

Environment Statistics - 2015

1. Introduction

This issue of Economic and Social Indicators presents statistics on Environment for year 2015 based on data gathered from various institutions.

The main environment indicators for the years 2014 and 2015 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. Land use, Forestry and Agriculture

2.1 Land use

Land use refers to the main activity taking place on an area of land, for example, farming, forestry or housing. Based on latest available data (Table 2) in 2005, sugar cane plantations occupied 39% (72,000 hectares) of the total land area of the Island of Mauritius, forest, scrubs and grazing lands 25% (47,200 hectares), and built-up areas another 25% (46,500 hectares).

During the period 1995 to 2005, the land occupied by sugarcane, tea plantations and forestry decreased while that of built-up areas, other agricultural activities, infrastructure and inland water resource systems went up.

2.2 Forest area is decreasing

Preservation of forests is vital for the protection of the ecosystem. Total forest area decreased by 34 hectares from 47,103 hectares in 2014 to 47,069 hectares in 2015. Some 22,069 hectares (47%) of the total forest area in 2015 was state-owned and the remaining 25,000 hectares (53%) was privately-owned (Table 3).

Out of the 22,069 hectares of state-owned forest area, 11,804 hectares (53.5%) were planted areas while the Black River Gorges National Park and the nature reserves accounted for 6,574 (29.8%) and 799 (3.6%) hectares respectively. "Pas Geometriques" covered about 625 hectares (2.8%), other nature parks, 906 hectares (4.1%) and other forest lands, 1,361 hectares (6.2%).

The 25,000 hectares of privately-owned forest lands consisted of 18,447 (74%) hectares of plantation, forestlands, scrub and grazing lands, and 6,553 (26%) hectares of mountain, rivers and nature reserves.

2.3 Area harvested under sugar cane cultivation goes up

From 2014 to 2015, the area under sugar cane cultivation harvested increased by 3.3% from 50,694 hectares to 52,387 hectares.

The area under tea plantation in 2015 was 574 hectares, representing a decrease of 14.6% over the figure of 672 hectares in 2014.

The area under food crops harvested decreased by 3.8% from 8,459 hectares in 2014 to 8,137 hectares in 2015 (Table 4).

2.4 Import of fertilisers goes down and that of pesticides rises

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.

Between 2014 and 2015,

- import of fertilisers decreased by 38.3% (from 53,276 to 32,857 tonnes) and
- import of pesticides went up by 16.6 % (from 2,201 to 2,567 tonnes) – (Table 5)

3. Energy and Greenhouse gas (GHG)

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

3.1 Total primary energy requirement increases

Total primary energy requirement (defined as the sum of imported and locally available fuels less re-exports and bunkering after adjusting for stock changes) was 1,534 thousand tonnes of oil equivalent (ktoe) in 2015, some 2.8% more than in 2014 (Table 6).

Some 16% (251 ktoe) was met from locally renewable energy sources (hydro, wind, landfill gas, bagasse, fuelwood and photovoltaic) while 84% (1,283 ktoe) were from imported fossil fuels (petroleum products and coal).

Energy supply from local renewable sources increased by 18.4% from 212 ktoe in 2014 to 251 ktoe in 2015 and energy supply from imported fossil fuels went up by 0.3% from 1,279 to 1,283 ktoe.

Energy supply from petroleum products increased by 2.1% from 819 ktoe in 2014 to 836 ktoe in 2015. Supply of coal decreased by 2.8% from 460 ktoe in 2014 to 447 ktoe in 2015 (Table 6).

3.2 Net carbon dioxide emission increases

The national inventory of greenhouse gas (GHG) emissions by source category is given in Table 7. The table shows that:

- carbon dioxide remains the main contributor of greenhouse gas emissions and stood at 3,975.6 thousand tonnes, contributing 0.0096% to global emissions;
- removal of carbon dioxide (CO₂) was around 295 thousand tonnes in 2015; and

- net carbon dioxide emissions, after accounting for the removal of CO₂ by forests, went up by 0.1% from 3,675.6 thousand tonnes in 2014 to 3,681 thousand tonnes in 2015. In 2015, there was a rise in emission from the transport industries, manufacturing industries and other sectors, partly offset by a decrease in emission from the energy industries (electricity production).

3.3 Carbon dioxide (CO₂) emission from the energy sector (fuel combustion activities)

In 2015, CO₂ emission from the energy sector stood at 3,975.6 thousand tonnes, up by 0.2% from 3,968.8 thousand tonnes in 2014. Within the energy sector, the sub-sector that contributed most of the total CO₂ emission was the energy industries (electricity generation) which accounted for 60.6% (2,407.5 thousand tonnes) of the total CO₂ emissions. Next came the transport sector which made up 26.0% (1,032.1 thousand tonnes) of the total emissions, the manufacturing industries making up another 8.5% (337.8 thousand tonnes) and the other sectors accounting for the remaining 5.0% (198.2 thousand tonnes) - (Table 8).

