in Figure 4. The per capita total solid waste landfilled increased by 28.7% from 0.87 kg/day in 2012 to 1.12 kg/day in 2021.



## 7. Complaints

Effective environmental management needs appropriate coordination and monitoring of environmental problems. The Ministry of Environment, Solid Waste Management and Climate Change addresses complaints received from the general public according to a complaints handling protocol.

Complaints attended by the Pollution Prevention and Control Division of the Ministry of Environment, Solid Waste Management and Climate Change (including those received from the Citizen Support Portal) are categorised at Table 17. The number of complaints attended increased by 80.4% from 382 in 2020 to 689 in 2021. The main categories of complaints were as follows: air pollution (22.1%), other complaints (21.8%), noise (21.5%), waste water (8.7%), odour (8.1%), solid waste (6.8%), bareland (6.7%) and flooding/obstruction of rivers and drains (4.3%).

## 8. Environmental Impact Assessment (EIA) Licences and Preliminary Environmental Report (PER) Approvals

### 8.1 EIA Licences and PER Approvals

In 2021, some 24 EIA licences were granted, which comprised 8 for land parcelling (morcellement), 8 for “other projects, 3 for coastal hotels and related works, 2 for industrial

development, 2 for “housing/integrated resort scheme/property development scheme/smart city” and 1 for “construction of roads and highway” (Table 18).

During the same period, 13 PER approvals were issued, which comprised 6 for industrial development, 4 for poultry rearing, 2 for “housing/integrated resort scheme/property development scheme/smart city” and 1 for “other projects”(Table 19).

## **Statistics Mauritius**

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## Technical notes

### Concepts and definitions

#### Environment

*Environment*: The totality of all the external conditions affecting the life, development and survival of an organism.

*Environment Statistics*: Environment statistics are environmental data that have been structured, synthesized and aggregated according to statistical methods, standards and procedures. The scope of environment statistics covers biophysical aspects of the environment and those aspects of the socioeconomic system that directly influence and interact with the environment.

*Environmental indicator*: Environmental indicators are environment statistics that have been selected for their ability to depict important phenomena or dynamics. Environmental indicators are used to synthesize and present complex environment and other statistics in a simple, direct, clear and relevant way.

#### Land use, Agriculture and Forestry

*Pas Géométriques*: Pas Géométriques are a narrow belt, theoretically 81.21 metres (250 French feet) in width, round the coast and are State-owned. There are several cases where the width is less than 81.21 metres or does not exist at all.

*Ramsar Sites*: The Convention on Wetlands also known as the Ramsar Convention defines wetlands as “Areas of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres”. Mauritius became a contracting party to the Ramsar Convention on 30 September 2001.

*Land use*: Land use reflects both the activities undertaken and the institutional arrangements put in place for a given area for the purposes of economic production, or the maintenance and restoration of environmental functions. Consequently, there are areas of land that are “not in use” by human activities.

*Built-up areas*: Built-up areas consist of land under houses, industrial zones, quarries or any other facilities, including their auxiliary spaces, deliberately installed so that human activities may be pursued.

#### Energy and Greenhouse gas

*Greenhouse gases (GHG)*: These gases occur naturally and also result from human-induced activities (anthropogenic production and consumption) that contribute directly or indirectly to global warming. Some main GHG are Carbon Dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and Nitrous Oxide (N<sub>2</sub>O). Other gases such as Carbon monoxide (CO), oxides of Nitrogen (NO<sub>x</sub>), non methane volatile organic compounds (NMVOC) and Sulphur dioxide (SO<sub>2</sub>), contribute indirectly to global warming. GHG act much like a glass greenhouse, trapping heat in the lower levels of the atmosphere and reflecting the heat back to the earth’s surface, causing it to heat up.

Carbon dioxide equivalent (CO<sub>2</sub>-eq): It is a measure used to compare the emissions from various greenhouse gases based upon their global warming potential (GWP). The carbon dioxide equivalent of a gas is derived by multiplying the weight of the gas by its associated Global Warming Potential (GWP).

Global Warming Potential (GWP)

The Global Warming Potential (GWP) was adopted from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (SAR – 100 years’ time horizon) as in the table below.

