

Environment Statistics - 2010

1. Introduction

This issue of the Economic and Social Indicators present Statistics on Environment for year 2010. Information has been gathered from various institutions and thus some of the data may already appear in other publications.

2. The Economy and the Environment

Table 1 shows some main environment indicators over the ten-year period, 2001 - 2010. Table 2 provides some key socio-economic indicators showing the structural changes that have occurred during the same period.

Gross Domestic Product (GDP), which measures the total value of production, increased in nominal terms by about 123%, from Rs 134,392 million in 2001 to Rs 299,343 million in 2010. The share of agriculture in GDP fell from 6.9% in 2001 to 3.6% in 2010, that of manufacturing decreased from 22.5% to 18.0%, and that of transport and communications, from 12.8% to 9.6%.

During the same period, population of the Republic of Mauritius increased by 6.7% from 1,199,881 to 1,280,924 and population density from 609 to 651 per km².

3. Land use, Forestry and Agriculture

3.1 Land use

Table 3 shows data on land use for 1995 and 2005. During that period, the proportion of land under sugarcane decreased by 6.3%, tea plantations by 81.6% and forestry by 17.2%. Land used for other agricultural activities increased by 33.3% and built up areas expanded by 27.7%.

3.2 Forestry

Preservation of forests is vital for the protection of the ecosystem. Table 4 shows the forest area by type of land and category of ownership for the Island of Mauritius. In 2010 the total forest area was 47,159 hectares, of which 22,159 hectares (47%) were state-owned and the remaining 25,000 hectares (53%) were privately-owned.

3.3 Agriculture

From 2009 to 2010, the effective area under sugarcane cultivation has shrunk by 2,020 hectares (-3.2%) from 64,120 hectares to 62,100 hectares. During the same period, area under tea cultivation decreased by 15 hectares (-2.1%) from 713 hectares to 698 hectares and that of tobacco plantation by 20 hectares (-8.7%) from 230 to 210 hectares (Table 5).

3.3.1 Fertiliser imports

The total imports of fertilisers for the period 2008 to 2010 are shown in Table 6. Imports for the year 2010 were 46,254 tonnes, a decrease of 19.1% over the 2009 figure of 57,169 tonnes.

4. Energy

The production and consumption of energy cause air pollution, and alter the ambient temperature. They are by far the most important contributors of air pollutants through the emission of carbon dioxide and other greenhouse gases (Table 7).

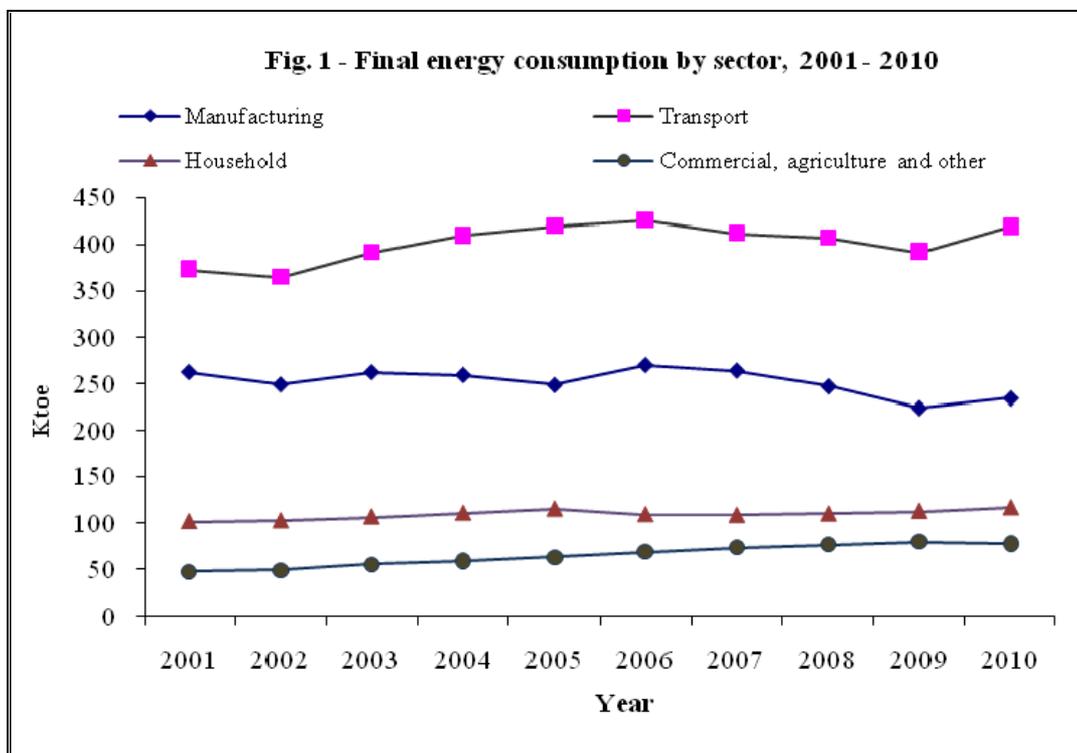
The tonne of oil equivalent (toe or thousand toe - ktoe) has been used to express the energy content of the different fuels in terms of a common accounting unit.