3.3.1 Energy industries (electricity generation)

Carbon dioxide emission from the generation of electricity (energy industries) stood at 2,407.5 thousand tonnes in 2015 compared to 2,449.1 thousand tonnes in 2014, representing a drop of 1.7%. This is mainly attributed to decrease in the quantity of coal used to produce electricity.

In 2015, around 39% of electricity was generated from coal, 38% from diesel and fuel oil and 23% from renewable sources. Electricity generated from coal decreased by 6.1% from 1,259 GWh in 2014 to 1,182 GWh in 2015; that from diesel and fuel oil together increased by 4.8% from 1,079 GWh in 2014 to 1,131 GWh in 2015 (Table 9).

Electricity generated from renewable sources increased from 596.2 GWh to 680.6 GWh, up by 14.2%. Photovoltaic increased by 5.3% from 24.6 GWh to 25.9 GWh, bagasse by 11.7% from 456.2 GWh to 509.8 GWh and hydro by 34.3% from 90.8 GWh to 121.9 GWh. On the other hand, landfill gas went down by 4.2% from 21.3 GWh to 20.4 GWh and wind by 15.6% from 3.2 GWh to 2.7 GWh (Table 9).

Table 10 shows the fuel input (petroleum products, coal and bagasse) for electricity generation and indicates that:

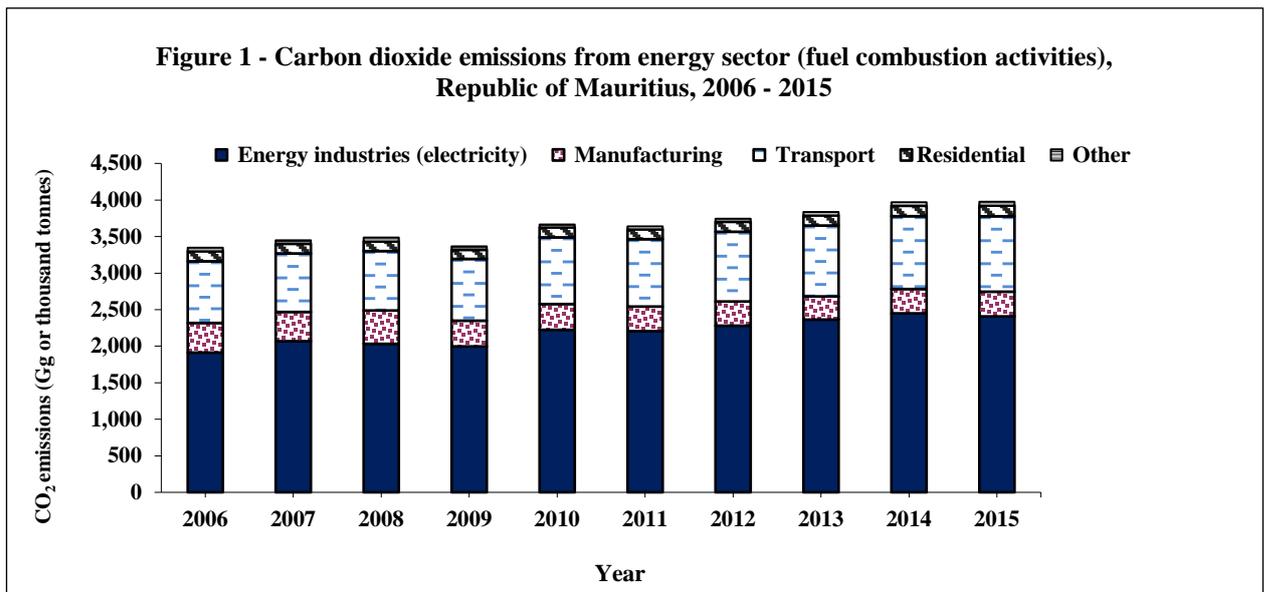
- In 2015, coal (50.2%) was the major fuel used to produce electricity followed by fuel oil (26.1%) and bagasse (23.5%);
- Between 2014 and 2015, fuel input increased by 3.0% from 820.3 ktoe to 845.0 ktoe;
- Input of fuel oil increased by 3.7% (from 212.5 ktoe in 2014 to 220.4 ktoe in 2015) while that of coal decreased by 3.8% (from 441.0 ktoe in 2014 to 424.3 ktoe in 2015); and
- Some 198.4 ktoe of bagasse was used to produce electricity in 2015 compared to 164.9 ktoe in 2014, up by 20.3%. It is to be noted that in 2014, sugar cane harvest was extended to the first week of February 2015.

3.3.2 Transport industries

In 2015, carbon dioxide emission from the transport sector stood at 1032.1 thousand tonnes compared to 996.5 in 2014, up by 3.6% due to higher fuel consumption (Table7). It is to be noted that the number of registered motor vehicles went up by 4.5% from 465,052 in 2014 to 486,144 in 2015 (Table 12). Consequently the energy consumed by land transport increased from 319.1 ktoe to 330.8 ktoe (+3.7%) - (Table11).

3.3.3 Manufacturing industries

The manufacturing sector registered an increase of 1.5% in CO₂ emissions in 2014 (from 332.7 to 337.8 thousand tonnes) - (Table 7). The amount of fossil fuels consumed by the sector went up by 0.7% from 100.7 ktoe in 2014 to 101.4 ktoe in 2015 - (Table11).



