

Environment Statistics - 2007

1. Introduction

This issue of the Economic and Social Indicators present Statistics on environment. 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, 1998 - 2007. 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 107%, from Rs 100,042 million in 1998 to Rs 206,934 million in 2007. The share of agriculture in GDP fell from 9.3% in 1998 to 4.7% in 2007, that of manufacturing decreased from 24.0% to 19.8%, while that of financial and business services increased from 16.1% to 21.4%.

During the same period, population of the Republic of Mauritius increased by 8.6% from 1,160,421 to 1,260,403 and population density from 572 to 620 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%, tea plantations declined by 82% and forestry by 17%. Land used for other agricultural activities increased by 33% while built up areas expanded by 28%.

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 2007 the total forest area was 47,176 hectares, of which 22,176 hectares (47%) were state-owned and the remaining 25,000 hectares (53%) were privately-owned.

3.3 Agriculture

From 2006 to 2007, the effective area under sugarcane has shrunk by 2,278 hectares (-3.2%), to 68,523 hectares. During the same period area under tea plantation increased to 709 hectares (3.0%) from 688 hectares and area under tobacco rose to 258 hectares (2.4%) from 252 hectares (Table 5).

3.3.1 Fertiliser imports

The total imports of fertilisers for the period 2005 to 2007 are shown in Table 6. Imports for the year 2007 were 45,336 tonnes, a decrease of around 18.0% over the 2006 figure of 55,313 tonnes.

4. Energy

The production and consumption of energy causes air pollution, and alters the ambient temperature. They are by far the most important contributors of air pollutants through the emission of carbon dioxide and other greenhouse gases.

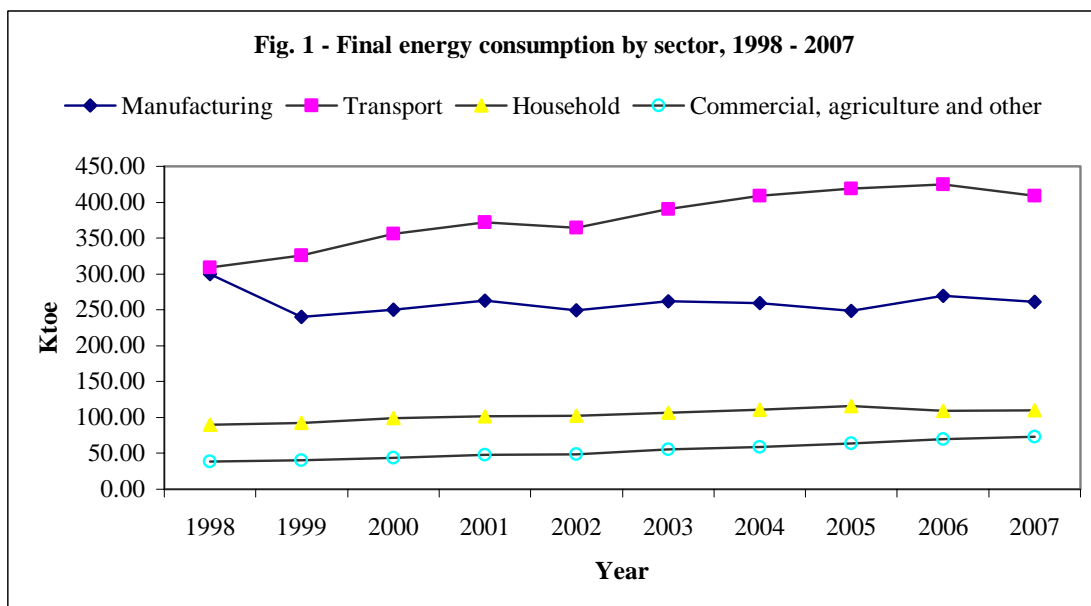
The tonne of oil equivalent (toe or thousand toe - ktoe) has been used to express the energy content of the different fuels in terms of a common accounting unit.

4.1 Primary energy requirements

The total primary energy requirement of the country increased by 0.4% from 1,374 ktoe in 2006 to 1,379 ktoe in 2007. Around 82% of the total primary energy requirement was met by imported fuels (oil, LPG and coal) and the remaining 18%, obtained from local sources (bagasse, hydro and fuelwood) that are renewables (Table 7).