4.1 Primary energy requirements

The total primary energy requirement increased by 5.8% from 1,347 ktoe in 2009 to 1,425 ktoe in 2010. Around 83% of the total primary energy requirement was met by imported fuels (oil, LPG and coal) and the remaining 17%, obtained from local sources (bagasse, hydro and fuelwood) that are renewables (Table 7).

4.2 Final energy consumption

Final energy consumption increased by 4.8% from 809 ktoe in 2009 to 848 ktoe in 2010. The largest consumers were the transport and manufacturing sectors which accounted for 49.3% and 27.7% of the total energy consumption respectively (Table 8).



4.3 Fuel Inputs for electricity production

Different types of fuel are used for electricity production. Coal remained the most important input and its share was 51.2% in 2010 compared to 48.9% in 2009. The share of bagasse input decreased from 24.9% in 2009 to 23.4% in 2010 and that of fuel oil from 25.1% to 24.3% (Table 9).

5. Transport

5.1 Stock of registered motor vehicles

The number of registered motor vehicles has gone up from 366,520 in 2009 to 384,115 in 2010, a rise of 4.8%.

The number of vehicles per 1,000 population rose from 296 in 2009 to 308 in 2010, representing an increase of 4.1% (Table 10).

5.2 Fuel used for transport

In 2010, some 418 ktoe of energy were used for transport; diesel oil accounted for 162 ktoe or 38.8%, aviation fuel 123 ktoe or 29.4%, gasoline 128 ktoe or 30.6% and Liquefied Petroleum Gas (LPG) 5 ktoe or 1.2%. From 2009 to 2010, the consumption of diesel oil rose by 4.5% , gasoline by 5.8% and aviation fuel by 10.8% (Table 11).

6. Ambient Air Quality

The Ministry of Environment and Sustainable Development has both stationary and mobile air quality monitoring stations that are operational since 2001.

In 2010, the main pollutants under investigation were Dust (PM₁₀), Dust (TSP), Sulphur Dioxide, Nitrogen Dioxide and Carbon Monoxide (Table 12).

The results for all the pollutants under study at the six monitoring stations in 2010 shows that the levels of ambient pollutants were most of the time well below the norms (Standards for air quality).

7. Greenhouse gas (GHG)

7.1 Total GHG emissions and removals

Table 13 shows the total emissions and removals of greenhouse gases. Carbon dioxide (CO₂) remained the main greenhouse gas. The data indicate a rise in net CO₂ emissions from 3,075 thousand tonnes in 2009 to 3,290 thousand tonnes in 2010 (+7.0%). Net emissions take into account the removal of CO₂ by forests which act as 'sinks'.

7.2 Greenhouse gas inventory

The national inventory of greenhouse gas (GHG) emissions by source categories for the years 2009 and 2010 is given in Table 15. The main GHG was carbon dioxide (CO₂). The non-carbon dioxide emissions consisted mainly of carbon monoxide and methane.

7.2.1 Carbon dioxide (CO₂) emissions from fuel combustion activities

Carbon dioxide emission resulting from fuel combustion rose from 3,365.3 thousand tonnes in 2009 to 3,581.0 thousand tonnes in 2010 (+6.4%), driven mostly by 8.1% increase of CO₂ emissions from the energy industries (Table 14).

The energy industries remained the main source of CO₂ emission in the atmosphere. They contributed around 60.0% of the emissions, with 2,158 thousand tonnes in 2010. They were followed by the transport sector which contributed 887.0 thousand tonnes (24.8%) of the total emissions and the manufacturing industries with 360.4 thousand tonnes (10.1%).

7.2.2 Non-CO₂ emissions

Non-CO₂ emissions were minimal and in 2010 they were distributed in thousand tonnes as follows: carbon monoxide 68.4, methane 37.4, sulphur dioxide 34.0, oxide of nitrogen 18.8, non-methane volatile organic compounds (NMVOC) 18.3, and nitrous oxide 1.0 (Table 15).

