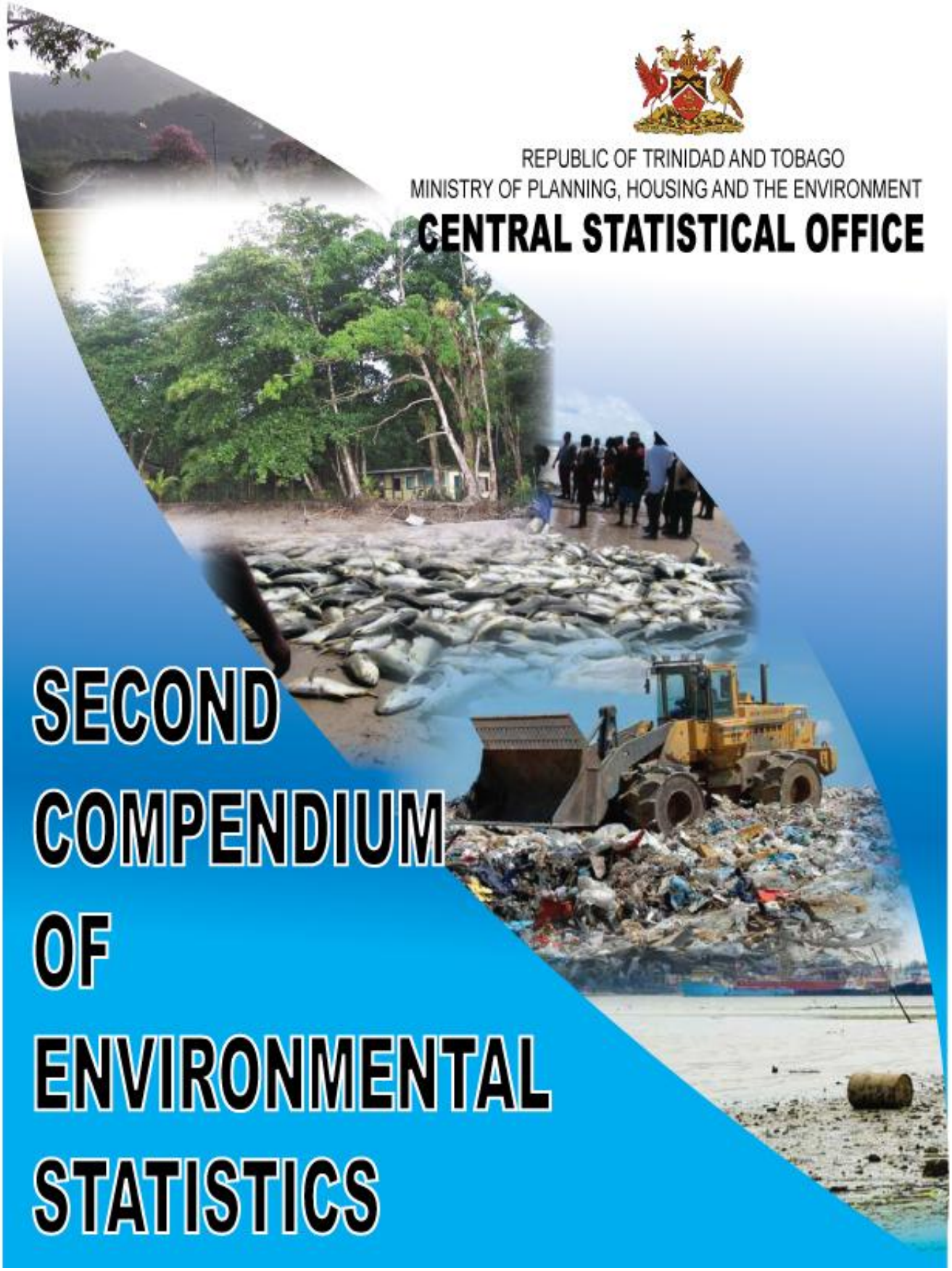

REPUBLIC OF TRINIDAD AND TOBAGO
MINISTRY OF PLANNING, HOUSING AND THE ENVIRONMENT

CENTRAL STATISTICAL OFFICE

SECOND COMPENDIUM OF ENVIRONMENTAL STATISTICS

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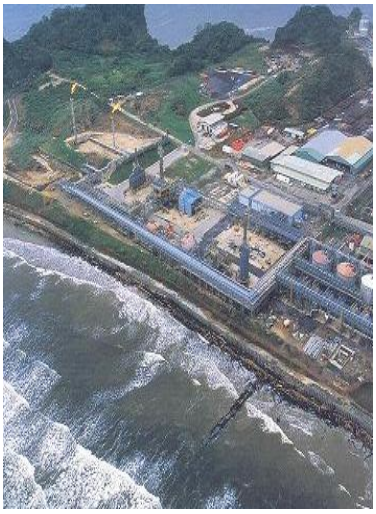
ENERGY



Courtesy: Ministry of Energy

TABLE 2.1: TOTAL CRUDE OIL[a] AND NATURAL GAS PRODUCTION, 2005 – 2007

	2005	2006	2007
Exploration Data			
Exploration well Footage drilled (metres)	19,595	38,562	39,475
Oil[a]			
Daily Average Production (barrels)	144,528	142,756	119,285.5
Total Production ('000 barrels)	52,715	52,359	44,261
Imports ('000 barrels)	33,427	29,729	33,093
Exports ('000 barrels)	22,674	29,044	22,787
Natural Gas, mmscfd			
Production	3,216.0	3,883.0	4,077.0
Utilization[b] *of which*:	3,079.9	3,812.3	3,951.6
Petrochemicals Production	950.4	1,101.3	1,098.0
Electricity Generation	246.1	251.4	278.4
LNG Production	1,585.0	2,099.4	2,192.8

[a] Also includes condensates.
[b] Utilization refers to gas sales, and does not include natural gas used in own consumption.

Source: Ministry of Energy and Energy Industries

TABLE 2.2: SUMMARY OF WELLS COMPLETED, 2005 - 2007

Year	Exploration Wells					Development Wells					**Total**
	Oil	Gas	Abd[a]	Other[b]	Sub total	Oil	Gas	Abd[a]	Other[c]	Sub total	
2005	-	-	3	1	4	40	-	5	9	54	**58**
2006	1	-	6	-	7	45	12	3	-	60	**67**
2007	1	1	6	-	8	60	8	7	4	79	**87**

[a] Abandoned well.
[b] "Other" refers to exploration wells that were temporarily abandoned.
[c] "Other" refers to development wells that were either temporarily abandoned or injector wells.

Source: Ministry of Energy and Energy Industries

TABLE 2.3: SUMMARY OF WELLS SPUD, DEPTH DRILLED AND RIG DAYS, 2005 - 2007

Year	No. of Wells Spud			Depth Drilled (ft)			Rig days			No. of Rigs
	Exp	Dev	**Total**	Exp	Dev	**Total**	Exp	Dev	**Total**	**Total**
2005	7	77	**84**	64,288	322,057	**386,345**	594	1,620	**2,214**	**24**
2006	14	97	**111**	126,515	411,151	**537,666**	1,012	2,262	**3,274**	**30**
2007	15	104	**119**	129,512	454,052	**583,564**	1,057	2,352	**3,409**	**20**

Source: Ministry of Energy and Energy Industries

TABLE 2.4: CRUDE OIL[a] PRODUCTION LAND AND MARINE BY MONTH, BARRELS OF OIL PER DAY (BOPD), 2005 – 2007

Months	2005		2006		2007	
	Land	Marine	Land	Marine	Land	Marine
January	24,428	103,694	23,644	125,939	23,351	97,051
February	24,711	112,904	23,752	126,215	22,932	100,581
March	24,609	131,143	23,774	129,822	23,450	106,130
April	24,302	116,389	23,683	127,800	23,063	103,665
May	24,484	131,406	23,387	129,581	22,730	101,378
June	24,588	120,935	23,188	105,680	22,553	93,103
July	24,207	116,344	23,609	126,672	23,021	94,623
August	24,256	116,506	23,559	126,200	22,830	97,132
September	24,117	123,005	24,019	119,169	23,340	88,987
October	23,993	123,787	22,963	114,734	24,097	93,348
November	23,649	122,296	23,651	110,910	24,333	85,265
December	23,313	125,279	22,626	88,496	23,626	90,838

[a] Also includes condensates.

Source: Ministry of Energy and Energy Industries

TABLE 2.5: CRUDE OIL[a] PRODUCTION BY MONTH, BARRELS OF OIL PER DAY (BOPD), 2005 – 2007

Months	2005	2006	2007
January	128,112	149,583	120,403
February	137,615	149,966	123,513
March	155,752	153,596	129,580
April	140,691	151,483	126,728
May	155,891	152,968	124,108
June	145,523	128,868	115,655
July	140,551	150,282	117,644
August	140,761	149,759	119,962
September	147,123	143,188	112,327
October	147,780	137,697	117,445
November	145,945	134,561	109,597
December	148,592	111,121	114,464
Average	**144,528**	**142,756**	**119,286**

[a] Also includes condensates.

Source: Ministry of Energy and Energy Industries

TABLE 2.6: CRUDE OIL RESERVES, MILLION BARRELS OF OIL (MMBO), 2005 - 2007

Year	Proved	Probable	Possible
2005	615	249	1,530
2006	606	334	1,560
2007	500	330	1,607

Source: Ministry of Energy and Energy Industries

TABLE 2.7A: CRUDE OIL EXPORTS, BARRELS (BBLS) – 2005

Month	Crude Type		**Total**
	Galeota Mix	Calypso Crude	
January	1,143,364	-	**1,143,364**
February	1,378,338	-	**1,378,338**
March	1,112,176	1,913,867	**3,026,043**
April	1,104,476	1,498,211	**2,602,687**
May	111,076	-	**111,076**
June	1,112,516	-	**1,112,516**
July	1,104,773	-	**1,104,773**
August	1,069,610	1,049,114	**2,118,724**
September	1,104,051	1,010,224	**2,114,275**
October	1,102,143	1,593,671	**2,695,814**
November	1,100,031	1,520,974	**2,621,005**
December	1,106,899	1,538,291	**2,645,190**

TABLE 2.7B: CRUDE OIL EXPORTS (BBLS) – 2006

Month	Crude Type		**Total**
	Galeota Mix	Calypso Crude	
January	741,171	1,501,462	**2,242,633**
February	1,089,494	1,021,985	**2,111,479**
March	1,113,835	1,578,232	**2,692,067**
April	1,468,661	1,001,629	**2,470,290**
May	1,470,423	1,481,235	**2,951,658**
June	1,104,455	1,026,928	**2,131,383**
July	1,479,405	523,575	**2,002,980**
August	1,849,690	1,500,860	**3,350,550**
September	1,475,820	1,001,561	**2,477,381**
October	1,316,942	1,018,461	**2,335,403**
November	1,323,780	1,501,939	**2,825,719**
December	1,452,480	-	**1,452,480**

Source: Ministry of Energy and Energy Industries

TABLE 2.7C: CRUDE OIL EXPORTS (BBLS) – 2007

Month	Crude Type		**Total**
	Galeota Mix	Calypso Crude	
January	991,831	-	**991,831**
February	1,110,368	1,009,783	**2,120,151**
March	1,481,719	499,702	**1,981,421**
April	1,112,950	1,339,743	**2,452,693**
May	1,094,213	501,283	**1,595,496**
June	1,104,455	1,026,928	**2,131,383**
July	1,101,368	999,896	**2,101,264**
August	1,113,846	526,591	**1,640,437**
September	1,125,650	1,000,661	**2,126,311**
October	750,419	853,940	**1,604,359**
November	743,777	860,853	**1,604,630**
December	1,576,219	860,469	**2,436,688**

Source: Ministry of Energy and Energy Industries

TABLE 2.8A: REFINERY OUTPUTS (BBLS) – 2005

Month	Product Type						
	LPG	Motor Gas	AV.Gas	Kero/Jet	Gas/ Diesel oil	Fuel oil	Petro-chemicals
January	105,372	871,165	-5,827	520,227	1,176,864	1,816,651	-
February	69,391	930,350	6,051	536,295	925,927	1,645,509	-
March	121,666	778,692	5,828	621,713	1,241,607	1,487,675	-
April	105,945	866,489	-10,580	533,193	1,175,352	1,860,687	-
May	88,063	781,382	9,398	580,903	1,133,010	1,873,326	-
June	73,401	693,733	4,131	571,560	1,029,494	1,958,957	-
July	101,865	1,050,829	-1,023	560,920	870,963	2,136,409	-
August	84,571	1,193,458	3,467	578,981	1,094,777	2,012,312	-
September	113,290	898,863	-1,054	476,551	1,108,345	1,687,069	5
October	104,247	948,248	-5,002	639,945	1,238,080	1,617,064	-
November	89,721	926,185	-11,663	559,416	1,101,868	1,692,015	-
December	86,004	926,875	2,077	456,944	1,061,640	1,390,214	41,013

Source: Ministry of Energy and Energy Industries

TABLE 2.8A: REFINERY OUTPUTS (BBLS) – 2005 *concluded*

Month	Product Type					
	Lube/ Grease	Other Finished & Unfinished Products	Sulphur	Bitumen	Gas Loss	White Spirits
Jan	-1	487,499	5,277	15,489	104,393	-
Feb	-29	362,540	1,933	8,380	193,939	-71
Mar	29	690,619	2,808	20,476	77,905	-
Apr	1,124	507,152	3,253	-6,696	111,765	-8
May	-784	653,939	1,014	40,532	142,897	-
Jun	-928	339,193	673	11,063	141,054	-
Jul	-	152,582	-	9,749	129,990	55
Aug	82	1,318	3,754	14,941	154,309	-
Sep	477	689,087	4,297	27,115	43,087	-36
Oct	-	285,454	3,670	24,783	136,327	-
Nov	-	485,605	2,194	9,901	225,322	38
Dec	-5,277	685,207	529	11,220	56,516	-

Source: Ministry of Energy and Energy Industries

TABLE 2.8B: REFINERY OUTPUTS (BBLS) – 2006

Month	Product Type						
	LPG	Motor Gas	AV.Gas	Kero/ Jet	Gas/ Diesel oil	Fuel oil	Petro-chemicals
January	98,417	809,836	4,464	490,393	1,129,804	1,695,288	-6
February	101,233	1,067,071	-315	530,100	1,128,480	1,576,413	-
March	105,104	1,031,121	-7,694	581,168	1,175,258	1,888,587	-2
April	102,566	945,035	3,878	516,970	1,085,075	1,970,851	-
May	105,672	953,712	7,540	623,803	1,225,465	1,573,580	6
June	87,126	1,022,289	-1,333	548,622	1,163,558	1,482,563	-176
July	59,611	817,860	-3,043	505,553	1,015,354	1,274,069	-593
August	58,129	1,022,066	-6,210	541,972	1,099,486	1,616,257	-
September	55,918	318,809	875	268,225	368,722	719,567	-65
October	99,591	1,020,276	572	543,460	801,706	1,811,822	-
November	107,814	1,022,920	9,285	554,911	1,123,693	1,909,000	-3
December	113,831	806,840	-1,508	587,948	1,113,013	1,832,705	-

Source: Ministry of Energy and Energy Industries

TABLE 2.8B: REFINERY OUTPUTS (BBLS) – 2006 *concluded*

Month	Product Type					
	Lube/ Grease	Other Finished & Unfinished Products	Sulphur	Bitumen	Gas Loss	White Spirits
January	5,209	133,724	3,724	10,628	63,007	-
February	-	79,837	3,267	13,760	95,189	-4
March	-	290,626	3,614	17,468	111,952	-
April	-	318,926	4,063	17,646	110,827	-
May	-	606,384	4,950	14,438	138,526	-
June	-	367,777	4,521	23,050	68,519	-
July	-1,313	312,996	3,036	21,472	133,892	-
August	369	583,011	2,836	34,086	64,588	-
September	36	20,494	374	13,366	168,902	-
October	140	826,460	-1,442	33,115	88,557	-
November	-	10,943	-3,566	28,188	71,699	-
December	2,326	567,338	-3,579	16,437	83,452	-

Source: Ministry of Energy and Energy Industries

TABLE 2.8C: REFINERY OUTPUTS (BBLS) – 2007

Month	Product Type						
	LPG	Motor Gas	AV.Gas	Kero/Jet	Gas/ Diesel oil	Fuel oil	Petro-chemicals
January	65,626	629,873	-6,564	642,686	1,010,694	1,602,240	-
February	28,357	552,440	-3,105	396,352	781,721	1,346,669	-
March	53,171	504,121	-55	595,275	1,002,766	1,459,745	-
April	110,869	941,649	9,858	464,051	1,293,652	1,894,975	-
May	78,025	1,106,903	4,216	476,435	1,245,015	1,551,308	-
June	72,823	900,183	-1,143	566,812	1,127,502	1,410,015	-
July	82,268	965,768	-5,728	573,600	1,098,141	1,602,148	-
August	86,546	1,131,731	-1,297	580,216	1,256,055	1,601,140	593
September	95,039	963,875	10,102	595,669	995,845	1,941,090	-593
October	122,018	1,099,006	-7,436	468,083	1,005,053	1,423,326	-
November	103,045	848,158	1,003	567,459	959,073	1,862,203	-
December	114,951	730,618	-195	640,475	1,084,156	1,627,917	-

Source: Ministry of Energy and Energy Industries

TABLE 2.8C: REFINERY OUTPUTS (BBLS) – 2007 *concluded*

Month	Product Type					
	Lube/ Grease	Other Finished & Unfinished Products	Sulphur	Bitumen	Gas Loss	White Spirits
January	-3,365	961,435	11,391	14,339	111,379	-
February	-54	698,816	92	19,529	114,806	-
March	-2,147	780,843	2,829	19,944	187,585	-
April	664	-204,263	4,747	22,962	110,993	-
May	-825	186,289	3,855	22,763	136,958	252
June	416	243,788	3,504	17,220	137,190	-252
July	-2,833	561,542	1,942	18,498	127,469	-
August	1,815	246,134	3,343	23,529	95,782	-1
September	-539	271,223	2,095	25,934	153,164	-
October	-	-78,464	2,530	47,490	51,293	-
November	-61	-257,700	3,241	20,994	30,234	-
December	-644	1,011,948	1,937	16,703	13,259	-

Source: Ministry of Energy and Energy Industries

TABLE 2.9: NATURAL GAS PRODUCTION
MILLION STANDARD CUBIC FEET PER DAY (MMSCFD), 2005 – 2007

Month	2005	2006	2007
January	3,136	3,885	3,853
February	3,256	3,759	4,112
March	3,220	3,844	4,175
April	3,140	4,072	4,147
May	3,199	3,734	3,820
June	3,227	3,929	4,114
July	3,127	3,987	4,090
August	2,603	4,132	4,299
September	3,305	3,738	3,777
October	3,248	3,517	4,127
November	3,464	3,882	4,324
December	3,668	4,110	4,082
Average	**3,216**	**3,883**	**4,077**

Source: Ministry of Energy and Energy Industries

TABLE 2.10: NATURAL GAS SALES (MMSCFD), 2005 - 2007

Year	2005	2006	2007
January	3,051	3,720	3,671
February	3,071	3,522	3,840
March	3,051	3,553	3,893
April	2,956	3,732	3,875
May	2,982	3,383	3,568
June	3,022	3,719	3,854
July	2,917	3,717	3,854
August	2,371	3,841	4,042
September	3,049	3,435	3,495
October	2,947	3,222	3,875
November	3,261	3,599	4,036
December	3,363	3,994	3,824
Average	**3,003**	**3,620**	**3,819**

Source: Ministry of Energy and Energy Industries

TABLE 2.11A: NATURAL GAS UTILIZATION, DAILY AVERAGE (MMSCFD) – 2005

Sector	January	February	March	April	May	June
Power Generation	237.7	242.1	239.3	242.2	244.9	242.4
Ammonia Manufacture	483.1	457.1	452.5	466.7	468.8	476.3
Methanol Manufacture	453.2	395.2	432.9	361.9	407.1	416.4
Iron & Steel Manufacture	87.4	97.3	90.4	102.9	61.0	95.7
Cement Manufacture	13.7	9.2	12.1	11.9	12.6	13.0
Refinery	39.9	38.8	35.2	36.4	36.2	31.1
Urea Manufacture	12.4	11.9	11.0	11.7	11.2	11.9
Gas Processing	27.0	24.6	24.0	26.2	27.3	29.7
Small Consumers	9.7	12.8	12.3	12.2	11.5	11.1
Fuel used in field	43.5	44.4	48.9	49.0	48.7	48.3
Gas Injection	-	-	-	-	-	-
LNG	1,634.0	1,727.0	1,701.5	1,620.7	1,639.5	1,647.5
Total	**3,041.5**	**3,060.4**	**3,060.1**	**2,941.8**	**2,968.7**	**3,113.1**

Source: Ministry of Energy and Energy Industries

TABLE 2.11A: NATURAL GAS UTILIZATION, DAILY AVERAGE (MMSCFD) – 2005 *concluded*

Sector	July	August	September	October	November	December
Power Generation	234.8	246.1	258.6	259.2	252.7	252.9
Ammonia Manufacture	534.8	553.2	491.3	520.2	548.4	555.7
Methanol Manufacture	345.1	313.9	499.0	547.3	500.5	582.8
Iron & Steel Manufacture	56.9	77.4	107.1	86.9	106.5	103.0
Cement Manufacture	12.7	11.5	9.2	13.3	10.8	10.2
Refinery	29.5	37.3	40.2	39.1	43.4	31.9
Urea Manufacture	11.6	11.7	12.2	11.5	12.0	12.0
Gas Processing	26.9	27.7	32.8	30.8	27.3	26.1
Small Consumers	7.1	9.5	9.6	9.5	9.9	6.3
Fuel used in field	34.8	36.0	35.7	35.5	35.3	35.6
Gas Injection	89.0	122.0	129.0	177.0	181.7	193.0
LNG	1,657.7	1,081.9	1,578.1	1,426.3	1,629.3	1,676.8
Total	**3,041.1**	**2,528.2**	**3,203.0**	**3,156.6**	**3,358.0**	**3,486.3**

Source: Ministry of Energy and Energy Industries

TABLE 2.11B: NATURAL GAS UTILIZATION, DAILY AVERAGE (MMSCFD) – 2006

Sector	January	February	March	April	May	June
Power Generation	243.5	239.1	247.8	248.5	256.5	259.7
Ammonia Manufacture	531.6	497.0	502.3	528.6	480.2	534.1
Methanol Manufacture	595.5	568.9	553.6	573.5	516.3	509.1
Iron & Steel Manufacture	87.5	64.4	65.7	71.2	73.4	93.1
Cement Manufacture	12.3	13.8	11.9	13.1	11.9	13.9
Refinery	36.7	42.1	37.1	37.2	40.4	35.7
Urea Manufacture	11.4	11.9	11.8	11.5	11.9	11.9
Gas Processing	27.7	24.4	24.0	24.8	24.8	32.8
Small Consumers	8.8	14.9	12.4	11.8	13.9	12.6
*Fuel used in field	35.9	35.7	30.0	30.0	29.9	38.8
Gas Injection	330.8	306.2	330.8	320.5	334.0	155.0
*LNG	1,904.9	1,828.6	1,867.7	1,944.9	1,814.2	2,187.4
Total	**3,826.7**	**3,647.1**	**3,694.9**	**3,815.5**	**3,607.3**	**3,884.1**

* Estimated

Source: Ministry of Energy and Energy Industries

TABLE 2.11B: NATURAL GAS UTILIZATION, DAILY AVERAGE (MMSCFD) – 2006 *concluded*

Sector	July	August	September	October	November	December
Power Generation	261.6	257.0	254.2	249.4	253.0	246.3
Ammonia Manufacture	538.6	533.5	536.6	528.4	540.3	557.2
Methanol Manufacture	529.1	520.7	580.1	595.6	616.5	608.8
Iron & Steel Manufacture	86.5	80.7	55.0	53.5	74.7	84.3
Cement Manufacture	11.7	13.3	12.1	10.5	13.3	12.7
Refinery	41.0	46.5	24.1	37.0	46.5	54.4
Urea Manufacture	11.9	12.0	11.9	10.2	11.5	11.5
Gas Processing	35.3	32.2	36.0	29.9	35.8	42.2
Small Consumers	11.8	12.3	12.3	11.0	13.0	6.8
*Fuel used in field	34.0	27.0	27.1	16.0	26.0	25.9
Gas Injection	230.1	260.1	273.5	259.5	251.5	17.5
*LNG	2,195.6	2,335.4	1,914.2	1,697.7	1,994.9	2,374.1
Total	**3,987.1**	**4,130.6**	**3,737.1**	**3,498.7**	**3,877.0**	**4,041.7**

* Estimated

Source: Ministry of Energy and Energy Industries

TABLE 2.11C: NATURAL GAS UTILIZATION, DAILY AVERAGE (MMSCFD) – 2007

Sector	January	February	March	April	May	June
Power Generation	254.0	258.5	271.9	278.8	289.7	287.0
Ammonia Manufacture	557.5	552.7	491.1	506.9	528.4	527.5
Methanol Manufacture	591.2	552.4	455.3	502.4	604.5	601.1
Iron & Steel Manufacture	99.6	88.5	114.9	107.2	98.5	105.5
Cement Manufacture	13.9	13.0	11.9	13.5	5.6	14.0
Refinery	45.2	32.9	45.4	50.4	46.9	49.0
Urea Manufacture	11.7	11.8	11.9	112.0	11.7	12.0
Gas Processing	34.9	34.5	29.8	36.1	36.9	35.4
Small Consumers	12.2	12.2	12.1	12.3	12.9	11.5
*Fuel used in field	26.8	26.9	32.2	31.6	31.4	31.7
Gas Injection	75.6	114.3	176.0	186.2	188.0	169.4
*LNG	2,052.7	2,290.2	2,449.4	2,286.6	1,815.8	2,108.9
Total	**3,775.3**	**3,988.1**	**4,101.7**	**4,023.9**	**3,670.1**	**3,953.2**