4.2 Final energy consumption

Final energy consumption decreased by 2.4% from 874 ktoe in 2006 to 853 ktoe in 2007. The largest consumers were the transport and manufacturing sectors which accounted for 48.0% and 31.0% 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 rose from 42% in 2006 to 48% in 2007. On the other hand the contribution of fuel oil fell from 32% to 27% and that of kerosene from 0.3% to 0.2% respectively (Table 9).

5. Transport

5.1 Stock of registered motor vehicles

The number of registered motor vehicles has gone up from 319,440 in 2006 to 334,145 in 2007, a rise of 4.6%.

The number of vehicles per 1,000 population rose from 263 in 2006 to 272 in 2007, representing an increase of 3.4% (Table 10).

5.2 Fuel used for transport

In 2007, some 409 ktoe of energy were used for transport; diesel oil accounted for 153 ktoe or 37%, aviation fuel 143 ktoe or 35%, gasoline 107 ktoe or 26% and Liquefied Petroleum Gas (LPG) 6 ktoe or 2%. From 2006 to 2007 the consumption of diesel oil fell by 12.1% and aviation fuel by 2.7%. On the other hand, there has been an increase (10.3%) in the consumption of gasoline (Table 11).

6. Ambient Air Quality

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

The main pollutants under investigation are Dust (PM 10), Ozone, Sulphur Dioxide, Nitrogen Dioxide, Carbon Monoxide, Total Suspended Particles and Lead.

The results for all the pollutants under study at the four monitoring stations in 2006 and one in 2007 showed that the levels of ambient pollutants for the 24 hour averages were well below the norms (Standards for air quality). This implies that the overall quality of the ambient air in the monitoring areas is at a good and permissible level (Table 12).

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 3,156 thousand tonnes in 2006 to 3,226 thousand tonnes in 2007 (+2.2%). 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 2006 and 2007 is given in Table 15. The main GHG is carbon dioxide (CO₂). The non-carbon dioxide emissions consist mainly of carbon monoxide and sulphur dioxide.

7.2.1 Carbon dioxide emissions from fuel combustion activities

Carbon dioxide emission resulting from fuel combustion went up from 3346.7 thousand tonnes in 2006 to 3448.2 thousand tonnes in 2007 (+3.0%), driven mostly by a 8% increase of CO₂ emissions from the energy industries.

The energy industries remain the principal source of CO₂ emission in the atmosphere. They contributed around 60% of the emissions, with 2067.9 thousand tonnes in 2007. They were followed by the transport sector which contributed 23% of the total emissions and the manufacturing industries with 12%.

7.2.2 Non-CO₂ emissions

Non-CO₂ emissions were minimal and in 2007 they were distributed in thousand tonnes as follows: carbon monoxide 65.4, sulphur dioxide 35.1, non-methane volatile organic compounds (NMVOC) 17.1, oxide of nitrogen 16.6, methane 12.6 and nitrous oxide 1.3.

8. Water

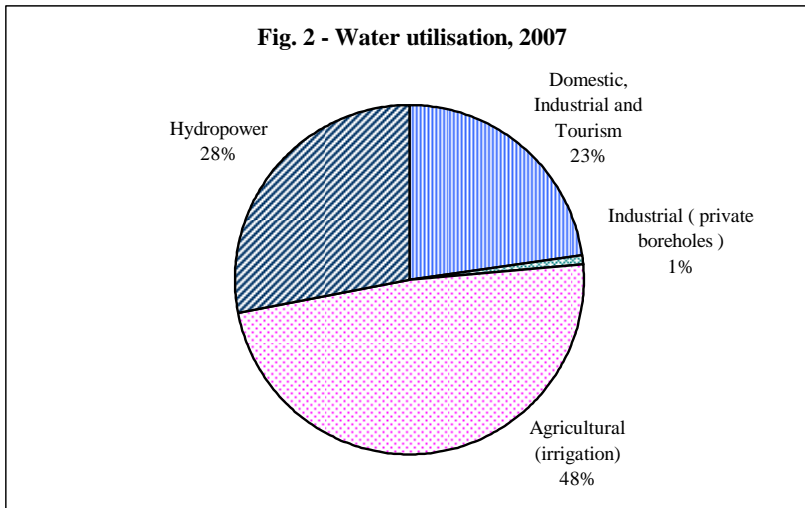
Freshwater resources are of vital environmental and biological importance, since water is a basic support element for human life and ecosystems.