8. Water

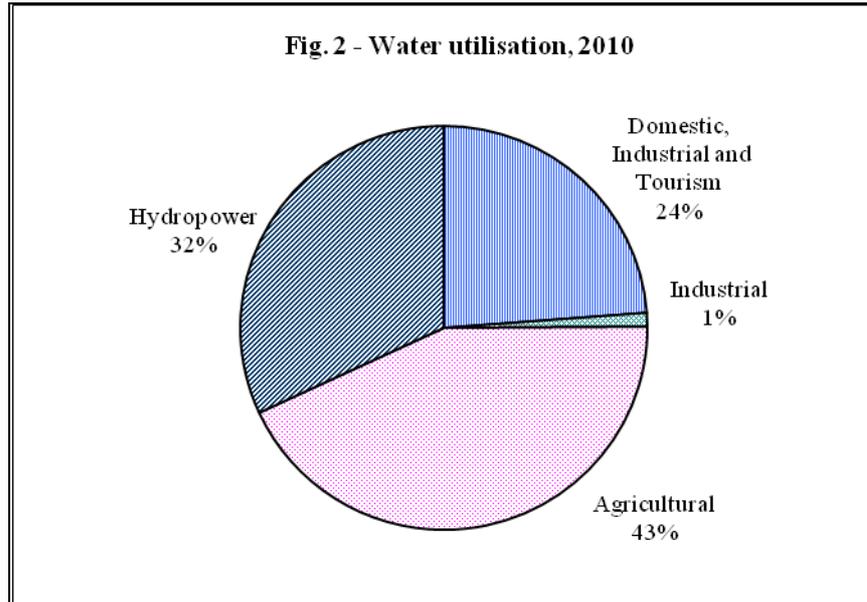
Water, being a basic support element for human life and ecosystems, is of vital environmental and biological importance.

8.1 Water balance

The water balance is based on long term records of annual average rainfall and indicates how fresh water resources are distributed. In 2010, the Island of Mauritius received 3,368 million cubic metres (Mm³) of precipitation (rainfall), representing a decrease of 24.6% compared to 4,470 Mm³ obtained in 2009. Surface runoff accounted for 60% of the water balance, while evapotranspiration and net recharge to ground water accounted for 30% and 10% respectively (Table 16).

8.2 Water utilisation

In 2010, the total water utilisation was estimated at 935 Mm³. The agricultural sector accounted for most of the water utilised with 404 Mm³ or 43%. Utilisation for the other purposes was as follows: hydropower 298 Mm³ or 32%, domestic, industrial and tourism 223 Mm³ or 24% and industrial 10 Mm³ or 1% (Table 17 and Fig. 2).



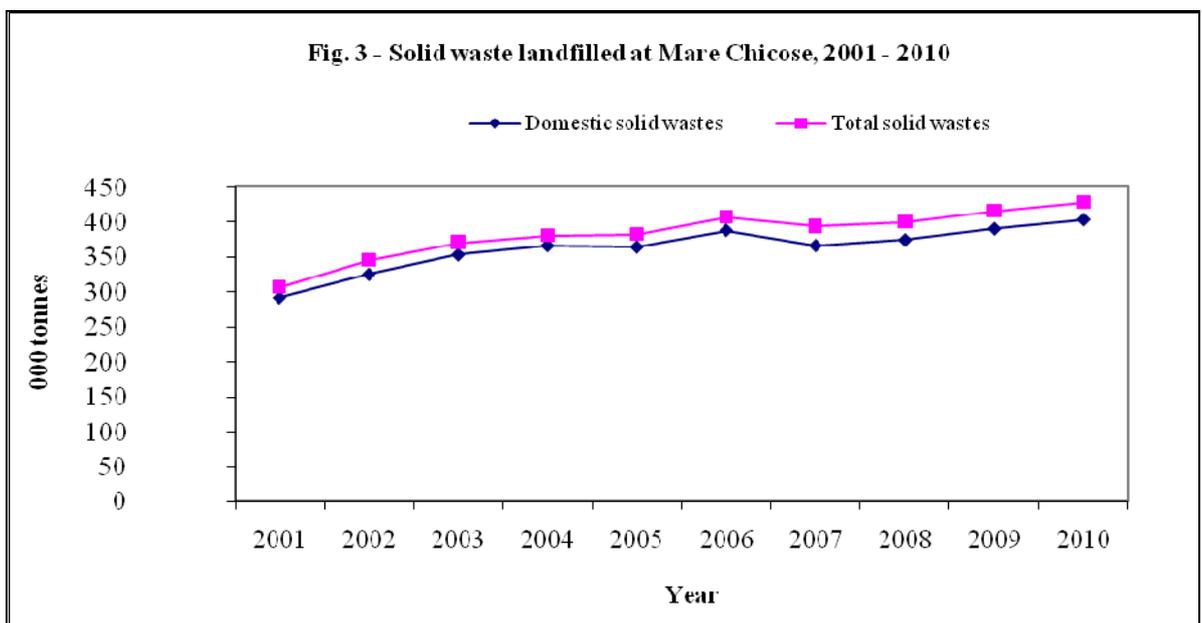
Around 87% of the total water utilisation was met by surface water and the remaining 13 % by ground water (Table 17).