* Estimated

Source: Ministry of Energy and Energy Industries

TABLE 2.11C: NATURAL GAS UTILIZATION, DAILY AVERAGE (MMSCFD) – 2007 *concluded*

Sector	July	August	September	October	November	December
Power Generation	291.1	290.6	283.1	284.3	280.8	271.1
Ammonia Manufacture	534.1	551.2	546.1	512.2	521.6	535.5
Methanol Manufacture	587.7	570.7	501.2	549.0	573.3	581.2
Iron & Steel Manufacture	132.7	127.3	124.9	116.6	104.1	124.1
Cement Manufacture	12.0	10.4	14.1	13.7	11.6	14.3
Refinery	50.6	52.0	56.8	41.1	48.8	52.3
Urea Manufacture	11.9	11.7	11.7	10.7	11.6	12.4
Gas Processing	34.4	34.5	35.8	35.3	34.6	32.5
Small Consumers	10.5	11.2	13.0	10.8	13.1	12.7
*Fuel used in field	32.2	31.9	31.2	31.1	30.3	31.5
Gas Injection	166.8	188.8	190.0	196.9	192.6	186.4
*LNG	2,129.9	2,189.2	1,866.4	2,215.4	2,366.2	2,110.2
Total	**3,993.9**	**4,069.5**	**3,674.1**	**4,017.1**	**4,188.7**	**3,964.1**

* Estimated

Source: Ministry of Energy and Energy Industries

TABLE 2.12: NATURAL GAS RESERVES (MMSCF) 2005 – 2007

Natural Gas Reserves (TCF)	Proved	Probable	Possible
2005*	..	..	..
2006	17.1	7.8	6.2
2007	17.0	7.9	5.9

*No audit performed

Source: Ministry of Energy and Energy Industries

TABLE 2.13: TOTAL PRODUCTION OF AMMONIA (TONNES)
2005 – 2007

Month	2005	2006	2007
January	440,312	447,437	474,230
February	394,523	361,383	426,981
March	434,794	407,870	408,566
April	418,515	433,850	406,742
May	436,603	384,916	434,834
June	434,422	414,572	312,022
July	438,336	443,643	455,880
August	470,992	453,696	464,068
September	383,880	434,527	449,541
October	442,235	431,984	422,674
November	438,588	439,175	423,700
December	468,986	476,798	446,245
Total	**5,202,186**	**5,129,851**	**5,125,483**

Source: Ministry of Energy and Energy Industries

TABLE 2.14: PRODUCTION OF UREA (TONNES)
2005 – 2007

Month	2005	2006	2007
January	61,993	60,106	62,440
February	56,487	57,422	55,496
March	64,794	63,954	65,366
April	59,874	57,287	59,525
May	64,369	58,601	61,265
June	59,874	52,199	61,448
July	63,075	57,601	62,870
August	65,475	60,406	61,617
September	63,039	57,787	59,629
October	60,023	45,132	55,875
November	63, 521	59,327	38,391
December	65,521	63,586	62,342
Total	**754,749**	**693,408**	**706,264**

Source: Ministry of Energy and Energy Industries

TABLE 2.15: PRODUCTION OF METHANOL (TONNES)
2005 – 2007

Month	2005	2006	2007
January	412,363	588,539	520,894
February	316,065	456,533	439,356
March	370,644	498,126	407,184
April	314,028	506,633	428,907
May	396,356	554,528	566,094
June	349,253	441,479	545,505
July	313,277	470,588	547,831
August	263,896	455,094	506,469
September	407,192	498,073	441,388
October	486,402	540,150	497,731
November	431,629	538,440	521,075
December	531,438	550,793	520,962
Total	**4,565,543**	**6,098,976**	**5,943,396**

Source: Ministry of Energy and Energy Industries

TABLE 2.16A: ENERGY BALANCES FOR TRINIDAD AND TOBAGO – 2005
(in thousand tonnes of oil equivalent (ktoe) on a net calorific value basis)

Supply & Consumption	Crude Oil	Petroleum Products	Gas	Combustible Renewables and Waste	Electri-city	**Total***
Production	8,440	-	22,934	25	-	31,399
Imports	4,476	121	-		-	4,597
Exports	-3,761	-7,142	-11,985	-	-	-22,887
International Marine Bunkers	-	-260	-	-	-	-260
Stock Changes	39	-182	-	-	-	-142
Total Primary Energy Supply (TPES)	**9,194**	**-7,463**	**10,950**	**25**	-	**12,706**
Transfer	-624	705	-	-	-	81
Statistical Differences	-7	90	-	-	-	83
Electricity Plants	-	-3	-2,137	-25	607	-1,558
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Gas Works	-	-	-	-	-	-
Petroleum Refineries	-8,563	7,794	-	-	-	-769
Coal Transformation	-	-	-	-	-	-
Liquefaction Plants	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-
Own Use	-	-256	-801	-	-22	-1,080
Distribution Losses	-	-	-	-	-33	-33
Total Final Consumption (TFC)	-	**867**	**8,011**	-	**551**	**9,429**
Industry Sector	-	**57**	**1,034**	-	**358**	**1,448**
Transport Sector	-	**734**	-	-	-	**734**
Other Sectors	-	**69**	-	-	**194**	**263**
Residential	-	69	-	-	137	206
Commercial and Public Sectors	-	-	-	-	57	57
Agriculture/Forestry	-	-	-	-	-	-
Fishing	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-
Non-Energy Use	-	**7**	**6,977**	-	-	**6,984**
of which Petrochemical Feedstock	-	7	6,977	-	-	6,984

* Totals may not add up due to rounding.
** International marine bunkers are not subtracted out of the total primary energy supply for world totals.

TABLE 2.16B: ENERGY BALANCES FOR TRINIDAD AND TOBAGO – 2006
(in thousand tonnes of oil equivalent (ktoe) on a net calorific value basis)

Supply & Consumption	Crude Oil	Petroleum Products	Gas	Combustible Renewables and Waste	Electri -city	**Total***
Production	8,448	-	26,140	32	-	34,620
Imports	4,867	80	-		-	4,947
Exports	-4,436	-7,399	-13,597	-	-	-25,433
International Marine Bunkers**	-	-270	-	-	-	-270
Stock Changes	169	270	-	-	-	439
Total Primary Energy Supply (TPES)	**9,049**	**-7,319**	**12,542**	**32**	-	**14,304**
Transfers	-668	755	-	-	-	87
Statistical Differences	-59	387	-	-	-	328
Electricity Plants	-	-3	-2,179	-32	606	-1,608
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Gas Works	-	-	-	-	-	-
Petroleum Refineries	-8,322	7,600	-	-	-	-722
Coal Transformation	-	-	-	-	-	-
Liquefaction Plants	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-
Own Use	-	-403	-976	-	-22	-1,401
Distribution Losses	-	-	-	-	-34	-34
Total Final Consumption (TFC)	-	**1,017**	**9,387**	-	**550**	**10,953**
Industry sector	-	**115**	**1,249**	-	**348**	**1,712**
Transport sector	-	**799**	-	-	-	**799**
Other sectors	-	**96**	-	-	**202**	**298**
Residential	-	96	-	-	145	242
Commercial and Public Services	-	-	-	-	57	57
Agriculture / Forestry	-	-	-	-	-	-
Fishing	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-
Non-Energy Use	-	**7**	**8,138**	-	-	**8,144**
of which: Petrochemical Feedstock	-	-	8,138	-	-	8,138

* Totals may not add up due to rounding.
** International marine bunkers are not subtracted out of the total primary energy supply for world totals.

TABLE 2.17: LNG PRODUCTION (M^3), AND NGL PRODUCTION (BARRELS), 2005 – 2007

Month	2005		2006		2007	
	LNG	NGL	LNG	NGL	LNG	NGL
January	2,033,348	878,107	2,458,505	957,991	2,489,334	1,021,378
February	1,936,902	774,166	2,176,126	834,886	2,609,055	891,031
March	2,111,683	833,769	2,521,785	942,773	3,005,317	916,962
April	1,951,621	838,208	2,604,464	1,026,157	2,772,498	994,553
May	2,038,443	893,242	2,333,694	1,172,747	2,317,437	1,062,546
June	1,965,295	920,266	2,624,107	1,049,132	2,599,010	987,233
July	2,062,728	877,951	2,691,857	1,103,338	2,690,423	1,031,097
August	1,317,097	591,728	2,897,168	1,255,891	2,957,713	1,009,225
September	1,887,515	925,172	2,298,982	947,951	2,195,408	983,444
October	1,773,601	894,955	2,034,234	909,960	2,828,203	1,012,796
November	1,987,233	573,522	2,328,781	1,042,930	2,930,890	1,024,070
December	2,190,392	575,224	2,910,750	1,072,768	2,697,840	1,001,497
Total	**23,255,858**	**9,576,310**	**29,880,453**	**12,316,524**	**32,093,128**	**11,935,832**

Source: Ministry of Energy and Energy Industries

TABLE 2.18: REPORTED OIL SPILLS, LAND AND MARINE, 2005 – 2007

Cumulative Oil Loss (barrels) 2005			
Location	**No. Incidents**	**Spilled /bbl**	**Recovered /bbl**
Land	97	1,013	822
Marine	4	6	-
Total	**101**	**1,019**	**822**
Cumulative Oil loss (barrels) 2006			
Location	**No. Incidents**	**Spilled /bbl**	**Recovered /bbl**
Land	87	2,869	2,334
Marine	3	10	-
Total	**90**	**2,879**	**2,334**
Cumulative Oil Loss (barrels) 2007			
Location	**No. Incidents**	**Spilled /bbl**	**Recovered /bbl**
Land	79	3,903	3,271
Marine	5	15	4
Total	**84**	**3,918**	**3,275**

Source: Ministry of Energy and Energy Industries

TABLE 2.19: NUMBER OF LICENSED QUARRIES BY TYPE, 2005 – 2007

Quarry Type	2005	2006	2007
Sand and gravel	31	31	31
Andesite	1	1	1
Blue limestone	15	15	15
Porcellanite	3	3	3
Clay	5	5	5
Oil sand	1	1	1
Yellow limestone	4	4	4
Plastering/ fill sand	9	9	9

Source: Ministry of Energy and Energy Industries

TABLE 2.20: LICENSED QUARRY PRODUCTION (CUBIC YARDS) 2005 – 2007

Type	Acres	2005	2006	2007
Valencia Sands and gravel	4,375	307,586	302,787	242,727
Blue limestone	741	457,868	683,077	230,718
Andesite	14	140, 624	171,741	116, 012
Yellow limestone	540	230,576	365,480	576,063
Clays	318	127,192	170,126	432
Porcellanite	35	-	-	18,944
Tar sand	40	-	-	-
Total	**6,063**	**1,263,847**	**1,693,211**	**1,184,897**

Source: Ministry of Energy and Energy Industries

CHAPTER THREE

HUMAN SETTLEMENT

TABLE 3.1 TOTAL DEMAND FOR HOUSING 2000 TO 2020

Year	Annual New Demand for Housing	Annual Replacement Demand For Housing	Total Annual Demand for Housing
2000	7,738	1,500	9,238
2001	4,683	1,500	6,183
2002	4,779	1,500	6,279
2003	4,878	1,500	6,378
Sub-Total 2000 - 2003	**22,078**	**6,000**	**28,078**
2004	4,981	1,500	6,481
2005	5,086	1,500	6,586
2006	5,194	1,500	6,694
Sub-Total 2004 - 2006	**15,261**	**4,500**	**19,761**
2007	5,306	1,500	6,806
2008	5,246	1,500	6,746
2009	1,533	1,500	3,033
Sub-Total 2007 - 2009	**12,085**	**4,500**	**16,585**
2010	1,539	1,500	3,039
2011	1,546	1,500	3,046
2012	1,552	1,500	3,052
Sub-Total 2010 - 2012	**4,637**	**4,500**	**9,137**
2013	1,558	1,500	3,058
2014	1,564	1,500	3,064
2015	1,571	1,500	3,071
Sub-Total 2013 - 2015	**4,693**	**4,500**	**9,193**
2016	1,577	1,500	3,077
2017	1,583	1,500	3,083
2018	1,589	1,500	3,089
Sub-Total 2016 - 2018	**4,749**	**4,500**	**9,249**
2019	1,596	1,500	3,096
2020	1,602	1,500	3,102
Sub-Total 2019 - 2020	**3,198**	**3,000**	**6,198**
Grand Total 2000 - 2020	**66,701**	**31,500**	**98,201**

Source: Ministry of Housing / Land Settlement Agency

TABLE 3.2 LAND NEEDS TO 2020 BASED ON PROJECTED NUMBER OF NEW DWELLING UNITS BY REGION

Region	Projected Number of Dwelling Units	Gross Density (Units/Hectare)	Density Designation in Urban / Suburban Areas	Required Land Area (Hectares)	Total Land Area in Each Region (Hectares)
City of Port of Spain	30,881	200	R7	154	1,227
City of San Fernando	12,352	80	R6	154	1,867
Arima Borough	2,573	15	R2	172	1,180
Chaguanas Borough	13,382	30	R4	446	5,943
Point Fortin Borough	823	15	R2	55	2,508
Diego Martin	8,235	45	R5	183	12,588
San Juan/ Laventille	8,235	45	R5	183	23,949
Tunapuna/Piarco	10,294	45	R5	229	51,031
Couva/Tabaquite/Talparo	3,706	30	R4	124	72,342
Mayaro/Rio Claro	823	30	R4	27	81,374
Sangre Grande	823	30	R4	27	92,708
Princes Town	823	30	R4	27	61,967
Penal/Debe	823	30	R4	27	24,592
Siparia	823	30	R4	27	49,518
Tobago	3,603	20	R3	180	30,044
Total Trinidad and Tobago	**98,201**			**2,017**	**512,838**

Source: Internal calculations

TABLE 3.3 PROPOSED DISTRIBUTION OF TOTAL DEMAND BY INCOME CATEGORY AND REGION

Region	Total Units	Low Income Units	Middle Income Units	High Income Units
City of Port of Spain	30,881	17,293	9,573	4,015
City of San Fernando	12,352	6,917	3,829	1,606
Arima Borough	2,573	1,441	798	335
Chaguanas Borough	13,382	7,494	4,148	1,740
Point Fortin Borough	823	461	255	107
Diego Martin	8,235	4,612	2,553	1,071
San Juan/ Laventille	8,235	4,612	2,553	1,071
Tunapuna/Piarco	10,294	5,764	3,191	1,338
Couva/Tabaquite/Talparo	3,706	2,075	1,149	482
Mayaro/Rio Claro	823	461	255	107
Sangre Grande	823	461	255	107
Princes Town	823	461	255	107
Penal/Debe	823	461	255	107
Siparia	823	461	255	107
Tobago	3,603	2,018	1,117	468
Total	**98,201**	**54,993**	**30,442**	**12,766**

Source: Internal calculations

TABLE 3.4 FUNDING REQUIRED FOR HOUSING BY YEAR 2000 – 2020

Year	Number of Dwelling Units	Funding Required TT$ Billions at Constant (2003) Prices
2000	9,238	2.22
2001	6,183	1.48
2002	6,279	1.51
2003	6,378	1.53
Sub Total 2000 - 2003	**28,078**	**6.74**
2004	6,481	1.56
2005	6,586	1.58
2006	6,694	1.61
Sub Total 2004 – 2006	**19,761**	**4.74**
2007	6,806	1.63
2008	6,922	1.66
2009	2,857	0.69
Sub Total 2007 - 2009	**16,585**	**3.98**
2010	3,039	0.73
2011	3,046	0.73
2012	3,052	0.73
Sub Total 2010 - 2012	**9,137**	**2.19**
2013	3,058	0.73
2014	3,064	0.74
2015	3,071	0.74
Sub Total 2013 - 2015	**9,193**	**2.21**

TABLE 3.4 FUNDING REQUIRED FOR HOUSING BY YEAR 2000 – 2020 *Concluded*

Year	Number of Dwelling Units	Funding Required TT$ Billions at Constant (2003) Prices
2016	3,077	0.74
2017	3,083	0.74
2018	3,089	0.74
Sub Total 2015 - 2018	**9,249**	**2.22**
2019	3,096	0.74
2020	3,102	0.74
Sub Total 2019 – 2020	**6,198**	**1.49**
Grand Total 2000 - 2020	**98,201**	**23.57**
Total 2004 - 2020	**70,123**	**16.83**

Source: Ministry of Housing / Land Settlement Agency

TABLE 3.5 QUANTITIES OF SELECTED MATERIALS REQUIRED FOR NATIONAL HOUSING PROGRAM

Year	3000 psi Concrete (cub.yds)	Plastering Sand (cub. yds)	Cement (cub.ft)	4X8X16 Concrete Blocks	BRC (rolls)	R5 Rebar	R10 Rebar
2000	474,411	281,383	1,969,679	26,074,794	18,759	450,212	1,650,778
2001	317,503	188,317	1,318,222	17,450,754	12,554	301,308	1,104,796
2002	322,456	191,255	1,338,784	17,722,948	12,750	306,008	1,122,028
2003	327,555	194,279	1,359,954	18,003,203	12,952	310,847	1,139,771
2004	332,806	197,394	1,381,758	18,291,840	13,160	315,830	1,158,045
2005	338,216	200,603	1,404,220	18,589,193	13,374	320,964	1,176,870
2006	343,791	203,910	1,427,367	18,895,614	13,594	326,255	1,196,269
2007	349,538	207,318	1,451,226	19,211,473	13,821	331,709	1,216,266
2008	355,464	210,833	1,475,829	19,537,160	14,056	337,332	1,236,885
2009	146,721	87,023	609,161	8,064,125	5,802	139,237	510,535
2010	156,090	92,580	648,059	8,579,067	6,172	148,128	543,135
2011	156,406	92,767	649,372	8,596,448	6,184	148,428	544,236
2012	156,723	92,956	650,690	8,613,898	6,197	148,729	545,340
2013	157,042	93,145	652,014	8,631,419	6,210	149,032	546,450
2014	157,362	93,335	653,342	8,649,009	6,222	149,335	547,563
2015	157,684	93,525	654,676	8,666,670	6,235	149,640	548,681
2016	158,006	93,717	656,016	8,684,401	6,248	149,946	549,804
2017	158,330	93,909	657,361	8,702,203	6,261	150,254	550,931
2018	158,655	94,102	658,711	8,720,077	6,273	150,562	552,062
2019	158,982	94,295	660,066	8,738,022	6,286	150,872	553,198
2020	159,310	94,490	661,427	8,756,038	6,299	151,183	554,339
Total	**5,043, 045**	**2,991,130**	**20,937,911**	**277,178,057**	**199,409**	**4,785,808**	**17,547,963**

Source: Ministry of Housing / Land Settlement Agency

CHAPTER FOUR

LAND USE & DEVELOPMENT

Courtesy: Ministry of Planning, Housing and the Environment - Town and Country Planning Division

TABLE 4.1 TOTAL NUMBER OF APPLICATIONS FOR PLANNING PERMISSION, 2005 – 2007

Year	No. of Applications
2005	8,574
2006	8,363
2007	8,329

Source: Town and Country Planning Division

TABLE 4.2 TOTAL NUMBER OF APPLICATIONS FOR PERMISSION TO DEVELOP LAND FOR INDUSTRIAL USE, 2005 – 2007

Year	No. of Applications
2005	84
2006	107
2007	112

Source: Town and Country Planning Division

TABLE 4.3 APPLICATIONS FOR PERMISSION TO DEVELOP LAND FOR INDUSTRIAL USE BY PLANNING REGIONS, 2005 – 2007

PLANNING REGION	2005	2006	2007	Total
T1	7	11	9	**27**
T2	11	15	17	**43**
T3	16	11	11	**38**
T4	1	7	4	**12**
T5	20	24	32	**76**
T6	3	4	8	**15**
T7	10	21	20	**51**
T8	13	11	11	**35**
T9	3	3	0	**6**
TOTAL	**84**	**107**	**112**	**303**

Source: Town and Country Planning Division

TABLE 4.4 TOTAL APPLICATIONS FOR PERMISSION TO DEVELOP LAND FOR SINGLE AND MULTI FAMILY RESIDENTIAL USE, 2005 – 2007

Year	Single Family Applications	Multi Family Applications
2005	2,729	341
2006	2,361	391
2007	2,085	384

Source: Town and Country Planning Division

TABLE 4.5 NUMBER OF APPLICATIONS REFUSED BY PROPOSED USE, 2005 – 2007

Type	2005	2006	2007
Agriculture	107	127	108
Residential	1,399	1,739	1,702
Office	96	75	120
Commercial	138	131	142
Industrial	47	61	58
Institutional	40	76	85
Protective	6	27	4
Public Utilities	38	101	30
Warehousing	57	96	39
TOTAL	**1,928**	**2,433**	**2,288**

Source: Town and Country Planning Division

TABLE 4.6 NUMBER OF APPLICATIONS REFUSED AS A PERCENTAGE OF APPLICATIONS SUBMITTED, 2005 – 2007

Year	Percentage of Applications Refused
2005	22.5
2006	29.1
2007	27.5

Source: Town and Country Planning Division

TABLE 4.7 TOTAL NUMBER OF APPEALS, 2005 – 2007

Year	Total Number of Appeals
2005	211
2006	310
2007	344

Source: Town and Country Planning Division

TABLE 4.8 TOTAL NUMBER OF APPEALS, BY PLANNING REGION, 2000 - 2007

Planning Region	Total
T1	312
T2	240
T3	45
T4	96
T5	681
T6	27
T7	171
T8	175
T9	243

Source: Town and Country Planning Division

TABLE 4.9 APPEALS MADE AS A PERCENTAGE OF APPLICATIONS REFUSED, 2005 – 2007

Year	Appeals Made (Percent)
2005	10.9
2006	12.7
2007	15.0

Source: Town and Country Planning Division

APPENDICES

APPENDIX 4A.1 TOTAL NUMBER OF APPLICATIONS FOR PLANNING PERMISSION, 2000 – 2004

Year	No. of Applications
2000	6,825
2001	7,171
2002	7,553
2003	8,356
2004	9,206

Source: Town and Country Planning Division

APPENDIX 4A.2 TOTAL NUMBER OF APPLICATIONS FOR PERMISSION TO DEVELOP LAND FOR INDUSTRIAL USE, 2000 – 2004

Year	No. of Applications
2000	191
2001	127
2002	101
2003	118
2004	99

Source: Town and Country Planning Division

APPENDIX 4A.3 APPLICATIONS FOR PERMISSION TO DEVELOP LAND FOR INDUSTRIAL USE BY PLANNING REGIONS, 2000 – 2004

PLANNING REGION	2000	2001	2002	2003	2004
T1	25	10	19	14	8
T2	15	17	2	17	14
T3	15	11	7	10	7
T4	1	0	0	0	1
T5	57	39	35	33	27
T6	3	5	2	3	8
T7	54	38	22	15	13
T8	19	7	12	20	17
T9	2	0	2	6	4
TOTAL	**191**	**127**	**101**	**118**	**89**

Source: Town and Country Planning Division

APPENDIX 4A.4 TOTAL APPLICATIONS FOR PERMISSION TO DEVELOP LAND FOR SINGLE AND MULTI FAMILY RESIDENTIAL USE, 2000 – 2004

Year	Single Family Applications	Multi Family Applications
2000	2,526	251
2001	2,598	286
2002	2,790	339
2003	2,744	384
2004	2,998	464

Source: Town and Country Planning Division

APPENDIX 4A.5 NUMBER OF APPLICATIONS REFUSED BY PROPOSED USE, 2000 – 2004

Type	2000	2001	2002	2003	2004
Agriculture	64	63	62	121	105
Residential	740	964	1,170	1,322	1,475
Office	41	48	55	67	80
Commercial	113	167	154	134	146
Industrial	77	59	58	68	47
Institutional	44	46	47	33	39
Protective	3	2	4	1	14
Public Utilities	4	5	3	27	82
Warehousing	10	13	14	57	110
TOTAL	**1,096**	**1,367**	**1,567**	**1,830**	**2,098**

Source: Town and Country Planning Division

APPENDIX 4A.6 NUMBER OF APPLICATIONS REFUSED AS A PERCENTAGE OF APPLICATIONS SUBMITTED, 2000 – 2004

Year	Percentage of Applications Refused
2000	16.1
2001	19.1
2002	20.7
2003	21.9
2004	22.8

Source: Town and Country Planning Division

APPENDIX 4A.7 TOTAL NUMBER OF APPEALS, 2000 – 2004

Year	Total Number of Appeals
2000	252
2001	297
2002	169
2003	188
2004	219

Source: Town and Country Planning Division

APPENDIX 4A.8 APPEALS MADE AS A PERCENTAGE OF APPLICATIONS REFUSED, 2000 – 2004

Year	Appeals Made (Percent)
2000	23.0
2001	21.7
2002	10.8
2003	10.3
2004	10.4

Source: Town and Country Planning Division

CHAPTER FIVE

AGRICULTURE

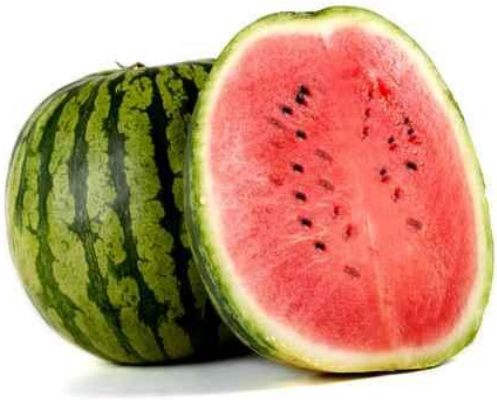


TABLE 5.1 VALUE ADDED OF THE AGRICULTURE INDUSTRY, AND GDP AT CONSTANT (2000) PRICES, 2005 – 2007

Year	Value Added of the Agriculture Industry	GDP of Trinidad and Tobago (TT$ Millions)
2005	416.7	75,597.7
2006	412.8	84,794.6
2007	388.6	89,444.8

Source: CSO, National Income Division

TABLE 5.2 PERCENTAGE GROWTH IN VALUE ADDED OF THE AGRICULTURE INDUSTRY AT CONSTANT (2000) PRICES, 2005 – 2007

Year	Growth in Value Added of the Agriculture Industry
2005	-5.4 %
2006	-0.9 %
2007	-5.9 [p] %

[p]- Provisional data

Source: Source Central Bank of Trinidad and Tobago, Annual Economic Survey 2007

TABLE 5.3 AREA (HECTARES) OF TRADITIONAL FOOD CROPS UNDER CULTIVATION 2005 – 2007

Year	Green Vegetables	Root Crops	Other Pulses	Rice (Paddy)	**Total Food Crops**
2005	3,946.0	1,490.7	1,692.3	1,164.3	**8,293.3**
2006	4,056.1	671.9	301.8	1,881.4	**6,911.2**
2007	3,645.5	1,842.5	1,033.8	2,181.8	**8,703.6**

Source: CSO, Agriculture Division

TABLE 5.4 NUMBER OF ANIMALS SLAUGHTERED BY GOVERNMENT CONTROLLED ABATTOIRS BY ADMINISTRATIVE AREAS, 2005 – 2007

County/Island	Number of Animals Slaughtered		
	2005	2006	2007
St. George	5,644	5,691	5,263
Caroni	1,285	1,262	969
St. Andrew / St. David	92	68	116
Victoria	146	162	164
St. Patrick	141	143	70
Tobago	1,650	1,289	1,725
Total	**8,958**	**8,615**	**8,307**

Source: CSO, Agriculture Division

TABLE 5.5 LABOUR FORCE IN AGRICULTURE, AND TOTAL LABOUR FORCE IN TRINIDAD AND TOBAGO, 2005 – 2007

Year	Total Labour Force (Persons)	Labour Force In Agriculture (Persons)
2005	623,700	26,700
2006	625,300	26,800
2007	622,300	23,500

Source: CSO, Agriculture Division

TABLE 5.6 TOTAL EMPLOYMENT, AND EMPLOYMENT IN AGRICULTURE, 2005 – 2007

Year	Total Employment	Number of Persons Employed in Agriculture
2005	574,000	25,000
2006	586,300	25,800
2007	587,800	22,400

Source: Central Bank of Trinidad and Tobago, Statistical Digest June 2008

TABLE 5.7 PRODUCTION, UTILIZATION AND EXPORTS OF FERTILIZER (TONNES), 2005 – 2007

Year	Production	Exports	Local Sales
2005	5,935,866	5,447,874	7,973
2006	5,598,375	5,138,381	7,344
2007	5,578,108	5,249,283	7,967

Source: CSO, Agriculture Division

TABLE 5.8 IMPORTS, EXPORTS AND NET IMPORTS OF INSECTICIDES[1] (KILOGRAMS), 2005 – 2007

Year	Imports	Exports	Net Imports (Kgs)
2005	1,806,121	992,057	814,064
2006	2,694,482	2,481,324	213,158
2007	1,629,609	1,513,062	116,547

[1] Insecticides do not include mosquito coils, fungicides, herbicides, anti-sprouting products and plant growth regulators.