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 2007, the Island of Mauritius received 3,644 million cubic metres (Mm³) of precipitation (rainfall). This was 2% lower than in 2006 when 3,571 Mm³ were obtained. Surface runoff accounted for 60% of the water balance, while evapotranspiration and ground water recharge accounted for 30% and 10% respectively (Table 16).

8.2 Water utilisation

In 2007 the total water demand was estimated at 884 Mm³. The agricultural sector accounted for most of the water utilised with 423 Mm³ or 48%. Utilisation for the other purposes was as follows: hydropower 254 Mm³ or 29%, domestic, industrial and tourism 201 Mm³ or 23% (Table 17 and Fig. 2).



Around 87% of the total water demand was met by surface water and the remaining 13 % by ground water.

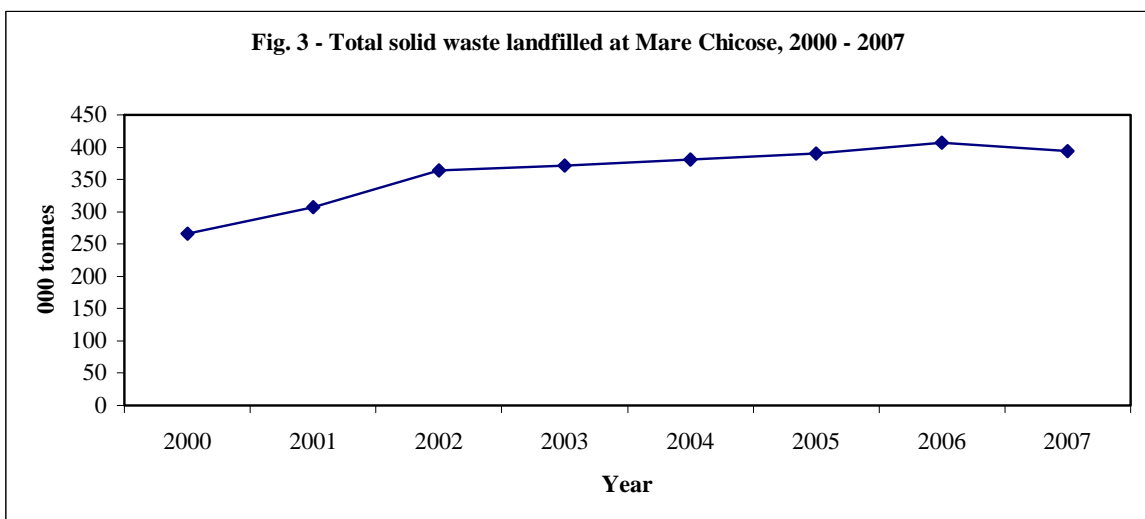
9. Waste

9.1 Waste Disposal

Solid waste has been tracked mainly as domestic, construction and others. In 2006, with the outbreak of the *Chikungunya* disease, some 110 clean-up campaigns were carried out throughout the country which caused the amount of wastes to rise up.

In 2007, the total amount of solid waste landfilled at Mare Chicose stabilised to 394,118 tonnes from 407,040 tonnes in 2006 (Table 18).

Domestic waste constituted 93% of the total solid waste landfilled in 2007. 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 National Development Unit 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 National Development Unit from 2005 to 2007. The number of complaints received dropped from 813 in 2006 to 568 in 2007.

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

The Ministry of Environment and National Development Unit 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

In 2007, 55 EIA licences were granted of which 33% were issued to poultry rearing and 20% were provided to industrial development (Table 20).

During the same period, 96 PER licences were granted, out of which 29% were for industrial development projects.