9. Waste

9.1 Waste Disposal

Solid waste has been tracked mainly as domestic, construction and others. In 2010, the total amount of solid waste landfilled at Mare Chicose increased to 427,802 tonnes from 415,948 tonnes in 2009, up by 2.8% (Table 18).

Domestic waste constituted 94% of the total solid waste landfilled in 2010. The trend of the amount of solid wastes landfilled is as shown in figure 3.



10. Complaints

Effective environmental management needs an appropriate coordination and monitoring of environmental problems. The Ministry of Environment and Sustainable Development is entrusted to address environmental complaints received from the general public.

Table 19 lists the number of complaints by category received by the Pollution Prevention and Control Division of the Ministry of Environment and Sustainable Development from 2008 to 2010. The number of complaints received increased from 522 in 2009 to 622 in 2010 (+19.2%). The main causes of complaints in 2010 were noise (26%), odour (21%), solid waste (19%), waste water (12%) and air pollution (12%).

11. Environmental Impacts Assessment (EIA) and Preliminary Environmental Report (PER) Licences

The Ministry of Environment and Sustainable Development grants EIA and PER licenses to meet environmental requirements. Those undertakings that require such a licence are listed in the First Schedule of the new Environment Protection Act, 2002.

11.1 EIA and PER licences

Table 20 shows that, in 2010, some 44 EIA licences were granted of which 12 (27%) were issued to coastal hotels and related works, and 5 (11%) to industrial developments and 5 (11%) land parcelling (morcellement).

During the same period, 19 PER licences were granted, out of which 5 (26%) were for industrial developments.

12. Environmental Performance Index (EPI)

The Environmental Performance Index (EPI) ranks countries on performance indicators covering environmental health and ecosystem vitality. These indicators provide a gauge at a national government scale of how close countries are to established environmental policy goals.

Mauritius climbed to the sixth position in the 2010 EPI from the fifty eighth position in the 2008 EPI rankings. The improved result is mainly due to the performance scores in the ecosystem vitality, from 58.5 to 77.5 (Table 21).

Central Statistics Office

Ministry of Finance and Economic Development

Port Louis

September 2011.

Contact Persons

Mr. A. Sookun

Statistician

Ms. S.Sham-Jacmohun

Senior Statistical Officer

Ministry of Environment and Sustainable Development

Ken Lee Tower

Port Louis

Tel. (230) 210-6186

Fax. (230) 211-4150

Email cso_envi@mail.gov.mu

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.

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)

Land use, Agriculture and Forestry

Land use: Land use refers to the main activity taking place on an area of land, for example, farming, forestry or housing.

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.

Nutrient: A nutrient is a substance, element or compound necessary for the growth and development of plants.

Energy

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.

Final energy consumption is defined as energy consumption by final user – i.e. which is not being used for transformation into other forms of energy.

Renewables or Renewable sources of energy

Renewables are natural resources that, after exploitation, can return to their previous stock levels by natural processes of growth or replenishment. Conditionally renewable resources are those whose exploitation eventually reaches a level beyond which regeneration will become impossible. Such is the case with clear-cutting of tropical forests.

Greenhouse gas emissions

Greenhouse gases (GHG): GHG are gases occurring naturally and resulting from human activities (production and consumption); that contribute directly or indirectly to global warming. Some main naturally existing 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 contribute indirectly to global warming. GHG's 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.

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 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) 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.

Air Quality

Ambient air quality is the quality of the air that surrounds us and which we breathe.

Air quality standards: Levels of air pollutants prescribed by regulations that may not be exceeded during a specified time in a defined area.

ABBREVIATIONS AND SYMBOLS

Abbreviations

Rs mn	Rupees million
Rs	Rupees
US\$	US dollar
%	Percentage
f.o.b	free on board
c.i.f	Cost, insurance, freight
000	Thousand
n.e.s	Not elsewhere specified
Mm ³	Million cubic metres
Gg	Gigagram (thousand tonnes)
ktoe	Thousand tonnes of oil equivalent
Toe	Tonne of oil equivalent
µg/m ³	Microgramme per cubic metres
ppb	Part per billion
ppm	Part per million
SIFB	Sugar Insurance Fund Board
TSP	Total suspended particles
PM ₁₀	Dust or Particulate Matter with a diameter of 10 µg.
EIA	Environmental impact assessment
PER	Preliminary environmental report
IUCN	International Union for the Conservation of nature