4. Temperature

Table 13 indicates that the mean maximum temperature was above the long term mean (1981-2010) for all the months of 2015 except for January and February. On the other hand, the mean minimum temperature was above the long term mean for all the months of 2015. December was the warmest month, and July and August, the coolest month.

The highest maximum temperature recorded was 35.4 °C, recorded on 28 February 2015 at Champs De Mars, Port Louis. The lowest minimum temperature was 9.7 °C which was recorded on 7 July 2015 at Mon Desir Alma.

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 2015, the mean amount of rainfall recorded around the Island of Mauritius was 2,377 millimetres (mm), representing an increase of 13.5% compared to 2,094 mm in 2014 and an increase of 18.7% compared to the long term mean (1981-2010) of 2,003 mm.

The wettest month in 2015 was January with a mean of 455 mm, which represents a surplus of 73.0% relative to the long term mean (1981-2010) of 263 mm. September was the driest month with a mean of 46 mm of rainfall registering a deficit of 52.0% compared to the long term mean (1981-2010) of 96 mm (Table 14).

5.2 Water Balance

In 2015, the Island of Mauritius received 4,433 million cubic metres (Mm^3) of water from precipitation (rainfall), 13.5% higher when compared to 3,905 Mm^3 in 2014. Only 10 % (443 Mm^3) of the water went as ground water recharge, while evapotranspiration and surface runoff accounted for 30% (1,330 Mm^3) and 60% (2,660 Mm^3) respectively (Table 15).

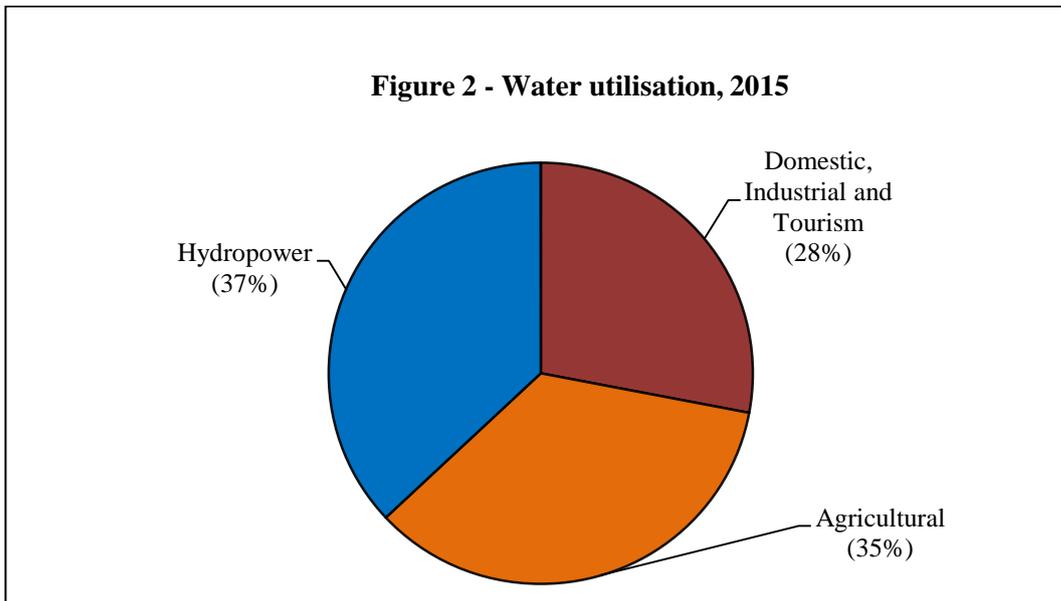
5.3 Water utilisation

Total water utilisation was estimated at 973 Mm^3 in 2015. Around 85% (828 Mm^3) of the total water utilisation was met from surface water and the remaining 15% (145 Mm^3) from ground water.

The agricultural sector accounted for 35% (343 Mm^3) of the water utilised, hydropower 37% (361 Mm^3), and domestic, industrial and tourism sector 28% (269 Mm^3) - (Table 16).

Compared to 2014, water utilisation increased by 8.7%, from 895 to 973 Mm^3 with changes as follows:

- domestic, industrial and tourism (+8.9%);
- hydropower (+31.3%); and
- agricultural (-8.0%).