12. Contraventions

The Police de L'Environnement has been established to act as a watchdog to safeguard the environment. The number of contraventions went down to 8,432 in 2007 from 10,013 in 2006. Most of the contraventions concern illegal littering.

The number of notices to drivers of vehicles emitting black smoke fell to 3,796 in 2007 from 6,236 in 2006 or a decrease of 39%.

Central Statistics Office

Ministry of Finance and Economic Development

Port Louis

August 2008.

Contact Person

Mr. A. Sookun

Statistician

Ms. S. Sham-Jacmohun

Senior Statistical Officer

Ministry of Environment and National Development Unit

Ken Lee Tower

Port Louis

Tel. 210-6186

Fax. 2114150

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.

PM 10: Dust or Particulate Matter with a diameter of 10 µg.

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 tonne)
ktoe	Thousand tonne of oil equivalent
Toe	Tonne of oil equivalent
µg/m ³	Microgramme per cubic metres
ppb	Part per billion
ppm	Part per million
TSP	Total suspended particles
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, 1998 and 2007

Indicator	Units	1998	2007
1. Total land area	000 ha	186.5	186.5
2. Irrigated land	ha	18,379	21,321
3. Total forest area (as a % of total land area)	%	30.6	25.3
4. Land Protected Areas	ha	13,973	14,579
5. Marine Protected Areas (MPA's)	ha	7,190	7,190
6. Threatened plant species (IUCN Red List)	Number	...	88
7. Threatened animal species (IUCN Red List)	Number	...	65
8. Total fish catch	tons	9,786	6,952
9. Mean catch per fisherman day	kg	5.3	4.4
10. Total Carbon dioxide emission	000 tons	...	3,450.0
11. Per capita carbon dioxide emission	tons	...	2.7
12. Mean annual rainfall	millimetres	1,676.8	1,914.0
13. Annual fresh water abstraction	Mm ³	639.0	630.0
14. Daily per capita domestic water consumption	litres	168.4	162.0
15. Daily per capita solid waste generated (<i>estimate</i>)	Kg	0.7	0.9
16. Total electricity generated	GWh	1,538.9	2,465.0
17. Per capita primary energy requirement	toe	0.9	1.1
18. Per capita final energy consumption	toe	0.6	0.7
19. Energy intensity	toe per Rs 100,000 GDP	2.0	1.6

Table 2 - Main socio-economic indicators, Republic of Mauritius, 1998 and 2007

Indicator	Units	1998	2007 ¹
1. Gross Domestic Product (GDP) at market prices	Rs mn	100,042	206,934
2. Sectoral contribution to GDP			
<i>Agriculture</i>	%	9.3	4.7
<i>Manufacturing</i>	%	24.0	19.8
<i>Construction</i>	%	5.4	6.4
<i>Wholesale and retail trade</i>	%	12.7	12.4
<i>Hotels and restaurants</i>	%	6.2	9.4
<i>Transport and communications</i>	%	11.8	12.0
<i>Financial intermediation and business services</i>	%	16.1	21.4
<i>Other</i>	%	23.2	14.0
3. GDP annual growth rate (basic prices)	%	5.8	5.4
4. Per capita GDP at market prices	Rs	86,199	186,831
5. Per capita GDP in US dollars	US\$	3,595	5,956
6. Investment (GDFCF)	Rs mn	22,870	59,170
7. Exports (f.o.b) (include ship's stores and bunkers)	Rs mn	40,051	69,482
8. Imports (c.i.f)	Rs mn	49,742	121,081
9. Population (mid year)	000	1,160.4	1,260.4
10. Population annual growth rate	%	1.0	0.6
11. Population density (per kilometre square)	Number	572	620
12. Total labour force ²	000	517.0	570.5
13. Total employment ²	000	487.2	523.7
<i>Agriculture (as a % of total)</i>	%	11.8	9.0
<i>Manufacturing (as a % of total)</i>	%	29.5	23.4
14. Unemployment rate ²	%	6.9	8.5
15. Inflation rate	%	6.8	8.8
16. Tourist arrivals	000	558.2	907.0