Source: CSO, Trade Division

TABLE 5.9: NUMBER OF AGRICULTURAL LOANS APPROVED, 2005 - 2007

Year	Total Number of Loans Approved
2005	745
2006	860
2007	529

Source: Agricultural Development Bank

TABLE 5.10 EXPORTS AND IMPORTS OF FOOD (TT$ MILLION), 2005 – 2007

Year	Exports	Imports	Net Imports
2005	1,048.3	2,718.6	1,670.3
2006	1,170.1	2,759.5	1,589.4
2007	1,220.4	3,408.8	2,188.4

Source: CSO, Trade Division

APPENDIX

APPENDIX 5A.1 VALUE ADDED OF THE AGRICULTURE INDUSTRY, AND GDP AT CONSTANT (2000) PRICES, (TT$ MILLIONS), 2001- 2004

Year	Value Added of the Agriculture Industry	GDP of Trinidad and Tobago
2001	757.7	53,512.1
2002	823.7	57,759.2
2003	698.0	66,100.2
2004	459.1	71,232.4

Source: CSO, National Income Division

APPENDIX 5A.2 PERCENTAGE GROWTH IN AGRICULTURE VALUE ADDED AT CONSTANT (2000) PRICES, 2001- 2004

Year	Percentage Growth in Value Added of the Agriculture Industry
2001	8.7
2002	8.7
2003	-15.3
2004	-34.2

Source: Central Bank of Trinidad and Tobago, Annual Economic Survey 2005, 2006, 2007

APPENDIX 5A.3 LABOUR FORCE IN AGRICULTURE, AND TOTAL LABOUR FORCE IN TRINIDAD AND TOBAGO, 2001 – 2004

Year	Total Labour Force (Persons)	Labour Force In Agriculture (Persons)
2001	576,500	42,000
2002	586,200	37,500
2003	596,500	34,200
2004	587,600	36,200

Source: CSO, Agriculture Division

APPENDIX 5A.4 TOTAL EMPLOYMENT, AND EMPLOYMENT IN AGRICULTURE, 2001 – 2004

Year	Total Employment	Number of Persons Employed in Agriculture
2001	514,100	40,100
2002	525,200	36,100
2003	534,200	31,400
2004	562,400	26,000

Source*:* Central Bank of Trinidad and Tobago, Statistical Digest June 2006

APPENDIX 5A.5 TOTAL NUMBER LOANS APPROVED FOR AGRICULTURE, 2001 – 2004

Year	Total Number of Loans Approved
2001	1,080
2002	981
2003	736
2004	719

Source: Agricultural Development Bank

APPENDIX 5A.6 EXPORTS AND IMPORTS OF FOOD (TT$ MILLION), 2000 – 2004

Year	Exports	Imports	Net Imports
2000	962.2	1,516.7	554.5
2001	881.7	1,828.9	947.2
2002	882.4	1,790.0	907.6
2003	784.0	1,913.9	1,129.9
2004	884.0	2,186.3	1,302.3

Source: CSO, Trade Division

CHAPTER SIX

FORESTRY, WILDLIFE AND BIODIVERSITY

Courtesy: Ministry of Agriculture, Land and Marine Resources, Forestry Division

TABLE 6.1 FOREST TYPES OF TRINIDAD

Indigenous Forest Types	Percentage Cover	Location
Evergreen seasonal	57	North east and south east
Semi–evergreen seasonal	8.3	Southern extremes
Deciduous seasonal	2.1	Western northern range
Dry evergreen	0.3	East coast
Seasonal Montane	0.5	Northern range
Montane	12.5	Northern range
Swamp	9.7	Coastal
Secondary	9.6	Widely distributed
TOTAL	**100**	

Source*:* Forestry Division (W.S. Chambers 1992).

TABLE 6.2 FOREST TYPES OF TOBAGO

Indigenous Forest Types	Percentage Cover	Location
Evergreen seasonal	-	
Semi–evergreen seasonal	-	
Deciduous seasonal	-	
Dry evergreen	-	East coast
Seasonal Montane	-	Northern range
Montane	0.6	Northern range
Swamp	60.5	Coastal
Secondary	6.5	Widely distributed
Other Areas	32.4	
TOTAL	**100.0**	

Source*:* First Compendium of Environmental Statistics, Page 113

TABLE 6.3A UTILIZATION OF FORESTED LAND IN TRINIDAD AND TOBAGO, 2005 – 2007
PRODUCTIVE FOREST ('000 HA's)

Year	Total Forested Area	Productive Forest		
		Total	Forest Reserve	Unreserved State Land
2005 to 2007	241.4	86.9	74.9	12.0

Source*:* Forestry Division 1998

TABLE 6.3B UTILIZATION OF FORESTED LAND IN TRINIDAD AND TOBAGO, 2005 – 2007
PROTECTED FOREST ('000 HA's)

Year	Total Forested Area	Protected Forest					
		Total	Wildlife Sanctuary	Nature Reserve	State-lands Over 300 ft Above Sea Level	National Parks	Other Areas (Catchment Windbelt)
2005 to 2007	241.4	154.5	17.5	0.6	64.1	61.3	11.0

Source*:* Forestry Division 1998

TABLE 6.4 VISITORS TO PARK AREAS MANAGED BY THE FORESTRY DIVISION IN TRINIDAD, 2005 – 2007

Site	2005	2006	2007
Cleaver Woods Recreation Park	35,000	35,000	36,000
Quinam Bay Recreation Park	150,000	150,000	150,000
Matura Nature Park (Proposed)	13,000	16,700	15,000
Aripo Savannas Scientific Reserve	3,200	1,031	760
River Estate Museum and Waterwheel	6,800	5,000	750
Lopinot Historical Complex	80,000	55,000	60,000
Fort George	32,000	6,000	18,000
Caroni Swamp	30,429	20,013	22,131
San Fernando Hill	130,000	140,000	150,000
Total	**480,429**	**428,744**	**452,641**

Source: Forestry Division, National Parks Section

TABLE 6.5 FOREST OUTTURN FOR 2005 – 2007 (M^3)

Year	Natural Forests	Plantations Teak	Plantations Pine	Total
2005	45,330	2,259	14,597	**62,186**
2006	40,494	6,368	4,333	**51,195**
2007	31,720	5,210	289	**37,219**

Source: Forestry Division

[1]Total includes teak and pine sold from private lands and state forests.

TABLE 6.6 SAWNLOG OUTTURN BY SPECIES AND CLASS[1], 2005 – 2007 (CUBIC METRES)

CLASS I SPECIES – From Private Lands		**YEAR**		
Local Name	Botanical Name	2005	2006	2007
Balata	*Manikara bidentata*	92	83	19
Cedar	*Cedrela odorata*	4,983	4,506	4,140
TOTAL (Class I)		**5,075**	**4,589**	**4,159**
CLASS II SPECIES - From Forest Reserve and State Lands		**YEAR**		
Local Name	Botanical Name	2005	2006	2007
Crappo	*Carapa guianensis*	949	780	608
Galba	*Calophyllum lucidum*	41	10	29
Guatecare	*Escweilera subglandulosa*	98	48	13
Laurier	*Ocotea and Nectandara spp.*	96	63	130
Mora	*Mora excelsa*	765	1,376	1,698
Olivier	*Terminalia & Buchenavia spp.*	1,925	2,063	1,136
Serrette	*Byrsonma coriaceae*	303	240	119
Tapana	*Hyeronima caribaea*	327	339	302
Toporite	*Hernandia sonora*	497	286	208
TOTAL (Class II)		**5,001**	**5,205**	**4,243**
CLASS III SPECIES - From Forest Reserve and State Lands		**YEAR**		
Local Name	Botanical Name	2005	2006	2007
Cajuca	*Virola Surinamensis*	1,510	1,861	1,485
Chenet	*Melicocuss bijugatus*	-	-	-
Gommier	*Protium insigne*	114	43	62
Jiggerwood	*Bravaisia integerima*	1,165	997	791
Jereton	*Didymopanax morotoni*	275	273	206
L'Epinet	*Fagara martinicensis*	729	581	366
Mahoe	*Sterculia caribaea*	877	807	1,698
Mangue	*Symphonia and other spp.*	35	1	59
Moussara	*Brosimum alicastrum*	39	35	32
Purpleheart	*Peltogyne porphyrocardia*	15	13	51
Sandbox	*Hura crepitans*	1,617	784	429
Silk Cotton	*Ceiba pentandra*	1,208	947	302
Total (Class III)		**7,584**	**6,342**	**5,481**

Source: Forestry Division

[1] The term class is used to define the value of sawnlog within the Forestry Division., Class I having the most valuable species and Class IV the least valuable.

TABLE 6.6 SAWNLOG OUTTURN BY SPECIES AND CLASS[2], 2005 – 2007 (CUBIC METRES) – continued

CLASS IV SPECIES - From Forest Reserve and State Lands		**YEAR**		
Local Name	Botanical Name	2005	2006	2007
Blackheart	Clathrotropis brachypetala	297	205	159
Bois D'ome	Guazuma ulmifolia	312	249	215
Figuier	Ficus tobagensis	903	761	848
Hog Plum	Spondias mombin	9,553	6,810	5,268
Pois Doux	Inga species	1,141	1,103	691
Total (Class IV)		**12,206**	**9,128**	**7,181**
All Other Species		15,215	15,094	10,035
Grand Total All Species (Class I to Class IV)		**45,081**	**40,358**	**31,099**

Source: Forestry Division

TABLE 6.7 NUMBER OF LICENSED OPERATORS BY COUNTY 2005 – 2007

Year	County									
	St. George	St. David	St. Andrew	Caroni	Nariva	Victoria	Mayaro	St. Patrick	Tobago	**Total**
2005	15	-	8	6	8	17	2	22	1	**79**
2006	14	-	9	10	5	17	2	24	1	**82**
2007	15	-	6	7	9	20	3	28	1	**89**

Source: Forestry Division

[2] The term class is used to define the value of sawnlog within the Forestry Division., class I having the most valuable species and Class IV the least valuable

TABLE 6.8 PRODUCTION BY SAWMILLS, 2005 – 2007

Year	Log Input ('000's cubic metres)			Mill Labour (Nos.)		Lumber Out-turn (000's cubic metres)
	Total	From Customers	From Millers	Skilled	Other	
2005	80.4	32.4	48.0	242	362	37.7
2006	83.4	33.7	49.7	201	172	39.5
2007	116.6	88.1	28.5	279	308	45.7

Source: Forestry Division

TABLE 6.9A STATE GAME LICENCES PERMITS SOLD -TRINIDAD DURING THE PERIOD 2005 – 2007

Species sold	Season		
	2004/2005	2005/2006	2006/2007
Agouti	5,327	5,478	6,058
Cage birds	273	269	313
Deer	2,389	2,463	2,604
Lappe	2,024	2,172	2,423
Alligator/lizard	1,091	1,357	1,822
Quenk / wildhog	775	810	896
Tattoo/ armadillo	2,219	2,441	2,670
Water fowl	812	821	849
Total number of permits	14,910	15,811	17,635
Total number of registered hunters	9,075	8,902	9,446
Revenue collected (TT$)	298,200	316,220	352,700

Source: Forestry Division

TABLE 6.9B STATE GAME LICENCES PERMITS SOLD -TOBAGO DURING THE PERIOD 2005 – 2007

Species sold	Season		
	2004/2005	2005/2006	2006/2007
Agouti	64	67	84
Caged birds	3	4	5
Deer	1	1	2
Lizard	69	46	76
Quenk	2	1	1
Tattoo	43	44	68
Water fowl	-	1	9
Wild fowl	-	-	-
Total permits sold	182	164	245
Total number of registered hunters	140	118	166
Revenue collected (TT$)	3,640	3,280	4,900

Source: Ministry of Agriculture and the Environment, Tobago

TABLE 6.10 NUMBER OF VISITORS TO TURTLE VIEWING SITES AND REVENUE COLLECTED FOR THE PERIOD 2005 – 2007

Year	Number Of Visitors				No. of Issued Permits	Revenue Collected TT$
	Matura Beach	Grande Riviere	Fishing Pond Beach	Total No of Visitors		
2005	7,708	6,507	50	14,265	5,310	65,773
2006	7,057	6,027	118	13,202	4,271	68,783
2007	11,903	10,357	573	22,833	5,960	96,195

Source: Wildlife Forestry Division

TABLE 6.11 SUMMARY OF FOREST FIRES FOR THE PERIOD 2005 – 2007 WITHIN TRINIDAD AS RECORDED BY THE FORESTRY DIVISION

Year	Number of Fires	Area Burnt (ha)	Average Fire Size (ha)
2005	270	1,696.0	6.3
2006	210	1,245.8	5.9
2007	452	3,566.5	7.9

Source: Forestry Division

TABLE 6.12A FOREST FIRES RECORDED BY THE FORESTRY DIVISION IN THE VARIOUS COUNTIES OF TRINIDAD AND TOBAGO FOR YEAR 2005

Cause of Fire	Event	County							Total
		St. George	St. Andrew/ St. David	Caroni	Vic-toria	St. Patrick	Nariva/ Mayaro	To-bago	
Burning For Agriculture	No. of Fires	15	-	4	3	3	15	..	**40**
	Area Burnt (ha)	54.2	-	2.5	6.3	7.2	29.3	..	**99.5**
Burning of Debris	No. of Fires	7	-	4	3	4	1	..	**19**
	Area Burnt (ha)	7.2	-	3.5	8.7	57.5	0.3	..	**77.2**
Hunters	No. of Fires	1	-	-	-	-	-	..	**1**
	Area Burnt (ha)	3.0	-	-	-	-	-	..	**3.0**
Smokers	No. of Fires	3	-	6	2	5	-	..	**16**
	Area Burnt (ha)	6.4	-	8.3	3.0	73.0	-	..	**90.7**
Other	No. of Fires	1	-	1	-	-	2	..	**4**
	Area Burnt (ha)	8.5	-	15.0	-	-	0.2	..	**23.7**
Malicious	No. of Fires	17	1	8	4	12	25	..	**67**
	Area Burnt (ha)	26.4	0.2	68.2	52.0	33.4	88.2	..	**268.4**
Unknown	No. of Fires	26	11	36	3	29	18	..	**123**
	Area Burnt (ha)	128.6	12.2	111.2	12.3	844.8	24.4	..	**1,133.5**
Total	**No. of Fires**	**70**	**12**	**59**	**15**	**53**	**61**	..	**270**
	Area Burnt (ha)	**234.3**	**12.4**	**208.7**	**82.3**	**1,015.9**	**142.4**	..	**1,696.0**

Source: Forestry Division

TABLE 6.12B FOREST FIRES RECORDED BY THE FORESTRY DIVISION IN THE VARIOUS COUNTIES OF TRINIDAD AND TOBAGO FOR YEAR 2006

Cause of Fire	Event	County							Total
		St. George	St. Andrew/ St. David	Caroni	Victoria	St. Patrick	Nariva / Mayaro	To-bago	
Burning For Agriculture	No. of Fires	15	2	6	4	3	13	..	**43**
	Area Burnt (ha)	13.6	2.1	11.6	49.6	7.5	20.4	..	**104.8**
Hunters	No. of Fires	-	-	-	-	-	-	..	-
	Area Burnt (ha)	-	-	-	-	-	-	..	**0.0**
Smokers	No. of Fires	7	1	1	-	2	-	..	**11**
	Area Burnt (ha)	16.8	0.1	1.0	-	6.0	-	..	**23.9**
Other	No. of Fires	9	3	5	1	3	-	..	**21**
	Area Burnt (ha)	11.6	4.2	16.0	0.8	11.0	-	..	**43.6**
Malicious	No. of Fires	17	2	4	11	8	8	..	**50**
	Area Burnt (ha)	104.2	16.6	8.0	394.4	34.4	21.0	..	**578.6**
Unknown	No. of Fires	30	1	31	13	7	3	..	**85**
	Area Burnt (ha)	188.8	30.5	71.9	176.7	23.5	3.5	..	**494.9**
Total	**No. of Fires**	**78**	**9**	**47**	**29**	**23**	**24**	..	**210**
	Area Burnt (ha)	**335.0**	**53.5**	**108.5**	**621.5**	**82.4**	**44.9**	..	**1,2458**

Source: Forestry Division

TABLE 6.12C FOREST FIRES RECORDED BY THE FORESTRY DIVISION IN THE VARIOUS COUNTIES OF TRINIDAD AND TOBAGO FOR YEAR 2007

Cause of Fire	Event	County							Total
		St. George	St. Andrew / St. David	Caroni	Victoria	St. Patrick	Nariva / Mayaro	Tobago	
Burning For Agriculture	No. of Fires	38	4	4	10	2	18	..	**76**
	Area Burnt (ha)	222.8	88.0	22.0	12.6	3.8	46.6	..	**395.8**
Burning Of Debris	No. of	18	3	2	2	1	3	..	**29**
	Area Burnt (ha)	78.5	4.1	0.9	1.6	8.0	0.7	..	**93.8**
Hunters	No. of Fires	-	1	-	-	-	1	..	**2**
	Area Burnt (ha)	-	1.0	-	-	-	1.6	..	**2.6**
Smokers	No. of Fires	23	-	1	3	-	4	..	**31**
	Area Burnt (ha)	34.7	-	5.0	8.0	-	50.6	..	**98.3**
Other	No. of Fires	2	1	1	-	3	-	..	**7**
	Area Burnt (ha)	0.4	5.0	1.0	-	30.1	-	..	**36.5**
Malicious	No. of Fires	67	12	30	2	11	23	..	**145**
	Area Burnt (ha)	347.8	120.6	189.5	3.5	3.5	497.1	..	**1,162.0**
Unknown	No. of Fires	30	5	52	6	18	51	..	**162**
	Area Burnt (ha)	390.7	64.7	260.9	18.1	821.4	221.7	..	**1,777.50**
Total	**No. of Fires**	**178**	**26**	**90**	**23**	**35**	**100**	..	**452**
	Area Burnt (ha)	**1,074.9**	**283.4**	**479.3**	**43.8**	**866.80**	**818.3**	..	**3,566.50**

Source: Forestry Division

APPENDIX 6A.1 SUMMARY OF FOREST FIRES FOR THE YEAR 2004 WITHIN TRINIDAD, AS RECORDED BY THE FORESTRY DIVISION

Year	Number of Fires	Area Burnt (ha)	Average Fire Size (ha.)
2004	136	1,493.2	11.0
Total	**136**	**1493.2**	**11.0**

Source: Forestry Division

APPENDIX 6A.2 SAWMILLS – NUMBER OF LICENSED OPERATIONS BY MAJOR DIVISIONS – 2004

Year	County									
	St. George	St. David	St. Andrew	Caroni	Nariva	Victoria	Mayaro	St. Patrick	Tobago	**Total**
2004	**21**	**0**	**6**	**11**	**8**	**17**	**2**	**18**	**1**	**84**

Source: Forestry Division

APPENDIX 6A.3 SAWMILLS PRODUCTION - 2004[1]

Year	Log Input (000's cubic metres)			Mill Labour (Nos)		Lumber Out-turn (000's Cubic Metres)
	Total	From Customers	From Millers	Skilled	Other	
2005	**94.2**	**39.3**	**54.9**	**241**	**398**	**42.6**

Source: Forestry Division

[1] Monthly average number of men employed by sawmills during the year

APPENDIX 6A.4 NUMBER OF VISITORS TO TURTLE VIEWING SITES AND REVENUE COLLECTED FOR THE YEAR 2004

Year	Number of Visitors				Number of Issued Permits	Revenue Collected (TT$)
	Matura Beach	Grande Riviere	Fishing Pond Beach	Total Number of Visitors		
2004	**7,640**	**3,710**	**46**	**11,396**	**2,693**	**52,036**

Source: Forestry Division

CHAPTER SEVEN
FISHERIES AND AQUACULTURE

Courtesy: Fisheries Division, Ministry of Agriculture, Land and Marine Resources

TABLE 7.1.1 VALUE ADDED OF FISHING AND PERCENTAGE CONTRIBUTION OF FISHING TO VALUE ADDED OF AGRICULTURE AND GDP AT CURRENT PRICES, 2005 – 2007

Year	Value Added of Fishing (TT$ Millions)	Contribution of Fishing to Agriculture (%)	Contribution of Fishing to GDP (%)
2005	112.3	23.0	0.11
2006	88.4	13.4	0.07
2007	96.1	18.8	0.07

Source: Central Statistical Office

TABLE 7.2.1 NUMBER OF VESSELS REGISTERED IN 2005 TO 2007 IN TRINIDAD AND TOBAGO

Year	Number of Vessels Registered
2005	174
2006	170
2007	194

Source: Fisheries Division, Ministry of Agriculture, Land and Marine Resources, Trinidad and Tobago

TABLE 7.2.2 NUMBER OF FISHERS REGISTERED IN 2005 TO 2007 IN TRINIDAD AND TOBAGO

Year	Number of First Applications	Number of Renewals	Total
2005	370	490	860
2006	322	468	790
2007	337	470	807

Source: Fisheries Division, Ministry of Agriculture, Land and Marine Resources, Trinidad and Tobago

TABLE 7.3.1 ESTIMATED TOTAL ANNUAL LANDINGS (TONNES) BY FLEET FROM THE MARINE CAPTURE FISHERIES OF TRINIDAD AND TOBAGO, 2005 – 2007

FISHING FLEET	2005	2006	2007
COMMERCIAL			
Trinidad	**13,410**	**9,536**	**9,490**
Artisanal Multi-Gear (Nets & Lines)	10,127	6,317	6,115
Artisanal Trawl	506	431	360
Total Artisanal	**10,633**	**6,748**	**6,475**
Semi-industrial Trawl	438	315	298
Industrial Trawl	914	950	1,002
Semi-industrial Longline	455	554	745
Semi-industrial Fishpot / Line [1]	970	970	970
Total Semi-industrial / Industrial	**2,777**	**2,789**	**3,015**
Tobago [2]	**2,479**	**2,479**	**2,479**
TOTAL COMMERCIAL: TRINIDAD & TOBAGO	**15,889**	**12,015**	**11,969**
RECREATIONAL			
Recreational Part Time [3]			
Game Fishing Tournaments (Trinidad &Tobago)			4
TOTAL RECREATIONAL: TRINIDAD & TOBAGO	**1,233**	**1,234**	**1,235**
GRAND TOTAL	**17,123**	**13,249**	**13,204**

Source: Fisheries Division, Ministry of Agriculture, Land and Marine Resources, Trinidad and Tobago

[1] In the absence of a data collection system for the Trinidad Semi-Industrial Fishpot/Line fleet, an estimate for 1997 is used for all years.

[2] In the absence of total landings for the Tobago commercial fishery, an estimate for 1991 (Mohammed 1994) is used for all years. In 1991 there were a total of 275 registered fishing vessels, all of which were artisanal, compared with a 2006 estimate of 306 vessels of which about nine were semi-industrial and the remainder artisanal (based on informal communication with staff of the Department of Marine Resources and Fisheries of the Tobago House of Assembly (THA)).

[3] In the absence of a data collection system for the Recreational fleet, a 1993 annual estimate for the recreational fishery in the Northwest peninsula of Trinidad (Mike 1993) is used for all years.

Note: Landings from foreign fleets that may have operated in Trinidad and Tobago waters are not included.

TABLE 7.3.2 ESTIMATED ANNUAL LANDINGS (TONNES) FOR SOME COMMERCIALLY IMPORTANT SPECIES GROUPS IN THE MARINE CAPTURE FISHERIES OF TRINIDAD AND TOBAGO FROM FISHING FLEETS FOR WHICH DATA ARE AVAILABLE, 2005 – 2007

Species Group	2005	2006	2007
Shrimp	779	877	774
Spanish mackerel (Carite)	2,720	1,778	1,414
King mackerel (Kingfish)	747	661	567
Tunas and Bonitos	880	625	815
Billfish	119	56	75
Sharks	2,222	825	1,070
Herring and Jashua	11	4	4
Weakfish (Salmon)	449	397	372
Croaker	1,869	854	747
Snapper	384	351	333
Cavalli and other Jacks	524	334	352
Other [1]	2,726	1,690	1,900
Total	**13,430**	**8,453**	**8,423**

Source: Fisheries Division, Ministry of Agriculture, Land and Marine Resources, Trinidad and Tobago

[1] "Other" includes, inter alia, barracuda (bechine), mullet, ancho, blinch, snook, brochet, grunt, grouper, sea catfish, cutlass fish.