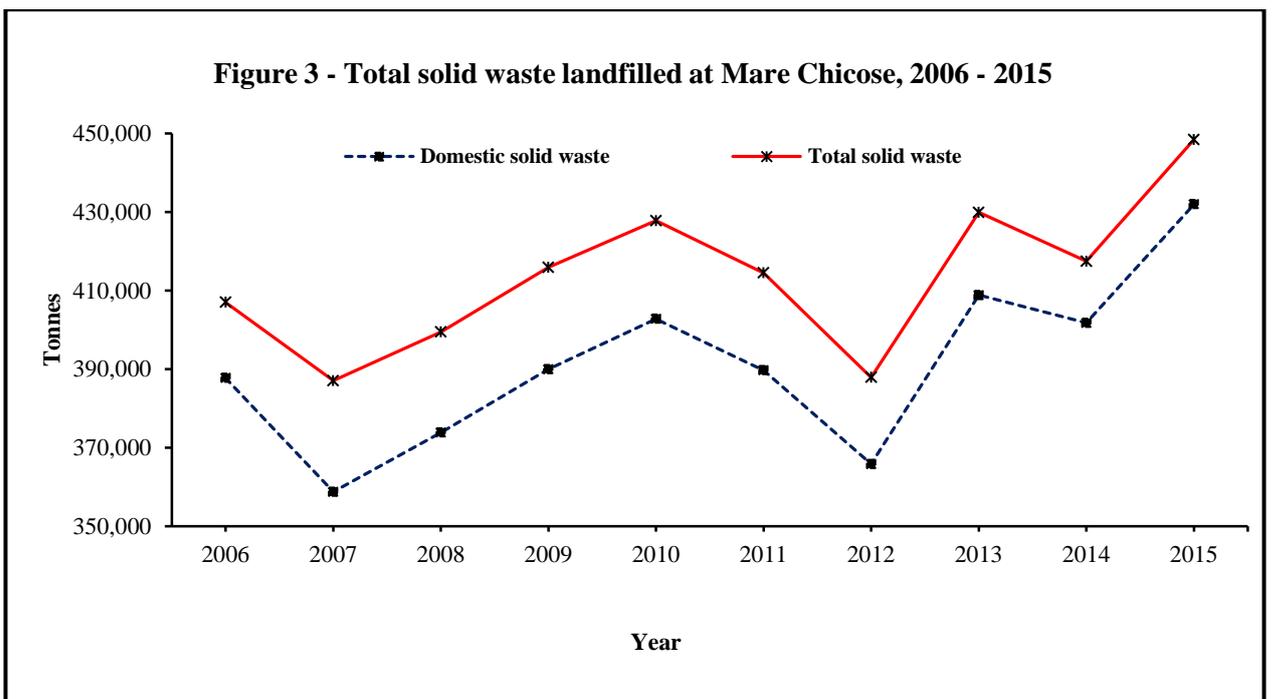


6. Waste

6.1 Waste disposal at Mare Chicose Landfill increases

The total amount of solid waste landfilled at Mare Chicose increased to 448,476 tonnes in 2015 from 417,478 tonnes in 2014, up by 7.4 % (Table 17).

Domestic waste constituted 96% of the total solid waste landfilled in 2015. The trend of the amount of solid waste landfilled is as shown in figure 3.



7. Complaints

Effective environmental management needs appropriate coordination and monitoring of environmental problems. The Ministry of Environment, Sustainable Development, and Disaster and Beach Management addresses complaints received from the general public according to a complaints handling protocol.

7.1 *The number of complaints received goes down*

Table 18 lists the number of complaints by category received by the Pollution Prevention and Control Division of the Ministry of Environment, Sustainable Development, and Disaster and Beach Management for 2014 and 2015. The number of complaints received decreased by 5.4% from 664 in 2014 to 628 in 2015. The complaints were mainly due to: air pollution (18%), noise (18%), waste water (12%), odour (12%) and solid waste (6%).

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

8.1 *EIA Licences and PER Approvals*

In 2015, some 22 EIA licences were granted of which 4 were for industrial development, 3 for coastal hotels and related works and 2 each for land parcelling (morcellement), stone crushing plant and development in port area (Table 19).

During the same period, 13 PER approvals were issued of which 4 were for poultry rearing and 3 for industrial development (Table 20).

Statistics Mauritius

Ministry of Finance and Economic Development

Port Louis

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Table 1 - Main environment indicators, 2014 and 2015

Indicator	Units	2014	2015
Republic of Mauritius			
1. Land protected areas	hectares	14,749 ¹	14,749
2. Marine and coastal protected areas	hectares	14,759 ¹	14,759
3. Total Carbon dioxide emission	000 tons	3,970	3,976
4. Per capita carbon dioxide emission	tons	3.1	3.1
5. Total electricity generated	GWh	2,937	2,996
6. Electricity generated from renewable sources	%	20.3	22.7
7. Total primary energy requirement	ktoe	1,492	1,534
8. Primary energy requirement from renewable sources	%	14.2	16.4
9. Per capita primary energy requirement	toe	1.18	1.22
10. Per capita final energy consumption	toe	0.71	0.72
11. Energy intensity	toe per Rs.100,000 GDP at 2000	0.79 ¹	0.79
Island of Mauritius			
12. Forest area	ha	47,103	47,069
13. Total forest area as a % of total land area	%	25.3	25.2
14. Total fish production (fresh-weight equivalent)	tons	12,617 ¹	14,208
15. Irrigated land	ha	17,183	...
16. Threatened plant species	%	88	...
17. Threatened animal species	%	89	...
18. Mean annual rainfall	millimetres	2,094	2,377
19. Mean of maximum annual temperature	degrees Celcius	28.2	27.9
20. Mean of minimum annual temperature	degrees Celcius	20.6	20.6
21. Annual fresh water abstraction	Mm ³	620	612
22. Daily per capita domestic water consumption	litres	167.0	169.0
23. Daily per capita solid waste disposed at landfill	Kg	0.94	1.01