<b>GHG</b>	<b>GWP</b>
Carbon Dioxide CO <sub>2</sub>	1
Methane CH <sub>4</sub>	21
Nitrous Oxide N <sub>2</sub> O	310
Hydrofluorocarbon 152a	140
Hydrofluorocarbon 32	650
Hydrofluorocarbon 134a	1300
Hydrofluorocarbon 125	2800
Hydrofluorocarbon 227ea	2900
Hydrofluorocarbon 143a	3800
Hydrofluorocarbon 23	11700

Primary energy requirement: It is the sum of imported fuels and locally available fuels less re-exports of bunkers and aviation fuel to foreign aircraft after adjusting for stock changes.

Renewable energy: Renewable energy is captured from sources that replenish themselves. It includes solar (photovoltaic and thermal), hydroelectric, geothermal, tidal action, wave action, marine (non-tidal currents, temperature differences and salinity gradients), wind and biomass energy, all of which are naturally replenished, even though their flow may be limited.

Final energy consumption: Energy consumption by final user, i.e energy which is not being used for transformation into other forms of energy.

**Water**

Water balance: The water balance is based on long term records of annual average rainfall and indicates how freshwater resources are distributed.

Precipitation: Rain falling from the atmosphere and deposited on land or water surfaces.

Evapotranspiration: Combined loss of water by evaporation from the soil or surface water and transpiration from plants and animals.

Surface runoff: The flow of surface water from rainfall, which flows directly to streams, rivers and lakes. Runoff may cause soil erosion.

Groundwater recharge: Process by which water is added from outside to fresh water found beneath the earth surface.

## **Waste**

Solid waste: Solid waste includes domestic garbage, industrial and commercial waste, sewage sludge, wastes resulting from agricultural and animal husbandry operations and other connected activities, demolition wastes and mining residues.

Landfill: Final placement of waste in or on the land in a controlled or uncontrolled way according to different sanitary, environmental protection and other safety requirements.

## **Environmental impact assessment**

Environmental impact assessment (EIA): Analytical process that systematically examines the possible environmental consequences of the implementation of projects, programmes and policies.

## **Preliminary environmental report**

Preliminary environmental report (PER): PER is a short form of EIA and this preliminary analysis is undertaken to identify the impacts associated with the proposed development and the means of mitigation.

## **Economy**

Gross Domestic Product (GDP): GDP is the aggregate money value of all goods and services produced within a country out of economic activity during a specified period, usually a year, before provision for the consumption of fixed capital.

Energy intensity: Energy intensity provides a measure of the efficiency with which energy is being used in production or energy used (tonnes of oil equivalent) per Rs 100,000 GDP (at constant prices).

## Abbreviations

Rs	Rupees
Rs mn	Rupees million
%	Percentage
000	Thousand
Mm <sup>3</sup>	Million cubic metres
Gg	Gigagram(thousand tonnes)
toe	Tonne of oil equivalent
ktoe	Thousand tonnes of oil equivalent
GWh	Gigawatt hour
PER	Preliminary environmental report
EIA	Environmental impact assessment
µg/m <sup>3</sup>	Micrograms per cubic metre

## Symbols

0	Nil
NA	Not available
Napp	Not applicable

## Conversion factor

1 square kilometre = 100 hectares

**Table 1 - Main environment indicators, 2020 and 2021**

<b>Indicator</b>	<b>Unit</b>	<b>2020<sup>1</sup></b>	<b>2021<sup>2</sup></b>
<b>Republic of Mauritius</b>			
1. Terrestrial protected areas	hectares	14,915	14,915
2. Marine protected areas	hectares	13,953	13,953
3. Total Greenhouse gas (GHG) emission	Gg CO <sub>2</sub> -eq	5,298.0	5,471.8
4. Total carbon dioxide emission	000 tons	4,166.4	4,324.8
5. Per capita carbon dioxide emission	tons	3.29	3.42
6. Total electricity generated	GWh	2,882.4	2,992.0
7. Electricity generated from renewable sources	%	23.9	21.5
8. Total primary energy requirement	ktoe	1,333.9	1,367.0
9. Primary energy requirement from renewable sources	%	13.3	12.3
10. Per capita primary energy requirement	toe	1.05	1.08
11. Per capita final energy consumption	toe	0.64	0.64
12. Energy intensity	toe per Rs.100,000 GDP at 2006 prices	0.42	0.42
<b>Island of Mauritius</b>			
13. Forest area	ha	47,011	47,006
14. Total forest area as a % of total land area	%	25.2	25.2
15. Total fish production (fresh-weight equivalent)	tons	26,415	28,696
16. Irrigated land	ha	15,846	15,333
17. Mean annual rainfall	millimetres	1,993	2,025
18. Mean of maximum annual temperature	degrees Celcius	27.5	27.7
19. Mean of minimum annual temperature	degrees Celcius	20.2	20.2
20. Mean annual temperature	degrees Celcius	23.8	23.9
21. Annual fresh water abstraction	Mm <sup>3</sup>	607	604
22. Daily per capita domestic water consumption	litres	182	184
23. Daily per capita total solid waste disposed at landfill	Kg	1.1	1.1

