ENERGY AND WATER STATISTICS - 2004

Introduction

Data presented in this issue of Economic and Social Indicators on Energy and Water Statistics refer to the years 2003 and 2004. These statistics have been compiled in close collaboration with the Ministry of Public Utilities, Central Electricity Board, Central Water Authority, Water Resources Unit and the Meteorological Services. All data refer to the Republic of Mauritius, unless stated otherwise.

2. Energy

2.1 The energy commodity balance

The energy commodity balance (Tables 1 & 2) shows the supply and final uses of electricity and the different types of fuel. Total primary energy requirement is obtained as the sum of the indigenous production (hydro, fuelwood and bagasse) and imports less re-exports and bunkering, after stock adjustments. Final energy consumption is the total amount of energy required by end users as a final product. End-users are categorised into five sectors, namely manufacturing, transport, commercial and distributive trade, residential and agriculture.

In order to compare the energy content of the different fuels, a common accounting unit, namely a tonne of oil equivalent (toe) is used. The conversion factors used, are given on page 7.

2.2 Total primary energy requirement

The total primary energy requirement of the country in the year 2004 amounted to some 1,256 ktoe of which 980 ktoe (78.0%) were met from imported fuels and the remaining, 276 ktoe (22.0%), from indigenous sources. Imports consisted of 801 ktoe of petroleum products and 179 ktoe of coal while the indigenous production was mainly derived from bagasse (93.5%), hydro electricity (3.8%) and fuelwood (2.6%) (Table 3).

The total primary energy requirement index, expressed with 1990 as reference year (1990 = 100), increased by 4.5 points or 2.7% from 167.3 in 2003 to 171.8 in 2004. Per capita primary energy requirement increased by 2% from 1.00 toe to 1.02 toe (Table 16).

Energy intensity defined as total primary energy requirement (toe) per Rs 100,000 of GDP (in 1990 rupees) provides a measure of the efficiency with which energy is being used in production. A lower ratio indicates a more efficient use of energy. As shown in Table 16, energy intensity, which stood at 1.64 in 2003 dropped to 1.62 in 2004.

2.2.1 Local production

Total energy production from local sources increased by 3.4% from 267 ktoe in 2003 to 276 ktoe in 2004. Production of hydroelectricty went up from 10 ktoe to 11 ktoe while, in terms of energy content, production of bagasse increased from 249 ktoe to 258 ktoe.

2.2.2 Imports of energy sources

Imports of energy sources are shown in Table 4. Some 1,226 ktoe of petroleum products and coal were imported in 2004 compared to 1,154 ktoe in 2003, representing an increase of 6.2%. Petroleum products increased from 975 ktoe to 1,020 ktoe (+4.6%) and coal from 179 ktoe to 206 ktoe (+15.1%). Because of the rise in the prices of petroleum products and coal, the import bill was 39% higher in 2004, Rs 9,685 million against Rs 6,991 million in 2003.

2.2.3 Re-exports and bunkering

Of the 1,226 ktoe of imported energy sources, 237 ktoe (19.3%) were supplied to foreign vessels and aircraft. Re-exports consisted of 106 ktoe of diesel oil, 38 ktoe of fuel oil and 92 ktoe of aviation fuel (Table 5).

2.3 Electricity generation

In 2004, some 2,165 GWh (186 ktoe) of electricity was generated, as compared to 2,081 GWh (179 ktoe) in 2003, representing an increase of 4.0%. The Central Electricity Board (CEB) generated 56.6% and Independent Power Producers, 43.4%. Thermal energy represented 94.4% and hydro, the remaining 5.6%. The peak demand in 2004 reached 332.6 MW (Tables 6, 7 and 8).

2.3.1 Fuel input for electricity generation

Table 9 shows the different types of fuel used for electricity generation. Fuel input increased from 556 ktoe in 2003 to 572 ktoe in 2004, representing an increase of 2.9%. The major components of the fuel input were fuel oil (37.0%), bagasse, (30.6%) and coal (28.8%).

2.3.2 Electricity sales

Electricity sales increased by 4.7% from 1,627 GWh in 2003 to 1,704 GWh in 2004. The average sales price of electricity increased from Rs 3.09 per KWh in 2003 to Rs 3.13 per KWh in 2004. (Table 10)

The consumption of electricity per capita per annum stood at 1,382 kWh in 2004 compared to 1,330 kWh in 2003 (Table 16).

2.4 Final energy consumption

Final energy consumption increased by 2.8% from 815 ktoe in 2003 to 838 ktoe in 2004. "Transport" and "Manufacturing" were the two largest energy-consuming sectors accounting for 48.8% and 30.9% respectively. They were followed by "Households" (13.2%), "Commercial and Distributive Trade" (6.1%) and Agriculture (0.5%). The details on the different types and amount of fuel consumed by each sector are given in Table 11.

2.4.1 Manufacturing

Energy used for manufacturing process decreased by 1.1% from 262 ktoe in 2003 to 259 ktoe in 2004. The contribution of bagasse was 83 ktoe, electricity, 66 ktoe, fuel oil, 48 ktoe and diesel oil, 44 ktoe.

2.4.2 Transport

In 2004, some 409 ktoe of energy were used for transportation, representing an increase of 4.7% over last year. Gasolene consumption increased from 96 ktoe to 98 ktoe (+2.1%) and that of diesel oil from 163 ktoe to 166 ktoe (+1.8%). Consumption of aviation fuel rose by 10.1%, from 129 ktoe to 142 ktoe. The use of LPG in the transport sector increased from 2.4 ktoe in 2003 to 2.9 ktoe in 2004, showing an increase of 21.0%.

2.4.3 Households

Energy consumed by households increased by 3.7% to 111 ktoe in 2004. The two main sources of energy for households were electricity and LPG, representing 44.6% and 41.7 of total energy consumption by households. Electricity consumption increased by 1.9% whilst that of LPG by 5.7%.

2.4.4 Commercial and Distributive Trade

Total energy consumption by "Commercial and Distributive Trade" sector went up by 8.0% in 2004 to reach 51 ktoe. Electricity was the main source of energy and its consumption increased from 41 ktoe to 44 ktoe in 2004 (+7.3%).

2.4.5 Agriculture

Consumption of energy in the agricultural sector went down from 4.8 ktoe in 2003 to 4.4 ktoe in 2004 (-8.3%), mainly as a result of a decrease of 0.2 ktoe in electricity consumption.