Symbols

-	Nil or negligible
...	Not available

Conversion factor

1 square kilometre = 100 hectares

Table 1 - Main environment indicators, Republic of Mauritius, 2001 and 2010

Indicator	Units	2001	2010 ¹
1. Total land area	000 ha	204.0	204.0
2. Irrigated land	ha	21,631	19,847
3. Total forest area (as a % of total land area)	%	30.4	25.3
4. Land Protected Areas	ha	13,973	14,854
5. Marine Protected Areas (MPA's)	ha	7,190	7,216
6. Threatened plant species (IUCN Red List)	Number	...	88
7. Threatened animal species (IUCN Red List)	Number	...	65
8. Total fish catch	tons	8,794	7,502
9. Mean catch per fisherman day	kg	4.5	6.5
10. Total Carbon dioxide emissior	000 tons	2,647.9	3,583.2
11. Per capita carbon dioxide emissior	tons	2.3	2.8
12. Mean annual rainfall	millimetres	1,891	1,806
13. Annual fresh water abstraction	Mm ³	677	695.0
14. Daily per capita domestic water consumption	litres	158	160.0
15. Daily per capita solid waste generated (estimate)	Kg	0.7	0.9
16. Total electricity generatec	GWh	1,911	2,689
17. Per capita primary energy requiremen	toe	1.0	1.1
18. Per capita final energy consumption	toe	0.7	0.7
19. Energy intensity	toe per Rs 100,000 GDP	1.7	1.5

¹ Provisional**Table 2 - Main socio-economic indicators, Republic of Mauritius, 2001 and 2010**

Indicator	Units	2001	2010 ¹
1. Gross Domestic Product (GDP) at market prices	Rs mn	134,392	299,343
2. Sectoral contribution to GDP			
<i>Agriculture</i>	%	6.9	3.6
<i>Manufacturing</i>	%	22.5	18.0
<i>Construction</i>	%	5.2	6.9
<i>Wholesale and retail trade</i>	%	10.9	11.8
<i>Hotels and restaurants</i>	%	6.9	7.0
<i>Transport and communications</i>	%	12.8	9.6
<i>Financial intermediation and business services</i>	%	8.0	10.0
<i>Other</i>	%	26.8	33.1
3. GDP annual growth rate (basic prices)	%	4.6	4.3
4. Per capita GDP at market prices	Rs	111,977	233,640
5. Per capita GDP in US dollars	US\$	3,852	7,564
6. Investment (GDFCF)	Rs mn	29,981	74,395
7. Exports (f.o.b) (include ship's stores and bunkers)	Rs mn	47,511	69,556
8. Imports (c.i.f)	Rs mn	57,940	135,394
9. Population (mid year)	Number	1,199,881	1,280,924
10. Population annual growth rate	%	1.0	0.4
11. Population density (per kilometre square)	Number	609	651
12. Total labour force ²	000	538.5	603.3
13. Total employment ²	000	493.6	558.1
<i>Agriculture (as a % of total)</i>	%	11.0	8.0
<i>Manufacturing (as a % of total)</i>	%	29.2	20.5
14. Unemployment rate ²	%	6.9	7.8
15. Inflation rate	%	5.4	2.9
16. Tourist arrivals	000	660.0	934.8

¹ Provisional² Labour force, employment and unemployment, 16 years and over.

Table 3 - Land use, Island of Mauritius, 1995 and 2005

Land Use Distribution	1995		2005 ¹		Change	
	Hectares	%	Hectares	%	Hectares	%
Sugar cane plantations (Source SIFB)	76,840	41.2	72,000	38.6	-4,840	-6.3
Tea plantations (Source Tea Board)	3,660	1.9	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	2.3	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 fields	...	...	4,726	2.5	...	...
Total	186,500	100	186,500	100		

Source: Republic of Mauritius, Stocktaking and Stakeholders Consultation - Climate Change Activities Report, May 2006

¹ Estimate

Table 4 - Forest area by category, Island of Mauritius, 2010

Category of Forest	Hectares	
	2010	
	Hectares	%
State - owned	22,159	47.0
Plantations	11,855	25.1
Nature reserves	799	1.7
<i>On mainland</i>	200	0.4
<i>Islets</i>	599	1.3
National Park ¹	6,574	14.0
Islet National Park ²	134	0.3
Bras D'eau & Poste La Fayette Reserves ³	472	1.0
Other Forest Lands	1,419	3.0
Pas Geometriques	631	1.3
<i>Plantations</i>	222	0.5
<i>Leased for grazing and tree planting</i>	230	0.5
<i>Others (mostly rocky)</i>	179	0.3
Vallee d'Osterlog Endemic Garden	275	0.6
Private - owned lands	25,000	53.0
Reserves	6,553	13.9
<i>Mountain reserves</i>	3,800	8.1
<i>River reserves</i>	2,740	5.8
<i>Nature Reserves</i>	13	-
Other ⁴	18,447	39.1
Total	47,159	100.0

Source: Ministry of Fisheries and Rodrigues.