<sup>1</sup> Revised    <sup>2</sup>Provisional

**Table 2 - Forest area by category, Island of Mauritius, 2020 - 2021**

Category of Forest	2020		2021	
	Hectares	%	Hectares	%
<b>State - owned lands</b>	<b>22,011</b>	<b>46.8</b>	<b>22,006</b>	<b>46.8</b>
Plantations	11,779	25.1	11,774	25.1
Nature reserves	799	1.7	799	1.7
<i>Mainland</i>	200	0.4	200	0.4
<i>Islets</i>	599	1.3	599	1.3
Black River Gorges National Park	6,574	14.0	6,574	14.0
Bras D'Eau National Park <sup>1</sup>	497	1.1	497	1.1
Special Reserves <sup>2</sup>	136	0.3	136	0.3
Vallee d'Osterlog Endemic Garden	275	0.6	275	0.6
Ramsar sites	46	0.1	46	0.1
<i>Rivulet Terre Rouge Estuary Bird Sanctuary</i>	26	0.1	26	0.1
<i>Pointe D'Esny Wetland</i>	20	0.0	20	0.0
Other Forest Lands	1,316	2.8	1,316	2.8
Pas Geometriques	589	1.3	589	1.3
<i>Plantations</i>	197	0.4	197	0.4
<i>Leased for grazing and tree planting</i>	230	0.5	230	0.5
<i>Others (mostly rocky)</i>	162	0.3	162	0.3
<b>Private - owned lands <sup>3</sup></b>	<b>25,000</b>	<b>53.2</b>	<b>25,000</b>	<b>53.2</b>
Reserves	6,553	13.9	6,553	13.9
<i>Mountain reserves</i>	3,800	8.1	3,800	8.1
<i>River reserves</i>	2,740	5.8	2,740	5.8
<i>Private Reserves</i>	13	0.0	13	0.0
Other <sup>4</sup>	18,447	39.2	18,447	39.2
<b>Total</b>	<b>47,011</b>	<b>100.0</b>	<b>47,006</b>	<b>100.0</b>

<sup>1</sup> Bras D'Eau National Park was proclaimed in 2011. From 2002 to 2010, it was known as Bras D'Eau & Poste La Fayette Reserves

<sup>2</sup> "Islet National Parks" renamed as "Special Reserves" as per Native Terrestrial Biodiversity & National Parks Act of 2015

<sup>3</sup> Current figures for privately-owned lands are crude estimates based on expert knowledge from Forestry Service

<sup>4</sup> Includes plantations, forest lands, scrub and grazing lands

Source : Forestry Service, Ministry of Agro-Industry and Food Security

**Table 3 - Agricultural crops - Area harvested and production, Island of Mauritius, 2020 - 2021**

Crops	2020 <sup>1</sup>		2021 <sup>2</sup>	
	Area harvested (hectares)	Production (tonnes)	Area harvested (hectares)	Production (tonnes)
Sugar cane	43,711	2,620,874	41,897	2,669,667
Tea (green leaves)	685 <sup>3</sup>	5,105	685 <sup>3</sup>	5,034
Food crops	7,352	95,029	7,922	101,537
Sugar	Napp	270,875	Napp	255,818

<sup>1</sup> Revised      <sup>2</sup> Provisional      <sup>3</sup> Area under cultivation

**Table 4 - Imports and value (c.i.f)<sup>1</sup> of fertilisers and pesticides, 2020 - 2021**

Year	Fertilisers		Pesticides	
	Quantity (tonnes)	Value c.i.f (Rs mn)	Quantity (tonnes)	Value c.i.f (Rs mn)
2020	26,991	378.3	2,700	613.5
2021	35,395	950.0	2,455	649.2