Notes:

(i) These data represent landings from: Trinidad artisanal fleets; Trinidad semi-industrial/industrial trawl and longline fleets; Tobago artisanal and semi-industrial fleets for tuna-like species only (sample data only, i.e. not estimated total landings - from the Department of Marine Resources and Fisheries, Tobago House of Assembly); and game fishing tournaments in Trinidad and Tobago.

(ii) These data do not include landings from: Trinidad semi-industrial fishpot and line boats; Trinidad and Tobago recreational boats (other than from tournaments); Tobago landings (other than those identified in (i) above); landings from foreign fleets that may have operated in Trinidad and Tobago waters.

TABLE 7.3.3 ESTIMATED ANNUAL LANDINGS (TONNES) FROM THE MARINE CAPTURE FISHERIES FOR SOME SITES AROUND TRINIDAD, 2005 – 2007

Landing Site	2005	2006	2007
Alcan	..	168.9	158.6
Blanchisseuse	27.3	38.6	21.2
Bonasse	302.3	346.9	253.1
Brickfield	26.2	18.3	19.7
Claxton Bay	105.3	121.0	104.8
Cocorite	N/A	46.6	52.6
Cumana	N/A	18.7	15.8
Erin	206.6	225.6	245.8
Fullerton	194.8	180.5	165.1
Guayaguayare	110.5	133.0	139.8
Icacos	224.5	282.4	252.7
Manzanilla	77.2	91.8	47.0
Maracas	149.4	199.1	245.3
Matelot	52.6	48.2	28.9
Mayaro	121.8	219.6	164.7
Grand Chemin (Moruga)	1,183.7	895.9	882.9
Orange Valley	779.3	782.2	679.4
Ortoire	56.4	66.3	90.8
Otaheite	180.8	233.4	176.5
Port of Spain	..	443.2	247.4
San Fernando	..	..	..

Source: Fisheries Division, Ministry of Agriculture, Land and Marine Resources, Trinidad and Tobago

TABLE 7.5.1 TOTAL EXPORTS OF AQUARIUM FISHES FROM TRINIDAD, 2005 – 2006 (UNIT: NUMBER OF FISHES)

Year	*Hypostomus robinii*	*Corydoras aeneus*	*Poecilia reticulata*	Exotics	Other[1]	Total
2005	148,100	44,900	2,300,000	533,238	434,500	3,460,738
2006	130,700	39,600	2,381,500	874,847	432,000	3,858,647

Source: Fisheries Division, Ministry of Agriculture, Land and Marine Resources, Trinidad and Tobago

[1]The category "**Other**" refers to fishes which may be local or imported from other islands in the region from natural or cultured stocks.

TABLE 7.6.1 QUANTITY OF FISH IMPORTED INTO TRINIDAD AND TOBAGO, 2005 – 2007 (UNIT: KG)

CATEGORY	2005	2006	2007
FINFISH			
Fresh / Chilled / Frozen / Processed			
Mackerels	435,754	295,451	433,338
Tunas & Bonitos	5,907,074	1,803,172	2,744,725
Swordfish	-	-	12,727
Flyingfish	-	-	-
Herrings, Sardines, Anchovies	1,489,505	1,268,830	1,793,014
Dogfishes & Other Sharks	330,485	159,786	183,528
Snappers, Groupers, Sea Basses	-	129	912
Cod	2,716	3,634	1,448
Trout	33,907	9,228	8,357
Salmon	677,921	393,247	368,450
Alewives, Saithe, Pollock, Haddock, Hake	39,614	14,660	48,873
Flatfishes, Soles, Plaice, Halibut	6,080	22,467	13,080
Eels	52	-	288
Other fish & fish products (mixed/unidentified)	3,182,727	4,432,069	2,836,966
FINFISH (Fresh / Chilled / Frozen / Processed)	12,105,835	8,402,673	8,445,706
Live			
Live Fish	-	-	1
Ornamental Fish	8,374	8,445	186,445
FINFISH (Live)	8,374	8,445	186,446
Total Finfish	12,114,209	8,411,118	8,632,152
CRUSTACEANS			
Fresh / Chilled / Frozen / Processed			
Shrimps & Prawns	352,033	296,802	377,719
Crabs	174,005	28,068	52,103
Lobsters	9,729	7,978	18,434
Other Crustaceans	4,943	12,623	15,452
CRUSTACEANS (Fresh / Chilled / Frozen / Processed)	540,710	345,471	463,708
Live			
Live Shrimps & Prawns	27,500	-	13
Other Live Crustaceans	-	85	-
CRUSTACEANS (Live)	27,500	85	13
Total Crustaceans	568,210	345,556	463,721
MOLLUSCS			
Fresh / Chilled / Frozen / Processed			
Mussels	3,989	1,371	4,082
Oysters	138	937	465
Scallops	1,384	2,556	1,376
Other Molluscs	93	461	1,059
MOLLUSCS (Fresh / Chilled / Frozen / Processed)	5,604	5,325	6,982

Table concludes overleaf

TABLE 7.6.1 QUANTITY OF FISH IMPORTED INTO TRINIDAD AND TOBAGO, 2005 – 2007 (UNIT: KG) – *concluded*

CATEGORY	2005	2006	2007
MOLLUSCS - *continued*			
Live / Fresh / Chilled			
Mussels (Live, Fresh, or Chilled)	175	830	181
Scallops (Live, Fresh, or Chilled)	60	-	-
MOLLUSCS (Live / Fresh / Chilled)	235	830	181
Total Molluscs	5,839	6,155	7,163
OTHER			
Fresh / Chilled / Frozen / Processed			
Cepholopods [octopus, cuttlefish]	3,364	6,187	5,738
Sea eggs	32	-	-
Caviar, Roes, Liver	1,337	2,118	1,463
Other invertebrates	27,797	33,977	54,146
OTHER (Fresh / Chilled / Frozen / Processed)	32,530	42,282	61,347
Live / Fresh / Chilled Cepholopods [octopus, cuttlefish] (Live, Fresh, or Chilled)	1,444	19	261
OTHER (Live / Fresh / Chilled)	1,444	19	261
Total Other	33,974	42,301	61,608
TOTAL (Fresh / Chilled / Frozen / Processed)	12,684,679	8,795,751	8,977,743
TOTAL (Live / Fresh / Chilled)	1,679	849	442
TOTAL (Live)	35,874	8,530	186,459
GRAND TOTAL	**12,722,232**	**8,805,130**	**9,164,644**

Source: Central Statistical Office, Trade Statistics

TABLE 7.6.2 VALUE OF FISH IMPORTED INTO TRINIDAD AND TOBAGO, 2005 – 2007
(UNIT: TT$ CIF)

CATEGORY	2005	2006	2007
FINFISH			
Fresh / Chilled / Frozen / Processed			
Mackerels	3,621,121	3,050,278	5,008,262
Tunas & Bonitos	53,274,141	22,889,012	43,740,273
Swordfish	-	-	308,310
Flyingfish	-	-	-
Herrings, Sardines, Anchovies	23,815,674	23,499,921	28,166,579
Dogfishes & Other Sharks	2,963,280	1,503,172	1,586,767
Snappers, Groupers, Sea Basses	0	5,623	18,241
Cod	62,508	79,686	42,638
Trout	230,050	180,492	140,543
Salmon	4,654,815	5,849,567	6,737,130
Alewives, Saithe, Pollock, Haddock, Hake	671,884	358,326	983,977
Flatfishes, Soles, Plaice, Halibut	50,570	308,327	138,265
Eels	3,122	-	7,758
Other fish & fish products (mixed/unidentified)	41,319,986	53,378,465	57,755,284
FINFISH (Fresh / Chilled / Frozen / Processed)	130,667,151	111,102,869	144,634,027
Live			
Live Fish	-	-	156
Ornamental Fish	214,628	257,135	257,612
FINFISH (Live)	214,628	257,135	257,768
Total Finfish	130,881,779	111,360,004	144,891,795
CRUSTACEANS			
Fresh / Chilled / Frozen / Processed			
Shrimps & Prawns	4,970,940	8,974,646	13,373,343
Crabs	629,966	532,550	1,080,253
Lobsters	217,843	211,362	696,037
Other Crustaceans	143,306	541,324	357,849
CRUSTACEANS (Fresh / Chilled / Frozen / Processed)	5,962,055	10,259,882	15,507,482
Live			
Live Shrimps & Prawns	171,304	-	550
Other Live Crustaceans	-	2,678	-
CRUSTACEANS (Live)	171,304	2,678	550
Total Crustaceans	6,133,359	10,262,560	15,508,032
MOLLUSCS			
Fresh / Chilled / Frozen / Processed			
Mussels	70,350	29,728	90,395
Oysters	4,889	16,899	9,189
Scallops	57,085	95,924	15,871
Other Molluscs	2,768	12,698	13,604
MOLLUSCS (Fresh / Chilled / Frozen / Processed)	135,092	155,249	129,059

Table concludes overleaf

TABLE 7.6.2 VALUE OF FISH IMPORTED INTO TRINIDAD AND TOBAGO, 2005 – 2007
(UNIT: TT$ CIF) – *concluded*

CATEGORY	2005	2006	2007
MOLLUSCS - *continued*			
Live / Fresh / Chilled			
Mussels (Live, Fresh, or Chilled)	4,734	14,825	3,610
Scallops (Live, Fresh, or Chilled)	1,200	-	-
MOLLUSCS (Live / Fresh / Chilled)	5,934	14,825	3,610
Total Molluscs	141,026	170,074	132,669
OTHER			
Fresh / Chilled / Frozen / Processed			
Cepholopods [octopus, cuttlefish]	51,614	53,473	56,376
Sea eggs	1,892	-	-
Caviar, Roes, Liver	30,257	42,314	28,841
Other invertebrates	548,556	693,169	1,093,932
OTHER (Fresh / Chilled / Frozen / Processed)	632,319	788,956	1,179,149
Live / Fresh / Chilled Cepholopods [octopus, cuttlefish] (Live, Fresh, or Chilled)	27,006	356	5,945
OTHER (Live / Fresh / Chilled)	27,006	356	5,945
Total Other	659,325	789,312	1,185,094
TOTAL (Fresh / Chilled / Frozen / Processed)	137,396,617	122,306,956	161,449,717
TOTAL (Live / Fresh / Chilled)	32,940	15,181	9,555
TOTAL (Live)	385,932	259,813	258,318
GRAND TOTAL	**137,815,489**	**122,581,950**	**161,717,590**

Source: Central Statistical Office, Trade Statistics

TABLE 7.6.3 QUANTITY OF FISH EXPORTED FROM TRINIDAD AND TOBAGO, 2005 – 2007 (UNIT: KG)

CATEGORY	2005	2006	2007
FINFISH			
Fresh / Chilled / Frozen / Processed			
Mackerels	4,608	4,240	160
Tunas & Bonitos	632,935	765,566	1,392,000
Swordfish	-	-	9,231
Flyingfish	61,475	2,286,593	48,864
Herrings, Sardines, Anchovies	24,688	175,650	73,186
Dogfishes & Other Sharks	57,588	55,403	20,273
Snappers & Groupers	-	-	-
Cod	2,915	68	18,790
Trout	-	25	-
Salmon	2,453	6,188	7,249
Alewives, Saithe, Pollock, Haddock, Hake	-	55	45
Flatfishes, Soles, Plaice, Halibut	55	300	6,869
Other fish & fish products (mixed/unidentified)	2,051,114	3,025,977	2,170,877
FINFISH (Fresh / Chilled / Frozen / Processed)	2,837,831	6,320,065	3,747,544
Live			
Live Fish	-	-	-
Ornamental Fish	81,503	103,568	85,900
FINFISH (Live)	81,503	103,568	85,900
Total Finfish	2,919,334	6,423,633	3,833,444
CRUSTACEANS			
Fresh / Chilled / Frozen / Processed			
Shrimps & Prawns	85,976	60,471	40,303
Crabs	19,573	36,443	15,090
Lobsters	21,894	21,880	5,768
Other Crustaceans	24,530	15,175	22,407
CRUSTACEANS (Fresh / Chilled / Frozen / Processed)	151,973	133,969	83,568
Live			
Live Shrimps & Prawns	-	-	-
Other Live Crustaceans	744	-	-
CRUSTACEANS (Live)	744	-	-
Total Crustaceans	152,717	133,969	83,568
MOLLUSCS			
Fresh / Chilled / Frozen / Processed			
Mussels	-	-	-
Oysters	70	50	-
Scallops	4	-	-
Other Molluscs	160,208	10	49
MOLLUSCS (Fresh / Chilled / Frozen / Processed)	160,282	60	49

Table concludes overleaf

TABLE 7.6.3 QUANTITY OF FISH EXPORTED FROM TRINIDAD AND TOBAGO, 2005 – 2007 (UNIT: KG) – *concluded*

CATEGORY	2005	2006	2007
MOLLUSCS - *continued*			
Live			
Live Mussels	-	-	-
Other Live Molluscs	-	-	-
MOLLUSCS (Live)	-	-	-
Total Molluscs	160,282	60	49
OTHER			
Fresh / Chilled / Frozen / Processed			
Cepholopods [octopus, cuttlefish]	131	3,220	1,068
Caviar, Roes, Liver	-	-	2,392
Other invertebrates	-	-	259
OTHER (Fresh / Chilled / Frozen / Processed)	131	3,220	3,719
Live / Fresh / Chilled			
Cepholopods [octopus, cuttlefish] (Live, Fresh, or Chilled)	79	-	1,790
OTHER (Live / Fresh / Chilled)	79	-	1,790
Total Other	210	3,220	5,509
TOTAL (Fresh / Chilled / Frozen / Processed)	3,150,217	6,457,314	3,834,880
TOTAL (Live / Fresh / Chilled)	79	-	1,790
TOTAL (Live)	82,247	103,568	85,900
GRAND TOTAL	**3,232,543**	**6,560,882**	**3,922,570**

Source: Central Statistical Office, Trade Statistics

TABLE 7.6.4 VALUE OF FISH EXPORTED FROM TRINIDAD AND TOBAGO, 2005 – 2007 (UNIT: TT$ FOB)

CATEGORY	2005	2006	2007
FINFISH			
Fresh / Chilled / Frozen / Processed			
Mackerels	33,538	59,250	1,410
Tunas & Bonitos	6,114,747	5,207,358	13,105,922
Swordfish	-	-	229,993
Flyingfish	2,466,460	2,123,096	1,890,296
Herrings, Sardines, Anchovies	422,630	407,202	433,966
Dogfishes & Other Sharks	1,234,045	1,269,272	268,443
Snappers & Groupers	-	-	-
Cod	31,455	3,320	264,832
Trout	3	85	-
Salmon	36,844	147,864	190,418
Alewives, Saithe, Pollock, Haddock, Hake	-	1,152	2,633
Flatfishes, Soles, Plaice, Halibut	3,437	4,500	192,361
Other fish & fish products (mixed/unidentified)	38,085,791	48,840,083	61,206,906
FINFISH (Fresh / Chilled / Frozen / Processed)	48,428,950	58,063,182	77,787,180
Live			
Live Fish	-	-	-
Ornamental Fish	1,592,498	1,859,643	2,956,343
FINFISH (Live)	1,592,498	1,859,643	2,956,343
Total Finfish	50,021,448	59,922,825	80,743,523
CRUSTACEANS			
Fresh / Chilled / Frozen / Processed			
Shrimps & Prawns	3,119,786	1,512,727	1,452,652
Crabs	429,919	483,610	210,214
Lobsters	688,430	658,276	201,708
Other Crustaceans	357,214	179,182	237,123
CRUSTACEANS (Fresh / Chilled / Frozen / Processed)	4,595,349	2,833,795	2,101,697
Live			
Live Shrimps & Prawns	-	-	-
Other Live Crustaceans	9,639	-	-
CRUSTACEANS (Live)	9,639	-	-
Total Crustaceans	4,604,988	2,833,795	2,101,697
MOLLUSCS			
Fresh / Chilled / Frozen / Processed			
Mussels	-	-	-
Oysters	228	76	-
Scallops	44	-	-
Other Molluscs	45,605	200	630
MOLLUSCS (Fresh / Chilled / Frozen / Processed)	45,877	276	630
Live			
Live Mussels	-	-	-
Other Live Molluscs	-	-	-
MOLLUSCS (Live)	-	-	-
Total Molluscs	45,877	276	630

Table concludes overleaf.

TABLE 7.6.4 VALUE OF FISH EXPORTED FROM TRINIDAD AND TOBAGO, 2005 – 2007 (UNIT: TT$ FOB) – *concluded*

CATEGORY	2005	2006	2007
OTHER			
Fresh / Chilled / Frozen / Processed			
Cepholopods [octopus, cuttlefish]	2,388	154,634	8,898
Caviar, Roes, Liver	-	-	74,467
Other invertebrates	-	-	14,236
OTHER (Fresh / Chilled / Frozen / Processed)	2,388	154,634	97,601
Live / Fresh / Chilled Cepholopods [octopus, cuttlefish] (Live, Fresh, or Chilled)	2,770	-	49,303
OTHER (Live / Fresh / Chilled)	2,770	-	49,303
Total Other	5,158	154,634	146,904
TOTAL (Fresh / Chilled / Frozen / Processed)	53,072,564	61,051,887	79,987,108
TOTAL (Live / Fresh / Chilled)	2,770	-	49,303
TOTAL (Live)	1,602,137	1,859,643	2,956,343
GRAND TOTAL	**54,677,471**	**62,911,530**	**82,992,754**

Source: Central Statistical Office, Trade Statistics

APPENDIX 7.1.1A VALUE ADDED OF FISHING AND PERCENTAGE CONTRIBUTION OF FISHING TO VALUE ADDED OF AGRICULTURE AND GDP AT CURRENT PRICES, 1995 – 2004

Year	Value Added of Fishing (TT$ Millions)	Contribution of Fishing to Agriculture (%)	Contribution of Fishing to GDP (%)
1995	81.6	11.1	0.26
1996	77.6	10.8	0.22
1997	66.3	8.5	0.18
1998	73.7	9.4	0.19
1999	74.2	8.9	0.17
2000	80.8	11.6	0.16
2001	83.6	11.8	0.15
2002	98.8	12.6	0.18
2003	86.4	12.8	0.12
2004	87.6	13.8	0.10

Source: Central Statistical Office

APPENDIX 7.2.1A NUMBER OF VESSELS BY HOME COAST FOR TRINIDAD, 2003

Coast	Number of Vessels
West	680
South	242
East	80
North	151
Grand Total	**1,153**

Source: Fisheries Division, Ministry of Agriculture, Land and Marine Resources, Trinidad and Tobago, 2003 Fishing Vessel Census

APPENDIX 7.3.1A ESTIMATED ANNUAL LANDINGS (TONNES) FOR SOME COMMERCIALLY IMPORTANT SPECIES GROUPS IN THE MARINE CAPTURE FISHERIES OF TRINIDAD AND TOBAGO FROM FISHING FLEETS FOR WHICH DATA ARE AVAILABLE, 1999

Species Group	1999
Shrimp	929
Spanish mackerel (Carite)	1,365
King mackerel (Kingfish)	485
Tunas and Bonitos	524
Billfish	210
Sharks	744
Herring and Jashua	943
Weakfish (Salmon)	476
Croaker	791
Snapper	544
Cavalli and other Jacks	409
Other [1]	2,780
Total	**10,200**

Source: Fisheries Division, Ministry of Agriculture, Land and Marine Resources, Trinidad and Tobago

[1]"Other" includes, inter alia, barracuda (bechine), mullet, ancho, blinch, snook, brochet, grunt, grouper, sea catfish, cutlass fish.

Notes:

(i) These data represent landings from: Trinidad artisanal fleets; Trinidad semi-industrial/industrial trawl and longline fleets; Tobago artisanal and semi-industrial fleets for tuna-like species only (sample data only, i.e. not estimated total landings - from the Department of Marine Resources and Fisheries, Tobago House of Assembly); and game fishing tournaments in Trinidad and Tobago.

(ii) These data do not include landings from: Trinidad semi-industrial fishpot and line boats; Trinidad and Tobago recreational boats (other than from tournaments); Tobago landings (other than those identified in (i) above); landings from foreign fleets that may have operated in Trinidad and Tobago waters.

APPENDIX 7.3.2A ESTIMATED ANNUAL LANDINGS (TONNES) FROM THE MARINE CAPTURE FISHERIES FOR SOME SITES AROUND TRINIDAD WHICH WERE NOT INCLUDED IN THE FIRST COMPENDIUM OF ENVIRONMENTAL STATISTICS, 1998 – 2004

Landing Site	1998	1999	2000	2001	2002	2003	2004
Brickfield	..	..	..	..	..	34.6	46.1
Claxton Bay	..	..	..	..	149.3	75.9	168.7
Matelot	..	..	..	..	74.2	79.3	73.1

Source: Fisheries Division, Ministry of Agriculture, Land and Marine Resources Trinidad and Tobago

Notes:

(i) Data are not available for the following sites for 1998-2004: Alcan; Cocorite; Guayaguayare.

APPENDIX 7.6.1A FISH IMPORTED BY QUANTITY IN TRINIDAD AND TOBAGO, 1998 (UNIT: KGS)

CATEGORY	1998
FRESH / CHILLED / FROZEN / PROCESSED	
Finfish	
Snappers & Groupers	-
Tunas & Bonitos	625,070
Mackerels	230,782
Flyingfish	95
Herrings, Sardines, Anchovies	1,225,385
Dogfishes & Other Sharks	-
Eels	-
Cod	7,587
Trout	-
Salmon	97,658
Alewives, Saithe, Pollock, Haddock, Hake	-
Flatfishes, Soles, Plaice, Halibut	-
Total Finfish	2,186,577
Crustaceans	
Shrimps & Prawns	50,445
Crabs	5,258
Lobsters	1,104
Other Crustaceans	8,828
Total Crustaceans	65,635
Molluscs	
Mussels	-
Oysters	-
Scallops	-
Other Molluscs	13,577
Total Molluscs	13,577
Other	
Cepholopods (octopus, cuttlefish)	-
Sea eggs	-
Caviar, Roes, Liver	275
Other fish & fish products (mixed/unidentified)	1,267,120
Total Other	1,267,395
TOTAL FRESH / CHILLED / FROZEN / PROCESSED	3,533,184
LIVE	
Live fish	440
Live shrimps & prawns	-
Other live crustaceans	819
Live mussels	-
Live scallops	-
Other live molluscs	180
Live octopus	-
Live cuttlefish	-
Ornamental fish	5,132
TOTAL LIVE	6,571
GRAND TOTAL	3,539,755

Source: Central Statistical Office, Trade Statistics

CHAPTER EIGHT

WATER RESOURCES

Courtesy: Water and Sewerage Authority and Water Resource Agency

TABLE 8.1 CHALLENGES FACING A RELIABLE AND SUSTAINABLE WATER PRODUCTION IN TRINIDAD AND TOBAGO

▪ Old infrastructure and under investment	▪ Poor operation and maintenance
▪ High unaccounted for water losses in the distribution network	▪ Inadequate tariff
▪ Storage capacity	▪ Water pollution from point sources and non point sources
▪ Climate changes (temperature increases, sea level rise, saltwater intrusion, hurricanes, lengthy drought periods)	▪ Increased cost to produce, treat and distribute water
▪ Poor land use	▪ Increased population growth in urban centers
▪ Increased urban development	▪ Public health concerns
▪ Disaster preparedness	▪ Inappropriate technology
▪ Freshwater scarcity	▪ Bush fires,
▪ Degradation of hillsides	▪ Unplanned settlements

Courtesy: Water and Sewerage Authority and Water Resource Agency

TABLE 8.2 TOTAL WATER PRODUCTION 2005 - 2007

Year	Surface Sources	Well Sources	Desalinated Water Supply	**Total**	**Total**	Daily Average	
	m^3	m^3	m^3	**m^3**	**img**	m^3/d	imgd
2005	218,926,818	93,309,938	39,603,924	**351,840,680**	**77,405**	963,947	212.07
2006	235,003,790	92,621,670	37,416,905	**365,042,365**	**80,309**	1,000,398	220.09
2007	229,483,165	96,470,595	41,800,527	**367,754,287**	**80,906**	1,007,861	221.73

imgd – Imperial Million Gallons per Day

Source: Water and Sewerage Authority

TABLE 8.3 WASTEWATER TREATMENT FACILITIES REGISTERED UNDER WPR

No.	Wastewater Treatment Facilities	No.	Wastewater Treatment Facilities
1	Arima Wastewater Treatment Plant	19	Harmony Hall Sewage Treatment Plant
2	Bamboo Settlement # 3	20	Head Office Wastewater Treatment Plant
3	Beetham Wastewater Treatment Plant	21	Lange Park Wastewater Treatment Plant
4	Bon Accord WWTP	22	Malabar Sewage Treatment Plant
5	Bon Air Gardens Sewage Treatment Plant	23	Maloney Sewage Treatment Plant
6	Bon Air West Sewage Treatment Plant	24	Orange Field Rd. Housing Development
7	Buccoo Sewage Treatment Plant	25	Penco Lands Wastewater Treatment Plant
8	Buen Intento Sewage Treatment Plant	26	Piarco Wastewater Treatment Plant
9	Cantaro Sewage Treatment Plant	27	Pt. Gourde Wastewater Treatment Plant
10	Carridoc Septic Tank	28	Real Spring Sewage Treatment Plant
11	Charlieville Sewage Treatment Plant	29	San Fernando Wastewater Treatment Plant
12	Couva North Sewage Treatment Plant (New) Phase II	30	Scarborough Wastewater Treatment Plant
13	Couva Sewage Treatment Plant	31	Strikers Village Wastewater Treatment Plant
14	Curepe Sewage Treatment Plant	32	Techier Wastewater Treatment Plant
15	Debe Phase II Sewage Treatment Plant	33	Trincity Wastewater Treatment Plant
16	Edinburgh 500 Sewage Treatment Plant	34	Valencia (New) Sewage Treatment Plant
17	Five Rivers Arouca Sewage Treatment Plant	35	Valencia (Old) Sewage Treatment Plant
18	Frederick Settlement WWTP		

