

SECTION - 17: CLIMATE AND ENVIRONMENT

Table 17.1 - Monthly average minimum temperature by region, 2008

(Degrees Celcius)

Region Month	North		South		East		West		Centre		All sugar zones	
	Mean Amount	Difference from normal	Mean Amount	Difference from normal	Mean Amount	Difference from normal	Mean Amount	Difference from normal	Mean Amount	Difference from normal	Mean Amount	Difference from normal
January	22.3	+ 0.4	23.9	+ 1.0	22.8	+ 0.9	22.8	+ 0.2	21.2	+ 0.7	22.6	+ 0.6
February	22.3	+ 0.1	24.0	+ 0.9	23.1	+ 0.8	23.3	+ 0.5	21.3	+ 0.6	22.8	+ 0.6
March	21.5	- 0.3	23.2	+ 0.5	22.2	+ 0.1	22.4	+ 0.1	20.3	- 0.1	21.9	+ 0.1
April	20.4	- 0.4	22.0	+ 0.1	20.9	- 0.3	21.7	+ 0.3	19.7	+ 0.1	20.9	+ 0.0
May	18.5	- 0.1	20.5	+ 0.3	19.5	+ 0.2	20.1	+ 0.6	18.0	+ 0.3	19.3	+ 0.3
June	17.6	+ 1.0	19.3	+ 0.5	18.3	+ 0.5	18.1	+ 0.4	16.6	+ 0.5	18.0	+ 0.6
July	15.9	- 0.1	18.2	+ 0.1	17.0	- 0.3	17.3	+ 0.3	15.7	+ 0.4	16.8	+ 0.1
August	17.0	+ 0.7	19.4	+ 1.5	17.9	+ 0.9	18.4	+ 1.5	16.4	+ 1.2	17.8	+ 1.2
September	18.1	+ 1.6	20.1	+ 2.1	18.9	- 1.9	19.3	+ 1.8	17.5	+ 2.0	18.8	+ 1.9
October	18.7	+ 0.8	21.2	+ 2.1	19.7	+ 1.7	20.0	+ 1.5	18.0	+ 1.5	19.5	+ 1.5
November	20.1	+ 1.0	21.9	+ 1.5	20.6	+ 1.3	21.5	+ 1.5	19.1	+ 1.3	20.6	+ 1.3
December	21.5	+ 0.6	23.1	+ 1.2	21.6	+ 0.6	22.6	+ 1.1	20.4	+ 1.1	21.8	+ 0.9
Year	19.5	+ 0.4	21.4	+ 1.0	20.2	+ 0.4	20.6	+ 0.8	18.7	+ 0.8	18.2	0.8

Source: Meteorological Services

Table 17.2 - Monthly average maximum temperature by region, 2008

(Degrees Celcius)

Region Month	North		South		East		West		Centre		All sugar zones	
	Mean Amount	Difference from normal	Mean Amount	Difference from normal	Mean Amount	Difference from normal	Mean Amount	Difference from normal	Mean Amount	Difference from normal	Mean Amount	Difference from normal
January	30.9	- 0.2	29.4	- 0.4	28.6	- 0.3	31.0	+ 0.5	27.8	+ 0.2	29.5	+ 0.0
February	30.5	- 0.3	29.3	- 0.2	28.6	- 0.3	31.3	+ 1.0	27.3	- 0.2	29.4	+ 0.0
March	30.0	- 0.7	28.4	- 0.7	27.8	- 0.7	30.6	+ 0.3	26.7	- 0.7	28.7	- 0.5
April	30.4	+ 0.7	28.8	+ 0.5	28.1	+ 0.4	30.8	+ 1.4	27.1	+ 0.8	29.0	+ 0.8
May	28.7	+ 0.4	27.0	+ 0.2	26.1	- 0.1	28.5	+ 0.4	24.8	+ 0.0	27.0	+ 0.2
June	25.8	- 0.7	24.7	- 0.5	24.0	- 0.5	25.9	- 0.6	22.5	- 0.5	24.6	- 0.6
July	25.1	- 0.6	24.1	- 0.1	23.5	- 0.2	25.7	+ 0.0	21.8	- 0.2	24.0	- 0.2
August	25.9	+ 0.0	24.5	+ 0.3	23.6	- 0.1	26.9	+ 1.0	22.6	+ 0.8	24.7	+ 0.4
September	26.7	- 0.2	25.5	+ 0.4	24.3	+ 0.0	27.7	+ 1.0	23.3	+ 0.6	25.5	+ 0.4
October	28.0	- 0.3	26.7	+ 0.4	25.3	- 0.1	28.5	+ 0.6	24.4	+ 0.3	26.6	+ 0.2
November	30.3	+ 0.2	28.6	+ 0.7	27.4	+ 0.4	30.4	+ 1.3	26.8	+ 1.0	28.7	+ 0.7
December	31.7	+ 0.9	29.9	+ 0.7	29.0	+ 0.8	31.3	+ 1.5	27.9	+ 0.7	29.9	+ 0.9
Year	28.7	- 0.1	27.2	+ 0.1	26.4	- 0.1	29.1	+ 0.7	25.3	+ 0.2	27.3	+ 0.2