<sup>1</sup> Cost, Insurance, Freight

**Table 5 - Total primary energy requirement, Republic of Mauritius, 2020 - 2021**

ktoe (000 Tonne of oil equivalent)

Energy source	2020		2021	
	ktoe	%	ktoe	%
<b>Imported (Fossil Fuels)</b>	<b>1,156.5</b>	<b>86.7</b>	<b>1,198.5</b>	<b>87.7</b>
<i>Coal</i>	<i>409.5</i>	<i>30.7</i>	<i>456.7</i>	<i>33.4</i>
<i>Petroleum products</i>	<i>747.0</i>	<i>56.0</i>	<i>741.8</i>	<i>54.3</i>
Gasolene	184.1	13.8	180.5	13.2
Diesel Oil	185.8	13.9	191.9	14.0
Dual Purpose Kerosene	58.6	4.4	33.2	2.4
<i>Kerosene</i>	<i>0.2</i>	<i>0.0</i>	<i>0.7</i>	<i>0.0</i>
<i>Aviation Fuel</i>	<i>58.4</i>	<i>4.4</i>	<i>32.5</i>	<i>2.4</i>
Fuel Oil	236.4	17.7	247.9	18.1
LPG	82.1	6.2	88.3	6.5
<b>Local (Renewables)</b>	<b>177.5</b>	<b>13.3</b>	<b>168.6</b>	<b>12.3</b>
Hydro	10.0	0.7	9.2	0.7
Wind	1.6	0.1	1.3	0.1
Landfill Gas	2.1	0.2	1.6	0.1
Photovoltaic	12.5	0.9	13.0	1.0
Bagasse <sup>1</sup>	146.8	11.0	139.2	10.2
Fuelwood <sup>1</sup>	4.4	0.3	4.2	0.3
Charcoal <sup>2</sup>	0.1	0.0	0.1	0.0
<b>Total</b>	<b>1,334.0</b>	<b>100.0</b>	<b>1,367.1</b>	<b>100.0</b>

<sup>1</sup> Estimates      <sup>2</sup> Mostly local

Source: Central Electricity Board and Annual Sugar Industry Energy Survey

**Table 6 - National inventory of greenhouse gas emissions <sup>1</sup> by sector, Republic of Mauritius, 2020<sup>2</sup> - 2021<sup>2</sup>**

Sector	Gg or Thousand Tonnes						Gg CO <sub>2</sub> - eq		Greenhouse gas emissions (GHG) <sup>3</sup> (Gg CO <sub>2</sub> - eq) excluding Forestry and Other Land Use (FOLU)		% of total GHG emissions	
	Carbon dioxide (CO <sub>2</sub> )		Methane (CH <sub>4</sub> )		Nitrous oxide (N <sub>2</sub> O)		Hydrofluorocarbons (HFCs)		2020 <sup>2</sup>	2021	2020 <sup>2</sup>	2021
	2020 <sup>2</sup>	2021	2020 <sup>2</sup>	2021	2020 <sup>2</sup>	2021	2020 <sup>2</sup>	2021				
1. Energy	4,126.45	4,284.82	0.65	0.64	0.12	0.12	0.00	0.00	4,178.88	4,336.62	78.9	79.3
2. Industrial Processes and Product Use (IPPU)	39.24	39.24	...	...	...	...	350.19	348.92	389.43	388.16	7.4	7.1
3. Agriculture Forestry and Other Land Use (AFOLU) - Agriculture	...	...	1.59	1.37	0.40	0.39	...	...	158.44	148.18	3.0	2.7
4. Waste	0.74	0.74	26.02	27.33	0.08	0.08	...	...	571.25	598.83	10.8	10.9
<b>Total</b>	<b>4,166.43</b>	<b>4,324.80</b>	<b>28.26</b>	<b>29.34</b>	<b>0.61</b>	<b>0.59</b>	<b>350.19</b>	<b>348.92</b>	<b>5,298.00</b>	<b>5,471.78</b>	<b>100.0</b>	<b>100.0</b>