Source: Water and Sewerage Authority

TABLE 8.4 WATER TREATMENT FACILITIES REGISTERED UNDER WPR

No.	Water Treatment Facilities	No.	Water Treatment Facilities
1	Acono	17	Hillsborough Dam
2	Aripo	18	Hillsborough West Treatment Plant
3	Biche	19	Hollis
4	Carapal	20	Kings Bay Waterworks
5	Carlsen Field	21	Las Lomas
6	Caroni	22	Lluengo/Naranjo
7	Caura	23	Maraval
8	Chatham	24	Navet
9	Courland Waterworks	25	North Oropouche
10	Freeport	26	Ravine Sable
11	Fyzabad	27	Richmond
12	Granville	28	Siparia
13	Guanapo	29	Stonebright
14	Guayaguayare	30	Tompire
15	Guayaguayare (Petrotrin)	31	Trinity
16	Highlands Road/Craig Hall		

Source: Water and Sewerage Authority

TABLE 8.5 SUMMARY OF REGISTERED CUSTOMERS 2005 - 2007

Class	Description	As of December 2005	As of December 2006	As of December 2007
A1	Domestic Standpipe	58,038	56,114	55,302
A2	Domestic Yard Tap	35,023	35,425	37,670
A3	Domestic Internal Serviced - No Meter	227,971	236,413	246,696
A4	Domestic Internal Serviced - Metered	3,735	3,762	3,972
	Total Domestic	**324,767**	**331,714**	**343,640**
A5	Charitable - No Meter	1,507	1,544	1,633
A6	Charitable - Metered	14	14	49
	Total Charitable	**1,521**	**1,558**	**1,682**
B3	Industrial Non-Metered	121	119	118
B4	Industrial Metered	310	311	314
	Total Industrial	**431**	**430**	**432**
C1	Commercial Un-Serviced	139	143	152
C2	Commercial Vacant Lands	82	97	106
C3	Commercial Non-Metered	1,922	2,131	2,352
C4	Commercial Metered	4,479	4,508	4,549
	Total Commercial	**6,622**	**6,879**	**7,159**
D3	Cottage Non-Metered	481	624	929
D4	Cottage Metered	442	442	449
	Total Cottage	**923**	**1,066**	**1,378**
E3	Agricultural Non-Metered	588	602	631
E4	Agricultural Metered	475	472	474
	Total Agriculture	**1,063**	**1,074**	**1,105**
Total Non-Metered		**325,872**	**333,212**	**345,589**
Total Metered		**9,455**	**9,509**	**9,807**
Total Customers		**335,327**	**342,721**	**355,396**
% Metered		**2.82%**	**2.77%**	**2.76%**

Source: WASA's Customer Information Systems Receivable – December 2005, 2006 and 2007

TABLE 8.6 TRINIDAD POT GAUGE MEAN RAINFALL

TRINIDAD POT GAUGE NETWORK Annual Mean Rainfall (mm)			
Year	Dry Season	Wet Season	Annual
2005	598.5	1,582.1	2,234.1
2006	579.4	1,640.4	2,159.8

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUALRAINFALL (MM)
YEAR 2005, STATIONS 1.1 – 6.6
***Missing Data**

Station Number	Station Name	January	February	March	April	May	**Dry Season Total**
1:1	Matelot Rest House	491.4	46.7	49.3	14.9	201.6	**803.9**
1:3	Grand Riviere R.C.	*	*	100.0	25.4	219.0	*****
1:4	Maracas Bay PS	557.3	102.3	0.5	0.2	236.5	**896.8**
1:7	Blanchisseuse	218.5	19.1	50.0	10.6	121.5	**419.7**
1:9	Paria Village	713.6	53.7	58.9	11.2	187.6	**1,025.0**
2:1	St Joseph Estate	435.1	44.9	61.5	74.9	258.0	**874.3**
2:2	Fishing Pond Rice Area	194.9	16.1	3.1	9.6	104.9	**328.6**
2:3	Quare Hollis Dam	444.4	46.5	99.0	30.0	292.2	**912.1**
2:5	El Reposo S/Grande	*	48.7	83.3	*	179.1	*****
2:6	San Souci Estate S/Grande	465.7	67.6	72.4	77.4	333.0	**1,016.1**
2:8	Grosvenor Estate	438.7	32.6	83.0	23.6	319.0	**896.9**
2:16	Matura PS	316.2	45.6	*	35.5	*	*****
2:17	Melajo Plantation	507.5	72.6	104.1	31.7	284.5	**1,000.4**
2:19	Crayfish	503.8	39.8	77.9	37.3	267.1	**925.9**
2:20	Waterfall	522.7	35.1	85.7	32.9	260.0	**936.4**
2:21	Cumana Toco	269.5	9.5	14.3	0.0	93.0	**386.3**
3:1	Newlands Estate	*	17.3	38.4	46.6	*	*****
3:5	Marper Farm Manzanilla	490.0	16.3	37.0	21.0	232.8	**797.1**
3:6	Ortoire Estate Mayaro	503.4	27.3	26.7	13.7	132.5	**703.6**
3:8	Navet Dam	290.4	15.5	27.5	3.3	230.7	**567.4**
3:9	Navet Presbyterian	29.3	8.0	57.0	14.0	233.0	**341.4**
4:1	Pure	257.1	29.8	36.3	3.4	163.9	**490.5**
4:5	Brickfield Rest House	271.9	34.6	37.8	0.0	181.8	**526.1**
5:6	San Antonio Estate Moruga	264.3	57.4	20.0	0.4	159.8	**501.9**
5:9	Henry Estate	323.8	163.4	37.4	0.0	89.8	**614.5**
5:10	Cat's Hill	326.4	92.9	17.3	1.2	167.7	**605.5**
5:11	Trinity Dam	266.8	58.6	23.2	6.4	187.5	**542.5**
6:3	Chatham Govt. School	*	111.2	7.0	3.3	158.1	*****
6:4	Constance Estate Icacos	99.0	128.2	7.0	0.0	253.5	**487.7**
6:6	Granville Treatment Plant	160.0	69.5	24.6	3.6	271.0	**528.7**

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2005, STATIONS 1.1 – 6.6 *continued*
***Missing Data**

Station Number	Station Name	June	July	August	Sept-ember	Octo-ber	Novem-ber	Decem-ber	**Wet Season Total**
1:1	Matelot Rest House	286.3	309.8	105.4	74.9	129.9	414.6	275.6	**1,596.5**
1:3	Grand Riviere R.C.	134.0	39.1	55.9	29.3	65.7	151.4	70.0	**545.4**
1:4	Maracas Bay PS	152.1	299.4	250.8	133.8	213.6	211.3	685.8	**1,946.8**
1:7	Blanchisseuse	136.6	165.6	92.2	37.3	68.2	190.5	251.0	**941.4**
1:9	Paria Village	303.7	371.8	*	141.9	204.8	334.1	410.0	*****
2:1	St Joseph Estate	272.8	407.7	215.4	90.5	167.6	349.5	449.7	**1,953.2**
2:2	Fishing Pond Rice Area	122.0	160.0	66.4	3.8	61.7	370.5	199.2	**983.6**
2:3	Quare Hollis Dam	379.0	437.1	225.6	207.2	235.6	667.1	377.9	**2,529.5**
2:5	El Reposo S/Grande	157.3	588.3			128.4	276.5	125.4	**1,275.9**
2:6	San Souci Estate S/Grande	328.1	499.2	234.3	119.6	215.0	599.9	332.6	**2,328.7**
2:8	Grosvenor Estate	377.6	436.2	182.8	210.7	286.3	523.1	446.0	**2,462.6**
2:16	Matura PS	285.7	*	151.6	32.3	88.1	*	299.2	*****
2:17	Melajo Plantation	291.5	441.2	242.6	142.9	229.0	533.2	302.8	**2,183.1**
2:19	Crayfish	462.5	453.8	287.5	255.6	295.6	191.6	424.6	**2,371.2**
2:20	Waterfall	459.2	436.3	281.7	300.5	314.6	596.1	329.7	**2,718.1**
2:21	Cumana Toco	306.1	246.5	60.4	140.7	87.9	294.2	183.6	**1,319.4**
3:1	Newlands Estate	246.3	112.5	167.7	88.5	202.2	435.5	197.5	**1,450.3**
3:5	Marper Farm Manzanilla	261.5	461.5	84.5	79.0	206.0	648.0	272.0	**2,012.5**
3:6	Ortoire Estate Mayaro	408.7	393.5	201.2	59.4	130.7	389.6	504.4	**2,087.5**
3:8	Navet Dam	386.3	290.0	162.6	131.3	86.7	169.4	254.9	**1,481.2**
3:9	Navet Presbyterian	399.0	199.0	216.0	120.0	220.0	231.0	241.0	**1,626.0**
4:1	Pure	342.1	274.3	133.6	81.9	191.6	286.8	177.1	**1,487.4**
4:5	Brickfield Rest House	359.7	290.3	185.3	124.4	130.0	314.0	149.9	**1,553.5**
5:6	San Antonio Estate Moruga	304.6	330.0	151.7	64.6	164.4	370.0	143.9	**1,529.2**
5:9	Henry Estate	166.7	426.9		173.9	*	305.4	177.7	*****
5:10	Cat's Hill	457.8	384.1	139.8	75.0	-	318.4	113.1	*****
5:11	Trinity Dam	*	358.5	*	*	46.8	143.7	210.7	*****
6:3	Chatham Govt. School	63.6	354.2	155.9	73.9	623.0	*	*	*****
6:4	Constance Estate Icacos	49.2	201.2	102.9	56.1	19.2	118.3	88.2	**635.1**
6:6	Granville Treatment Plant	106.1	371.7	142.8	76.9	42.0	210.0	127.0	**1,076.5**

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2005, STATIONS 1.1 – 6.6 *concluded*
***Missing Data**

Station Number	Station Name	**Annual Total**	Min Value	Max Value
1:1	Matelot Rest House	**2,400.4**	14.9	491.4
1:3	Grand Riviere R.C.	*****	*	219.0
1:4	Maracas Bay PS	**2,843.6**	0.2	685.8
1:7	Blanchisseuse	**1,361.1**	10.6	251.0
1:9	Paria Village	*****	11.2	*
2:1	St Joseph Estate	**2,827.5**	44.9	449.7
2:2	Fishing Pond Rice Area	**1,312.2**	3.1	370.5
2:3	Quare Hollis Dam	**3,441.6**	30.0	667.1
2:5	El Reposo S/Grande	*****	*	*
2:6	San Souci Estate S/Grande	**3,344.8**	67.6	599.9
2:8	Grosvenor Estate	**3,359.5**	23.6	523.1
2:16	Matura PS	*****	*	*
2:17	Melajo Plantation	**3,183.5**	31.7	533.2
2:19	Crayfish	**3,297.1**	37.3	503.8
2:20	Waterfall	**3,654.5**	32.9	596.1
2:21	Cumana Toco	**1,705.7**	0.0	306.1
3:1	Newlands Estate	*****	*	435.5
3:5	Marper Farm Manzanilla	**2,809.6**	16.3	648.0
3:6	Ortoire Estate Mayaro	**2,791.1**	13.7	504.4
3:8	Navet Dam	**2,048.6**	3.3	386.3
3:9	Navet Presbyterian	**1,967.4**	8.0	399.0
4:1	Pure	**1,977.9**	3.4	342.1
4:5	Brickfield Rest House	**2,079.6**	0.0	359.7
5:6	San Antonio Estate Moruga	**2,031.0**	0.4	370.0
5:9	Henry Estate	*****	0.0	*
5:10	Cat's Hill	*****	1.2	*
5:11	Trinity Dam	*****	6.4	*
6:3	Chatham Govt. School	*****	*	*
6:4	Constance Estate Icacos	**1,122.8**	0.0	253.5
6:6	Granville Treatment Plant	**1,605.2**	3.6	371.7

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2005, STATIONS 6.7 – 9.59
***Missing Data**

Station Number	Station Name	January	February	March	April	May	**Dry Season Total**
6:7	Point Fortin Filtration Plant	164.0	25.7	33.3	50.7	199.6	**473.3**
6:9	San Quintin Estate Cedros	97.3	97.3	7.6	2.5	146.8	**351.5**
6:11	Perseverance Estate Cedros	12.3	12.6	25.9	13.2	81.8	**145.8**
6:12	Columbia Estate Cedros	99.4	85.6	3.5	0.8	264.8	**454.1**
6:13	Erin Estate	225.1	29.6	19.9	0.0	120.3	**394.9**
6:17	Singh's Estate Cedros	139.0	44.9	7.6	0.0	221.0	**412.5**
7:1	Siparia Presbyterian	196.6	52.1	62.8	5.8	140.6	**457.9**
7:3	Penal Waterworks	162.6	25.9	7.6	0.0	127.8	**323.9**
7:4	Quarry Plantation Quarry Road	335.0	42.7	11.7	1.5	183.3	**574.2**
7:7	Penal Demonstration	69.1	67.2	17.7	113.0	192.5	**459.5**
8:1	Trinidad Cement Ltd	154.3	8.0	0.0	180.0	140.0	**482.3**
8:15	Petrotrin Point-a-Pierre	236.7	16.1	18.4	1.6	173.1	**445.9**
8:22	San Pedro Estate Gran Couva	299.8	2.0	0.0	10.4	219.4	**531.6**
8:23	San Antonio Gran Couva Estate	252.8	28.0	29.5	5.3	175.3	**490.9**
8:31	Tortuga Estate	342.1	27.0	43.9	1.0	156.3	**570.3**
8:35	San Juan Estate Gran Couva	338.1	53.3	29.5	0.0	145.3	**566.2**
9:4	River Estate	309.9	21.3	20.0	2.0	113.2	**466.4**
9:11	Lopinot R.C. School	413.6	67.2	46.6	1.3	211.4	**740.1**
9:15	Torrecilla Estate	348.0	*	52.4	28.4	217.3	**
9:26	El Suzan Estate Cumuto	362.6	36.9	72.2	20.5	237.5	**729.7**
9:28	Orange Grove	213.5	20.8	24.1	9.2	196.0	**463.6**
9:32	Piarco Airport	*	*	52.1	6.8	187.3	**
9:33	U.W.I.	192.7	9.8	32.6	19.8	175.5	**430.4**
9:39	Valencia Range	448.8	35.0	115.2	55.5	360.8	**1,015.3**
9:43	Arena Plantation	227.3	24.3	45.3	18.6	213.1	**528.6**
9:45	Coryal Estate	306.7	34.7	45.2	18.8	290.5	**695.9**
9:52	La Regalada Estate Santa Cruz	334.9	7.9	25.0	71.7	151.9	**591.4**
9:59	ASA Wright Nature Centre	*	44.9	42.0	1.5	179.6	**

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2005, STATIONS 6.7 – 9.59 *continued*
***Missing Data**

Station Number	Station Name	June	July	August	Sep-tember	Octo-ber	Novem-ber	Decem-ber	**Wet Season Total**
6:7	Point Fortin Filtration Plant	113.5	250.4	172.2	45.0	121.4	265.8	83.7	**1,052.0**
6:9	San Quintin Estate Cedros	121.9	185.4	120.2	61.0	38.0	111.6	145.9	**784.0**
6:11	Perseverance Estate Cedros	*	*	19.3	0.0	99.8	322.1	120.1	*****
6:12	Columbia Estate Cedros	99.0	205.1	109.8	65.0	18.7	139.6	157.3	**794.5**
6:13	Erin Estate	180.2	*	*	36.4	111.1	106.0	81.5	*****
6:17	Singh's Estate Cedros	85.5	132.4	78.3	54.9	*	*	*	*****
7:1	Siparia Presbyterian	185.0	249.5	125.4	133.3	74.3	255.3	147.4	**1,170.2**
7:3	Penal Waterworks	69.6	249.9	239.5	69.8	*	189.5	*	*****
7:4	Quarry Plantation Quarry Road	127.3	161.4	169.7	90.3	56.3	313.8	242.5	**1,161.3**
7:7	Penal Demonstration	151.4	251.9	189.1	118.5	*	258.0	162.6	**1,131.5**
8:1	Trinidad Cement Ltd	183.1	312.3	167.4	89.8	106.7	232.9	51.2	**1,143.4**
8:15	Petrotrin Point-a-Pierre	222.1	308.6	261.9	151.5	85.1	212.4	126.0	**1,367.6**
8:22	San Pedro Estate Gran Couva	252.5	309.1	353.5	142.1	202.8	312.2	233.0	**1,805.2**
8:23	San Antonio Gran Couva Estate	240.0	257.6	269.1	66.5	164.4	260.0	204.9	**1,462.5**
8:31	Tortuga Estate	289.2	369.7	361.7	146.8	219.3	301.3	262.7	**1,950.7**
8:35	San Juan Estate Gran Couva	243.1	225.0	207.3	93.0	143.8	272.0	180.6	**1,364.8**
9:4	River Estate	127.3	302.3	209.9	60.1	205.0	141.7	179.9	**1,226.2**
9:11	Lopinot R.C. School	275.9	443.1	258.9	173.7	218.3	310.8	306.3	**1,987.0**
9:15	Torrecilla Estate	298.2	363.9	229.7	189.1	208.3	293.5	125.2	**1,707.9**
9:26	El Suzan Estate Cumuto	364.7	378.7	195.7	172.9	188.9	555.9	307.0	**2,163.8**
9:28	Orange Grove	229.4	336.3	237.4	107.7	301.4	176.9	151.5	**1,540.6**
9:32	Piarco Airport	246.0	328.4	175.6	143.2	218.5	252.2	141.1	**1,505.0**
9:33	U.W.I.	210.1	287.0	208.6	104.8	291.5	210.5	150.4	**1,462.9**
9:39	Valencia Range	397.3	425.2	276.8	191.3	316.8	518.0	256.9	**2,382.3**
9:43	Arena Plantation	263.0	351.9	225.2	121.6	149.1	337.6	106.8	**1,555.2**
9:45	Coryal Estate	400.4	333.7	136.7	101.8	204.3	432.6	384.4	**1,993.9**
9:52	La Regalada Estate Santa Cruz	193.4	413.2	342.2	175.7	192.8	179.4	150.3	**1,647.0**
9:59	ASA Wright Nature Centre	244.8	215.3	231.3	*	298.2	235.2	262.1	**1,486.9**

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2005, STATIONS 6.7 – 9.59 *concluded*
***Missing Data**

Station Number	Station Name	**Annual Total**	Min Value	Max Value
6:7	Point Fortin Filtration Plant	**1,525.3**	25.7	265.8
6:9	San Quintin Estate Cedros	**1,135.5**	2.5	185.4
6:11	Perseverance Estate Cedros	*****	0.0	*
6:12	Columbia Estate Cedros	**1,248.6**	0.8	264.8
6:13	Erin Estate	*****	0.0	*
6:17	Singh's Estate Cedros	*****	0.0	*
7:1	Siparia Presbyterian	**1,628.1**	5.8	255.3
7:3	Penal Waterworks	*****	0.0	*
7:4	Quarry Plantation Quarry Road	**1,735.5**	1.5	335.0
7:7	Penal Demonstration	**1,591.0**	17.7	258.0
8:1	Trinidad Cement Ltd	**1,625.7**	0.0	312.3
8:15	Petrotrin Point-a-Pierre	**1,813.5**	1.6	308.6
8:22	San Pedro Estate Gran Couva	**2,336.8**	0.0	353.5
8:23	San Antonio Gran Couva Estate	**1,953.4**	5.3	269.1
8:31	Tortuga Estate	**2,521.0**	1.0	369.7
8:35	San Juan Estate Gran Couva	**1,931.0**	0.0	338.1
9:4	River Estate	**1,692.6**	2.0	309.9
9:11	Lopinot R.C. School	**2,727.1**	1.3	443.1
9:15	Torrecilla Estate	*****	*	363.9
9:26	El Suzan Estate Cumuto	**2,893.5**	20.5	555.9
9:28	Orange Grove	**2,004.2**	9.2	336.3
9:32	Piarco Airport	*****	*	328.4
9:33	U.W.I.	**1,893.3**	9.8	291.5
9:39	Valencia Range	**3,397.6**	35.0	518.0
9:43	Arena Plantation	**2,083.8**	18.6	351.9
9:45	Coryal Estate	**2,689.8**	18.8	432.6
9:52	La Regalada Estate Santa Cruz	**2,238.4**	7.9	413.2
9:59	ASA Wright Nature Centre	*****	*	*

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2006, STATIONS 1.1 – 6.7
***Missing Data**

Station Number	Station Name	January	February	March	April	May	**Dry Season Total**
1:1	Matelot Rest House	222.6	231.9	134.5	37.8	45.8	**672.6**
1:3	Grand Riviere R.C.	255.8	33.3	79.2	19.9	92.1	**480.3**
1:4	Maracas Bay PS	436.3	81.7	162.7	94.7	139.3	**914.7**
1:7	Blanchisseuse	185.1	150.7	88.7	23.9	11.4	**459.8**
1:9	Paria Village	289.3	211.6	220.4	28.9	33.8	**784.0**
2:1	St Joseph Estate	361.1	130.2	75.5	67.6	91.5	**725.8**
2:2	Fishing Pond Rice Area	41.2	19.0	16.4	*	*	*****
2:3	Quare Hollis Dam	277.6	160.2	183.8	78.5	110.1	**810.2**
2:5	El Reposo S/Grande	333.4	138.3	133.7	52.7	54.6	**712.7**
2:6	San Souci Estate S/Grande	288.9	108.1	115.4	40.7	56.5	**609.6**
2:8	Grosvenor Estate	389.6	181.8	79.6	50.3	171.4	**872.7**
2:16	Matura PS	420.6	165.2	96.3	42.5	58.6	**783.2**
2:17	Melajo Plantation	337.5	151.5	126.4	59.6	95.6	**770.5**
2:19	Crayfish	241.4	76.5	145.1	38.6	*	*****
2:20	Waterfall	248.7	144.4	124.1	33.8	104.3	**655.3**
2:21	Cumana Toco	150.3	40.1	115.3	140.2	14.3	**460.2**
3:1	Newlands Estate	219.9	0.0	88.2	38.9	107.4	**454.4**
3:5	Marper Farm Manzanilla	313.0	68.0	56.0	27.0	15.0	**479.0**
3:8	Navet Dam	409.3	105.0	69.5	19.0	65.5	**668.3**
3:9	Navet Presbyterian	397.0	105.0	81.0	55.0	81.0	**719.0**
4:1	Pure	257.1	29.8	36.3	3.4	163.9	**490.5**
4:5	Brickfield Rest House	355.0	55.3	55.7	0.0	54.9	**520.7**
5:6	San Antonio Estate Moruga	297.7	68.4	73.6	41.6	17.7	**499.0**
5:9	Henry Estate	355.5	71.0	63.8	85.1	26.6	**602.0**
5:10	Cat's Hill	346.1	48.6	16.5	57.2	*	*****
5:11	Trinity Dam	423.8	9.0	4.4	23.3	3.2	**463.7**
6:3	Chatham Govt. School	434.9	263.1	152.6	0.5	0.0	**851.1**
6:4	Constance Estate Icacos	243.0	4.0	58.7	26.6	0.0	**332.3**
6:6	Granville Treatment Plant	232.5	64.4	63.8	51.9	65.3	**477.9**
6:7	Point Fortin Filtration Plant	220.9	97.5	84.3	32.1	86.2	**521.0**

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2006, STATIONS 1.1 – 6.7 *continued*
***Missing Data**

Station Number	Station Name	June	July	August	Sept-ember	October	Novem-ber	Decem-ber	**Wet Season Total**
1:1	Matelot Rest House	207.8	382.7	347.9	71.3	308.3	194.3	213.9	**1,726.2**
1:3	Grand Riviere R.C.	115.1	295.2	99.8	48.1	69.0	104.4	62.6	**794.2**
1:4	Maracas Bay PS	358.9	524.0	872.4	409.1	357.8	469.4	28.6	**3,020.2**
1:7	Blanchisseuse	126.0	252.9	176.6	155.7	153.3	82.5	233.7	**1,180.7**
1:9	Paria Village	271.0	515.3	362.3	190.3	188.4	193.1	244.7	**1,965.1**
2:1	St Joseph Estate	252.6	339.3	292.1	132.4	243.2	291.3	323.4	**1,874.2**
2:2	Fishing Pond Rice Area	*	*	186.8	18.6	89.0	111.9	195.2	*****
2:3	Quare Hollis Dam	323.3	471.3	352.6	165.9	298.1	278.7	321.9	**2,211.8**
2:5	El Reposo S/Grande	203.9	259.4	293.2	55.0	257.1	265.3	416.8	**1,750.7**
2:6	San Souci Estate S/Grande	*	329.9	305.1	122.0	379.7	282.2	254.9	*****
2:8	Grosvenor Estate	308.0	371.5	307.0	153.0	306.9	305.4	315.9	**2,067.6**
2:16	Matura PS	*	487.0	374.8	80.7	362.4	403.8	614.5	*****
2:17	Melajo Plantation	288.9	447.0	296.5	170.3	351.6	350.8	437.5	**2,342.6**
2:19	Crayfish	273.3	575.9	*	*	318.1	297.4	*	*****
2:20	Waterfall	247.5	540.8	316.2	134.9	313.4	327.4	358.4	**2,238.6**
2:21	Cumana Toco	135.9	279.3	162.2	0.8	85.1	173.3	103.4	**940.0**
3:1	Newlands Estate	380.4	338.5	333.3	109.3	238.3	184.8	222.4	**1,806.8**
3:5	Marper Farm Manzanilla	*	*	*	198.0	362.0	293.0	398.0	*****
3:8	Navet Dam	296.4	304.6	248.1	83.8	238.3	147.2	268.0	**1,586.4**
3:9	Navet Presbyterian	*	231.0	254.0	116.0	187.0	344.0	292.0	*****
4:1	Pure	342.1	274.3	133.6	124.8	191.6	286.8	177.1	**1,530.3**
4:5	Brickfield Rest House	161.0	334.5	245.4	54.9	240.5	159.0	220.6	**1,415.9**
5:6	San Antonio Estate Moruga	151.8	256.5	257.7	61.5	136.7	128.7	143.9	**1,136.7**
5:9	Henry Estate	204.4	362.7	230.8	44.4	286.5	207.4	177.7	**1,513.8**
5:10	Cat's Hill	136.5	419.1	316.4	81.3	142.9	63.0	*	*****
5:11	Trinity Dam	151.9	514.7	279.4	61.0	196.9	172.7	393.7	**1,770.2**
6:3	Chatham Govt. School	537.2	285.6	*	*	92.3	0.0	85.9	**1,001.0**
6:4	Constance Estate Icacos	283.1	105.9	134.5	32.5	105.1	0.0	75.8	**736.9**
6:6	Granville Treatment Plant	185.1	351.4	304.1	161.7	178.6	241.6	178.5	**1,601.0**
6:7	Point Fortin Filtration Plant	*	*	*	*	*	*	*	*****