¹ Revised

Table 2 - Land use, Island of Mauritius, 1995 and 2005

Land Use Distribution	1995		2005 ¹		Change	
	Hectares	%	Hectares	%	Hectares	%
Sugar cane plantations	76,840	41.2	72,000	38.6	-4,840	-6.3
Tea plantations	3,660	2.0	674	0.4	-2,986	-81.6
Forests, shrubs and grazing lands	57,000	30.6	47,200	25.3	-9,800	-17.2
Other agricultural activities	6,000	3.2	8,000	4.3	2,000	33.3
Infrastructure	4,000	2.1	4,500	2.4	500	12.5
Inland water resource systems	2,600	1.4	2,900	1.6	300	11.5
Built-up areas	36,400	19.5	46,500	24.9	10,100	27.7
Abandoned cane field	4,726	2.5
Total	186,500	100.0	186,500	100.0	0	0

Source: SIFB - Sugar cane plantation, Tea Board - Tea Plantation, Climate change Activities Report, May 2006 - Other

¹ Estimate

Table 3 - Forest area by category, Island of Mauritius, 2014 - 2015

Category of Forest	Hectares			
	2014		2015	
	Hectares	%	Hectares	%
State - owned lands	22,103	46.9	22,069	46.9
Plantations	11,830	25.1	11,804	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 ¹	497	1.1	497	1.1
Islet National Parks ²	134	0.3	134	0.3
Vallee d'Osterlog Endemic Garden ³	275	0.6	275	0.6
Other Forest Lands	1,369	2.9	1,361	2.9
Pas Geometriques	625	1.3	625	1.3
<i>Plantations</i>	216	0.5	216	0.5
<i>Leased for grazing and tree planting</i>	230	0.5	230	0.5
<i>Others (mostly rocky)</i>	179	0.4	179	0.4
Private - owned lands ⁴	25,000	53.1	25,000	53.1
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 ⁵	18,447	39.2	18,447	39.2
Total	47,103	100.0	47,069	100.0

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

¹ Bras D'Eau National Park was proclaimed in 2011

² Islet National Parks were proclaimed in 2004

³ Vallee D'Osterlog Endemic Garden was proclaimed in 2007

⁴ Current figures for privately-owned lands are crude estimates based on expert knowledge from Forestry Service

⁵ Includes plantations, forest lands, scrub and grazing lands

Table 4 - Agricultural crops - Area harvested and production, Island of Mauritius, 2014 - 2015

Crops	2014 ¹		2015 ²	
	Area harvested (hectares)	Production (tonnes)	Area harvested (hectares)	Production (tonnes)
Sugarcane ³	50,694	4,044,422	52,387	4,009,232
Tea (green leaves)	672 ⁴	7,607	574 ⁴	6,732
Food crops	8,459	113,957	8,137	100,528

¹ Revised ² Provisional ³ Crop year (July to June of the following year) ⁴ Area under cultivation

Table 5 - Imports of fertilisers and pesticides, 2014 - 2015

Year	Fertilisers		Pesticides	
	Quantity (tonnes)	Value	Quantity (tonnes)	Value
		CIF (Rs mn)		CIF (Rs mn)
2014	53,276	682.4	2,201	407.0
2015 ¹	32,857	450.8	2,567	481.9

CIF: Cost, Insurance, Freight

¹ Provisional

Table 6 - Total primary energy requirement, Republic of Mauritius, 2014 - 2015

Energy source	2014		2015	
	ktoe	%	ktoe	%
Imported (Fossil fuels)	1,279.3	85.8	1,283.2	83.6
<i>Coal</i>	<i>460.3</i>	<i>30.9</i>	<i>446.9</i>	<i>29.1</i>
<i>Petroleum products</i>	<i>819.0</i>	<i>54.9</i>	<i>836.3</i>	<i>54.5</i>
Gasolene	151.7	10.2	163.0	10.6
Diesel Oil	208.0	13.9	209.6	13.7
Dual Purpose Kerosene	127.7	8.6	125.2	8.2
<i>Kerosene</i>	<i>0.9</i>	<i>0.1</i>	<i>0.9</i>	<i>0.1</i>
<i>Aviation Fuel</i>	<i>126.8</i>	<i>8.5</i>	<i>124.3</i>	<i>8.1</i>
Fuel Oil	254.8	17.1	259.2	16.9
LPG	76.7	5.1	79.2	5.2
Local (Renewables)	212.3	14.2	251.3	16.4
Hydro	7.8	0.5	10.5	0.7
Wind	0.27	0.02	0.23	0.02
Landfill Gas	1.83	0.12	1.75	0.11
Photovoltaic	2.12	0.14	2.22	0.14
Bagasse ¹	193.4	13.0	230.1	15.0
Fuelwood ¹	6.9	0.5	6.5	0.4
Total	1,491.7	100.0	1,534.4	100.0

ktoe (000 Tonne of oil equivalent)