Emissions	Gg CO <sub>2</sub> -eq	
	2020 <sup>2</sup>	2021
1. Total GHG emissions excluding removals by Forestry and Other Land Use (FOLU)	5,298.00	5,471.78
2. GHG removals <sup>4</sup> (FOLU)	323.42	335.56
3. Net GHG emissions including FOLU (= 1 - 2)	4,974.58	5,136.22

<sup>1</sup> Based on 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines of the United Nations Framework Convention on Climate Change (UNFCCC)

<sup>2</sup> Revised according to the First Biennial Update Report (2000 - 2016), December 2021

<sup>3</sup> Refers to carbon dioxide, methane, nitrous oxide and hydrofluorocarbons

<sup>4</sup> Excludes the amount of CO<sub>2</sub> sequestered by trees and vegetations found along rivers, canal reserves and trees along roads

... : Not occurring, not applicable, not estimated



**Table 7 - Greenhouse gas emissions from energy sector (fuel combustion activities), Republic of Mauritius, 2020 - 2021**

Energy Sector	2020 <sup>1</sup>		2021	
	Quantity	%	Quantity	%
Energy industries (electricity generation)	2,185.94	52.3	2,396.04	55.3
Manufacturing industries and construction	330.86	7.9	325.40	7.5
Transport	1,411.20	33.8	1,352.91	31.2
Other Sectors <sup>2</sup>	250.88	6.0	262.27	6.0
<b>Total</b>	<b>4,178.88</b>	<b>100.0</b>	<b>4,336.62</b>	<b>100.0</b>

Gg CO<sub>2</sub>- eq

<sup>1</sup> Revised according to the First Biennial Update Report (2000 - 2016), December 2021

<sup>2</sup> Includes Residential, Commercial, Institutional and Agriculture

**Table 8 - Electricity generation by source of energy, Republic of Mauritius, 2020 - 2021**

Source of energy	2020		2021	
	GWh	%	GWh	%
<b>Primary energy</b>	<b>304.4</b>	<b>10.6</b>	<b>292.6</b>	<b>9.8</b>
Hydro (renewable energy)	115.8	4.0	106.9	3.6
Wind (renewable energy)	18.1	0.6	15.4	0.5
Landfill gas (renewable energy)	24.8	0.9	19.0	0.6
Photovoltaic (renewable energy)	145.7	5.1	151.3	5.1
<b>Secondary energy</b>	<b>2,578.0</b>	<b>89.4</b>	<b>2,699.5</b>	<b>90.2</b>
Gas turbine (kerosene)	0.4	0.0	1.8	0.1
Diesel and Fuel oil	1,056.3	36.6	1,093.6	36.5
Coal	1,137.6	39.5	1,254.5	41.9
Bagasse (renewable energy)	383.6	13.3	349.7	11.7
<b>Total</b>	<b>2,882.4</b>	<b>100.0</b>	<b>2,992.1</b>	<b>100.0</b>
<i>of which</i> : renewable energy	<b>688.0</b>	<b>23.9</b>	<b>642.3</b>	<b>21.5</b>

**Table 9 - Fuel input for electricity production, Republic of Mauritius, 2020 - 2021**

ktoe (000 Tonne of oil equivalent)

Fuel	2020		2021	
	Quantity (ktoe)	%	Quantity (ktoe)	%
<b>Petroleum products</b>	<b>204.8</b>	<b>28.2</b>	<b>214.8</b>	<b>27.8</b>
<i>Fuel oil</i>	203.7	28.1	213.2	27.6
<i>Diesel oil</i>	0.8	0.1	0.9	0.1
<i>Kerosene</i>	0.3	0.0	0.7	0.1
<b>Coal</b>	<b>385.5</b>	<b>53.2</b>	<b>431.0</b>	<b>55.7</b>
<b>Total petroleum products and coal</b>	<b>590.3</b>	<b>81.4</b>	<b>645.8</b>	<b>83.5</b>
<b>Local renewables</b>	<b>135.0</b>	<b>18.6</b>	<b>127.6</b>	<b>16.5</b>
<i>Bagasse</i>	135.0	18.6	127.6	16.5
<b>Total</b>	<b>725.3</b>	<b>100.0</b>	<b>773.4</b>	<b>100.0</b>