3 Water

3.1 Rainfall

During the year 2004 the mean amount of rainfall recorded around the island of Mauritius was 2,270 millimetres, a 5.7% increase compared to 2,148 millimetres in 2003. The mean rainfall was highest during the month of January with 443 mm and the driest month, October, registered only 36 mm of rainfall.

In Rodrigues, the mean rainfall registered was 1,134 millimetres at Pointe Canon and 1,088 millimetres at Plaine Corail (Tables 12).

3.2 Water storage level

In 2004, the minimum and maximum percentage water storage level of the different reservoirs were as follows:

Mare aux Vacoas (55% and 99%) La Nicoliere (54% and 100%) Piton du Milieu (46% and 100%) La Ferme (22% and 100%) Mare Longue (0% and 100%) Midlands Dam (66% and 100%)

During the same period the mean water level for all the reservoirs combined together (excluding Midlands Dam) varied from 46% to 99% (Table 13). It is to be noted that the mean water level is computed as the average level during a month.

3.3 Water production

The total water production by the different water plants amounted to 185 million cubic metres (Mm³) in 2004, a 0.5% increase compared to 184 Mm³ in 2003. In 2004, average water production from surface and ground water represented 48.2% and 51.8% respectively (Table 14).

3.4 Water sales and revenue collectible

Total volume of water sold decreased from $103.8~\text{Mm}^3$ in 2003 to $102.4~\text{Mm}^3$ in 2004 (-1.3%). Potable water made up 88.0% of the volume sold and the remaining 12.0% consisted of non-treated water. Water for domestic consumption amounted to $70.6~\text{Mm}^3$, accounting for nearly 68.9% of the water sales.

The amount of revenue collectible for the year 2004 amounted to Rs 897.4 million, that is a decrease of 0.7% over the amount of Rs 903.7 million for 2003 (Table 15).

Central Statistics Office

Ministry of Finance and Economic Development Port Louis June 2005

Contact person:

Mr. Y. Thorabally (Statistician) Ministry of Public Utilities Level 10, Air Mauritius Centre President John Kennedy Street Port Louis

Tel: 210-0408/3435 Fax: 208-6497 Email: mpustat@mail.gov.mu

Concepts and Terminology

The energy data have been compiled according to the recommendations of the United Nations Manual, Series F No. 29 on Energy Statistics.

- Energy

Energy means the capacity for doing work or for producing heat. Producing heat is a common manifestation of "doing work" as are producing light and motive force.

Primary energy

Primary energy designates energy from sources that involve only extraction or capture, with or without separation from contiguous material, cleaning or grading, before the energy embodied in that source can be converted into heat or mechanical work. Primary energy is not derived from any other form of energy. By convention, sources of energy that occur naturally such as coal, natural gas, fuel wood are termed primary energy.

Secondary energy

Secondary energy designates energy from all sources of energy that results from transformation of primary sources.

- Fuels

The term fuel is used to describe those energy sources, whether primary or secondary, that must be subjected to combustion or fission in order to release for use the energy stored up inside them.

- Re-export of bunkers and aviation fuel

Bunkers relate to fuels sold to ships irrespective of their flags of ownership or registration. Re-exports include aviation fuel delivered to foreign aircraft. Aviation fuel delivered to aircraft owned by the national airline is included as final consumption in the transport sector.

- 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.

- Primary energy input to hydro electricity.

The primary energy input to hydro electricity is defined as the energy value of the electricity generated from hydro.

Energy conversion factors

The following energy conversion factors have been used to express the energy content for the different fuels in terms of a common accounting unit, tonnes of oil equivalent (toe).

	Tonne	<u>toe</u>
Gasolene	1	1.08
Diesel Oil	1	1.01
Dual Purpose Kerosene (DPK)	1	1.04
Fuel oil	1	0.96
Liquefied Petroleum Gas (LPG)	1	1.08
Coal	1	0.62
Bagasse	1	0.16
Fuel Wood	1	0.38
Charcoal	1	0.74
	CWb	too

	<u>GWh</u>	<u>toe</u>
Hydro/Wind	1	86
Electricity	1	86

Note: Prior to 2003, electricity from hydro was converted into its primary equivalent (I GWh = 220 toe). To be consistent with international practice, its final equivalent, (1 GWh = 86 toe) is being used

1 toe = 41.84 gigajoule (net calorific value)

SYMBOLS

The following technical abbreviations have been used throughout the report.

toe	Tonne of oil equivalent
ktoe	Thousand tonnes of oil equivalent
LPG	Liquefied Petroleum Gas
MW	Megawatt (1,000 kW)
kWh	Kilowatt hour
GWh	Gigawatt hour
Mm^3	Millimetres

ACRONYMS

CEB	Central Electricity Board
IPP	Independent Power Producers
GDP	Gross Domestic Product

Table 1 - Energy commodity balance, 2004

Tonne of oil equivalent (toe)

												1	onne or on equ	iivalent (toe)
Source Flow	Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro	Wind	Bagasse	Electricity	Total
Local production	-	-	-	-	-	-	-	7,325	-	10,516	37	257,792	-	275,670
Imports	205,732	94,722	322,929	236,074	31,041	277,265	58,082	-	-	-	-	-	-	1,225,847
Re-exports and bunkering	-	-	(106,250)	(91,920)	-	(38,483)	-	-	-	-	-	-	-	(236,653)
Stock change / Statistical error	(26,336)	2,856	(706)	(1,672)	(4,748)	20,344	1,157	-	-	-	-	-	-	(9,107)
Total Primary Energy Requirement	179,396	97,578	215,973	142,482	26,293	259,127	59,239	7,325	-	10,516	37	257,792	-	1,255,757
Public electricity generation plant	-	-	(4,008)	-	(17,218)	(211,264)	-	-	-	(10,514)	(37)	-	105,374	(137,666)
Autoproducer plants	(164,379)	-	-	-	-	-	-	-	-	(2)	-	(174,852)	80,835	(258,398)
Other transformation	-	-	-	-	-	-	-	(730)	355	-	-	-	-	(374)
Own use	-	-	-	-	-	-	-	-	-	-	-	-	(4,233)	(4,233)
Distribution losses	-	-	-	-	-	-	-	-	-	-	-	-	(16,962)	(16,962)
Total Final Consumption	15,016	97,578	211,966	142,482	9,075	47,863	59,239	6,595	355	-		82,941	165,014	838,123
Manufacturing sector	15,016	-	43,806	-	-	47,863	2,976	538	-	-	-	82,941	66,125	259,265
Transport sector	-	97,578	165,761	142,482	-	-	2,906	-	-	-	-	-	-	408,728
Commercial and distributive trade sector	-	-	-	-	-	-	6,882	-	266	-	-	-	44,395	51,544
Household	-	-	-	-	9,075	-	46,284	6,057	89	-	-	-	49,451	110,957
Agriculture	-	-	2,399	-	-	-	-	-	-	-	-	-	2,046	4,445
Other	-	-	-	-	-	-	190	-	-	-	-	-	2,996	3,186