Source: Meteorological Services

Table 17.3 - Mean rainfall 2005-2008

		<i>Millimetres</i>																	
Period	Long Term Mean (1971-2000)	2005		2006		2007		2008		Long Term Mean (1971-2000)	2005		2006		2007		2008		
		Mean	% of Long Term Mean	Mean	% of Long Term Mean	Mean	% of Long Term Mean	Mean	% of Long Term Mean		Mean	% of Long Term Mean	Mean	% of Long Term Mean	Mean	% of Long Term Mean	Mean	% of Long Term Mean	
		Island of Mauritius									Island of Rodrigues								
Year	<i>2,006</i>	2,372	118	1,914	95	1,954	97	2,382	119	<i>1,105</i>	1,275	115	1,189	108	1,226	111	1,055	95	
Jan	<i>261</i>	148	57	372	142	347	133	241	92	<i>150</i>	68	45	43	29	145	96	134	89	
Feb	<i>336</i>	407	121	331	99	572	170	251	75	<i>185</i>	179	97	207	112	383	207	147	80	
Mar	<i>242</i>	727	300	459	189	165	68	508	209	<i>131</i>	143	109	377	287	85	65	77	59	
Apr	<i>226</i>	117	52	83	37	119	53	53	24	<i>117</i>	230	197	91	78	88	75	21	18	
May	<i>159</i>	126	79	53	33	139	88	299	188	<i>78</i>	105	134	67	85	48	62	157	201	
Jun	<i>115</i>	139	121	100	87	142	124	165	144	<i>78</i>	135	174	78	101	32	42	88	113	
Jul	<i>120</i>	174	145	177	147	123	102	135	113	<i>81</i>	130	161	159	196	89	110	41	51	
Aug	<i>122</i>	106	87	80	66	63	51	72	59	<i>59</i>	76	128	55	93	46	79	88	148	
Sep	<i>81</i>	233	288	72	89	71	88	348	429	<i>44</i>	96	219	29	67	65	147	50	113	
Oct	<i>70</i>	64	91	56	80	105	150	61	87	<i>41</i>	23	56	48	118	50	122	65	161	
Nov	<i>80</i>	48	60	85	106	45	56	152	190	<i>70</i>	43	61	12	17	8	11	134	192	
Dec	<i>199</i>	83	42	46	23	63	32	97	49	<i>71</i>	47	66	23	32	187	264	53	74	