Source: Central Electricity Board and Annual Sugar Industry Energy Survey

**Table 10 - Final energy consumption by sector and type of fuel, 2020 - 2021**

Sector	2020			2021		
	Tonne (except Electricity in GWh)	ktoe	%	Tonne (except Electricity in GWh)	ktoe	%
<b>1. Manufacturing</b>		<b>180.9</b>	<b>22.2</b>		<b>181.7</b>	<b>22.6</b>
<b>1.1 excluding bagasse</b>		<b>169.0</b>	<b>20.7</b>		<b>170.2</b>	<b>21.1</b>
<i>Fuel oil</i>	30,532	29.3	3.6	32,610	31.3	3.9
<i>Diesel oil</i>	35,644	36.0	4.4	29,815	30.1	3.7
<i>LPG</i>	4,721	5.1	0.6	4,815	5.2	0.6
<i>Coal</i>	38,796	24.1	3.0	41,372	25.7	3.2
<i>Fuel wood</i> <sup>1</sup>	1,000	0.4	0.0	1,000	0.4	0.0
<i>Electricity (GWh)</i>	863	74.2	9.1	902	77.6	9.6
<b>1.2 bagasse</b>	<b>74,165</b>	<b>11.9</b>	<b>1.5</b>	<b>71,906</b>	<b>11.5</b>	<b>1.4</b>
<b>2. Transport</b> <sup>2</sup>		<b>395.6</b>	<b>48.6</b>		<b>378.3</b>	<b>47.0</b>
<b>Land</b>		<b>328.0</b>	<b>40.3</b>		<b>336.5</b>	<b>41.8</b>
<i>Gasolene</i>	166,369	179.7	22.1	163,104	176.2	21.9
<i>LPG</i>	2,495	2.7	0.3	2,620	2.8	0.3
<i>Diesel oil</i>	144,157	145.6	17.9	155,961	157.5	19.6
<b>Air</b>						
<i>Aviation Fuel</i>	56,129	58.4	7.2	31,282	32.5	4.0
<b>Sea</b>		<b>9.2</b>	<b>1.1</b>		<b>9.3</b>	<b>1.2</b>
<i>Gasolene</i>	4,100	4.4	0.5	4,011	4.3	0.5
<i>Diesel oil</i>	1,450	1.5	0.2	1,505	1.5	0.2
<i>Fuel oil</i>	3,475	3.3	0.4	3,584	3.4	0.4
<b>3. Commercial and Distributive Trade</b>		<b>87.0</b>	<b>10.7</b>		<b>88.6</b>	<b>11.0</b>
<i>LPG</i>	16,410	17.7	2.2	16,738	18.1	2.2
<i>Charcoal</i> <sup>1</sup>	325	0.2	0.0	419	0.3	0.0
<i>Electricity (GWh)</i>	803	69.1	8.5	816	70.2	8.7
<b>4. Household</b>		<b>142.3</b>	<b>17.5</b>		<b>149.8</b>	<b>18.6</b>
<i>LPG</i>	52,070	56.2	6.9	57,277	61.9	7.7
<i>Fuelwood</i> <sup>1</sup>	8,955	3.4	0.4	8,904	3.4	0.4
<i>Charcoal</i> <sup>1</sup>	55	0.0	0.0	59	0.0	0.0
<i>Electricity (GWh)</i>	962	82.7	10.2	983	84.5	10.5
<b>5. Agriculture</b>		<b>3.4</b>	<b>0.4</b>		<b>3.4</b>	<b>0.4</b>
<i>Diesel oil</i> <sup>1</sup>	1,935	2.0	0.2	1,854	1.9	0.2
<i>Electricity (GWh)</i>	16	1.4	0.2	18	1.5	0.2
<b>6. Other (n.e.s)</b>		<b>4.6</b>	<b>0.6</b>		<b>3.0</b>	<b>0.4</b>
<b>TOTAL</b>		<b>813.8</b>	<b>100.0</b>		<b>804.9</b>	<b>100.0</b>

<sup>1</sup> Estimates

<sup>2</sup> Includes transport for all sectors

**Table 11 - Stock of registered motor vehicles, Island of Mauritius, 2020 - 2021**

Type of vehicle	2020	2021
Cars, Dual Purpose Vehicle, Double cab pick up	320,064	334,104
Auto / Motorcycles	221,988	229,563
Heavy Motor Car and Bus	4,478	4,531
Van, lorry and truck	46,256	47,363
Other vehicles <sup>1</sup>	7,267	7,427
<b>Total</b>	<b>600,053</b>	<b>622,988</b>
<i>of which hybrid vehicles</i>	<i>17,069</i>	<i>20,252</i>
<i>electric vehicles</i>	<i>331</i>	<i>575</i>