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

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

Land Use Distribution	2005 ¹		1995		Change	
	Hectares	%	Hectares	%	Hectares	%
Sugar cane plantations (Source SIFB)	72,000	38.6	76,840	41.2	-4,840	-6.3
Tea plantations (Source Tea Board)	674	0.4	3,660	1.9	-2,986	-81.6
Forests, shrubs and grazing lands	47,200	25.3	57,000	30.6	-9,800	-17.2
Other agricultural activities	8,000	4.3	6,000	3.2	2,000	33.3
Infrastructure	4,500	2.3	4,000	2.1	500	12.5
Inland water resource systems	2,900	1.6	2,600	1.4	300	11.5
Built-up areas	46,500	24.9	36,400	19.5	10,100	27.7
Abandoned cane fields	4,726	2.5	...	...	...	...
Total	186,500	100	186,500	100		

Source: Stocktaking and Stakeholders Consultation Exercise on Climate Change Activities Report, March 2006

¹ Estimate

Table 4 - Forest area by category, Island of Mauritius, 2007

	Hectares
	2007¹
State - owned	22,176
Plantations	11,878
Nature reserves	799
<i>On mainland</i>	200
<i>Islets</i>	599
Reserves	472
National Park ²	6,574
Islet National Parks	134
Unplanted, protective or to be planted	1,688
Pas Geometriques	631
<i>Plantations</i>	222
<i>Leased for grazing and tree planting</i>	230
<i>Unplanted, protective or to be planted</i>	179
Private - owned lands	25,000
Reserves	6,553
<i>Mountain reserves</i>	3,800
<i>River reserves</i>	2,740
<i>Nature Reserves</i>	13
Other ³	18,447
Total	47,176

Source: Forestry Service, Ministry of Agro Industries and Fisheries.

¹ Provisional

² 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

³ includes plantations, forest lands, scrub and grazing lands

Table 5 - Effective area under cultivation, Island of Mauritius, 2005 - 2007

Crops	Hectares		
	2005	2006	2007
Sugarcane	71,583	70,801	68,523
Tea	670	688	709
Tobacco	348	252	258

Table 6 - Imports of fertilizers, Island of Mauritius, 2005 - 2007

Year	Quantity (tonnes)	Value	
		FOB (Rs mn)	CIF (Rs mn)
2005	61,605	441.4	536.5
2006	55,313	392.9	471.2
2007	45,336	379.9	476.2

FOB: Free on board

CIF: Cost, Insurance, Freight

Table 7 - Primary energy requirement by energy source, Republic of Mauritius, 2005 - 2007

ktoe (000 Tonne of oil equivalent)

Energy Source	2005	2006	2007 ³
Imported	1,030.5	1,120.3	1,133.3
Oil ¹	739.3	751.3	709.5
Liquefied petroleum gas (LPG)	65.7	68.0	68.8
Coal	225.6	300.4	355.0
Local			
Renewables			
Hydro / Wind GWh	9.9	6.6	7.2
Bagasse ²	245.1	240.0	230.5
Fuel wood ²	7.6	8.0	8.0
Sub total (renewables)	262.6	254.6	245.7
Total	1,293.2	1,374.2	1,379.0

¹ Includes gasoline, diesel oil, dual purpose kerosene and fuel oil

² Estimates

³ Provisional

Table 8 - Final energy consumption by sector, Republic of Mauritius, 2005 - 2007

ktoe (000 Tonne of oil equivalent)

Sector	2005		2006		2007 ¹	
	Quantity (Ktoe)	%	Quantity (Ktoe)	%	Quantity (Ktoe)	%
Manufacturing	248.6	29.4	269.9	30.9	261.1	30.6
Transport	418.6	49.4	425.1	48.7	408.9	47.9
Household	115.5	13.6	109.4	12.5	109.6	12.9
Commercial	55.7	6.6	61.1	7.0	64.7	7.6
Agriculture	4.7	0.6	4.9	0.5	4.9	0.6
Other (n.e.s & losses)	3.1	0.4	3.4	0.4	3.6	0.4
Total	846.2	100.0	873.8	100.0	852.8	100.0

¹ Provisional

Table 9 - Fuel input for electricity production, Republic of Mauritius , 2005 - 2007

ktoe (000 Tonne of oil equivalent)