Note: figures in brackets represent negative quantities

9

2,668

2,886

Table 2 - Energy commodity balance, 2003¹

Tonne of oil equivalent (toe) Source Coal Fuel Oil LPG Fuel Wood Charcoal Hydro Gasolene Diesel Aviation Fuel Kerosene Bagasse Electricity Total Flow Local Production 7.262 10.128 249,126 266,516 20,992 Imports 179,411 93,746 312,307 215,811 276,466 55,636 1,154,370 Re-Exports and Bunkering (98,644)(92,274)(33,379)(224,297)Stock change / Statistical error 197 16,618 2,635 (2,729)5,035 (2,138)6,585 26,202 Total Primary Energy Requirement 196,029 96,381 210,934 128,572 18,854 249,671 55,833 7,262 10,128 249,126 1,222,792 Electricity Generation (10,121)97,602 (3,935)(10,259)(196,281)(122,992)Autoproducer plants (178,049)(167,487)81,408 (264,136)Other transformation (722)352 (371)Own use (3,875)(3,875)(16,547)Distribution losses (16,547)Total Final Energy Consumption 17,980 96,381 207,000 128,572 8,596 53,390 55,833 6,540 352 81,639 158,588 814,870 Manufacturing Sector 17,980 53,390 3,201 543 81,639 63,830 262,270 41,686 Transport Sector 96,381 162,880 128,572 2,401 390,234 Commercial and Distributive Trade Sector 6,209 259 41,216 47,684 Household 8,596 43,804 5,996 93 48,556 107,044 Agriculture 2,434 2,318 4,752

218

1 revised

Other

Note: figures in brackets represent negative quantities

Table 3 - Primary energy requirement, 2003 - 2004

En anore accessos		2003			2004	
Energy source	Tonne/GWh	Ktoe	%	Tonne/GWh	Ktoe	%
Imported						
Gasolene	89,242	96.4	7.9	90,350	97.6	7.8
Diesel Oil	208,846	210.9	17.3	213,835	216.0	17.2
Dual Purpose Kerosene	141,756	147.4	12.1	162,283	168.8	13.4
Kerosene	18,129	18.8	1.5	25,281	26.3	2.1
Aviation Fuel	123,627	128.6	10.5	137,002	142.5	11.3
Fuel Oil	260,074	249.7	20.4	269,924	259.1	20.6
LPG	51,697	55.8	4.6	54,851	59.2	4.7
Sub total (petroleum products)		760.2	62.2		800.7	63.8
Coal	316,176	196.0	16.0	289,348	179.4	14.3
Sub total (Imported)		956.3	78.2		980.1	78.0
Local						
Electricity (hydro) GWh	118	10.1	0.8	122	10.6	0.8
Bagasse ¹	1,557,040	249.1	20.4	1,611,202	257.8	20.5
Fuel Wood ¹	19,110	7.3	0.6	19,275	7.3	0.6
Sub total (Local)		266.5	21.8		275.7	22.0
Total		1,222.8	100.0		1,255.8	100.0

¹ estimates

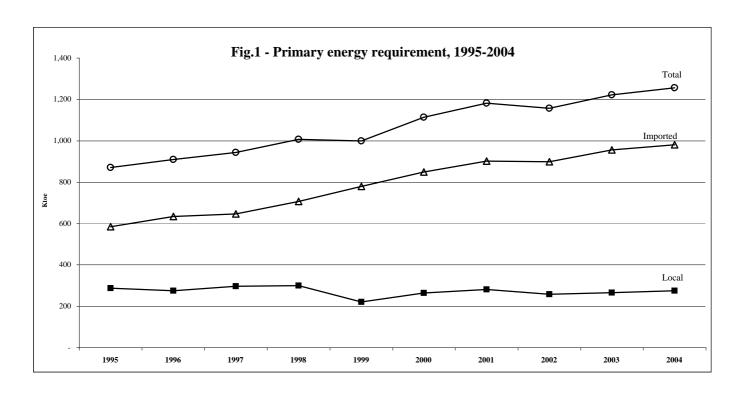


Table 4 - Imports of energy sources, 2003-2004

	2003				2004			
Energy source	Tonne (000)	Ktoe	%	C.I.F value (Rs million)	Tonne (000)	Ktoe	%	C.I.F value (Rs million)
Gasolene	86.8	93.8	8.1	748.5	87.7	94.7	7.7	1,030.6
Diesel Oil	309.2	312.3	27.1	2,206.9	319.7	322.9	26.3	3,101.5
Dual Purpose Kerosene	227.7	236.8	20.5	1,757.0	256.8	267.1	21.8	2,772.7
Kerosene	20.2	21.0	1.8	168.5	29.9	31.0	2.5	321.4
Aviation Fuel	207.5	215.8	18.7	1,588.5	227.0	236.0	19.3	2,451.3
Fuel Oil	288.0	276.5	23.9	1,452.9	288.8	277.3	22.6	1,621.6
LPG	51.5	55.6	4.8	518.2	53.8	58.1	4.7	639.4
Sub total (petroleum products)		975.0	84.5	6,683.5		1,020.1	83.2	9,165.9
Coal	289.4	179.4	15.5	307.8	331.8	205.7	16.8	519.7
Total imports		1,154.4	100.0	6,991.4		1,225.9	100.0	9,685.5