<sup>1</sup> Includes tractor and dumper, prime mover, trailer, road roller and other

**Table 12 - Mean maximum, mean minimum and mean temperature, Island of Mauritius, 2021**

Temperature	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Degree Celcius
													Annual mean temperature
<b>Maximum temperature</b>													
Long Term Mean (1981-2010)	29.8	29.8	29.4	28.6	27.0	25.2	24.3	24.4	25.3	26.2	28.1	29.3	<b>27.3</b>
Monthly Maximum Mean Temperature	30.3	30.5	30.6	29.0	27.4	25.3	24.3	24.5	25.0	26.5	28.9	29.8	<b>27.7</b>
Difference from Long Term Mean	0.5	0.7	1.2	0.4	0.4	0.1	0.0	0.1	-0.3	0.3	0.8	0.5	0.4
<b>Minimum temperature</b>													
Long Term Mean (1981-2010)	22.3	22.6	22.1	21.2	19.4	17.6	16.9	16.9	17.2	18.3	19.6	21.2	<b>19.6</b>
Monthly Minimum Mean Temperature	22.6	22.8	22.4	22.3	20.5	18.8	17.7	16.9	17.8	19.1	20.0	21.6	<b>20.2</b>
Difference from Long Term Mean	0.3	0.2	0.3	1.1	1.1	1.2	0.8	0.0	0.6	0.8	0.4	0.4	0.6
<b>Mean temperature</b>													
Long Term Mean (1981-2010)	26.1	26.2	25.8	24.9	23.2	21.4	20.6	20.7	21.3	22.3	23.9	25.3	<b>23.5</b>
Monthly Mean temperature	26.4	26.7	26.5	25.7	24.0	22.1	21.0	20.7	21.4	22.8	24.4	25.7	<b>23.9</b>
Long Term Mean	0.3	0.5	0.7	0.8	0.8	0.7	0.4	0.0	0.1	0.5	0.5	0.4	0.4

Source: Mauritius Meteorological Services

**Table 13 - Mean rainfall, Island of Mauritius, 2020 - 2021**

Month	Long Term Mean (1991-2020)	2020		2021	
		Monthly Mean	% of Long Term Mean	Monthly Mean	% of Long Term Mean
January	282	352	125	170	60
February	323	269	83	152	47
March	294	405	138	192	65
April	206	169	82	495	240
May	148	68	46	102	69
June	117	192	164	180	154
July	132	76	57	184	139
August	108	61	57	190	176
September	85	70	82	72	84
October	73	49	67	109	149
November	85	65	77	12	14
December	165	217	132	167	101
<b>Total for the year</b>	<b>2,018</b>	<b>1,993</b>	<b>99</b>	<b>2,025</b>	<b>100</b>

Source: Mauritius Meteorological Services

**Table 14 - Water balance, Island of Mauritius, 2020 - 2021**

	Mm <sup>3</sup>	
	2020	2021
<b>Rainfall</b>	<b>3,717</b>	<b>3,776</b>
<i>Surface runoff</i>	2,230	2,265
<i>Evapotranspiration</i>	1,115	1,133
<i>Net recharge to groundwater</i>	372	378

Source: Water Resources Unit, Ministry of Energy and Public Utilities.

**Table 15 - Water Utilisation, Island of Mauritius, 2021- 2021**

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Utilisation	2020				2021			
	Surface water		Ground water	Total	Surface water		Ground water	Total
	River-run offtakes	Storage (Reservoirs)			River-run offtakes	Storage (Reservoirs)		
Industrial and Tourism (CWA network)	51 <sup>1</sup>	103	140	294	48 <sup>1</sup>	104	143	295
Agricultural	234	66 <sup>2</sup>	4	305 <sup>5</sup>	228	68 <sup>2</sup>	4	301 <sup>5</sup>
Hydropower	175 <sup>4</sup>	214 <sup>3</sup>	0	389	163 <sup>4</sup>	201 <sup>3</sup>	0	364
Industrial	2	1	6	9	2	1	6	9
<b>Overall utilisation</b>	<b>462</b>	<b>384</b>	<b>150</b>	<b>997<sup>5</sup></b>	<b>441</b>	<b>374</b>	<b>153</b>	<b>968<sup>5</sup></b>
<b>Total water mobilisation</b>	<b>415</b>	<b>307</b>	<b>150</b>	<b>872</b>	<b>410</b>	<b>298</b>	<b>153</b>	<b>861</b>