¹ Black River Gorges National Park was proclaimed in 1994 and data on the area enclosed by the boundaries of the park were not available until 1997

² Islet National Park was proclaimed in 1994.

³ Bras D'eau & Poste La Fayette Reserves were proclaimed in 2002 and data of the area is included as from the year 2001.

⁴ includes plantations, forest lands, scrub and grazing lands. Forest area was decreasing gradually. New estimates in private lands worked out in 2004.

Table 5 - Effective area under cultivation, Island of Mauritius, 2008 - 2010

Crops	Hectares		
	2008	2009	2010
Sugarcane	65,710	64,120	62,100
Tea	701	713	698
Tobacco	256	230	210

Table 6 - Imports of fertilizers, Island of Mauritius, 2008 - 2010

Year	Quantity (tonnes)	Value	
		FOB (Rs mn)	CIF (Rs mn)
2008	46,677	783.7	935.2
2009	57,169	712.8	832.2
2010	46,254	487.1	585.7

FOB: Free on board

CIF: Cost, Insurance, Freight

Table 7 - Primary energy requirement by energy source, Republic of Mauritius, 2008 - 2010

ktoe (000 Tonne of oil equivalent)

Energy Source	2008	2009 ²	2010 ³
Imported	1,140.9	1,110.6	1,182.9
Oil ¹	669.1	672.4	704.8
Liquefied petroleum gas (LPG)	67.9	68.9	64.0
Coal	403.9	369.3	414.1
Local (Renewables)	263.5	236.3	241.6
Hydro / Wind (<i>GWh</i>)	9.3	10.7	8.9
Bagasse *	246.4	218.0	225.0
Fuel wood *	7.7	7.7	7.7
Total	1,404.4	1,346.9	1,424.5

* Estimates

¹ Includes gasoline, diesel oil, dual purpose kerosene and fuel oil² Revised³ Provisional

Table 8 - Final energy consumption by sector, Republic of Mauritius, 2008 - 2010

ktoe (000 Tonne of oil equivalent)

Sector	2008		2009 ¹		2010 ²	
	Quantity (Ktoe)	%	Quantity (Ktoe)	%	Quantity (Ktoe)	%
Manufacturing	247.7	29.4	224.1	27.7	234.5	27.7
Transport	406.1	48.3	391.3	48.4	418.2	49.3
Household	110.2	13.1	113.1	14.0	116.9	13.8
Commercial	69.1	8.2	72.3	8.9	70.2	8.3
Agriculture	4.5	0.5	4.1	0.5	4.4	0.5
Other (n.e.s & losses)	3.7	0.4	3.7	0.5	3.6	0.4
Total	841.3	100.0	808.6	100.0	847.8	100.0

¹ Revised² Provisional

Table 9 - Fuel input for electricity production, Republic of Mauritius, 2008 - 2010

ktoe (000 Tonne of oil equivalent)

Fuel	2008		2009 ¹		2010 ²	
	Quantity (Ktoe)	%	Quantity (Ktoe)	%	Quantity (Ktoe)	%
Fuel oil	160.8	21.4	183.0	25.1	189.0	24.3
Diesel oil	1.9	0.2	2.8	0.4	2.0	0.3
Kerosene	2.2	0.3	5.1	0.7	6.3	0.8
Coal	378.0	50.4	356.0	48.9	398.7	51.2
Bagasse	208.2	27.7	181.7	24.9	182.5	23.4
Total	751.1	100.0	728.6	100.0	778.5	100.0

¹ Revised² Provisional**Table 10 - Stock of registered motor vehicles, Island of Mauritius, 2007 - 2010**

Type of vehicle	2007	2008	2009	2010
Cars and Dual Purpose Vehicle (DPV)	144,405	155,528	165,036	175,634
Auto / Motorcycles	142,606	147,988	152,935	159,329
Heavy Motor Car and Bus	3,976	4,052	4,078	4,094
Van and Lorry	37,470	38,060	38,572	39,100
Other vehicles ¹	5,688	5,778	5,899	5,958
Total	334,145	351,406	366,520	384,115

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

No of vehicles per 1000 population	272	285	296	308
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Table 11 - Fuel used for transport, Republic of Mauritius, 2008 - 2010

ktoe (000 Tonne of oil equivalent)

Fuel	2008	2009	2010
Gasolene	110	121	128
Liquefied Petroleum Gas (LPG)	6	5	5
Diesel oil	154	155	162
Aviation fuel	137	111	123
Total	407	392	418

Table 12 - Ambient air quality monitoring by mobile stations, Island of Mauritius, 2010