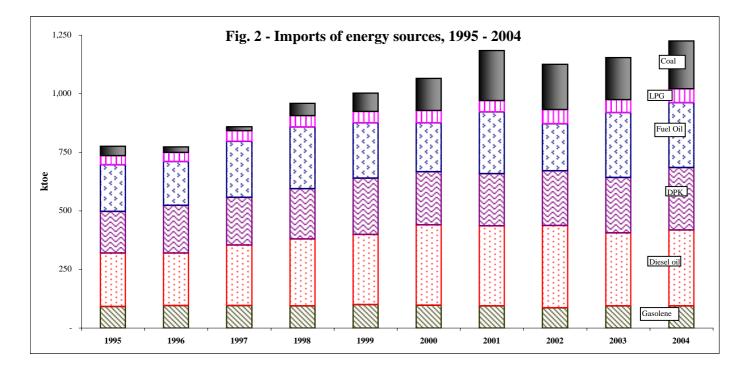


Table 5 - Re-exports of energy sources to foreign aircraft and vessels, 2003-2004

Energy Re-exported		2003		2004		
Energy Re-exported	Tonne	Ktoe	%	Tonne	Ktoe	%
Aviation fuel to foreign aircraft	88,725	92.3	41.1	88,385	91.9	38.8
Diesel oil	97,667	98.6	44.0	105,198	106.3	44.9
Fuel oil	34,770	33.4	14.9	40,086	38.5	16.3
Total		224.3	100.0		236.7	100.0

Table 6 - Evolution of plant capacities, peak demand and electricity generation, 2003-2004

Installed		Effective	Peak	F	lectricity g	generated (C	GWh)
Year	capacity (MW)		demand (MW)	Hydro	Wind	Thermal	Total
2003	650.8	573.7	323.8	117.8	ı	1,963.8	2,081.5
2004	654.5	558.9	332.6	122.3	0.4	2,042.5	2,165.2

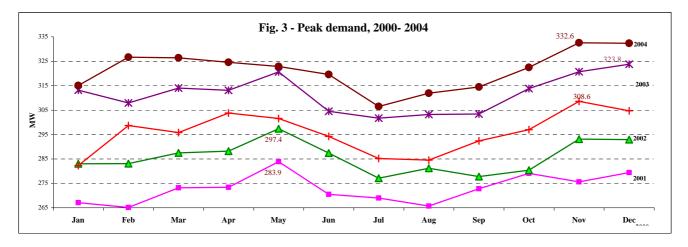


Table 7 - Electricity production by source of energy, 2003-2004

Source of onemay	2	003	20	004
Source of energy	GWh	%	GWh	%
Primary energy	117.8	5.7	122.7	5.6
Hydro	117.8	5.7	122.3	5.6
Wind	0.0		0.4	0.0
Secondary energy	1,963.8	94.3	2,042.5	94.3
Gas turbine (kerosene)	32.3	1.6	44.3	2.0
Diesel & Fuel oil	985.0	47.3	1,058.3	48.9
Coal	497.6	23.9	470.3	21.7
Bagasse	448.9	21.6	469.6	21.7
Total	2,081.5	100.0	2,165.2	100.0

Table 8 - Generation of electricity by CEB and IPP, 2003 - 2004

Dowen producer	2	2003	20	004
Power producer	GWh	%	GWh	%
СЕВ	1,134.9	54.5	1,225.3	56.6
Island of Mauritius	1,110.5	53.4	1,198.1	55.3
Hydro	117.7	5.7	122.3	5.6
Thermal	992.8	47.7	1,075.8	49.7
Island of Rodrigues(Thermal)	24.4	1.2	27.2	1.3
Wind	0.0	0.0	0.4	0.0
Thermal	24.4	1.2	26.8	1.2
IPP	946.6	45.5	939.9	43.4
Total hydro	0.1	0.0	0.0	0.0
of which: exported to CEB	0.0	0.0	0.0	0.0
Total thermal	946.5	45.5	939.9	43.4
of which: exported to CEB	729.5	35.0	725.1	33.5
Total	2,081.5	100.0	2,165.2	100.0
Island of Mauritius				
CEB	1,110.5	60.4	1198.1	62.3
IPP export to CEB	729.5	39.6	725.1	37.7
Total units generated for sales	1,840.0	100.0	1923.2	100.0

Source: Central Electricity Board and Annual Sugar Industry Energy Survey

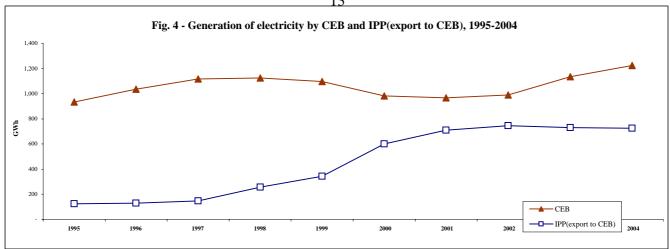


Table 9 - Fuel input for electricity production, 2003 - 2004

Fuel		2003		2004		
ruei	Tonne	Ktoe	%	Tonne	Ktoe	%
Fuel oil	204,459	196.3	35.3	220,067	211.3	37.0
Diesel oil	3,896	3.9	0.7	3,968	4.0	0.7
Kerosene	9,864	10.3	1.8	16,555	17.2	3.0
Coal	287,176	178.0	32.0	265,128	164.4	28.8
Bagasse	1,046,794	167.5	30.1	1,092,823	174.9	30.6
Total		556.0	100.0		571.7	100.0

Source: Central Electricity Board and Annual Sugar Industry Energy Survey

Table 10 - Sales of electricity by type of tariff, 2003 - 2004

		2003		2004							
Type of tariff	No. of consumers	Consumption (MWh)	Average sales price ¹ per KWh (Rupees)	No. of consumers	Consumption (MWh)	Average sales price ¹ per KWh (Rupees)					
Domestic	311,523	564,606	3.16	319,425	575,012	3.22					
Commercial	29,779	479,255	4.02	30,541	516,226	4.04					
Industrial	7,218	552,006	2.13	7,205	577,866	2.16					
of which: irrigation	401	26,955	1.63	428	554,076	1.67					
Other	328	31,027	4.34	335	34,842	4.34					
Total	348,848	1,626,894	3.09	357,506	1,703,946	3.13					

1 Excluding VAT & meter rent

Source: Central Electricity Board (CEB)