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2006, STATIONS 1.1 – 6.7 *concluded*
***Missing Data**

Station Number	Station Name	**Annual Total**	Min Value	Max Value
1:1	Matelot Rest House	**2,398.8**	37.8	382.7
1:3	Grand Riviere R.C.	**1,274.5**	19.9	295.2
1:4	Maracas Bay PS	**3,934.9**	28.6	872.4
1:7	Blanchisseuse	**1,640.5**	11.4	252.9
1:9	Paria Village	**2,749.1**	28.9	515.3
2:1	St Joseph Estate	**2,600.1**	67.6	361.1
2:2	Fishing Pond Rice Area	*****	*	*
2:3	Quare Hollis Dam	**3,022.0**	78.5	471.3
2:5	El Reposo S/Grande	**2,463.4**	52.7	416.8
2:6	San Souci Estate S/Grande	*****	40.7	*
2:8	Grosvenor Estate	**2,940.2**	50.3	389.6
2:16	Matura PS	*****	42.5	*
2:17	Melajo Plantation	**3,113.2**	59.6	447.0
2:19	Crayfish	*****	38.6	*
2:20	Waterfall	**2,893.9**	33.8	540.8
2:21	Cumana Toco	**1,400.2**	0.8	279.3
3:1	Newlands Estate	**2,261.2**	0.0	380.4
3:5	Marper Farm Manzanilla	*****	15.0	*
3:8	Navet Dam	**2,254.7**	19.0	409.3
3:9	Navet Presbyterian	*****	55.0	*
4:1	Pure	**2,020.8**	3.4	342.1
4:5	Brickfield Rest House	**1,936.6**	0.0	355.0
5:6	San Antonio Estate Moruga	**1,635.7**	17.7	297.7
5:9	Henry Estate	**2,115.9**	26.6	362.7
5:10	Cat's Hill	*****	16.5	*
5:11	Trinity Dam	**2,233.8**	3.2	514.7
6:3	Chatham Govt. School	**1,852.1**	0.0	537.2
6:4	Constance Estate Icacos	**1,069.2**	0.0	283.1
6:6	Granville Treatment Plant	**2,078.9**	51.9	351.4
6:7	Point Fortin Filtration Plant	*****	32.1	*

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2006, STATIONS 6.9 – 9.64
***Missing Data**

Station Number	Station Name	January	February	March	April	May	**Dry Season Total**
6:9	San Quintin Estate Cedros	236.7	36.6	131.1	8.1	46.7	**459.2**
6:12	Columbia Estate Cedros	207.0	32.9	157.2	15.4	40.5	**453.0**
6:13	Erin Estate	167.6	73.2	59.2	0.0	14.0	**314.0**
7:1	Siparia Presbyterian	203.4	16.5	59.0	49.1	35.7	**363.7**
7:4	Quarry plant Quarry Road	83.5	67.1	72.8	0.0	15.4	**238.8**
8:8	Freeport Waterworks	*	*	*	25.3	11.7	*****
8:15	Petrotrin Point-a-Pierre	186.1	47.3	46.2	24.5	11.2	**315.3**
8:22	San Pedro Estate Gran Couva	365.7	73.4	111.3	17.5	42.3	**610.2**
8:23	San Antonio Gran Couva Estate	341.4	90.2	103.2	24.2	22.3	**581.3**
8:31	Tortuga Estate	383.7	75.7	105.1	28.0	33.1	**625.6**
8:35	San Juan Estate Gran Couva	278.1	71.9	58.2	261.6	11.2	**681.0**
9:4	River Estate	227.5	49.6	39.0	27.5	13.3	**356.9**
9:11	Lopinot R.C. School	269.6	96.5	177.8	16.2	19.7	**579.8**
9:15	Torrecilla Estate	256.3	88.2	91.1	13.3	57.9	**506.8**
9:26	El Suzan Estate Cumuto	434.0	128.4	0.0	57.4	93.6	**713.4**
9:28	Orange Grove	254.4	65.0	124.0	13.4	46.6	**503.4**
9:32	Piarco Airport	224.3	84.8	114.2	26.8	*	*****
9:33	U.W.I.	193.2	45.4	121.3	34.8	12.1	**406.8**
9:39	Valencia Range	302.3	130.0	*	53.1	83.0	*****
9:43	Arena Plantation	344.4	118.2	108.8	40.1	73.3	**684.8**
9:45	Coryal Estate	424.3	160.4	114.4	21.5	88.6	**809.2**
9:50	Cumuto Pine Nursery	335.2	127.0	67.4	241.3	153.9	**924.8**
9:52	La Regalada Estate Santa Cruz	194.1	56.0	72.1	33.4	14.3	**369.9**
9:59	ASA Wright Nature Centre	253.5	98.0	196.6	20.0	54.5	**622.6**
9:60	U.W.I. Field Station	193.9	41.5	101.1	23.9	22.0	**382.4**
9:64	Arena Dam	307.3	102.5	136.5	24.3	104.4	**675.0**

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2006, STATIONS 6.9 – 9.64 *continued*
***Missing Data**

Station Number	Station Name	June	July	August	Sept-ember	October	Novem-ber	Decem-ber	**Wet Season Total**
6:9	San Quintin Estate Cedros	254.0	*	175.3	18.5	133.3	92.2	189.2	*****
6:12	Columbia Estate Cedros	228.9	254.2	205.4	22.4	161.0	163.0	194.2	**1,229.1**
6:13	Erin Estate	169.8	152.1	77.0	51.8	114.6	77.4	85.5	**728.2**
7:1	Siparia Presbyterian	133.5	748.1	240.3	48.6	222.0	288.8	339.7	**2,021.0**
7:4	Quarry plant Quarry Road	145.5	216.7	160.5	0.0	224.2	94.0	217.5	**1,058.4**
8:8	Freeport Waterworks	150.2	187.2	311.9	149.5	*	*	*	*****
8:15	Petrotrin Point-a-Pierre	138.6	229.4	167.5	184.5	126.4	117.7	131.0	**1,095.1**
8:22	San Pedro Estate Gran Couva	212.4	314.4	308.5	208.5	247.7	216.2	352.8	**1,860.5**
8:23	San Antonio Gran Couva Estate	260.8	260.8	229.4	107.9	185.4	152.2	*	*****
8:31	Tortuga Estate	187.5	284.0	405.4	210.1	192.3	242.1	260.5	**1,781.9**
8:35	San Juan Estate Gran Couva	237.0	237.2	178.8	83.1	191.5	150.4	200.2	**1,278.2**
9:4	River Estate	166.2	228.8	*	150.2	220.8	201.1	89.1	*****
9:11	Lopinot R.C. School	237.7	357.3	322.6	195.8	255.2	203.4	*	*****
9:15	Torrecilla Estate	291.9	*	181.5	141.1	169.3	192.4	128.8	*****
9:26	El Suzan Estate Cumuto	317.0	391.2	365.7	154.8	306.3	282.0	307.6	**2,124.6**
9:28	Orange Grove	292.9	339.0	256.2	231.4	342.0	255.0	149.6	**1,866.1**
9:32	Piarco Airport	252.3	341.0	280.6	155.6	243.6	200.7	154.0	**1,627.8**
9:33	U.W.I.	211.6	307.0	208.9	241.7	216.0	223.9	129.8	**1,538.9**
9:39	Valencia Range	378.2	429.4	379.6	159.3	290.7	216.9	254.1	**2,108.2**
9:43	Arena Plantation	303.8	440.4	334.9	146.6	232.0	245.2	287.3	**1,990.2**
9:45	Coryal Estate	337.7	504.8	364.6	115.9	205.8	380.2	282.9	**2,191.9**
9:50	Cumuto Pine Nursery	371.4	470.7	395.5	222.4	392.0	414.0	*	*****
9:52	La Regalada Estate Santa Cruz	141.7	264.1	221.8	205.5	271.5	166.3	68.9	**1,339.8**
9:59	ASA Wright Nature Centre	324.6	507.2	366.6	239.1	200.2	165.0	223.2	**2,025.9**
9:60	U.W.I. Field Station	211.6	307.0	208.9	241.7	216.0	223.9	129.8	**1,538.9**
9:64	Arena Dam	304.0	350.9	391.1	*	*	*	*	*****

Source: Water Resources Agency

TABLE 8.7 TRINIDAD POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2006, STATIONS 6.9 – 9.64 *concluded*
***Missing Data**

Station Number	Station Name	**Annual Total**	Min Value	Max Value
6:9	San Quintin Estate Cedros	*	8.1	*
6:12	Columbia Estate Cedros	**1,682.1**	15.4	254.2
6:13	Erin Estate	**1,042.2**	0.0	169.8
7:1	Siparia Presbyterian	**2,384.7**	16.5	748.1
7:4	Quarry plant Quarry Road	**1,297.2**	0.0	224.2
8:8	Freeport Waterworks	*	*	*
8:15	Petrotrin Point-a-Pierre	**1,410.4**	11.2	229.4
8:22	San Pedro Estate Gran Couva	**2,470.7**	17.5	365.7
8:23	San Antonio Gran Couva Estate	**581.3**	22.3	*
8:31	Tortuga Estate	**2,407.5**	28.0	405.4
8:35	San Juan Estate Gran Couva	**1,959.2**	11.2	278.1
9:4	River Estate	*	13.3	*
9:11	Lopinot R.C. School	*	16.2	*
9:15	Torrecilla Estate	*	13.3	*
9:26	El Suzan Estate Cumuto	**2,838.0**	0.0	434.0
9:28	Orange Grove	**2,369.5**	13.4	342.0
9:32	Piarco Airport	*	*	341.0
9:33	U.W.I.	**1,945.7**	12.1	307.0
9:39	Valencia Range	*	*	429.4
9:43	Arena Plantation	**2,675.0**	40.1	440.4
9:45	Coryal Estate	**3,001.1**	21.5	504.8
9:50	Cumuto Pine Nursery	*	67.4	*
9:52	La Regalada Estate Santa Cruz	**1,709.7**	14.3	271.5
9:59	ASA Wright Nature Centre	**2,648.5**	20.0	507.2
9:60	U.W.I. Field Station	**1,921.3**	22.0	307.0
9:64	Arena Dam	*	24.3	*

Source: Water Resources Agency

TABLE 8.8 TOBAGO POT GAUGE MEAN RAINFALL

TOBAGO POT GAUGE NETWORK Annual Mean Rainfall (mm)			
Year	Dry Season	Wet Season	Annual
2005	587.3	1,507.9	2,075.8
2006	362.1	1,070.3	1,518.7

Source: Water Resources Agency

TABLE 8.9 TOBAGO POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2005, STATIONS 11.03 – 15.07
***Missing Data**

Station Number	Station Name	January	February	March	April	May	**Dry Season Total**
11:03	Parlatuvier Breeding Unit	528.7	27.4	58.8	7.2	226.2	**848.3**
11:05	King Peter's Bay Road	262.0	14.4	64.5	17.1	164.6	**522.6**
12:02	King's Bay Estate	449.0	8.4	92.3	2.4	143.7	**695.8**
13:04	Hillsborough Dam	282.3	22.0	99.7	7.7	252.1	**663.8**
13:07	Roxborough Estate	388.1	32.5	117.3	32.0	217.8	**787.7**
14:06	Mason Hall, Easterfield	330.3	6.2	15.3	0.0	54.9	**406.7**
15:01	Crown Point Met	222.0	15.6	70.0	5.7	163.4	**476.7**
15:06	Mt. Irvine Estate	219.4	7.9	54.7	11.1	163.0	**456.1**
15:07	Amity Hope	215.0	9.4	56.4	0.0	147.1	**427.9**

Source: Water Resources Agency

TABLE 8.9 TOBAGO POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2005, STATIONS 11.03 – 15.07 *continued*
***Missing Data**

Station Number	Station Name	June	July	August	Sept-ember	October	Novem-ber	Decem-ber	**Wet Season Total**
11:03	Parlatuvier Breeding Unit	471.8	477.5	125.2	145.9	262.0	343.4	352.6	**2,178.4**
11:05	King Peter's Bay Road	276.7	237.9	126.4	139.1	136.3	*	127.4	*****
12:02	King's Bay Estate	322.9	418.5	78.1	111.9	175.2	492.9	228.1	**1,827.6**
13:04	Hillsborough Dam	343.1	242.2	124.4	159.6	203.9	391.0	341.6	**1,805.8**
13:07	Roxborough Estate	366.2	356.7	113.1	170.0	171.7	*	308.4	*****
14:06	Mason Hall, Easterfield	142.7	165.1	60.4	152.8	167.5	327.6	174.2	**1,190.3**
15:01	Crown Point Met	207.9	321.8	152.3	70.6	179.3	269.6	131.6	**1,333.1**
15:06	Mt. Irvine Estate	266.9	173.3	183.2	122.7	14.5	17.8	13.4	**791.8**
15:07	Amity Hope	232.5	393.9	149.5	156.4	132.8	225.8	137.7	**1,428.6**

Source: Water Resources Agency

TABLE 8.9 TOBAGO POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2005, STATIONS 11.03 – 15.07 *concluded*
***Missing Data**

Station Number	Station Name	**Annual Total**	Min Value	Max Value
11:03	Parlatuvier Breeding Unit	**3,026.7**	7.2	528.7
11:05	King Peter's Bay Road	*****	14.4	*
12:02	King's Bay Estate	**2,523.4**	2.4	492.9
13:04	Hillsborough Dam	**2,469.6**	7.7	391.0
13:07	Roxborough Estate	*****	32.0	*
14:06	Mason Hall, Easterfield	**1,597.0**	0.0	330.3
15:01	Crown Point Met	**1,809.8**	5.7	321.8
15:06	Mt. Irvine Estate	**1,247.9**	7.9	266.9
15:07	Amity Hope	**1,856.5**	0.0	393.9

Source: Water Resources Agency

TABLE 8.9 TOBAGO POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2006, STATIONS 11.03 – 15.07
***Missing Data**

Station Number	Station Name	January	February	March	April	May	**Dry Season Total**
11:03	Parlatuvier Breeding Unit	215.8	143.9	181.7	21.9	78.3	**641.6**
11:05	King Peter's Bay Road	114.5	59.2	81	16.8	44.4	**315.9**
12:02	King's Bay Estate	28.1	5.7	14.4	1.7	4.4	**54.3**
13:04	Hillsborough Dam	267.2	59.1	66	32.4	38.7	**463.4**
13:07	Roxborough Estate	290.8	96.2	256.9	16.6	57.6	**718.1**
14:06	Mason Hall, Easterfield	*	*	9.2	20.9	5.8	*****
15:01	Crown Point Met	144.4	63.1	97.4	21.9	23.5	**350.3**
15:06	Mt. Irvine Estate	12.3	4.3	10.2	0.8	2.5	**30.1**
15:07	Amity Hope	159.8	19.1	102.6	13.5	27.9	**322.9**

Source: Water Resources Agency

TABLE 8.9 TOBAGO POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2006, STATIONS 11.03 – 15.07 *continued*
***Missing Data**

Station Number	Station Name	June	July	August	Sept-ember	October	Novem-ber	Decem-ber	**Wet Season Total**
11:03	Parlatuvier Breeding Unit	306.5	167	211.5	174.1	*	*	*	*****
11:05	King Peter's Bay Road	*	*	160.8	139.6	172.8	143	180.7	*****
12:02	King's Bay Estate	15.3	13.5	9.4	153.9	323.8	182.6	208.9	**907.4**
13:04	Hillsborough Dam	291.9	275.4	198.6	124.1	274.4	246.8	185	**1596.2**
13:07	Roxborough Estate	238.6	219.2	225.5	159.1	307.5	240.5	227.9	**1618.3**
14:06	Mason Hall, Easterfield	8.3	19.2	94.6	105.6	18	28.6	44.9	**319.2**
15:01	Crown Point Met	136.7	240.6	177.1	128.3	158.1	208	164.4	**1213.2**
15:06	Mt. Irvine Estate	13.9	15.3	14.8	5.9	170.3	186.4	191.1	**597.7**
15:07	Amity Hope	173.4	189	163.9	92.6	185.1	205.5	230.9	**1240.4**

Source: Water Resources Agency

TABLE 8.9 TOBAGO POT GAUGES MONTHLY AND ANNUAL RAINFALL (MM) YEAR 2006, STATIONS 11.03 – 15.07 *concluded*
***Missing Data**

Station Number	Station Name	**Annual Total**	Min Value	Max Value
11:03	Parlatuvier Breeding Unit	*****	21.9	*
11:05	King Peter's Bay Road	*****	16.8	*
12:02	King's Bay Estate	**961.7**	1.7	323.8
13:04	Hillsborough Dam	**2059.6**	32.4	291.9
13:07	Roxborough Estate	**2336.4**	16.6	307.5
14:06	Mason Hall, Easterfield	*****	*	105.6
15:01	Crown Point Met	**1563.5**	21.9	240.6
15:06	Mt. Irvine Estate	**627.8**	0.8	191.1
15:07	Amity Hope	**1563.3**	13.5	230.9

Source: Water Resources Agency

TABLE 8.10 RESERVOIR CAPACITIES MAY 2007
DAYS SUPPLY FOR RESERVOIRS

Name of Reservoir	Reservoir Storage (mg) 19/05/07	Remaining Days Supply
Caroni	3,800	63 @ 60 imgd
Navet	1,950	99 @ 19.6 imgd
Hollis	375	64 @ 5.8 imgd
Hillsborough	85	65 @ 1.3 imgd

Source: Water Resources Agency

TABLE 8.11 GROUNDWATER PRODUCTION FROM MAJOR AQUIFERS, 2007

Aquifer	Safe Yield (mgd)	Production (mgd)
Port Of Spain	2.5	3.81
Maraval Limestone	0.03	0.11
Maraval Megawatershed	*	4.77
Tucker Valley	4.55	3.83
Chaguaramas Gravels	1.03	0.47
Diego Martin Gravels	8.61	9.08
Santa Cruz	1.96	0.71
El Socorro Gravels	3.44	3.37
La Fillette Alluvials	0.14	0.07
Las Cuevas Bay	*	0.03
Arima Gravels	1.65	0.14
Wallerfield	3.96	1.97
San Souci	*	0.18
Matura Alluvials	*	0.08
Sangre Grande Sands	*	1.17
Valsayn Gravels	6.1	5.55
Tacarigua Gravels	4.15	4.16
Arouca Gravels	1.85	0.61
Mahaica Sands	2.64	2.72
Sum Sum Sands S4	1.65	1.94
Sum Sum Sands S3	2.46	2.36
Sum Sum Sands S5	0.17	0.05
Mayaro Sandstone	0.51	0.33
Goudron Sandstone	1.94	0.51
Guayaguayare	2.6	0.31
LMLE, N of Los Bajos	0.99	0.26
UMLE, N of Los bajos	0.89	0.94
Erin Sands, S of Los Bajos	7.46	3.23
Erin Sands, N of Los Bajos	1.62	0.85

* To be ascertained

Source: Water Resources Agency

APPENDIX

SURFACE WATER PRODUCTION VOLUMES BY SOURCE

Surface Water Sources	Region	Capacity	7-January		7-February		7-March	
			Rec	Actual	Rec	Actual	Rec	Actual
		m^3/d	m^3/d	m^3/d	m^3/d	m^3/d	m^3/d	m^3/d
Major Installations								
Caroni Total (Raw)		272,727		342,069		371,361		369,407
Caroni North (Treated)	North	181,818	181,818	161,396	181,818	157,470	181,818	156,401
Hollis	North	38,181	38,186	39,091	38,186	34,170	38,186	34,175
North Oropouche	North	90,900	88,640	86,649	88,640	78,221	88,640	80,042
Caroni South (Treated)	South	159,090	159,090	180,673	159,090	182,772	159,090	179,709
Navet	South	86,363	86,363	85,482	86,363	86,081	86,363	84,800
Hillsborough	Tobago	9,090	6,818	6,980	6,818	6,918	6,818	6,946
Courland	Tobago	7,954	7,500	5,194	7,500	5,163	7,500	5,099
Hillsborough West	Tobago	4,546	4,318	5,035	4,318	4,811	4,318	4,088
Kings Bay	Tobago	2,272	2,000	2,754	2,000	2,947	2,000	2,480
Richmond	Tobago	2,272	4,500	4,848	4,500	3,658	4,500	3,980
Other Surface Sources								
Acono River	North	2,400	2,400	1,710	2,400	1,747	2,400	1,733
Aripo New	North	11,360	11,360	11,628	11,360	10,482	11,360	11,667
Blanchisseuse	North	2,272	2,272	1,753	2,272	2,231	2,272	1,721
Caura	North	11,360	10,800	10,697	10,800	10,854	10,800	10,999
Guanapo	North	11,360	11,360	18,082	11,360	16,602	11,360	16,591
Lluengo Naranjo	North	4,546	4,363	3,653	4,363	3,729	4,363	3,724
Maraval	North	6,818	5,910	14,107	5,910	22,557	5,910	4,165
St Anns	North	900	840	97	840	107	840	97
Tompire	North	4,546	3,000	3,031	3,000	2,976	3,000	3,362
Quare	North	6,818	6,818	3,780	6,818	4,708	6,818	4,708
Biche	South	454	400	546	400	604	400	358
Guayaguayare Petrotrin	South		275	244	275	270	275	224
Trinity Dam	South	1,368	1,368	1,286	1,368	1,431	1,368	1,435

SURFACE WATER PRODUCTION VOLUMES BY SOURCE - *concluded*

Surface Water Sources	Region	Capacity	7-January		7-February		7-March	
			Rec	Actual	Rec	Actual	Rec	Actual
		m^3/d	m^3/d	m^3/d	m^3/d	m^3/d	m^3/d	m^3/d
Rural Intakes								
Ariapita	North	327	327	110	327	122	327	110
Brasso Seco Paria	North	30	30	27	30	27	30	27
Capriata	North	240	60	353	60	377	60	331
Covigne (Diego Martin)	North		162	162	162	162	162	162
Cumaca	North	70	45	70	45	70	45	70
Dibe	North	110	110	88	110	98	110	88
Grande Riviere	North	45	45	232	45	232	45	232
La Canoa	North	250	200	232	200	242	200	242
La Pastora Road	North	250	100	353	100	377	100	341
Lluengo	North	100	100	35	100	39	100	35
Lopinot	North	100	145	454	145	502	145	454
Matelot	North	35	49	465	49	465	49	465
Matura	North	35	45	35	45	35	45	35
Montevideo	North	35	45	87	45	87	45	87
Morne La Croix	North	27	30	157	30	157	30	157
Mon Repos	North	90	90	87	90	96	90	87
Morang				**400**		**443**		**400**
Pipiol	North	240	90	234	90	242	90	236
Salybia	North	35	45	35	45	35	45	35
Santa Babra				**160**		**177**		**160**
St John	North	460	451	785	451	869	451	785
Surrey	North	25	45	400	45	400	45	400
Susconusco	North	180	60	168	60	180	60	180
Tamana- Four Roads	North	95	70	177	70	177	70	177
Tamana- Guaico / Los	North	35	120	391	120	391	120	391
Tumbausson				**350**		**388**		**350**
Tyrico	North	1,025	1,440	574	1,440	554	1,440	553
Wyab				**160**		**177**		**160**
Daily Average North	**North**	**3,839**	**3,904**	**6,781**	**3,904**	**7,121**	**3,904**	**6,750**
Craig Hall				**2,227**		**2,356**		**2,339**
Charlotteville Intake	Tobago	70	70	395	70	418	70	298
Green Hill Intake								724
Highlands Road	Tobago	4,318	1,700	1,612	1,700	1,719	1,700	1,722
Springs								
Atagual 1	South	120	95	192	95	156	95	119
Atagual 2	South	300	320	590	320	386	320	726
Daily Average - South	**South**	**420**	**415**	**782**	**415**	**542**	**415**	**845**
Maloney 1+2	South	750	700	1,039	700	1,150	700	1,127
Guaracara	South	500	500	497	500	497	500	426
Morichal	South	750	700	771	700	726	700	635
Daily Average South	**South**	**2,000**	**1,900**	**2,307**	**1,900**	**2,373**	**1,900**	**2,188**
Daily Average -		**2,420**	**2,315**	**3,089**	**2,315**	**2,915**	**2,315**	**3,033**

CHAPTER NINE

COASTAL AREAS

Courtesy: Buccoo Reef Trust

TABLE 9A.1A BEACHES AND BAYS OF THE NORTH COAST OF TRINIDAD COASTAL DYNAMICS, 2005 – 2007

Beach/Bay	IMA's Beach Monitoring Station Location	Breaker Height (m)		Breaker Period (s)	
		Mean	Range	Mean	Range
Macqueripe	Central	0.50	0.40 – 0.60	7.0	0.0 – 11.6
Maracas	West	0.62	0.10 - 1.50	8.4	6.8 - 11.0
	East of River	0.76	0.40 - 1.45	7.7	6.8 - 8.5
	Central	0.68	0.30 - 1.50	7.4	6.3 - 8.7
	East	0.76	0.30 - 1.50	8.5	6.9 - 12.0
Tyrico	West	0.48	0.30 - 0.75	8.0	7.4 - 8.5
	East	0.47	0.10 - 0.80	7.9	7.1 - 8.6
Las Cuevas	East	0.58	0.40 - 0.70	7.1	6.6 - 8.3
	Central	0.63	0.20 - 1.50	10.8	6.8 - 22.0
	West	0.67	0.30 - 0.80	8.1	6.6 - 9.8
Blanchisseuse	West	1.44	0.65 - 3.00	7.3	6.8 - 8.6
Grande Riviere	West	1.10	1.00 - 1.20	6.3	6.2 - 6.3
	Central	0.83	0.70 - 0.90	6.9	6.7 - 7.1
	West of Ferdinand River	0.82	0.70 - 0.90	6.8	6.5 - 7.0
	East	0.67	0.50 - 0.90	7.0	6.7 - 7.4
Salybia	West	0.67	0.40 - 1.00	7.3	7.2 - 7.3