Pollutant	Unit	Ambient air quality standard 24 hour average	Beau Bassin		La Tour Koenig		Bramsthan, Flacq		Cassis	
			Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
			Period				Period			
			Jan 2010 - Mar 2010		Apr 2010 - May 2010		Jun 2010 - Aug 2010		Oct 2010 - Dec 2010	
Dust (TSP) ¹	µg/m ³	150	11.7	216.8	18.3	71.84	26.19	82.0	34.53	212.4
Dust (PM ₁₀) ²	µg/m ³	100	Not measured		11.2	32.40	15.5	57.16	Not measured	

Table 12 Con' t - Ambient air quality monitoring by mobile stations, Island of Mauritius, 2010

Pollutant	Unit	Ambient air quality standard (Average)	Le Hochet Terre Rouge		Baie Du Tombeau	
			Minimum	Maximum	Minimum	Maximum
			Period			
			Feb 2010 - Apr 2010		June 2010 - Aug 2010	
Sulphur Dioxide	ppb ³	122 (1 hour)	0.8	65.2	0.0	139.0
		70 (24 hours)	1.0	18.0	1.5	81.0
Nitrogen Dioxide	ppb ³	98 (24 hours)	0.0	6.0	0.5	12.0
Carbon Monoxide	ppm ⁴	20 (1 hour)	0.4	1.0	0.0	2.06
		8 (8 hours)	0.4	1.0	0.0	1.05

¹ TSP stands for Total Suspended Particles

² PM₁₀ stands for Particulate Matter of size less or equal to 10 microns

³ ppb stands for Parts Per Billion

⁴ ppm stands for Parts Per Million

Source: Ministry of Environment and Sustainable Development

Table 13 - Total emissions and removals of greenhouse gases and other related gases, Republic of Mauritius, 2008 - 2010

Gg or thousand tonne

Greenhouse gas	2008	2009	2010 ¹
Emissions			
Carbon Dioxide	3,487.1	3,367.6	3,583.2
Methane	37.3	21.3	37.4
Oxides of Nitrogen	18.1	17.5	18.8
Nitrous Oxide	1.1	1.0	1.0
Carbon Monoxide	66.6	64.0	68.4
NMVOC ²	16.5	17.6	18.3
Sulphur Dioxide	33.2	33.6	34.0
Removals			
Carbon Dioxide	300.0	293.0	293.0
Net emissions			
Carbon Dioxide	3,187.1	3,074.6	3,290.2

¹ Provisional² Non-methane volatile organic compound

Table 14 - Sectoral carbon dioxide emissions from fuel combustion activities, Republic of Mauritius, 2008 - 2010

Gg or thousand tonne

Sector	2008		2009		2010 ¹	
	Quantity	%	Quantity	%	Quantity	%
Energy industries (electricity)	2,032.0	58.3	1,997.0	59.4	2,158.3	60.2
Manufacturing industries	456	13.1	351.6	10.4	360.4	10.1
Transport	813.0	23.3	844.8	25.1	887.0	24.8
Residential	131	3.8	122.8	3.6	135.6	3.8
Other ²	53.8	1.5	49.1	1.5	39.7	1.1
Total	3485.8	100.0	3,365.3	100.0	3,581.0	100.0

¹ Provisional² includes Agriculture and Trade

Note: The inventory compilation is under revision.

Table 15 - National inventory of greenhouse gas emissions by source categories, Republic of Mauritius, 2009 - 2010¹

Gg or thousand tonne

Category	Carbon dioxide(CO ₂)				Methane		Nitrous oxide		Oxides of		Carbon monoxide		NMVOC ²		Sulphur dioxide	
	Emissions		Removals		(CH ₄)		(N ₂ O)		nitrogen (NO _x)		(CO)				(SO ₂)	
	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010
1. Energy	3,365.3	3,581.0	-	-	0.4	0.5	0.0	0.0	17.5	18.8	64.0	68.4	8.2	8.8	33.6	34.0
Fuel combustion activities																
(a) Energy industries (electricity)	1,997.0	2,158.3	-	-	0.3	0.3	0.0	0.0	8.5	8.9	7.9	8.0	0.1	0.1	27.7	26.4
(b) Manufacturing industries	351.6	360.4	-	-	0.1	0.1	0.0	0.0	1.2	0.4	13.9	14.5	0.1	0.1	4.9	6.5
(c) Transport	844.8	887.0	-	-	0.0	0.1	0.0	0.0	7.4	8.0	41.2	43.9	7.9	8.5	0.8	1.0
(d) Other sectors	171.9	175.3	-	-	-	-	0.0	0.0	0.4	1.5	1.0	2.0	0.1	0.1	0.2	0.1
2. Industrial processes	2.3	2.2	-	-	-	-	-	-	-	-	-	-	9.4	9.5	-	-
3. Solvent and other product use	...	...	...	-	...	...	...	...	...	...	...	...	...	...	...	...
4. Agriculture	-	-	-	-	0.9	0.9	1.0	1.0	-	-	-	-	-	-	-	-
5. Land use change and forestry	-	-	293.0	293.0	-	-	-	-	-	-	-	-	-	-	-	-
6. Waste	-	-	-	-	20.0	36.0	-	-	-	-	-	-	-	-	-	-
Total	3,367.6	3,583.2	293.0	293.0	21.3	37.4	1.0	1.0	17.5	18.8	64.0	68.4	17.6	18.3	33.6	34.0

¹ Provisional

² Non - methane volatile organic compound

Note: The inventory compilation is under revision.