¹ Estimates

Table 7 - National inventory of greenhouse gas emissions by source categories, Republic of Mauritius, 2014 - 2015

Gg or thousand tonnes

Source	Carbon dioxide (CO ₂)				Methane (CH ₄)		Nitrous oxide (N ₂ O)		Oxides of nitrogen (NO _x)		Carbon monoxide (CO)		NMVOC ¹		Sulphur dioxide (SO ₂)	
	Emissions		Removals		2014	2015	2014	2015	2014	2015	2014	2015	2014 ²	2015	2014	2015
	2014	2015	2014	2015												
1. Energy	3,968.81	3,975.56	-	-	0.60	0.67	0.08	0.09	19.67	20.03	72.05	77.88	11.61	12.38	35.05	36.27
Fuel combustion activities																
(a) Energy industries (electricity)	2,449.07	2,407.52	-	-	0.28	0.33	0.06	0.07	8.06	8.08	8.29	9.85	0.53	0.60	29.36	30.65
(b) Manufacturing industries	332.71	337.78	-	-	0.06	0.07	0.01	0.01	1.07	1.10	5.63	6.24	0.10	0.11	3.31	3.20
(c) Transport	996.54	1,032.06	-	-	0.16	0.17	0.01	0.01	10.10	10.39	56.71	60.45	10.80	11.50	2.29	2.34
(d) Other sectors ³	190.49	198.20	-	-	0.10	0.10	0.00	0.00	0.45	0.46	1.42	1.34	0.17	0.17	0.09	0.08
2. Industrial processes	0.81	-	-	-	-	-	-	-	-	-	-	-	8.64	6.99	-	-
3. Solvent and other product use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Agriculture	-	-	-	-	1.10	1.20	1.00	1.00	-	-	-	-	-	-	-	-
5. Land use change and forestry ⁴	-	-	294.00	294.57	-	-	-	-	-	-	-	-	-	-	-	-
6. Waste ⁵	-	-	-	-	37.18	40.04	-	-	-	-	-	-	-	-	-	-
Total	3,969.62	3,975.56	294.00	294.57	38.88	41.91	1.08	1.09	19.67	20.03	72.05	77.88	20.25	19.37	35.05	36.27

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Emissions	2014	2015
Net Carbon Dioxide emissions (Gg or thousand tonnes)	3,675.62	3,680.99
Total GHG ⁶ emissions (Gg or thousand tonnes CO ₂ -eq)	5,120.90	5,193.57

¹ Non - methane volatile organic compound

² Revised

³ Includes residential, commercial, institutional and agriculture

⁵ Excludes waste water

⁴ Excludes the amount of CO₂ sequestered by trees and vegetations found along rivers and canal reserves and trees along roads

⁶ Refers to carbon dioxide, methane and nitrous oxide

- : Not occurring, Not applicable, Not estimated

Table 8 - Carbon dioxide emissions from energy sector (fuel combustion activities), Republic of Mauritius, 2014 - 2015

Energy Sector	2014		2015	
	Quantity	%	Quantity	%
Energy industries (electricity generation)	2,449.1	61.7	2,407.5	60.6
Manufacturing industries	332.7	8.4	337.8	8.5
Transport	996.5	25.1	1,032.1	26.0
Residential	141.0	3.6	145.4	3.7
Other ¹	49.5	1.2	52.8	1.3
Total	3,968.8	100.0	3,975.6	100.0

¹ includes Commercial/Institutional and Agriculture

Table 9 - Electricity generation by source of energy, Republic of Mauritius, 2014 - 2015

Source of energy	2014		2015	
	GWh	%	GWh	%
Primary energy	140.0	4.8	170.8	5.7
Hydro (renewable energy)	90.8	3.1	121.9	4.1
Wind (renewable energy)	3.2	0.1	2.7	0.1
Landfill gas (renewable energy)	21.3	0.7	20.4	0.7
Photovoltaic (renewable energy)	24.6	0.8	25.9	0.9
Secondary energy	2,797.0	95.2	2,824.8	94.3
Gas turbine (kerosene)	2.0	0.1	2.0	0.1
Diesel and Fuel oil	1,079.3	36.7	1,131.2	37.8
Coal	1,259.5	42.9	1,181.7	39.4
Bagasse (renewable energy)	456.2	15.5	509.8	17.0
Total	2,936.9	100.0	2,995.6	100.0
<i>of which</i> : renewable energy	596.2	20.3	680.6	22.7

Table 10 - Fuel input for electricity production, Republic of Mauritius, 2014 - 2015

ktoe (000 Tonne of oil equivalent)

Fuel	2014		2015	
	Quantity (ktoe)	%	Quantity (ktoe)	%
Petroleum products	214.4	26.1	222.3	26.3
<i>Fuel oil</i>	212.5	25.9	220.4	26.1
<i>Diesel oil</i>	1.2	0.2	1.1	0.1
<i>Kerosene</i>	0.7	0.1	0.8	0.1
Coal	441.0	53.8	424.3	50.2
<i>Total petroleum products and coal</i>	<i>655.4</i>	<i>79.9</i>	<i>646.6</i>	<i>76.5</i>
Local renewables	164.9	20.1	198.4	23.5
<i>Bagasse</i>	164.9	20.1	198.4	23.5
Total	820.3	100.0	845.0	100.0