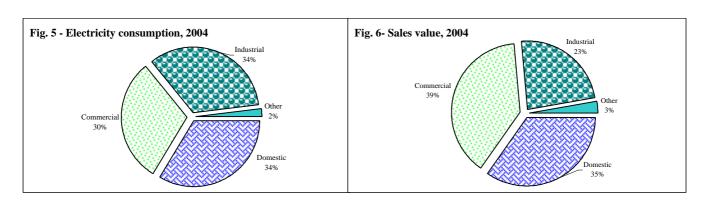
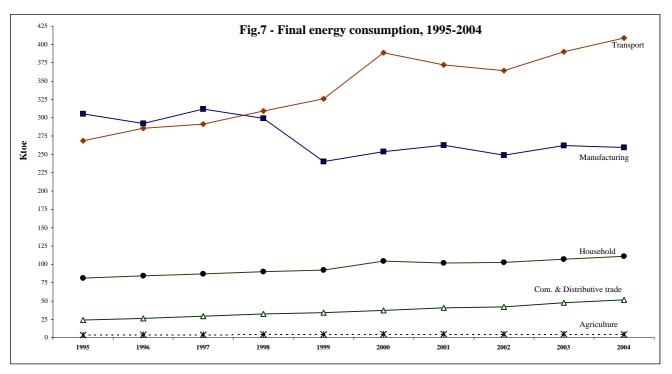


Table 11 - Final energy consumption by sector and type of fuel, 2003 - 2004

			2003			2004	
	Sector	Tonne/GWh	Ktoe	%	Tonne/GWh	Ktoe	%
1.	Manufacturing		262.3	32.2		259.3	30.9
	1.1 excluding bagasse		180.6	22.2		176.3	21.0
	Fuel oil	55,615	53.4	6.6	49,857	47.9	5.7
	Diesel oil	41,273	41.7	5.1	43,372	43.8	5.2
	LPG	2,964	3.2	0.4	2,756	3.0	0.4
	Coal	29,000	18.0	2.2	24,220	15.0	1.8
	Fuel wood ¹	1,430	0.5	0.1	1,415	0.5	0.1
	Electricity (GWh)	742.20	63.8	7.8	768.90	66.1	7.9
	1.2 bagasse	510,246	81.6	10.0	518,379	82.9	9.9
2.	Transport		390.2	47.9		408.7	48.8
	Gasolene	89,242	96.4	11.8	90,350	97.6	11.6
	LPG	2,223	2.4	0.3	2,691	2.9	0.3
	Diesel oil	161,267	162.9	20.0	164,120	165.8	19.8
	Aviation Fuel	123,627	128.6	15.8	137,002	142.5	17.0
3.	Household		107.0	13.1		111.0	13.2
	Kerosene	8,265	8.6	1.1	8,726	9.1	1.1
	LPG	40,559	43.8	5.4	42,856	46.3	5.5
	Fuel wood 1	15,780	6.0	0.7	15,940	6.1	0.7
	Charcoal 1	125	0.1	0.0	120	0.1	0.0
	Electricity (GWh)	564.61	48.6	6.0	575.01	49.5	5.9
4.	Commercial and Distributive Trade		47.7	5.9		51.5	6.1
	LPG	5,749	6.2	0.8	6,372	6.9	0.8
	Charcoal 1	350	0.3	0.0	360	0.3	0.0
	Electricity (GWh)	479.3	41.2	5.1	516.2	44.4	5.3
5.	Agriculture		4.8	0.6		4.4	0.5
	Diesel oil ¹	2,410	2.4	0.3	2,375	2.4	0.3
	Electricity (GWh)	27.0	2.3	0.3	23.8	2.1	0.2
6.	Other (n.e.s)		2.9	0.4		3.2	0.4
	TOTAL		814.9	100.0		838.1	100.0

1 Estimates



Plaine Corail

Island of Rodrigues

Table 12 - Mean rainfall, 2003 - 2004

																								Millimetre	es
	Long Term	20		20		Long Term	20		20	-	Long Term	20		200		Long Term	20	003	20	004	Long Term	20	03	20	04
Period	-	Mean	% of Long Term Mean	Mean	% of Long Term Mean	Mean (1971- 2000)	Mean	% of Long Term Mean	Mean	% of Long Term Mean	Mean (1971- 2000)	Mean	% of Long Term Mean	Mean	% of Long Term Mean	Mean (1971- 2000)	Mean	% of Long Term Mean	Mean	% of Long Term Mean	Mean (1971- 2000)	Mean	% of Long Term Mean	Mean	% of Lon Term Mean
]	North				,	South					East					West					Center		
Year	1,310	1,325	101	1495	114	2,557	2,533	99	2,794	109	2,065	2,403	116	2474	120	918	981	107	900	98	2,790	3,018	106	3,280	118
Jan	186	103	55	331	179	290	181	62	490	169	260	136	52	464	178	167	93	56	270	161	354	197	49	617	174
Feb	245	237	97	134	55	366	424	116	417	114	336	352	105	355	106	219	192	88	189	86	464	490	118	438	94
Mar	161	139	86	189	117	325	212	65	271	83	243	265	109	231	95	112	83	74	118	105	337	269	77	402	119
Apr	134	316	236	187	140	280	434	155	396	141	245	579	236	364	149	97	319	329	72	74	293	521	176	386	132
May	107	139	130	133	124	212	258	122	290	137	180	229	127	226	126	56	83	148	30	55	210	354	180	336	161
Jun	72	60	83	70	97	157	187	119	196	125	123	142	115	147	119	33	38	115	35	105	163	195	111	201	124
Jul	73	77	105	75	102	180	319	177	111	62	116	216	186	107	92	25	47	188	17	67	181	315	168	130	72
Aug	68	70	103	28	41	180	111	62	53	30	114	117	103	51	45	26	29	112	8	29	192	163	89	76	39
Sep	44	78	177	135	306	112	214	191	104	93	79	173	219	152	192	20	23	115	14	71	126	245	196	143	113
Oct	41	21	51	14	35	96	47	49	39	40	74	34	46	42	56	18	6	33	7	41	102	65	55	59	58
Nov	47	56	119	89	189	110	100	91	213	193	86	97	113	154	179	31	27	87	33	108	105	119	92	202	192
Dec	132	29	22	110	84	249	46	18	214	86	209	63	30	181	87	114	41	36	107	94	263	85	30	290	110
	I	sland	of Ma	uritius	;				Isla	nd of	Rodrig	ues				3500		Fig. 8 -	Mean ar	nual rain	fall, 2003 &	& 2004			
							Poir	nte Car	ıon			Plai	ne Co	ail								8			
Year	2,006	2,148	107	2,270	113	1,105	1,320	119	1,134	103	946	1,080	114	1,088	115	3000 -		_				8			
Jan	261	142	54	443	170	150	91	61	208	139	122	116	95	226	185	2500 -						8			
Feb	336	358	107	316	94	185	87	47	55	30	168	116	69	57	34	2300 1			2	8		8	_		
Mar	242	204	84	252	104	131	365	279	110	84	125	145	116	116	93	E 2000			<u>.</u>			.	8	■ Mean(1	971-2000)
Apr	221	454	205	297	134	117	336	287	264	225	100	301	301	251	251	Ħ						STATE OF THE PARTY		2003	
May	159	218	137	203	128	78	115	147	164	209	72	90	124	191	265	1500 -	50						8		
Jun	115	128	111	131	114	78	61	78	66	86	62	106	170	48	78		13 (8)			8		8 8	8	8	