Source: Mauritius Meteorological Services

Table 17.4 - Forest area by category, 1999 - 2008

	Hectares									
Category	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
State - owned	22,492	22,089	22,089	22,089	22,068	22,200	22,185	22,181	22,176	22,159
Plantations	12,608	12,359	12,362	12,418	12,256	11,816	11,828	11,848	11,878	11,855
Nature reserves	799	799	799	799	799	799	799	799	799	799
<i>on mainland</i>	200	200	200	200	200	200	200	200	200	200
<i>islets</i>	599	599	599	599	599	599	599	599	599	599
National Park ¹	6,574	6,574	6,574	6,574	6,574	6,574	6,574	6,574	6,574	6,574
Islet National Park ²						134	134	134	134	134
Bras D'Eau & Poste La Fayette Reserves ³						472	472	472	472	472
Other forest lands	1,859	1,705	1,702	1,646	1,804	1,770	1,743	1,719	1,688	1,419
Pas Geometriques	652	652	652	652	635	635	635	635	631	631
<i>Plantations</i>	225	224	230	243	226	226	226	226	227	222
<i>Leased for grazing and tree planting</i>	230	230	230	230	230	230	230	230	230	230
<i>Unplanted, protective or to be planted</i>	197	198	192	179	179	179	179	179	179	179
<i>Vallee d' Osterlog Endemic Garden</i>										275
Privately - owned lands	34,540	34,540	34,540	34,540	34,540	25,000	25,000	25,000	25,000	25,000
Reserves	6,553	6,553	6,553	6,553	6,553	6,553	6,553	6,553	6,553	6,553
<i>Mountain reserves</i>	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800
<i>River reserves</i>	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740
<i>Nature reserves</i>	13	13	13	13	13	13	13	13	13	13
Other ⁴	27,987	27,987	27,987	27,987	27,987	18,447	18,447	18,447	18,447	18,447
Total	57,032	56,629	56,629	56,629	56,608	47,200	47,185	47,181	47,176	47,159

Source : Forestry Service, Ministry of Agro Industry and Fisheries

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 2004..

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

Table 17.5 - Ambient air quality monitoring by mobile stations, Island of Mauritius, 2006

Pollutant	Aapravasi Ghat, port Louis			Terre rouge, Richfield Textile			Valentina, Phoenix				Cassis				
	Unit	Minimum	Maximum	24 hour Average for the year	Minimum	Maximum	24 hour Average for the year	Minimum	Maximum	24 hour Average for the year	Ambient air quality standard ²	Minimum	Maximum	24 hour Average for the year	Ambient air quality standard ²
Dust (PM ₁₀)	µg/m ³	43.0	59.0	52.0	13.0	27.0	18.0	11.0	69.0	25.8	100.0	43.0	59.0	52.0	100.0
Ozone (O ₃)	ppb	1.0	3.0	1.8	7.0	23.0	14.8	1.0	9.0	2.6	46.7	1.0	3.0	1.8	46.7
Sulphur dioxide (SO ₂)	ppb	0.3	1.4	0.7	0.1	3.2	1.1	0.1	89.4	18.0	70.0	0.3	1.4	0.7	70.0
Nitrogen dioxide (NO ₂)	ppb	26.0	27.0	28.0	1.0	4.0	1.8	-	-	-	-	26.0	27.0	28.0	28.0
Carbon monoxide (CO)	ppm	0.2	0.7	0.4	0.0	0.4	0.3	0.1	0.6	0.3	8.0	0.2	0.7	0.4	8.0

Table 17.6 - Consumption of controlled ozone-depleting substances by type of substances, 1998 - 2008

Metric Tonnes

Type of substances	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008 ¹
Chlorofluorocarbon (CFC's)	39.69	19.47	19.26	14.71	7.4	4.07	3.4	-	1.0	-	-
Hydrochlorofluorocarbon (HCFC's)	59.83	89.54	63	100.49	128.9	222.73	168.45	165.64	138.13	156.62	122.48
Carbon tetrachloride	0.02	0.01	0.01	0.01	0.02	0.03	0.02	0.03	-	-	-
Methyl chloroform	1.1	1.01	1.1	-	-	-	-	-	-	-	-
Methyl bromide	0.7	0.7	...	0.7	-	-	-	-	-	-	0.5
Others	1.82	1.72	1.11	0.71	0.02	0.03	0.02	0.03	-	-	-
Total	101.34	110.73	83.37	115.91	136.32	226.83	171.87	165.67	139.13	156.62	122.98

¹ Provisional

Table 17.7 - Solid waste input by type at Mare Chicose landfill site, 2003 - 2008

Waste type	2003	2004	2005	2006	2007	2008 ¹
Commercial	-	-	-	-	-	-
Construction	7,199	6,097	3,756	1,109	502	2,065
Domestic	352,915	365,528	363,776	387,751	365,824	373,860
Industrial (inc. textile)	4,421	3,097	2,340	2,619	2,157	1,798
Tuna/Sludge	120	189	5,913	8,056	13,077	12,148
Poultry	3,236	3,962	3,930	3,752	3,387	6,867
Rubber tyres	378	423	394	465	223	347
Asbestos	71	36	85	14	260	32
Condemned goods	2,754	1,770	2,114	3,265	2,036	2,361
Difficult and hazardous	...	12	22	8	4	5
Others	...	...	...	...	6,648	1,330
TOTAL	371,094	381,114	382,330	407,039	394,118	400,813