Table 16 - Water balance ¹, Island of Mauritius, 2005 - 2010

	Mm ³					
	2005	2006	2007	2008	2009	2010
Rainfall	4,424	3,571	3,644	4,440	4,470	3,368
<i>Surface runoff</i>	2,654	2,143	2,186	2,664	2,682	2,021
<i>Evapotranspiration</i>	1,327	1,071	1,093	1,332	1,341	1,010
<i>Net recharge to groundwater</i>	442	357	364	444	447	337

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

¹ Estimates

Table 17 - Water Utilisation, Island of Mauritius, 2010

Use	Surface water		Ground water	Total
	River-run offtakes	Storage		
Domestic, Industrial and Tourism	36 ¹	74	113	223
Industrial	5	-	5	10
Agricultural	320	78 ²	6	404
Hydropower	147	151 ³	-	298
Total	508	303	124	935

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

¹ includes 20 Mm³ for Redit hydropower station

² includes 30 Mm³ for Tamarind Falls & Magenta hydropower station

³ includes 13 Mm³ used twice for Le Val & Ferney hydropower stations and 22 Mm³ for Tamarind Falls & Magenta hydropower station

Table 18 - Solid waste landfilled at Mare Chicose by source of waste material, Island of Mauritius, 2008 - 2010

Tonnes			
Waste material	2008	2009	2010 ¹
Domestic	373,860	389,999	402,816
Construction	2,065	671	2,394
Other ²	23,563	25,278	22,592
Total	399,488	415,948	427,802

Source: Ministry of Local Government and Outer Islands

¹ Provisional

² Includes mainly industrial waste.

Table 19 - Number of complaints received at the Pollution Prevention and Control Division by category, Island of Mauritius, 2008 - 2010

Category	2008	2009	2010 ¹
Noise	157	123	160
Solid waste	49	136	118
Air pollution	57	57	76
Waste water	84	72	77
Animal husbandry	-	-	-
Odour	102	88	128
Other	147	46	63
Total	596	522	622

Source: Department of Environment of the Ministry of Environment and Sustainable Development

¹ Provisional

Table 20 - Number of EIA licence, 2007 - 2010 and PER licence, 2009 - 2010 granted by type of project, Island of Mauritius

Project	EIA				PER ²	
	2007	2008	2009	2010 ¹	2009	2010 ¹
Land parcelling (morcellement)	3	12	2	5	-	-
Poultry rearing	18	-	-	-	9	3
Industrial development	11	-	7	5	6	5
Coastal hotels & related works	-	8	7	12	-	-
Livestock rearing	10	-	-	-	-	4
Housing	-	-	1	1	-	-
Stone crushing plants	-	-	-	3	-	-
Development in port area	-	-	-	1	-	-
Service ("filling") station	-	-	-	-	-	-
Other	13	24	6	17	16	7
Total	55	44	23	44	31	19

Source: Department of Environment of the Ministry of Environment and Sustainable Development

¹ Provisional

² PER licence was issued as from September 2002.

Table 21 - Environmental Performance Index (EPI) for Mauritius, 2008 and 2010

	2008	2010
EPI Rank (out of 149 Countries in 2008 and 163 Countries in 2010)	58	6
EPI Score	78.1	80.6
<i>Of which</i>		
Environmental Health	97.7	83.7
Water (effects on humans)	96.5	96.6
Air Pollution (effects on humans)	97.9	97.4
Environmental Burden of Disease	98.2	70.3
Ecosystem Vitality	58.5	77.5
Forestry	87.4	86.5
Fisheries	99.5	99.5
Agriculture	-	93.0
Climate Change	53.5	72.9
Air Pollution (effects on ecosystem)	94.4	43.7
Water (effects on ecosystem)	64.7	74.4
Biodiversity & Habitat	21.9	45.0

Source: Yale Center for Environmental Law and Policy (YCELP) and Center for International Earth Science Information Network (CIESIN), Columbia University, with the World Economic Forum, and Joint Research Centre (JRC) of the European Commission (2010). 2010 Environmental Performance Index. Downloaded from <http://epi.yale.edu> (last accessed 07/26/2010)