500 -

Island of Mauritius

Source: Mauritius Meteorological Services

208 173

185

Jul

Aug

Sep

Oct

Nov

Dec

148

51

139

56 127

55

236

98

Table 13 - Percentage water level by month and reservoir, 2003 - 2004

Tabl	e 13 -	Jan	enta Feb	ge wa	Apr	May	Dy m	Jul	Aug	rese Sep	Oct	r, ZUU	Dec	200 4 1
		Jan	ren	Mai		e aux			Aug	зер	Oct	NOV	Dec	Fig.9 - Mare aux Vacoas (25.89Mm²), 2003-2004
Normal	l^1	60	65	80	83	83	81	79	80	<i>78</i>	72	63	58	Fig. 7 - Mare aux vacoas (25.62Mm), 2003-2004
2003	Mean	69	77	84	88	97	94	97	97	97	93	83	72	25 - × ×
	Min	66	68	81	83	92	92	94	95	95	88	79	65	
	Max	73	85	86	91	99	95	98	98	98	97	88	78	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
2004														§ 10 -
2004		74	84	96	98	98	96	96	90	80	70	62	58	5 - Mean'04
	Min	65	79	92	96	97	95	94	85	76	64	59	55	0 +
	Max	79	90	98	99	99	97	98	94	85	76	64	60	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
NI 1	,1	62	75	01	1 1	a Nico 95	oliere <i>94</i>	93	94	89	69	16	39	Fig.10 - La Nicoliere (5.26 Mm³), 2003-2004
Normal	I	63	75	91	92							46		x 0 0 0 0
2003		40	68	93	100	98	67	55	79 52	48	69 50	75	69	Tig
	Min	36	45	84	97	89	38	28	52	29	50	63	49	93.
	Max	44	93	100	100	100	88	96	100	82	92	91	88	
2004	Mean	82	100	100	100	100	100	100	84	71	74	79	71	2 - Normal - Mean 03
	Min	54	100	100	100	100	98	99	62	56	63	65	61	0
	Max	100	100	100	100	100	100	100	99	96	95	92	81	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
	.1	I			1 1	on du	1	i		۱	1			Fig.11 - Piton du Milieu (2.99 Mm³), 2003-2004
Normal		64	72	88	89	91	86	83	83	81	73	60	57	31 × ×
2003		69	90	99	100	100	97	99	99	97	89	70	54	
	Min	65	74	97	98	98	94	98	97	95	79	64	45	[time of the of
	Max	74	100	100	100	100	99	100	100	100	97	79	64	s ₂ 2 - ×
2004	Mean	77	100	100	100	99	94	97	83	67	63	57	63	Normal Mean03
	Min	46	99	99	99	98	91	92	73	65	58	55	57	—■—Mcan04
	Max	100	100	100	100	100	98	99	91	73	66	59	73	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
		Ī	l	1 1	1 1	La Fei	1	1		1	1	1		Fig.12 - La Ferme (11.52 Mm³), 2003-2004
Normal		23	30	64	75	77	69	58	49	37	25	13	10	12] X X X
2003	Mean	10	16	36	62	100	99	97	99	96	86	71	54	9.
	Min	9	8	30	43	94	96	94	98	93	80	63	44	1 (Anit)
	Max	11	29	43	92	100	100	100	100	98	93	79	62	Water to sol (Mil)
2004	Mean	63	99	100	100	100	95	93	84	69	53	35	24	Normal Mean'03
	Min	45	88	100	100	100	91	88	79	61	43	29	22	Mean T4
	Max	86	100	100	100	100	100	96	88	79	61	42	28	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
		ı	l	1 1	1 1	are Lo		1		1	1	1		Fig.13 - Mare Longue (6.28 Mm³), 2003-2004
Normal	Ī	32	48	73	75	77	73	65	63	58	46	28	20	6-1 × × × ×
2003	Mean	21	33	52	65	96	99	100	99	99	96	63	21	
	Min	19	16	48	57	76	98	98	98	98	85	43	4	- Printing
	Max	22	47	57	74	100	100	100	100	100	99	84	42	
2004	Mean	24	47	72	95	99	96	89	70	50	33	21	7	——— Mean'03
	Min	4	37	58	84	98	93	79	60	43	26	17	0	0 Mean'04
	Max	36	57	84	99	100	98	95	79	60	42	25	17	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
			I	1 1	1 1	exclud		1		1	1	1		
Normal		49	56	77	82	83	79	75	73	68	58	46	41	
2003		47	58	71	81	97	93	93	96	92	89	76	60	
2004	Mean	66	86	95	98 M:	99 dlands	96 s Don	95	85	72	62	52	46	Fig.14 - Midlands Dam (25.5 Mm³),2003-2004
2003	Mean	24	49	70	90	100	s Dan 100	99	100	100	94	Q 1	69	
2003		24								100		81		
	Min	19	31	64	78	100	99	99	99	99	83	74	65	<u>8</u> 15 1 ★
2000	Max	31	63	78	100	100	100	100	100	100	99	83	74	
2004		80	100	100	100	100	100	100	99	94	89	81	86	5 - Mean '04
	Min	66	96	99	99	100	99	99	99	89	85	79	81	0 +
1	Max	96	100	100	100	100	100	100	99	99	91	84	90	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1 No.	1 1			· 1000	1000									