Source: Institute of Marine Affairs

TABLE 9A.1B BEACHES AND BAYS OF THE NORTH COAST OF TRINIDAD COASTAL DYNAMICS, 2005 - 2007 – *concluded*

Beach/Bay	IMA's Beach Monitoring Station Location	Longshore Current Speed (cm/s)		Predominant Longshore Current Direction	Shoreline Stability Status (+Net Annual Accretion (m); – Net annual Erosion (m); DE Dynamic Equilibrium)		
		Mean	Range		2005	2006	2007
Macqueripe	Central	4.3	0.0 – 9.3	SW	DE	DE	DE
Maracas	West	11.3	3.4 -17.4	N	DE	DE	DE
	East of River	13.1	6.8 - 22.7	NW			
	Central	14.1	5.7 - 22.7	NW			
	East	11.0	1.2 - 17.4	NW			
Tyrico	West	7.7	4.5 - 12.8	W	DE	DE	DE
	East	7.2	3.4 - 10.7	W			
Las Cuevas	East	13.6	5.8 - 30.4	SW	-0.65	-0.20	-0.20
	Central	14.1	1.2 - 32.9	W	-3.50	DE	DE
	West	13.7	2.3 - 28.0	W	-4.00	DE	-2.30
Blanchisseuse	West	17.5	10.3 - 26.1	NW	-1.35	DE	-0.40
Grande Riviere	West	13.5	8.5 - 19.3	NW	DE	DE	DE
	Central	9.9	4.3 - 17.0	NW			
	West of Ferdinand River	10.3	4.3 - 18.1	NW			
	East	10.6	8.5 - 12.5	NW			
Salybia	West	43.9	21.3 - 65.7	W	-0.80	DE	DE

Source: Institute of Marine Affairs

TABLE 9A.2A BEACHES AND BAYS OF THE EAST COAST OF TRINIDAD COASTAL DYNAMICS, 2005 – 2007

Beach/Bay	IMA's Beach Monitoring Station Location	Breaker Height (m)		Breaker Period (s)	
		Mean	Range	Mean	Range
Guayamara	Northeast	0.97	0.40 - 1.25	6.7	6.30 - 7.10
Saline	East	0.40	0.25 - 0.55	7.3	6.20 - 8.10
	West	0.23	0.10 - 0.30	6.9	5.30 - 8.10
Cocos	North	0.74	0.50 - 0.90	7.5	6.80 - 8.10
	Central	0.88	0.80 - 1.00	7.6	7.40 - 8.10
	South (77 km marker post)	0.81	0.50 - 1.00	7.3	6.90 - 7.80
	South (79 km marker post)	0.85	0.40 - 1.00	7.1	6.40 - 7.90
	South (82 km marker post)	0.77	0.40 - 1.00	7.5	6.30 - 8.00
Mayaro	North	0.80	0.80 - 0.80	6.5	6.50 - 6.50
	Central	0.77	0.30 - 1.00	7.8	6.50 - 10.40
	South	0.73	0.45 - 1.00	8.0	6.30 - 11.50

Source: Institute of Marine Affairs

TABLE 9A.2B BEACHES AND BAYS OF THE EAST COAST OF TRINIDAD COASTAL DYNAMICS, 2005 - 2007 – *concluded*

Beach/Bay	IMA's Beach Monitoring Station Location	Longshore Current Speed (cm/s)		Predominant Longshore Current Direction	Shoreline Stability Status (+Net Annual Accretion (m); – Net annual Erosion (m); DE Dynamic Equilibrium)		
		Mean	Range		2005	2006	2007
Guayamara	Northeast	8.3	4.3 - 12.2	S	DE	DE	DE
Saline	East	14.5	7.5 - 21.9	W	DE	DE	DE
	West	20.9	10.7 - 32.9	W	DE	DE	DE
Cocos	North	11.0	7.5 - 14.9	S	DE	DE	DE
	Central	14.9	8.5 - 19.2	S	DE	DE	DE
	South (77 km marker post)	13.5	10.7 - 19.2	S	-1.00	DE	DE
	South (79 km marker post)	15.7	7.5 - 22.4	N	-3.20	Riprap	
	South (82 km marker post)	16.4	4.3 - 39.5	SE	-1.20	-1.15	-1.15
Mayaro	North	7.0	7.0 - 7.0	SW	DE	DE	DE
	Central	16.6	10.70 - 23.30	S	DE	DE	DE
	South	12.7	7.00 - 20.40	S	-0.50	-0.50	DE

Source: Institute of Marine Affairs

TABLE 9A.3A BEACHES AND BAYS OF THE SOUTH COAST OF TRINIDAD COASTAL DYNAMICS, 2005 – 2007

Beach/Bay	IMA's Beach Monitoring Station Location	Breaker Height (m)		Breaker Period (s)	
		Mean	Range	Mean	Range
Guayaguayare	East	0.39	0.30 - 0.50	7.9	6.9 - 12.6
	Central	0.46	0.30 - 0.55	7.7	6.6 - 11.5
	West	0.56	0.40 - 0.70	7.5	6.7 - 11.0
Quinam	Car Park	0.43	0.45 - 0.65	7.1	6.8 - 8.1
Los Iros	End of Los Iros Bay Road	0.35	0.20 - 0.50	7.5	6.7 - 8.5
Erin	Car Park	0.43	0.30 - 0.55	6.5	6.1 - 6.8
Punta del Arenal	1 km south of Corral Pt.	0.50	0.50 - 0.50	7.2	7.0 - 7.4

Source: Institute of Marine Affairs

TABLE 9A.3B BEACHES AND BAYS OF THE SOUTH COAST OF TRINIDAD COASTAL DYNAMICS, 2005 - 2007 – *concluded*

Beach/Bay	IMA's Beach Monitoring Station Location	Longshore Current Speed (cm/s)		Predominant Longshore Current Direction	Shoreline Stability Status (+Net Annual Accretion (m); – Net annual Erosion (m); DE Dynamic Equilibrium)		
		Mean	Range		2005	2006	2007
Guayaguayare	East	11.9	1.2 - 20.4	W	DE	DE	DE
	Central	13.5	8.5 - 23.3	SW	DE	DE	DE
	West	12.3	8.5 - 17.5	SW	-1.50	-2.20	-0.50
Quinam	Car Park	11.4	10.7 - 12.8	W	DE	DE	DE
Los Iros	End of Los Iros Bay Road	15.1	10.7 - 19.3	W	DE	DE	DE
Erin	Car Park	10.7	8.5 - 12.8	NW	DE	DE	DE
Punta del Arenal	1 km south of Corral Pt.	11.2	8.5 - 13.9	S	0.16	DE	DE

Source: Institute of Marine Affairs

TABLE 9A.4A BEACHES AND BAYS OF THE WEST COAST OF TRINIDAD COASTAL DYNAMICS, 2005 – 2007

Beach/Bay	IMA's Beach Monitoring Station Location	Breaker Height (m)		Breaker Period (s)	
		Mean	Range	Mean	Range
Columbus Bay	Central	0.65	0.65 - 0.65	7.4	6.9 - 7.8
Granville	End of Access Road to Bay	0.35	0.35 - 0.35	6.4	5.0 - 7.8
Irois Bay	North Chatham	0.27	0.20 – 040	7.3	6.5 – 7.8
	Pt. Ligoure West	0.05	0.00 – 0.05	7.2	6.9 – 7.4
Guapo	Vessigny	0.16	0.15 - 0.20	7.2	1.5 - 16.5
	West of Guapo River	0.15	0.10 - 0.20	7.0	5.0 - 9.0
	BG Pipeline	0.20	0.20 - 0.30	7.3	6.4 - 8.2
	East of Revetment	0.29	0.20 - 0.40	8.3	8.1 - 8.4
	750 m West of Clifton Hill	0.22	0.20 - 0.30	8.0	7.8 - 8.1
La Brea (Station Beach)	West	0.44	0.25 - 0.70	7.0	4.0 - 8.0
	Carpark	0.29	0.15 - 0.70	7.1	4.0 - 8.4
	Seawall	0.29	0-20 - 0.70	7.5	4.5 - 10.7
	East	0.34	0.25 - 0.70	7.1	4.5 - 8.1
Dhein's Bay	Central	0.13	0.05 - 0.30	6.1	5.00 - 8.30
William's Bay	Car Park	0.43	0.40 - 0.45	7.7	7.3 - 8.0
Chagville	West	0.20	0.05 - 0.50	7.5	7.1 - 7.8
	250 m west of seawall	0.20	0.05 - 0.50	7.7	6.8 - 8.1
	100 m west of seawall	0.28	0.10 - 0.45	7.5	7.3 - 7.9
	Seawall	0.19	0.05 - 0.45	7.5	7.1 - 8.3
	KFC	0.23	0.10 - 0.50	7.4	7.0 - 8.1
	150 m west of Cuesa River	0.28	0.10 - 0.40	7.7	7.3 - 8.0
	East	0.25	0.05 - 0.45	7.3	6.8 - 7.8

Source: Institute of Marine Affairs

TABLE 9A.4B BEACHES AND BAYS OF THE WEST COAST OF TRINIDAD COASTAL DYNAMICS, 2005 - 2007 – *concluded*

Beach/Bay	IMA's Beach Monitoring Station Location	Longshore Current Speed (cm/s)		Predominant Longshore Current Direction	Shoreline Stability Status (+Net Annual Accretion (m); – Net annual Erosion (m); DE Dynamic Equilibrium)		
		Mean	Range		2005	2006	2007
Columbus Bay	Central	5.6	2.7 - 8.5	W	DE	DE	DE
Granville	End of Access Road to Bay	11.5	7.1 - 30.1	W	DE	DE	DE
Irois Bay	North Chatham	11.4	7 – 14.9	W	-0.75	-0.20	-1.70
	Pt. Ligoure West	4.2	0.0 – 6.4	SW	DE	DE	DE
Guapo	Vessigny	2.1	1.1 - 3.2	SW	DE	DE	DE
	West of Guapo River	3.2	0.0 - 6.0	W	DE	DE	DE
	BG Pipeline	8.2	3.4 - 10.7	W	DE	DE	DE
	East of Revetment	9.6	8.5 - 10.7	W	DE	-0.64	-0.71
	750 m West of Clifton Hill	6.4	4.3 - 8.5	W	DE	DE	-2.95
La Brea (*Station Beach*)	West	9.2	1.1 - 18.7	W	DE	DE	DE
	Carpark	10.8	1.2 - 19.8	W	DE	DE	DE
	Seawall	11.5	1.2 - 17.5	W	DE	DE	DE
	East	11.1	1.2 - 21.3	W	-0.10	DE	-2.95
Dhein's Bay	Central	3.8	1.2 - 9.3	W	DE	DE	DE
William's Bay	Car Park	9.3	9.3 - 9.3	W	Station not yet established		DE
Chagville	West	8.8	4.3 - 11.7	SW	DE	DE	DE
	250 m west of seawall	9.6	8.5 - 10.7	SW	Station not yet established		DE
	100 m west of seawall	8.5	4.3 - 10.7	SW			DE
	Seawall	6.1	0.0 - 12.8	SW	Seawall		
	KFC	8.5	8.5 - 8.5	SW	DE	DE	DE
	150 m west of Cuesa River	7.1	3.2 - 9.6	W	Station not yet established		DE
	East	8.0	6.9 - 8.5	W	DE	DE	DE

Source: Institute of Marine Affairs

TABLE 9A.5A BEACHES AND BAYS OF THE WINDWARD COAST OF TOBAGO COASTAL DYNAMICS, 2005 – 2007

Beach/Bay	IMA's Beach Monitoring Station Location	Breaker Height (m)		Breaker Period (s)	
		Mean	Range	Mean	Range
Anse Bateau	Hotel Restaurant	0.26	0.15 - 0.40	7.4	5.5 - 10.0
King's Bay	End of Access Road	0.29	0.10 - 0.60	6.9	4.0 - 11.3
Richmond	East	0.26	0.15 - 0.40	8.2	6.7 - 10.4
Goldsborough	East	0.44	0.30 - 0.60	7.4	5.6 - 9.6
	West	0.46	0.20 - 0.70	7.6	6.0 - 10.1
Pinfold	Central	0.75	0.40 - 1.30	7.5	6.4 - 9.8
Barbados Bay	East	0.33	0.15 - 0.50	8.7	8.0 - 10.6
	Central	0.36	0.20 - 0.45	6.2	4.5 - 7.7
	West	0.28	0.10 - 0.50	5.9	0.0 - 8.1
Minister	Central	0.76	0.40 - 1.50	7.4	6.2 - 11.0
Rockly	East	0.52	0.35 - 0.80	8.3	5.5 - 12.8
	West	0.46	0.30 - 0.60	8.0	5.0 - 13.7
Little Rockly	Central	0.54	0.25 - 0.80	7.3	6.0 - 10.3
	West	0.54	0.30 - 0.80	8.0	6.0 - 10.7
Canoe Bay	Beach Resort	0.19	0.10 - 0.30	7.2	5.5 - 8.7
La Guira	West	0.54	0.20 - 0.70	7.5	6.5 - 10.0
	East	0.15	0.05 - 0.25	7.0	5.5 - 8.2

Source: Institute of Marine Affairs

TABLE 9A.5B BEACHES AND BAYS OF THE WINDWARD COAST OF TOBAGO COASTAL DYNAMICS, 2005 - 2007 – *concluded*

Beach/Bay	IMA's Beach Monitoring Station Location	Longshore Current Speed (cm/s)		Predominant Longshore Current Direction	Shoreline Stability Status (+Net Annual Accretion (m); – Net annual Erosion (m); DE Dynamic Equilibrium)		
		Mean	Range		2005	2006	2007
Anse Bateau	Hotel Restaurant	5.6	1.2 - 8.2	SW	DE	DE	DE
King's Bay	End of Access Road	11.3	4.7 - 26.8	S	DE	DE	DE
Richmond	East	9.0	5.3 - 19.3	W	DE	DE	DE
Goldsborough	East	12.0	2.3 - 27.1	W	DE	DE	DE
	West	11.7	5.7 - 25.1	SW	DE	DE	DE
Pinfold	Central	17.2	6.4 - 34.0	W	DE	DE	DE
Barbados Bay	East	7.9	0.0 - 18.1	S	-0.20	Seawall	
	Central	9.5	5.8 - 11.7	W	DE	DE	DE
	West	12.7	9.3 - 17.1	W	DE	DE	DE
Minister	Central	17.8	4.5 - 36.3	SW	DE	DE	DE
Rockly	East	13.0	9.3 - 26.7	SW	Seawall		
	West	15.1	4.3 - 27.1	SW			
Little Rockly	Central	17.5	7.5 - 30.6	SW	DE	DE	DE
	West	18.1	14.7 - 21.5	SW	DE	DE	DE
Canoe Bay	Beach Resort	9.7	5.3 - 19.3	NW	DE	DE	-0.10
La Guira	West	13.3	3.50 - 29.0	W	DE	DE	DE
	East	11.2	1.9 - 43.5	W	-0.35	-3.20	-2.70

Source: Institute of Marine Affairs

TABLE 9A.6A BEACHES AND BAYS OF THE LEEWARD COAST OF TOBAGO COASTAL DYNAMICS, 2005 – 2007

Beach/Bay	IMA's Beach Monitoring Station Location	Breaker Height (m)		Breaker Period (s)	
		Mean	Range	Mean	Range
Man of War	End of Access Road	0.32	0.10 - 1.20	7.9	6.0 - 9.9
Bloody Bay	Central	0.52	0.30 - 0.75	9.1	7.1 - 10.1
Parlatuvier	West	0.19	0.10 - 0.30	8.8	7.4 - 10.6
Englishman's Bay	Central	0.42	0.20 - 0.70	8.2	7.5 - 9.3
Castara	Fishing Depot	0.38	0.20 - 0.70	8.2	6.1 - 9.8
Culloden	End of Access Road	0.19	0.10 - 0.30	8.3	7.4 - 8.9
Arnos Vale	Central	0.27	0.10 - 0.60	7.9	6.3 - 10.0
Great Courland (Turtle Beach)	North	0.45	0.20 - 0.75	9.2	7.6 - 13.0
	Central	0.58	0.20 - 0.90	8.7	6.1 - 11.6
	South	0.44	0.20 - 0.85	8.8	6.8 - 13.0
Stone Haven (Grafton Beach)	East	0.60	0.35 - 0.80	9.4	6.7 - 13.0
	West	0.58	0.35 - 1.00	8.8	6.4 - 11.9
Little Back Bay	East	0.88	0.30 - 1.45	9.1	6.8 - 14.6
	West	0.82	0.40 - 1.70	8.6	6.7 - 13.7
Mt. Irvine	East	0.25	0.10 - 0.55	8.3	6.7 - 11.0
	West	0.49	0.10 - 0.85	8.6	6.8 - 12.0
Buccoo	North	0.26	0.10 - 0.50	8.1	7.0 - 10.2
	South	0.40	0.30 - 0.50	8.1	7.0 - 9.4
Sheerbird's Point	East	0.19	0.05 - 0.50	7.4	6.1 - 8.9
	West	0.11	0.05 - 0.20	7.5	6.7 - 8.4
Pigeon Point	East	0.15	0.10 - 0.25	5.8	4.5 - 7.3
	North	0.13	0.05 - 0.25	6.8	5.3 - 7.7
	West	0.21	0.05 - 0.40	8.2	5.2 - 12.6
Milford	North	0.14	0.02 - 0.30	7.6	5.2 - 10.1
Store Bay	East	0.41	0.20 - 0.70	7.2	5.5 - 8.5
	West	0.42	0.20 - 0.70	8.8	6.5 - 12.1

Source: Institute of Marine Affairs

TABLE 9A.6B BEACHES AND BAYS OF THE LEEWARD COAST OF TOBAGO COASTAL DYNAMICS, 2005 - 2007 – *concluded*

Beach/Bay	IMA's Beach Monitoring Station Location	Longshore Current Speed (cm/s)		Predominant Longshore Current Direction	Shoreline Stability Status (+Net Annual Accretion (m); – Net annual Erosion (m); DE Dynamic Equilibrium)		
		Mean	Range		2005	2006	2007
Man of War	End of Access Road	7.1	0.0 - 11.3	SW	DE	DE	DE
Bloody Bay	Central	9.2	4.7 - 17.4	SW	DE	DE	DE
Parlatuvier	West	5.9	2.3 - 8.5	W	DE	DE	DE
Englishman's Bay	Central	7.8	2.1 - 11.3	W	DE	DE	DE
Castara	Fishing Depot	8.1	1.2 - 13.6	SW	DE	DE	DE
Culloden	End of Access Road	5.9	3.2 - 12.8	NE	DE	DE	DE
Arnos Vale	Central	7.4	3.4 - 19.2	N	DE	DE	DE
Great Courland (Turtle Beach)	North	12.1	7.9 - 14.9	S	DE	DE	DE
	Central	10.7	3.5 - 14.7	SW	DE	DE	DE
	South	16.5	9.1 - 29.9	SW	DE	DE	DE
Stone Haven (Grafton Beach)	East	11.7	4.3 - 16.0	SW	DE	DE	DE
	West	8.6	0.0 - 14.9	W	DE	DE	DE
Little Back Bay	East	12.2	6.8 - 24.2	W	DE	DE	DE
	West	11.5	3.2 - 22.7	W	DE	DE	DE
Mt. Irvine	East	8.8	3.9 - 18.1	S	DE	DE	DE
	West	9.7	6.8 - 14.9	W	DE	DE	DE
Buccoo	North	5.6	1.2 - 10.7	S	DE	DE	DE
	South	11.3	4.3 - 17.4	W	DE	DE	DE
Sheerbird's Point	East	14.0	3.4 - 20.4	W	DE	DE	DE
	West	7.9	2.1 - 12.8	S	DE	DE	DE
Pigeon Point	East	11.9	8.5 - 17.0	NW	-1.2	DE	DE
	North	16.5	0.0 - 43.2	W	DE	DE	DE
	West	9.6	4.3 - 14.5	SW	DE	DE	-4.00
Milford	North	7.0	3.9 - 10.7	S	-0.6	DE	DE
Store Bay	East	10.4	8.5 - 11.5	SW	DE	DE	DE
	West	10.5	7.7 - 18.1	SW	DE	DE	DE

Source: Institute of Marine Affairs

TABLE 9B.1 CORAL ABUNDANCE BY SPECIES AS A PERCENTAGE OF OVERALL CORAL COVER

Taxonomic Name	Common Name	Percent Bleached	Percent Of Total Corals Observed	Number of Surveys
Acropora palmata	Elkhorn	-	0.5	7
Agaricia agaricites	Leaf	93	3.0	40
Colpophyllia natans	Giant Brain	80	9.0	122
Diploria labyrinthiformis	Grooved Brain	84	1.0	13
Diploria strigosa	Smooth Brain	50	11.0	149
Madracis mirabilis	Yellow Pencil	3	4.0	54
Meandrina meandrites	Butterprint Brain	67	2.0	27
Millepora spp.	Fire Coral	53	12.0	162
Montastrea annularis	Boulder Star	73	37.0	502
Montastrea cavernosa	Cavernous Star	47	4.0	54
Porites astreoides	Mustard Hill	34	3.0	40
Porites divaricata	Thin Finger	60	1.0	13
Porites furcata	Finger	50	1.0	13
Siderastrea radians	Rough Starlet	93	1.0	13
Siderastrea siderea	Smooth Starlet	68	6.0	81
Other	Various	5	5.0	67

Source: Buccoo Reef Trust

TABLE 9B.2 MOST COMMONLY RECORDED HARD CORALS ON THE NORTH WEST COAST OF TOBAGO DURING 2007

Coral Species	Number of Recorded Points	Percentage of All Surveys
Mycetophyllia aliciae	1	0.5
Mycetophyllia ferox	1	0.5
Porites porites	1	0.5
Tubastrea coccinea	1	0.5
Acropora cervicornis	2	1.1
Isophyllastrea rigida	2	1.1
Mycetophyllia lamarckiana	2	1.1
Favia fragum	3	1.6
Mussa angulosa	3	1.6
Porites divaricata	3	1.1
Madracis formosa	4	1.1
Solenastrea hyades	4	1.6
Eusmilia fastigiata	5	2.2
Manicina areolata	6	2.7
Dendrogyra cylindrus	7	1.6
Solenastrea bournoni	9	3.8
Stephanocoenia intersepta	9	4.8
Acropora palmata	12	3.8
Helioseris cucullata	12	3.8
Porites furcata	13	4.3
Scolymia spp	17	5.9
Dichocoenia stokesi	24	8.6
Diploria labyrinthiformis	25	8.1
Madracis mirabilis	31	1.6
Siderastrea radians	40	12.4
Porites astreoides	55	10.8
Madracis decactis	56	9.1
Agaricia spp	61	13.4
Meandrina meandrites	73	14.5
Colpophyllia natans	79	13.4
Montastraea franksi	88	9.1
Diploria clivosa	109	10.8
Siderastrea siderea	123	17.7
Montastraea annularis	130	10.8
Montastraea faveolata	148	15.6
Diploria strigosa	170	20.4
Montastrea cavernosa	172	18.8
Millepora spp	233	21.5

Source: Buccoo Reef Trust

APPENDIX 9B

TABLE 9B.A.1 KEYS AND REPRESENTATION FOR LIVE HARD CORAL (LHC) COVER OF REEFS AT (A) 7 METRE AND (B) 12 METRE SURVEY DEPTHS AS SHOWN IN FIGURES 9B.8A & 9B.8B

Keys	Representation
AF	Anse Formager
AV	Arnos Vale
BA	Bon Accord Lagoon
BB	Buccoo Bay Booby Point
BL	Back Bay
BP	Booby Point
CA	Castara
CG	Coral Gardens
CU	Culloden Bay
ER	Buccoo East Reef
GB	Gordon Bay
KP	King Peters Bay
MI	Mount Irvine
NP	Nylon Point
NR	Buccoo North Reef
OR	Buccoo Outer Reef
PL	Plymouth
PP	Pigeon Point
SH	Stonehaven Bay
WB	Washerwoman's Bay
WR	Buccoo West Reef

Source: Buccoo Reef Trust

CHAPTER TEN

TRANSPORT

Courtesy: Ministry of Works and Transport

TABLE 10.1 IMPORTS OF MOTOR VEHICLE BATTERIES BY COUNTRIES, 2005 – 2007

Country of Origin	Quantity (Nos.)		
	2005	2006	2007
Australia	-	-	7
Austria	-	2	-
Barbados	-	3	-
Brazil	-	-	1
Canada	395	51	98
China	40,595	10,253	25,068
Costa Rica	-	1	-
Czechoslovakia (Former)	35	4	15
Denmark	-	-	1
Equatorial Guinea	-	-	5
Finland	-	2	6
France	73	16	206
Gabon	4	-	-
Germany	349	106	97
Grenada	250	-	-
Hong Kong	20	-	-
India	-	-	13
Indonesia	18,693	9,624	20,429
Ireland	-	-	2
Israel	-	44	-
Italy	11	105	189
Japan	1,766	2,434	15,568
Kenya	-	1,184	-
Korea, D.P. Republic	-	5	-
Korea, Republic of	20,198	14,338	22,621
Malysia	40	50	3
Mexico	18	175	240
Netherlands	28	-	2
Panama	-	-	2
Philippines	-	-	7
Puerto Rico	-	65	-
Singapore	-	22	18
Spain	113	217	183
Sweden	66	356	63
Switzerland	2,024	-	17
Taiwan	268	842	477
Thailand	1,932	16,320	12,912
U.S.A.	38,485	32,146	49,030
United Kingdom	157	329	714
Venezuela	28	-	-
Total	**125,548**	**88,694**	**147,994**

Source: Central Statistical Office, Trade Section

TABLE 10.2 IMPORTS OF MOTOR VEHICLE TYRES[1] BY COUNTRIES, 2005 - 2007

Country of Origin	Number of Units		
	2005	2006	2007
Argentina	-	84	591
Australia	-	8	-
Bahamas	1,232	-	-
Belgium	13,819	9,263	14,249
Brazil	12,119	15,789	12,728
Cambodia	20	-	-
Canada	20,697	20,211	24,904
Chile	3,368	3,734	1,155
China	118,243	140,468	168,147
Colombia	2,001	1,720	2,472
Costa Rica	1,501	15,660	8,730
Czechoslovakia (Formerly)	54	50	144
Denmark	-	16	-
Ecuador	-	6	112

TABLE 10.2 IMPORTS OF MOTOR VEHICLE TYRES[1] BY COUNTRIES, 2005 - 2007, *concluded*

Country of Origin	Number of Units		
	2005	2006	2007
El Salvador	24	-	-
France	5,674	5,949	3,316
Germany	167,212	166,407	194,703
Grenada	54	-	-
Hong Kong	-	1,800	1,220
Hungary	-	-	58
India	7,906	7,003	7,560
Indonesia	3,929	941	1,818
Israel	1,256	36,850	1,094
Italy	857	1,681	1,285
Japan	111,749	114,603	118,268
Korea, D.P.Rep	17,253	6,906	10,334
Korea, Republic of	118,487	118,899	158,793
Luxembourg	12	18	20
Malaysia	118	290	517
Martinique	701	173	-
Mexico	2,200	840	1,644
Netherlands	3,195	5,015	5,534
New Caledonia	-	-	4
Panama	4	124	16
Peru	1,404	821	1,369
Philippines	1,388	198	1,560
Poland	774	899	1,769
Portugal	-	145	323
Romania	14	2	432
Russian Federation	245	58	-
Singapore	2,565	80	50
Slovenia	-	-	22
South Africa	8	52	-
Spain	2,096	1,749	1,151
Sri Lanka	46	73	-
Switzerland	33,776	49,057	45,409
Taiwan	38,092	29,896	13,840
Thailand	10,017	18,540	7,223
Turkey	15,902	15,127	259
U.S.A	151,452	142,767	146,345
United Arab Emirates	-	-	1,590
United Kingdom	20,769	12,450	15,196
Venezuela	23,331	8,995	5,790
Viet Nam	12,100	-	-
Yugoslavia	6	-	-
Total	**927,670**	**955,417**	**981,744**

[1] - New and retreaded tyres

Source: Central Statistical Office, Trade Section

TABLE 10.3 IMPORTS OF MOTOR VEHICLE TYRES BY TYPE, 2005 - 2007

Type[1]	2005	2006	2007
	Nos.		
New Tyres	551,561	536,640	544,512
Retreaded Tyres	5,917	1,484	4,936
Used Tyres	370,192	417,293	432,296
Total	**927,670**	**955,417**	**981,744**

[1]Includes motor vehicle tyres, tractors, lorries, buses, motorcycles, bicycles, agricultural machinery, etc

Source: Central Statistical Office, Trade Section

TABLE 10.4 MOTOR VEHICLES REGISTERED BY TYPE, 2005 - 2007

Vehicle Type	2005	2006	2007
Private	14,739	21,570	17,774
Hired	605	685	460
Motorcycle	173	375	408
Rented	206	607	182
Goods	3,339	9,892	8,107
Omnibus	40	17	50
Tractor	117	267	212
Trailers	212	187	368
Industrial[1/]	59	62	44
Total	19,490	33,662	27,605
Cumulative Total[2]	**407,344**	**441,006**	**468,611**

[1]The type "Industrial" was termed "Other" in the previous compendium.
[2]The Cumulative Total is the total number of vehicles on the register as at year end, whereas the "Total" refers to the number of vehicles registered for the year.