Fuel	2005		2006		2007 ¹	
	Quantity (Ktoe)	%	Quantity (Ktoe)	%	Quantity (Ktoe)	%
Fuel oil	208.4	34.2	217.5	32.2	193.8	27.3
Diesel oil	2.1	0.4	2.6	0.4	2.8	0.4
Kerosene	18.4	3.0	1.9	0.3	1.1	0.2
Coal	211.2	34.7	286.9	42.5	342.6	48.4
Bagasse	168.9	27.7	165.9	24.6	168.4	23.8
Total	609.0	100.0	674.8	100.0	708.7	100.0

¹ Provisional**Table 10 - Stock of registered motor vehicles, Island of Mauritius, 2004 - 2007**

Type of vehicle	2004	2005	2006	2007
Cars and Dual Purpose Vehicle (DPV)	118,009	126,844	135,132	144,405
Auto / Motorcycles	129,500	133,430	138,174	142,606
Heavy Motor Car and Bus	3,477	3,605	3,730	3,976
Van and Lorry	35,100	36,036	36,794	37,470
Other vehicles ¹	5,519	5,581	5,610	5,688
Total	291,605	305,496	319,440	334,145
No of vehicles per 1000 population	243	253	263	272

¹ Includes tractor and dumper, prime mover, trailer and road roller**Table 11 - Fuel used for transport, Republic of Mauritius, 2005 - 2007**

ktoe (000 Tonne of oil equivalent)

Fuel	2005	2006	2007
Gasolene	100	97	107
Liquefied Petroleum Gas (LPG)	7	7	6
Diesel oil	168	174	153
Aviation fuel	143	147	143
Total	418	425	409

Table 12 - Ambient air quality monitoring by stations, Island of Mauritius, 2006

Pollutant	Unit	Ambient air quality standard ²	Appravasi Ghat, Port-Louis			Terre Rouge, Richfield Textile			Valentina, Phoenix			Cassis		
			Minimum	Maximum	24 hour Average for the year	Minimum	Maximum	24 hour Average for the year	Minimum	Maximum	24 hour Average for the year	Minimum	Maximum	24 hour Average for the year
Dust (PM ₁₀)	µg/m ³	100	43.0	59.0	50.0	13.0	27.0	18.0	11	69	25.8	43.0	59.0	52.0
Ozone (O ₃)	ppb	46.7	1.0	3.0	1.8	7.0	23.0	14.8	1.0	9.0	2.6	1.0	3.0	1.8
Sulphur dioxide (SO ₂)	ppb	70.0	0.3	1.4	0.7	0.1	3.2	1.1	0.1	89.4	18	1.4	0.7	0.7
Nitrogen dioxide (NO ₂)	ppb	28.0	26.0	27.0	26.5	1.0	4.0	1.8	-	-	-	26.0	27.0	28.0
Carbon monoxide (CO)	ppm	8.0	0.2	0.7	0.4	0.0	0.4	0.3	0.1	0.6	0.3	0.2	0.7	0.4

Note: - means figures were not recorded by station

Table 12 Cont - Ambient air quality monitoring by the station at Valentina, Phoenix, Island of Mauritius, 2007¹

Pollutant	Unit	Minimum	Maximum	24 hour Average for the year	Ambient air quality standard ²
Dust (PM ₁₀)	µg/m ³	11.0	29.0	18.5	100
Ozone (O ₃)	ppb	1.0	9.0	2.6	46.7
Sulphur dioxide (SO ₂)	ppb	0.1	33.0	5.0	70
Nitrogen dioxide (NO ₂)	ppb	-	-	-	97.5
Carbon monoxide (CO)	ppm	0.2	0.6	0.3	8.0
Total Suspended Particles (TSP)	µg/m ³	-	-	40.6	150
Lead (Pb)	µg/m ³	-	-	-	1.5

Source: Ministry of Environment and National Development Unit.

¹ : Estimate

² : 24-hour standard except for Ozone, Carbon monoxide and lead which are based on 1 hour , 8 hour and 3 month averages respectively.