<sup>1</sup>24 Mm<sup>3</sup> used also for Redit hydro power station

<sup>2</sup>40 Mm<sup>3</sup> used for Tamarind Falls and Magenta hydro power stations and 4 Mm<sup>3</sup> for La Ferme hydro power station;

<sup>3</sup>33 Mm<sup>3</sup> used at Midlands and La Nicoliere;

<sup>4</sup>23 Mm<sup>3</sup> used at Le Val and Ferney hydro power stations;

<sup>5</sup>Includes 0.7 Mm<sup>3</sup> re-use of treated waste water

Source: Water Resources Unit, Ministry of Energy and Public Utilities.

<sup>1</sup>12 Mm<sup>3</sup> used also for Redit hydro power station

<sup>2</sup>43 Mm<sup>3</sup> used for Tamarind Falls and Magenta hydro power stations and 7 Mm<sup>3</sup> for La Ferme hydro power station;

<sup>3</sup>26 Mm<sup>3</sup> used at Midlands and La Nicoliere;

<sup>4</sup>19 Mm<sup>3</sup> used at Le Val and Ferney hydro power

**Table 16 - Disposal of solid waste by type at Mare Chicose landfill site, 2020 - 2021**

Tonnes

Waste material	2020	2021
Domestic and Commercial	475,942	477,793
Construction	16,082	7,102
Other <sup>2</sup>	17,070	16,272
<b>Total</b>	<b>509,094</b>	<b>501,167</b>

Source: Ministry of Environment, Solid Waste Management and Climate Change

<sup>1</sup> Includes mainly industrial waste

**Table 17 - Number of complaints<sup>1</sup> attended at the Pollution Prevention and Control (PPC) Division by category, Island of Mauritius, 2020 - 2021**

Category	2020	%	2021	%
Noise	50	13.1	148	21.5
Solid waste	27	7.1	47	6.8
Air pollution	74	19.4	152	22.1
Waste water	41	10.7	60	8.7
Odour	35	9.2	56	8.1
Bareland	27	7.1	46	6.7
Flooding/Obstruction of rivers and drains <sup>2</sup>	11	2.9	30	4.3
Other <sup>3</sup>	117	30.6	150	21.8
<b>Total</b>	<b>382</b>	<b>100.0</b>	<b>689</b>	<b>100.0</b>

<sup>1</sup> Include number of complaints attended at PPC Division through the Citizen Support Portal.

<sup>2</sup> Complaints regarding "Flooding/obstruction of rivers and drains" were recorded in "Other" prior to 2018.

<sup>3</sup> Includes backfilling, erosion, illegal construction, objections to projects, law and order, land conversion, land reclamations, landslides etc.

Source: Ministry of Environment, Solid Waste Management and Climate Change

**Table 18 - Number of Environmental Impact Assessment (EIA) licences granted by type of project, 2020 - 2021, Island of Mauritius**

Project	EIA	
	2020	2021
Land parcelling (morcellement)	6	8
Industrial development	3	2
Coastal hotels and related works	8	3
Housing/Integrated Resort Scheme/Property Development Scheme/Smart City	1	2
Photovoltaic Farms	2	0
Stone crushing plants	2	0
Development in port area	1	0
Construction of road and highway	0	1
Other projects	3	8
<b>Total</b>	<b>26</b>	<b>24</b>

Source: Ministry of Environment, Solid Waste Management and Climate Change

**Table 19 - Number of Preliminary Environmental Report (PER) approvals granted by type of project, 2020 - 2021, Island of Mauritius**

Project	PER	
	2020	2021
Land parcelling (morcellement)	0	0
Poultry rearing	4	4
Industrial development	1	6
Livestock rearing	0	0
Housing/Integrated Resort Scheme/Property Development Scheme/Smart City	1	2
Other projects	0	1
<b>Total</b>	<b>6</b>	<b>13</b>

Source: Ministry of Environment, Solid Waste Management and Climate Change