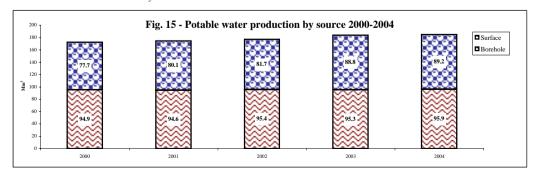
¹ Normal is the long term mean for 1990-1999

Source: Water Resources Unit

Table 14 - Average monthly potable water production (Mm³), 2003 - 2004 (Island of Mauritius)

Month	Mar	e Aux Va	coas	Mare Au	x Vacoas	(Lower)	P	ort -Loui	s	Distric	t water su North	ipply -	Distric	t water so South	upply -	Distric	t water sı East	ipply -		To	ıction		
1,1011111	Surface	Borehole	Total	Surface	Borehole	Total	Surface	Borehole	Total	Surface Million C	Borehole ubic metres	Total	Surface	Borehole	Total	Surface	Borehole	Total	Surface	Borehole	Total	Surface	Borehole
2003	33.3	6.1	39.4	-	28.4	28.4	19.4	11.6	31.0	18.5	20.7	39.2	8.5	14.5	23.0	9.2	14.0	23.2	88.8	95.3	184.1	48.3%	51.7%
Jan	2.9	0.5	3.4	-	2.2	2.2	1.7	0.9	2.6	1.6	1.8	3.4	0.8	1.3	2.1	0.7	1.2	2.0	7.6	8.0	15.6	48.8%	51.2%
Feb	2.6	0.5	3.0	-	2.1	2.1	1.5	0.9	2.5	1.5	1.5	3.1	0.7	1.2	1.8	0.7	1.1	1.8	6.9	7.3	14.2	48.9%	51.1%
Mar	2.9	0.5	3.4	-	2.5	2.5	1.7	1.1	2.8	1.5	1.8	3.3	0.7	1.2	2.0	0.8	1.2	2.0	7.6	8.3	15.9	48.0%	52.0%
Apr	2.8	0.5	3.3	-	2.4	2.4	1.6	1.1	2.6	1.5	1.7	3.3	0.7	1.2	1.9	0.8	1.2	2.0	7.4	8.1	15.5	47.7%	52.3%
May	2.8	0.6	3.4	-	2.6	2.6	1.2	1.1	2.3	1.7	1.7	3.4	0.7	1.2	2.0	0.8	1.2	2.1	7.2	8.4	15.7	46.2%	53.8%
Jun	2.8	0.5	3.3	-	2.5	2.5	1.6	1.0	2.6	1.5	1.7	3.2	0.7	1.2	1.9	0.8	1.2	2.0	7.4	8.0	15.4	47.8%	52.2%
Jul	2.9	0.5	3.4	-	2.5	2.5	1.7	0.9	2.6	1.5	1.8	3.3	0.7	1.2	1.9	0.8	1.2	2.0	7.6	8.1	15.7	48.6%	51.4%
Aug	2.8	0.5	3.3	-	2.5	2.5	1.9	0.9	2.9	1.6	1.8	3.4	0.7	1.2	1.8	0.8	1.2	2.0	7.8	8.0	15.8	49.2%	50.8%
Sep	2.7	0.5	3.2	-	2.4	2.4	1.7	1.0	2.7	1.5	1.8	3.2	0.7	1.2	1.9	0.8	1.1	1.9	7.3	8.0	15.3	48.0%	52.0%
Oct	2.7	0.5	3.2	-	2.4	2.4	1.6	0.9	2.6	1.5	1.7	3.3	0.7	1.2	1.9	0.8	1.1	1.9	7.3	7.8	15.1	48.3%	51.7%
Nov	2.7	0.5	3.2	-	2.2	2.2	1.6	0.9	2.5	1.5	1.7	3.3	0.7	1.2	2.0	0.7	1.1	1.8	7.3	7.7	15.0	48.8%	51.2%
Dec	2.8	0.5	3.3	-	2.2	2.2	1.6	0.9	2.4	1.6	1.7	3.3	0.6	1.3	1.9	0.7	1.2	1.9	7.3	7.7	15.0	48.8%	51.2%
2004	34.0	6.0	40.0	-	27.8	27.8	18.8	11.3	30.1	18.9	21.2	40.1	8.7	15.1	23.8	8.8	14.7	23.5	89.2	95.9	185.2	48.2%	51.8%
Jan	2.9	0.5	3.4	-	2.3	2.3	1.7	1.2	2.9	1.6	1.8	3.3	0.7	1.3	2.0	0.7	1.2	1.9	7.6	8.2	15.8	47.9%	52.1%
Feb	2.7	0.5	3.2	-	2.4	2.4	1.5	1.1	2.6	1.5	1.7	3.1	0.7	1.2	1.8	0.8	1.2	1.9	7.1	7.9	15.0	47.3%	52.7%
Mar	2.9	0.5	3.4	-	2.5	2.5	1.7	0.9	2.6	1.6	1.8	3.4	0.7	1.2	2.0	0.8	1.3	2.1	7.7	8.2	15.9	48.5%	51.5%
Apr	2.8	0.5	3.3	-	2.4	2.4	0.9	1.1	2.0	1.6	1.7	3.3	0.7	1.2	1.9	0.8	1.2	2.0	6.7	8.2	14.9	45.0%	55.0%
May	2.9	0.5	3.4	-	2.5	2.5	0.9	1.1	2.0	1.6	1.7	3.3	0.7	1.2	1.9	0.8	1.3	2.1	6.8	8.3	15.1	45.1%	54.9%
Jun	2.8	0.5	3.3	-	2.4	2.4	1.7	1.0	2.7	1.6	1.7	3.3	0.7	1.2	1.9	0.8	1.2	2.0	7.5	8.0	15.5	48.4%	51.6%
Jul	2.9	0.5	3.4	-	2.4	2.4	1.8	0.8	2.7	1.6	1.8	3.4	0.7	1.3	2.0	0.8	1.2	2.0	7.8	8.1	15.8	49.1%	50.9%
Aug	2.9	0.5	3.4	-	2.3	2.3	1.8	0.9	2.7	1.6	1.8	3.4	0.7	1.2	1.9	0.8	1.2	2.0	7.8	8.0	15.7	49.4%	50.6%
Sep	3.0	0.5	3.5	-	2.2	2.2	1.9	0.7	2.6	1.6	1.8	3.4	0.8	1.4	2.1	0.7	1.2	1.9	7.8	7.8	15.6	50.1%	49.9%
Oct	2.9	0.5	3.4	-	2.1	2.1	1.8	0.9	2.7	1.6	1.9	3.4	1.0	1.4	2.3	0.7	1.2	1.9	7.8	8.0	15.8	49.5%	50.5%
Nov	2.7	0.5	3.2	-	2.1	2.1	1.6	0.7	2.4	1.6	1.8	3.4	0.8	1.3	2.1	0.6	1.3	1.9	7.3	7.6	15.0	49.1%	50.9%
Dec	2.8	0.5	3.3	-	2.2	2.2	1.6	0.9	2.4	1.6	1.7	3.3	0.6	1.3	1.9	0.7	1.2	1.9	7.3	7.7	15.0	48.8%	51.2%