Note:(i) Conversion coefficients (at 25⁰ C and 1013 bar) have been used to convert the ambient air quality standards.

(ii) Measurements of the parameters are taken on a quarter hourly basis and the averaging time used is 24 hours.

(iii) Data available for year 2007 for the Valentina station only.

(iv) Some parameters do not have minimum and maximum values as there was a breakdown in the measuring apparatus and only an average was obtained

Table 13 - Total emissions and removals of greenhouse gases, Republic of Mauritius, 2005 - 2007

Gg or thousand tonne			
Greenhouse gas	2005	2006	2007 ¹
Emissions			
Carbon Dioxide	2,996.0	3,348.9	3,449.6
Methane	12.5	13.0	12.6
Oxides of Nitrogen	15.4	16.6	16.6
Nitrous Oxide	1.3	1.2	1.3
Carbon Monoxide	66.4	64.8	65.4
NMVOC ²	18.3	17.7	17.1
Sulphur Dioxide	33.0	33.0	35.1
Removals			
Carbon Dioxide	223.7	193.2	224.0
Net emissions			
Carbon Dioxide	2,772.3	3,155.6	3,225.6

¹ Provisional

² Non-methane volatile organic compound

Table 14 - Sectoral carbon dioxide emissions from fuel combustion activities, Republic of Mauritius, 2005 - 2007

Gg or thousand tonne						
Sector	2005		2006		2007 ¹	
	Quantity	%	Quantity	%	Quantity	%
Energy industries (electricity)	1,615.2	53.9	1,912.5	57.1	2,067.9	60.0
Manufacturing industries	346.3	11.6	404.9	12.1	400.3	11.6
Transport	833.7	27.8	843.7	25.2	800.1	23.2
Residential	158.5	5.3	136.7	4.1	130.6	3.8
Other ²	40.3	1.3	49.0	1.5	49.3	1.4
Total	2994.0	100.0	3,346.7	100.0	3,448.2	100.0

¹ Provisional

² includes Agriculture and Trade

Table 15 - National inventory of greenhouse gases by source categories, Republic of Mauritius, 2006- 2007¹

Gg or thousand tonne

Category	Carbon dioxide(CO ₂)				Methane (CH ₄)		Nitrous oxide (N ₂ O)		Oxides of nitrogen (NO _x)		Carbon monoxide (CO)		NMVOC ²		Sulphur dioxide (SO ₂)	
	Emissions		Removals		2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
	2006	2007	2006	2007												
1. Energy	3,346.8	3,448.1	-	-	0.6	0.6	0.1	0.1	16.6	16.6	64.8	65.4	8.5	8.9	33.0	35.1
Fuel combustion activities																
(a) Energy industries (electricity)	1,912.5	2,067.9	-	-	0.3	0.3	0.1	0.1	6.6	7.1	8.7	8.8	0.5	0.5	24.4	26.3
(b) Manufacturing industries	404.9	400.3	-	-	0.1	0.1	0.0	0.0	1.5	1.4	15.1	13.1	0.2	0.2	6.4	6.7
(c) Transport	843.7	800.1	-	-	0.1	0.1	-	-	8.4	7.9	39.4	41.9	7.5	8.0	2.0	1.9
(d) Other sectors	185.7	179.8	-	-	-	-	-	-	0.2	0.2	1.6	1.6	0.2	0.2	0.2	0.1
2. Industrial processes	2.1	1.5	-	-	-	-	-	-	-	-	-	-	9.2	8.2	-	-
3. Solvent and other product use	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Agriculture	-	-	-	-	1.1	1.1	1.2	1.2	-	-	-	-	-	-	-	-
5. Land use change and forestry	-	-	193.2	224.0	-	-	-	-	-	-	-	-	-	-	-	-
6. Waste	-	-	-	-	11.3	10.9	-	-	-	-	-	-	-	-	-	-
Total	3,349.0	3,349.6	193.2	224.0	13.0	12.6	1.3	1.3	16.6	16.6	64.8	65.4	17.7	17.1	33.0	35.1