Source: Central Electricity Board and Sugar Industry Energy Survey

Table 11 - Final energy consumption by sector and type of fuel, 2014 - 2015

Sector	2014			2015		
	Tonne (except Electricity in GWh)	ktoe	%	Tonne (except Electricity in GWh)	ktoe	%
1. Manufacturing		210.7	23.6		216.2	23.7
1.1 excluding bagasse		182.3	20.4		184.6	20.2
Fuel oil	40,476	38.9	4.4	37,203	35.7	3.9
Diesel oil	36,096	36.5	4.1	36,592	37.0	4.0
LPG	5,427	5.9	0.7	5,672	6.1	0.7
Coal	31,250	19.4	2.2	36,436	22.6	2.5
Fuel wood ²	1,343	0.5	0.1	1,300	0.5	0.1
Electricity (GWh)	944.5	81.2	9.1	962.0	82.7	9.1
1.2 bagasse	177,973	28.5	3.2	197,646	31.6	3.5
2. Transport¹		454.1	50.9		463.1	50.7
Land		319.1	35.8		330.8	36.2
<i>Gasolene</i>	137,244	148.2	16.6	147,565	159.4	17.5
<i>LPG</i>	3,744	4.0	0.5	3,190	3.4	0.4
<i>Diesel oil</i>	165,140	166.8	18.7	166,294	168.0	18.4
Air						
<i>Aviation Fuel</i>	121,968	126.8	14.2	119,555	124.3	13.6
Sea		8.2	0.9		8.0	0.9
<i>Gasolene</i>	3,260	3.5	0.4	3,395	3.7	0.4
<i>Diesel oil</i>	1,210	1.2	0.1	1,219	1.2	0.1
<i>Fuel oil</i>	3,641	3.5	0.4	3,253	3.1	0.3
3. Commercial and Distributive Trade		92.5	10.4		95.5	10.5
LPG	14,028	15.2	1.7	15,099	16.3	1.8
Charcoal ²	497	0.4	0.0	450	0.3	0.0
Electricity (GWh)	895.6	77.0	8.6	917.5	78.9	8.6
4. Household		126.5	14.2		129.9	14.2
Kerosene	153	0.2	0.0	131	0.1	0.0
LPG	47,570	51.4	5.8	49,093	53.0	5.8
Fuelwood ²	14,529	5.5	0.6	13,625	5.2	0.6
Charcoal ²	103	0.1	0.0	98	0.1	0.0
Electricity (GWh)	806.5	69.3	7.8	831.3	71.5	7.8
5. Agriculture		4.6	0.5		4.2	0.5
Diesel oil ²	2,283	2.3	0.3	2,306	2.3	0.3
Electricity (GWh)	26.7	2.3	0.3	21.8	1.9	0.2
6. Other (n.e.s)		3.4	0.4		3.9	0.4
TOTAL		891.9	100.0		912.9	100.0

¹ Includes transport for all sectors² Estimates

Table 12 - Stock of registered motor vehicles, Island of Mauritius, 2014 - 2015

Type of vehicle	2014	2015
Cars and Dual Purpose Vehicle	223,457	237,600
Auto / Motorcycles	187,851	193,688
Heavy Motor Car and Bus	4,277	4,264
Van and Lorry	41,133	41,601
Other vehicles ¹	8,334	8,991
Total	465,052	486,144

¹ Includes tractor and dumper, prime mover, trailer, road roller and other

Table 13 - Mean maximum and mean minimum temperature, Island of Mauritius, 2015

Degree Celcius

Month	Maximum temperature			Minimum temperature		
	Long Term Mean (1981-2010)	Monthly Mean	Difference from Long Term Mean	Long Term Mean (1981-2010)	Monthly Mean	Difference from Long Term Mean
January	29.8	29.5	-0.3	22.3	23.4	1.1
February	29.8	29.7	-0.1	22.6	22.6	0.0
March	29.4	29.6	0.2	22.1	22.4	0.3
April	28.6	29.2	0.6	21.2	21.5	0.3
May	27.0	27.6	0.6	19.4	20.3	0.9
June	25.2	25.8	0.6	17.6	19.7	2.1
July	24.3	25.1	0.8	16.9	18.0	1.1
August	24.4	25.3	0.9	16.9	17.8	0.9
September	25.3	26.2	0.9	17.2	18.1	0.9
October	26.2	27.4	1.2	18.3	20.0	1.7
November	28.1	28.5	0.4	19.6	20.6	1.0
December	29.3	30.6	1.3	21.2	22.8	1.6
Annual mean temperature	27.3	27.9	0.6	19.6	20.6	1.0