Source: Ministry for Local Government

¹ Provisional

Table 17.8 - Main environment indicators, Republic of Mauritius, 1999 and 2008

Indicator	Units	1999	2008 ¹
1. Total land area	000 ha	186.5	186.5
2. Irrigated land	ha	18,876.0	21,457.0
3. Total forest area (as a % of total land area)	%	30.6	25.3
4. Land Protected Areas	ha	13,973.0	14,854.0
5. Marine Protected Areas (MPA's)	ha	7,190.0	7,190.0
6. Threatened plant species (UCN Red List)	Number	...	88
7. Threatened animal species (UCN Red List)	Number	...	65
8. Total fish catch	tons	10,586.0	6,006.0
9. Mean catch per fisherman day	kg	5.3	5.6
10. Total Carbon dioxide emission	000 tons	...	...
11. Per capita carbon dioxide emission	tons	...	...
12. Mean annual rainfall	millimetres	1,102.4	2,381.0
13. Annual fresh water abstraction	Mm ³	516.0	...
14. Daily per capita domestic water consumption	litres	149.0	160.1
15. Daily per capita solid waste generated (estimate)	Kg	0.7	0.9
16. Total electricity generated	GWh	1,555.0	2,557.0
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	1.6	1.5

Table 17.9 - Main socio-economic indicators, Republic of Mauritius, 1999 and 2008

Indicator	Units	1999	2008 ¹
1. Gross Domestic Product (GDP) at market prices	Rs mn	108,076	264,854
2. Sectoral contribution to GDP			
<i>Agriculture</i>	%	6.1	4.3
<i>Manufacturing</i>	%	23.9	20.1
<i>Construction</i>	%	5.7	6.9
<i>Wholesale and retail trade</i>	%	13.1	12.3
<i>Hotels and restaurants</i>	%	6.9	8.6
<i>Transport and communications</i>	%	12.2	11.2
<i>Financial intermediation and business services</i>	%	8.4	10.9
<i>Other</i>	%	23.7	25.7
3. GDP annual growth rate (basic prices)	%	2.1	5.3
4. Per capita GDP at market prices	Rs	91,945	208,570
5. Per capita GDP in US dollars	US\$	3,656	7,354
6. Investment (GDFCF)	Rs mn	29,457	64,893
7. Exports (f.o.b) (include ship's stores and bunkers)	Rs mn	40,025	68,409
8. Imports (c.i.f)	Rs mn	56,629	132,564
9. Population (mid year)	000	1,175,267	1,268,565
10. Population annual growth rate	%	1.1	0.6
11. Population density (per kilometre square)	Number	597	644
12. Total labour force ²	000	519.5	583.4
13. Total employment ²	000	480.5	543.0
<i>Agriculture (as a % of total)</i>	%	12.0	8.6
<i>Manufacturing (as a % of total)</i>	%	29.6	22.5
14. Unemployment rate ²	%	7.7	7.2
15. Inflation rate	%	6.9	9.7
16. Tourist arrivals	000	578.1	930.5

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

Table 17.10 - Total emissions and removals of greenhouse gases, 2003 - 2007

Gg or thousand tonne

Greenhouse gas	2003	2004	2005	2006	2007
Emissions					
Carbon Dioxide	2,783.5	2,795.7	2,996.0	3,348.9	3,450.0
Methane	12.0	12.3	12.5	13.0	12.6
Oxide of Nitrogen	15.1	15.2	15.4	16.6	16.8
Nitrous Oxide	1.5	1.5	1.3	1.2	1.3
Carbon Monoxide	65.7	66.9	66.4	64.8	65.1
NMVOC ²	17.5	16.5	18.3	17.7	18.6
Sulphur Dioxide	32.1	32.7	33.0	33.0	33.0
Removals					
Carbon Dioxide	237.9	223.7	223.7	193.2	195.0
Net emissions					
Carbon Dioxide	2,545.6	2,572.0	2,772.3	3,155.6	3,255.0