¹ Provisional

² Non - methane volatile organic compound

Table 16 - Water balance ¹, Island of Mauritius, 2002 - 2007

	Mm ³					
	2002	2003	2004	2005	2006	2007
Rainfall	3,905	4,006	4,233	4,424	3,571	3,644
<i>Surface runoff</i>	<i>2,343</i>	<i>2,403</i>	<i>2,540</i>	<i>2,654</i>	<i>2,143</i>	<i>2,186</i>
<i>Evapotranspiration</i>	<i>1,171</i>	<i>1,202</i>	<i>1,270</i>	<i>1,327</i>	<i>1,071</i>	<i>1,093</i>
<i>Net recharge to groundwater</i>	<i>391</i>	<i>401</i>	<i>423</i>	<i>442</i>	<i>357</i>	<i>364</i>

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

¹ Estimates

Table 17 - Water Utilisation, Island of Mauritius, 2007

Use	Surface water		Ground water	Total
	River-run offtakes	Storage		
Domestic, Industrial and Tourism	35 ¹	67	99	201
Industrial (private boreholes)	-	-	6	6
Agricultural (irrigation)	338	78 ²	7	423
Hydropower	137	117 ³	-	254
Total	510	262	112	884

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

¹ includes 19 Mm³ for Reduit hydropower station

² includes 28 Mm³ for Tamarind Falls & Magenta hydropower station

³ includes 13 Mm³ used twice for Le Val & Ferney hydropower stations and 16Mm³ for Tamarind Falls & Magenta

**Table 18 - Solid waste landfilled at Mare Chicose by source of waste material
Island of Mauritius, 2005 - 2007**

Tonnes			
Waste material	2005	2006	2007 ¹
Domestic	370,896	387,751	365,824
Construction	3,755	1,109	502
Other ²	15,298	18,180	27,792
Total	389,949	407,040	394,118

Source: Ministry of Local Government

¹ Provisional

² Includes mainly industrial waste.

Note: Up to 2006, the period covered was October the previous year to September the current year

**Table 19 - Number of complaints received at the Pollution Prevention and Control Division
of the Department of Environment by category, Island of Mauritius, 2005 - 2007**

Category	2005	2006	2007 ¹
Noise	342	178	135
Solid waste	201	137	88
Air pollution	154	61	62
Waste water	289	92	76
Animal husbandry	-	-	-
Odour	272	121	88
Other	215	224	119
Total	1,473	813	568

Source: Department of Environment of the Ministry of Environment and National Development Unit

¹ Provisional

Table 20 - Number of EIA and PER licences granted by type of project, Island of Mauritius, 2004 - 2007

Project	EIA				PER ²	
	2004	2005	2006	2007	2006	2007 ¹
Land parcelling (morcellement)	21	19	9	3	8	5
Poultry rearing	-	-	-	18	15	19
Industrial development	1	5	4	11	17	28
Coastal hotels & related works	15	10	20	-	1	23
Livestock rearing	-	-	-	10	6	-
Housing	34	7	13	-	14	4
Stone crushing plants	2	3	1	-	-	-
Development in port area	-	1	1	-	-	-
Service ("filling") station	-	-	-	-	4	-
Other	12	10	7	13	26	17
Total	85	55	55	55	91	96

Source: Department of Environment of the Ministry of Environment and National Development Unit

¹ Provisional

² PER licence was issued as from September 2002.

Table 21 - Contraventions and notices established by Police De L'Environnement, Island of Mauritius, 2004 - 2007

Type of contravention	2004	2005	2006	2007
Illegal littering	4,422	3,624	9,427	8,119
Illegal dumping	19	14	32	16
Noise	63	30	0	12
Smoking in prohibited area	77	38	63	75
Waste carriers offences	64	18	21	0
Setting fire within 50 metres from building/plantation	11	4	3	0
Obstruction	27	10	1	0
Road Traffic Offences	195	193	372	133
Trading without licence	100	56	47	47
Allowing animal to stray	15	10	0	0
Disturbance	3	1	1	0
Others	13	15	46	30
Total	5,009	4,013	10,013	8,432
No. of notices issued to drivers of vehicles emitting black smoke	4,172	5,156	6,236	3,796

Source: Ministry of Environment and National Development Unit