Source: Mauritius Meteorological Services

Table 14 - Mean rainfall, Island of Mauritius, 2014 - 2015

Millimetres

Month	Long Term Mean (1981-2010)	2014		2015	
		Monthly Mean	% of Long Term Mean	Monthly Mean	% of Long Term Mean
January	263	419	159.3	455	173.0
February	348	184	52.9	271	78.0
March	263	270	102.7	400	152.0
April	212	247	116.5	134	63.0
May	148	127	85.8	165	111.0
June	107	61	57.0	218	204.0
July	125	126	100.8	150	120.0
August	106	116	109.4	143	135.0
September	96	54	56.3	46	48.0
October	77	64	83.1	152	197.0
November	78	89	114.1	96	123.0
December	180	336	186.7	147	82.0
Total for the year	2,003	2,094	104.5	2,377	119.0

Source: Mauritius Meteorological Services

Table 15 - Water balance, Island of Mauritius, 2014 - 2015

Mm³

	2014	2015
Rainfall	3,905	4,433
<i>Surface runoff</i>	<i>2,343</i>	<i>2,660</i>
<i>Evapotranspiration</i>	<i>1,172</i>	<i>1,330</i>
<i>Net recharge to groundwater</i>	<i>390</i>	<i>443</i>

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

Table 16 - Water Utilisation, Island of Mauritius, 2014 - 2015Mm³

Utilisation	2014				2015			
	Surface water		Ground water	Total	Surface water		Ground water	Total
	River-run offtakes	Reservoirs			River-run offtakes	Reservoirs		
Domestic, Industrial and Tourism	35 ¹	80	119	234	35 ¹	87	133	255
Industrial	5	2 ²	6	13	5	2 ²	7	14
Agricultural	308	59 ³	6	373	270	68 ³	5	343
Hydropower	150 ⁴	125 ⁵	-	275	183 ⁴	178 ⁵	-	361
Overall utilisation	498	266	131	895	493	335	145	973
Total water mobilisation	469	213	131	813	442	274	145	861

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

¹ Used also for Reduit hydropower station² Used by IPP (formerly accounted in agricultural purpose)³ used also for Tamarind Falls, Magenta and La Ferme hydropower stations⁴ used also twice for Le Val and Ferney hydropower stations⁵ used also twice for Tamarind Falls and Magenta hydropower stations**Table 17 - Disposal of solid waste by type at Mare Chicose landfill site, 2014 - 2015**

Tonnes

Waste material	2014	2015
Domestic	401,785	431,995
Construction	2,363	1,488
Other ¹	13,330	14,993
Total	417,478	448,476

Source: Solid Waste Management Division, Ministry of Environment, Sustainable Development, and Disaster and Beach Management

¹ Includes mainly industrial waste**Table 18 - Number of complaints received at the Pollution Prevention and Control Division by category, Island of Mauritius, 2014 - 2015**

Category	2014	%	2015	%
Noise	78	12	114	18
Solid waste	91	14	39	6
Air pollution	138	21	115	18
Waste water	101	15	78	12
Odour	82	12	76	12
Other ¹	174	26	206	33
Total	664	100	628	100

Source: Ministry of Environment, Sustainable Development, and Disaster and Beach Management

¹ includes backfilling, erosion, illegal construction, objections to projects, law and order, land conversions, land reclamation, landslides etc

Table 19 - Number of Environmental Impact Assessment (EIA) licences granted by type of project, 2014 - 2015, Island of Mauritius

Project	EIA	
	2014	2015
Land parcelling (morcellement)	7	2
Industrial development	4	4
Coastal hotels and related works	6	3
Housing	8	1
Stone crushing plants	-	2
Development in port area	6	2
Other	3	8
Total	34	22

Source: Ministry of Environment, Sustainable Development, and Disaster and Beach Management

Table 20 - Number of Preliminary Environmental Report (PER) approvals granted by type of project, 2014 - 2015, Island of Mauritius

Project	PER	
	2014	2015
Land parcelling (morcellement)	1	-
Poultry rearing	7	4
Industrial development	4	3
Coastal hotels & related works	-	-
Livestock rearing	3	-
Housing	3	1
Other	4	5
Total	22	13

Source: Ministry of Environment, Sustainable Development, and Disaster and Beach Management

Technical notes

Concepts and definitions

Environment

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

An environmental indicator: A parameter or a value derived from parameters that points to, provides information about and/or describes the state of the environment, and has a significance extending beyond that directly associated with any given parametric value.

Land use, Agriculture and Forestry

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.

Biodiversity

Threatened species: Threatened species is a plant, animal or other living thing which is in danger of becoming extinct.

Energy and Greenhouse gas

Greenhouse gases (GHG): These gases occur naturally and result from human activities (production and consumption) that contribute directly or indirectly to global warming. Some main GHG are Carbon Dioxide (CO₂), methane (CH₄) and Nitrous Oxide (N₂O). Other gases such as Carbon monoxide (CO), oxides of Nitrogen (NO_x), non methane volatile organic compounds (NMVOC) and Sulphur dioxide (SO₂), 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 (CO₂-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).

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 AND SYMBOLS

Abbreviations

Rs	Rupees
Rs mn	Rupees million
%	Percentage
f.o.b	free on board
c.i.f	Cost, insurance, freight
000	Thousand
Mm ³	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

Symbols

-	Nil or negligible
...	Not available

Conversion factor

1 square kilometre = 100 hectares