Source: Central Water Authority



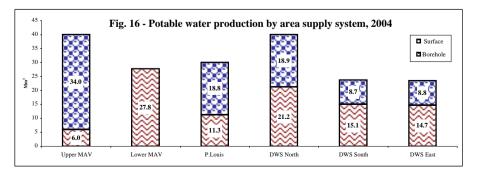
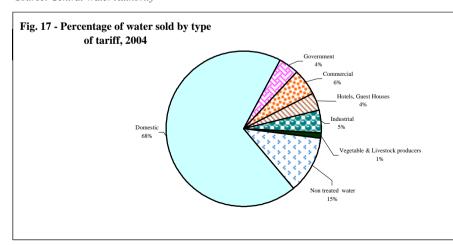


Table 15 - Water sales by type of tariff of subscriber, 2003 - 2004 (sland of Mauritius)

T				2003				2004									
Type of tariff	Subscri	bers	Volume	sold (m³)	Amount co	llectible	Average	Subscrib	bers	Volume so	ld (m³)	Amount col	lectible	Average consumption			
	No.	%	Mm³	%	Rs million	%	consumption (m ³)	No.	%	Mm ³	%	Rs million	%	(m³)			
Domestic	250,752	93.8	70.3	67.7	505.8	56.0	280	258,381	93.9	70.6	68.9	502.5	56.0	273			
Government	3,614	1.4	4.2	4.1	77.1	8.5	1,170	3,585	1.3	4.3	4.2	76.0	8.5	1,195			
Acquired / concessionary prises	48	0.0	0.0	0.0	0.2	0.0	472	47	0.0	0.0	0.0	0.1	0.0	424			
Commercial	9,455	3.5	5.6	5.4	92.3	10.2	589	9,638	3.5	5.7	5.5	93.5	10.4	587			
Hotels, Guest Houses	192	0.1	3.6	3.5	106.5	11.8	18,978	188	0.1	3.7	3.6	108.1	12.0	19,650			
Industrial	762	0.3	5.0	4.8	74.7	8.3	6,546	746	0.3	4.8	4.7	72.1	8.0	6,400			
Sub total	264,823	99.1	88.7	85.5	856.6	94.8	335	272,585	99.0	89.0	86.9	852.3	95.0	326			
Vegetable & Livestock producers	2,174	0.8	1.1	1.1	8.6	1.0	508	2,377	0.9	1.1	1.1	8.8	1.0	476			
Total potable water	266,997	99.9	89.8	86.5	865.3	95.7	336	274,962	99.9	90.1	88.0	861.2	96.0	328			
Total non-treated water (agriculture/Industrial)	253	0.1	14.0	13.5	38.4	4.3	55,310	254	0.1	12.3	12.0	36.3	4.0	48,288			
Grand Total	267,250	100.0	103.8	100.0	903.7	100.0	389	275,216	100.0	102.4	100.0	897.5	100.0	372			

Source: Central Water Authority



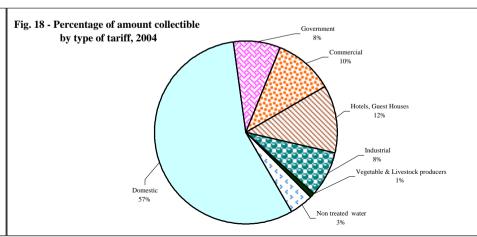


Table 16 - Main Indicators, 2000 - 2004

Indicators	Unit	2000	2001	2002	2003	2004
Mid-year population, Republic of Mauritius	thousand	1,187	1,200	1,210	1,223	1,233
GDP in1990 rupees	Rs.Million	66,607	70,071	71,472	74,545	77,602
GDP index (1990 = 100)		168.08	176.82	180.35	188.11	195.82
Total primary energy requirement	ktoe	1,113.11	1,182.04	1,157.33	1,222.80	1,255.77
Imported	ktoe	849.02	901.17	898.76	956.28	980.10
Local	ktoe	264.09	280.87	258.57	266.52	275.67
Annual increase	%	+11.37	+6.19	-2.09	+5.66	+2.70
Total primary energy requirement index (1990 = 100)		150.88	159.67	158.37	167.33	171.84
Import dependency	%	76.27	76.24	77.66	78.20	78.05
Energy intensity	toe per Rs.100,000 GDP	1.67	1.69	1.62	1.64	1.62
Per capita primary energy requirement	toe	0.94	0.99	0.96	1.00	1.02
Total final energy consumption	ktoe	749.0	784.4	765.0	814.9	838.1
Per capita final energy consumption	toe	0.63	0.65	0.63	0.66	0.68
Total electricity generated	GWh	1,778	1,911	1,949	2,082	2,165
Total electricity sold	GWh	1,374	1,467	1,510	1,627	1,704
Per capita consumption of electricity sold	kWh	1,158	1,222	1,248	1,330	1,382
Mean annual rainfall, Island of Mauritius	Millimetres	2,010	1,891	2,082	2,148	2,270
Mean annual rainfall, Island of Rodrigues	Millimetres	974	883	997	1,320	1,134
Potable water produced	Mm^3	173	175	177	184	185
Potable water consumed	Mm^3	82	85	86	90	90
Potable water produced per capita per day	litres	411	411	413	425	423
Potable water consumed per capita per day	litres	196	200	201	207	206

¹ Revised

² Refer to Island of Mauritius only