Source: Computer Department, Licensing Office,
Ministry of Works and Transport

TABLE 10.5 IMPORTS OF MOTOR VEHICLE BY TYPE, 2005 - 2007

Year	Quantity (Nos.)				
	Motor Cars	Other Passenger Vehicles[1]	Commercial Vehicles[2]	Other Vehicles[3]	**Total**
2005	23,751	256	5,138	117	**29,262**
2006	25,915	222	6,099	246	**32,482**
2007	34,203	288	7,556	125	**42,172**

[1] Includes motor vehicles for the transport of more than10 persons e.g. maxis, minibuses, buses, coaches etc

[2] Includes motor vehicles for the transport of goods e.g. trucks, 3- ton trucks and dumpsters

[3] Includes cranes, lorries, concrete mixers etc

Source: Central Statistical Office, Trade Section

TABLE 10.6 PASSENGER AND AIRCRAFT MOVEMENT – CPIA (TOBAGO), 2005 – 2007

Year	International			Domestic			**Intransit**
	Arriving	Departing	**Total**	Arriving	Departing	**Total**	**Total**
2005							
Aircraft	2,553	2,566	**5,119**	7,810	7,761	**15,571**	
Passengers	87,796	89,366	**177,162**	309,883	299,719	**609,602**	**91,011**
2006							
Aircraft	1,554	1,559	**3,113**	7,114	7,361	**14,475**	
Passengers	68,891	69,077	**137,968**	308,849	298,238	**607,087**	**63,029**
2007							
Aircraft	1,194	1,194	**2,388**	7,197	7,197	**14,394**	
Passengers	66,266	64,702	**130,968**	318,048	312,879	**630,927**	**55,022**

N.B. Domestic data indicates movement between Crown Point and Piarco Airports

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

TABLE 10.7 CARGO[1] MOVEMENT CPIA TOBAGO BY WEIGHT, 2005 - 2007

Year	International (Kg)			Domestic (Kg)		
	Unloaded	Loaded	**Total**	Unloaded	Loaded	**Total**
2005	64,465	342	**64,807**	296,631	42,684	**339,315**
2006	56,490	4,075	**60,565**	122,669	18,910	**141,579**
2007	55,743	938	**56,681**	451,310	50,079	**501,389**

[1]Cargo = Freight+ Mail

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

TABLE 10.8 NUMBER OF DOMESTIC PASSENGERS MOVED BETWEEN PIA (TRINIDAD) AND CPIA (TOBAGO), 2005 – 2007

Airline Carrier	2005	2006	2007
BWIA*	53,185	3,049	161,671
Caribbean Star	11,182	802	-
Liat	9,092	937	-
Tobago Express	536,143	602,299	469,256
Total	**609,602**	**607,087**	**630,927**

* BWIA was renamed Caribbean Airlines from 01 January 2007

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

TABLE 10.9 NUMBER OF LANDINGS AND TAKE-OFFS BETWEEN (PIA) TRINIDAD AND (CPIA) TOBAGO, 2005 – 2007

Aircraft Landings and Take-offs	Number
Landings	
2005	7,810
2006	7,114
2007	7,197
Take-Offs	
2005	7,761
2006	7,361
2007	7197
Total Aircraft Movements	
2005	15,571
2006	14,475
2007	14,394

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

TABLE 10.10 TOTAL LANDINGS PLUS TAKE-OFFS BETWEEN PIA (TRINIDAD) AND CPIA (TOBAGO), BY AIR CARRIERS SCHEDULED, 2005 – 2007

Months	Years	Air Carriers Scheduled				
		Tobago Express	BWIA	Caribbean Star	LIAT	**Total Scheduled Airlines**
January	2005	998	524	56	57	**1,635**
	2006	966	1	56	20	**1,043**
	2007	1,248	-	-	-	**1,248**
February	2005	1,060	332	68	52	**1,512**
	2006	997	169	63	55	**1,284**
	2007	1,130	-	-	-	**1,130**
March	2005	1,334	123	71	59	**1,587**
	2006	1,070	10	61	13	**1,154**
	2007	1,194	-	-	-	**1,194**
April	2005	960	13	84	50	**1,107**
	2006	1,222	16	30	-	**1,268**
	2007	1,308	45	-	-	**1,353**
May	2005	996	17	79	42	**1,134**
	2006	1,158	-	-	-	**1,158**
	2007	1,206	72	58	59	**1,395**
June	2005	1,078	15	77	60	**1,230**
	2006	1,176	-	-	-	**1,176**
	2007	1,166	14	-	-	**1,180**
July	2005	1,258	12	60	60	**1,390**
	2006	1,342	5	-	-	**1,347**
	2007	1,226	38	-	-	**1,264**
August	2005	1,216	40	62	58	**1,376**
	2006	1,426	1	-	-	**1,427**
	2007	1,262	34	-	-	**1,296**
September	2005	1,020	12	62	58	**1,152**
	2006	1,222	4	-	-	**1,226**
	2007	708	729	60	57	**1,554**
October	2005	1,098	2	58	59	**1,217**
	2006	1,206	-	-	-	**1,206**
	2007	722	956	63	62	**1,803**
November	2005	1,020	5	59	60	**1,144**
	2006	1,048				**1,048**
	2007	842	681	68	59	**1,650**
December	2005	980	4	59	43	**1,086**
	2006	1,138	-	-	-	**1,138**
	2007	974	603	57	62	**1,696**
Total	**2005**	**13,018**	**1,099**	**795**	**658**	**15,570**
	2006	**13,971**	**206**	**210**	**88**	**14,475**
	2007	**12,986**	**3,172**	**306**	**299**	**16,763**
Market Share	2005	83.6%	7.1%	5.1%	4.2%	**100%**
	2006	96.5%	1.4%	1.5%	0.6%	**100%**
	2007	77.5%	18.9%	1.8%	1.8%	**100%**

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

TABLE 10.11 TOTAL LANDINGS PLUS TAKE-OFFS BETWEEN PIA (TRINIDAD) AND CPIA (TOBAGO), BY MONTHS, 2005 – 2007

Months	Aircraft Movements	2005	2006	Change	2006	2007	Change
January	Landings	820	523	-36.20%	523	624	19.30%
	Take Offs	815	520	-36.20%	520	624	20.00%
	Total Aircraft	1,635	1,043	-36.20%	1,043	1,248	19.70%
February	Landings	754	526	-30.20%	526	565	7.40%
	Take Offs	758	758	0.00%	758	565	-25.50%
	Total Aircraft	1,512	1,284	-15.10%	1,284	1,130	-12.00%
March	Landings	795	581	-26.90%	581	597	2.80%
	Take Offs	792	573	-27.70%	573	597	4.20%
	Total Aircraft	1,587	1,154	-27.30%	1,154	1,194	3.50%
April	Landings	559	620	10.90%	620	675	8.90%
	Take Offs	548	648	18.20%	648	678	4.60%
	Total Aircraft	1,107	1,268	14.50%	1,268	1,353	6.70%
May	Landings	577	579	0.30%	579	603	4.10%
	Take Offs	557	579	3.90%	579	603	4.10%
	Total Aircraft	1,134	1,158	2.10%	1,158	1,206	4.10%
June	Landings	621	588	-5.30%	588	590	0.30%
	Take Offs	609	588	-3.40%	588	590	0.30%
	Total Aircraft	1,230	1,176	-4.40%	1,176	1,180	0.30%
July	Landings	696	674	-3.20%	674	632	-6.20%
	Take Offs	695	673	-3.20%	673	632	-6.10%
	Total Aircraft	1,391	1,347	-3.20%	1,347	1,264	-6.20%
August	Landings	688	714	3.80%	714	648	-9.20%
	Take Offs	688	713	3.60%	713	648	-9.10%
	Total Aircraft	1,376	1,427	3.70%	1,427	1,296	-9.20%
September	Landings	576	613	6.40%	613	553	-9.80%
	Take Offs	576	613	6.40%	613	553	-9.80%
	Total Aircraft	1,152	1,226	6.40%	1,226	1,106	-9.80%
October	Landings	611	603	-1.30%	603	555	-8.00%
	Take Offs	606	603	-0.50%	603	555	-8.00%
	Total Aircraft	1,217	1,206	-0.90%	1,206	1,110	-8.00%
November	Landings	574	524	-8.70%	524	570	8.80%
	Take Offs	570	524	-8.10%	524	570	8.80%
	Total Aircraft	1,144	1,048	-8.40%	1,048	1,140	8.80%
December	Landings	539	569	5.60%	569	585	2.80%
	Take Offs	547	569	4.00%	569	582	2.30%
	Total Aircraft	1,086	1,138	4.80%	1,138	1,167	2.50%
Total	**Landings**	**7,810**	**7,114**	**-8.90%**	**7,114**	**7,197**	**1.20%**
	Take Offs	**7,761**	**7,361**	**-5.20%**	**7,361**	**7,197**	**-2.20%**
	Total	**15,571**	**14,475**	**-7.00%**	**14,475**	**14,394**	**-0.60%**

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

TABLE 10.12 DOMESTIC CARGO MOVEMENT BETWEEN PIA (TRINIDAD) AND CPIA (TOBAGO), BY WEIGHT AND AIR CARRIERS, 2005 – 2007

Months	Years	Air Carriers Scheduled (Kg)			
		Tobago Express	BWIA*	Caribbean Star	**Total**
January	2005	51,128	1,617	-	**52,745**
	2006	33,818	1,741	-	**35,559**
	2007	4,231	-	-	**4,231**
February	2005	-	1,191	-	**1,191**
	2006	30,269	-	-	**30,269**
	2007	1,203	-	-	**1,203**
March	2005	34,339	1,435	-	**35,774**
	2006	30,118	444	-	**30,562**
	2007	2,166	-	-	**2,166**
April	2005	2,474	23,996	-	**26,470**
	2006	15,636	366	-	**16,002**
	2007	6,493	3,067	-	**9,560**
May	2005	19,916	1,184	-	**21,100**
	2006	14,768	-	-	**14,768**
	2007	6,819	-	-	**6,819**
June	2005	22,272	2,996	-	**25,268**
	2006	5,378	-	-	**5,378**
	2007	14,390	-	-	**14,390**
July	2005	26,829	2,373	-	**29,202**
	2006	8,094	-	-	**8,094**
	2007	84,765	-	-	**84,765**
August	2005	22,933	1,678	-	**24,611**
	2006	785	-	-	**785**
	2007	95,654	-	-	**95,654**
September	2005	21,517	2,073	-	**23,590**
	2006	82	-	-	**82**
	2007	89,323	-	-	**89,323**
October	2005	31,357	-	-	**31,357**
	2006	-	-	-	-
	2007	-	88,150	-	**88,150**
November	2005	35,599	-	-	**35,599**
	2006	80	-	-	**80**
	2007	-	82,393	-	**82,393**
December	2005	32,408	-	-	**32,408**
	2006	-	-	-	-
	2007	-	22,735	-	**22,735**
Total	**2005**	**300,772**	**38,543**	-	**339,315**
	2006	**139,028**	**2,551**	-	**141,579**
	2007	**305,044**	**196,345**	-	**501,389**
Market	2005	88.6%	11.4%	-	**100%**
	2006	98.2%	1.8%	-	**100%**
	2007	60.8%	39.2%	-	**100%**

* BWIA was renamed to Caribbean Airlines from 01 January 2007

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

TABLE 10.13.1 NUMBER OF PASSENGERS MOVED AT PIA (TRINIDAD), SCHEDULED AND NON SCHEDULED, 2005 – 2007

Years	International	Intransit	Domestic	Total Passengers	Change
2005	1,607,300	156,109	609,602	2,373,011	**-1.4%**
2006	1,602,242	155,014	607,087	2,364,343	**-0.4%**
2007	1,598,595	158,922	630,927	2,388,444	**1.0%**

Source: Airports Authority of Trinidad and Tobago
Statistical Unit Information

TABLE 10.13.2 NUMBER OF DOMESTIC PASSENGERS MOVED BETWEEN PIA (TRINIDAD) AND CPIA (TOBAGO), 2005 – 2007

Months	Years	Tobago Express	BWIA*	Caribbean Star	LIAT	**Total Scheduled Airlines**
January	2005	36,073	22,282	144	615	**59,114**
	2006	37,786	34	240	196	**38,256**
	2007	47,966	-	-	-	**47,966**
February	2005	43,105	15,770	621	913	**60,409**
	2006	38,142	315	309	482	**39,248**
	2007	46,450	-	-	-	**46,450**
March	2005	51,935	4,750	1,085	637	**58,407**
	2006	45,995	659	233	259	**47,146**
	2007	49,887	-	-	-	**49,887**
April	2005	42,143	1,125	1,922	945	**46,135**
	2006	48,639	1,203	20	-	**49,862**
	2007	50,973	-	3,172	-	**54,145**
May	2005	43,074	1,628	2,013	823	**47,538**
	2006	50,165	-	-	-	**50,165**
	2007	54,413	-	-	-	**54,413**
June	2005	46,952	1,425	1,281	847	**50,505**
	2006	49,237	-	-	-	**49,237**
	2007	53,703	-	931	-	**54,634**
July	2005	55,679	822	1,009	1,147	**58,657**
	2006	60,311	347	-	-	**60,658**
	2007	58,935	4,214	-	-	**63,149**
August	2005	55,261	3,948	1,350	1,236	**61,795**
	2006	71,807	87	-	-	**71,894**
	2007	60,487	3,123	-	-	**63,610**
September	2005	39,641	1,159	666	748	**42,214**
	2006	50,744	404	-	-	**51,148**
	2007	46,442	2,350	-	-	**48,792**
October	2005	44,328	38	422	462	**45,250**
	2006	51,261	0	-	-	**51,261**
	2007	0	43,018	-	-	**43,018**
November	2005	36,904	152	248	401	**37,705**
	2006	46,972	-	-	-	**46,972**
	2007	-	50,665	-	-	**50,665**
December	2005	41,048	86	421	318	**41,873**
	2006	51,644	-	-	-	**51,644**
	2007	-	54,198	-	-	**54,198**
Total	**2005**	**536,143**	**53,185**	**11,182**	**9,092**	**609,602**
	2006	**602,703**	**3,049**	**802**	**937**	**607,491**
	2007	**469,256**	**157,568**	**4,103**	-	**630,927**
Market Share	2005	87.9%	8.7%	1.8%	1.5%	**100%**
	2006	99.2%	0.5%	0.1%	0.2%	**100%**
	2007	74.4%	25.0%	0.7%	0.0%	**100%**

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

TABLE 10.13.3 MONTHLY DOMESTIC PASSENGER MOVEMENTS BETWEEN PIA (TRINIDAD) AND CPIA (TOBAGO), 2005 – 2007

Months	Passengers	2005	2006	Change	2006	2007	Change
January	Embarked	30,123	19,426	-35.5%	19,426	24,489	26.1%
	Disembarked	28,993	18,830	-35.1%	18,830	23,477	24.7%
	Total[1]	59,116	38,256	-35.3%	38,256	47,966	25.4%
February	Embarked	29,878	18,821	-37.0%	18,821	23,211	23.3%
	Disembarked	30,529	20,427	-33.1%	20,427	23,239	13.8%
	Total[1]	60,407	39,248	-35.0%	39,248	46,450	18.3%
March	Embarked	28,437	22,724	-20.1%	22,724	24,223	6.6%
	Disembarked	29,970	24,422	-18.5%	24,422	25,664	5.1%
	Total[1]	58,407	47,146	-19.3%	47,146	49,887	5.8%
April	Embarked	22,907	24,386	6.5%	24,386	26,815	10.0%
	Disembarked	23,228	25,476	9.7%	25,476	27,330	7.3%
	Total[1]	46,135	49,862	8.1%	49,862	54,145	8.6%
May	Embarked	23,036	24,383	5.8%	24,383	27,778	13.9%
	Disembarked	24,502	25,782	5.2%	25,782	26,635	3.3%
	Total[1]	47,538	50,165	5.5%	50,165	54,413	8.5%
June	Embarked	24,720	23,870	-3.4%	23,870	26,995	13.1%
	Disembarked	25,785	25,367	-1.6%	25,367	27,639	9.0%
	Total[1]	50,505	49,237	-2.5%	49,237	54,634	11.0%
July	Embarked	28,403	29,590	4.2%	29,590	31,285	5.7%
	Disembarked	30,254	31,068	2.7%	31,068	31,864	2.6%
	Total[1]	58,657	60,658	3.4%	60,658	63,149	4.1%
August	Embarked	31,179	36,131	15.9%	36,131	31,308	-13.3%
	Disembarked	30,616	35,763	16.8%	35,763	32,302	-9.7%
	Total[1]	61,795	71,894	16.3%	71,894	63,610	-11.5%
September	Embarked	20,620	25,345	22.9%	25,345	24,085	-5.0%
	Disembarked	21,594	25,399	17.6%	25,399	24,707	-2.7%
	Total[1]	42,214	50,744	20.2%	50,744	48,792	-3.8%
October	Embarked	22,193	25,567	15.2%	25,567	21,299	-16.7%
	Disembarked	23,057	25,694	11.4%	25,694	21,719	-15.5%
	Total[1]	45,250	51,261	13.3%	51,261	43,018	-16.1%
November	Embarked	18,519	23,454	26.6%	23,454	24,963	6.4%
	Disembarked	19,186	23,518	22.6%	23,518	25,702	9.3%
	Total[1]	37,705	46,972	24.6%	46,972	50,665	7.9%
December	Embarked	19,704	24,541	24.5%	24,541	26,428	7.7%
	Disembarked	22,169	27,507	24.1%	27,507	27,770	1.0%
	Total[1]	41,873	52,048	24.3%	52,048	54,198	4.1%
Annual Total	**Embarked**	**299,719**	**298,238**	**-0.5%**	**298,238**	**312,879**	**4.9%**
	Disembarked	**309,883**	**309,253**	**-0.2%**	**309,253**	**318,048**	**2.8%**
	Total[1]	**609,602**	**607,491**	**-0.3%**	**607,491**	**630,927**	**3.9%**

[1] Total equals embarked plus disembarked passengers

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

TABLE 10.14 MONTHLY DOMESTIC MAIL MOVEMENTS AT CPIA (TOBAGO), 2005 - 2007

Months	Mail (Kgs)	2005	2006	Change	2006	2007	Change
January	Loaded	-	321	...	321	187	-41.7%
	Unloaded	541	-	-	-	-	...
	Total[1]	541	321	-40.7%	321	187	-41.7%
February	Loaded	-	433	...	433	236	-45.5%
	Unloaded	-	-	...	-	-	...
	Total[1]	-	433	...	433	236	-45.5%
March	Loaded	110	456	314.5%	456	253	-44.5%
	Unloaded	1,488	50	-96.6%	50	-	-100.0%
	Total[1]	1,598	506	-68.3%	506	253	-50.0%
April	Loaded	-	-	...	-	425	...
	Unloaded	1,661	-	-	-	2,785	...
	Total[1]	1,661	-	-	-	3,210	...
May	Loaded	283	50	-82.3%	50	167	234.0%
	Unloaded	586	-	-	-	48	...
	Total[1]	869	50	-94.2%	50	215	330.0%
June	Loaded	116	147	26.7%	147	372	153.1%
	Unloaded	1,090	-	-	-	-	...
	Total[1]	1,206	147	-87.8%	147	372	153.1%
July	Loaded	218	298	36.7%	298	52	-82.6%
	Unloaded	779	-	-	-	68	...
	Total[1]	997	298	-70.1%	298	120	-59.7%
August	Loaded	184	-	-	-	-	...
	Unloaded	4,734	-	-	-	-	...
	Total[1]	4,918	-	-	-	-	...
September	Loaded	193	62	-67.9%	62	-	-100.0%
	Unloaded	-	-	...	-	-	...
	Total[1]	193	62	-67.9%	62	-	-100.0%
October	Loaded	563	-	-	-	-	...
	Unloaded	612	-	-	-	-	...
	Total[1]	1,175	-	-	-	-	...
November	Loaded	286	80	-72.0%	80	-	-100.0%
	Unloaded	765	-	-	-	-	...
	Total[1]	1,051	80	-92.4%	80	-	-100.0%
December	Loaded	343	-	-	-	-	...
	Unloaded	-	-	...	-	-	...
	Total[1]	343	-	-	-	-	...
Total	**Loaded**	**2,296**	**1,847**	-19.6%	**1,847**	**1,692**	-8.4%
	Unloaded	**12,256**	**50**	-99.6%	**50**	**2,901**	5,702.0%
	Total[1]	**14,552**	**1,897**	-87.0%	**1,897**	**4,593**	142.1%

[1] Total equals loaded mail plus unloaded mail

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Information Department

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TABLE 10.15 MONTHLY DOMESTIC FREIGHT[1] MOVEMENTS AT CPIA (TOBAGO), 2005 – 2007

Months	Cargo (Kg)	2005	2006	Change	2006	2007	Change
January	Loaded	5,010	2,438	-51.3%	2,438	840	-65.5%
	Unloaded	47,194	32,800	-30.5%	32,800	3,204	-90.2%
	Total[1]	52,204	35,238	-32.5%	35,238	4,044	-88.5%
February	Loaded	-	2,258	Not Appl.	2,258	967	-57.2%
	Unloaded	1,191	27,578	2,215.5%	27,578	-	-100.0%
	Total[1]	1,191	29,836	2,405.1%	29,836	967	-96.8%
March	Loaded	5,052	3,916	-22.5%	3,916	1,913	-51.1%
	Unloaded	29,124	26,140	-10.2%	26,140	-	-100.0%
	Total[1]	34,176	30,056	-12.1%	30,056	1,913	-93.6%
April	Loaded	3,627	1,878	-48.2%	1,878	2,242	19.4%
	Unloaded	21,182	14,124	-33.3%	14,124	4,108	-70.9%
	Total[1]	24,809	16,002	-35.5%	16,002	6,350	-60.3%
May	Loaded	2,941	4,008	36.3%	4,008	832	-79.2%
	Unloaded	17,290	10,710	-38.1%	10,710	5,772	-46.1%
	Total[1]	20,231	14,718	-27.3%	14,718	6,604	-55.1%
June	Loaded	1,147	1,604	39.8%	1,604	2,324	44.9%
	Unloaded	22,915	3,627	-84.2%	3,627	11,694	222.4%
	Total[1]	24,062	5,231	-78.3%	5,231	14,018	168.0%
July	Loaded	1,437	888	-38.2%	888	6,028	578.8%
	Unloaded	26,768	6,908	-74.2%	6,908	78,617	1,038.1%
	Total[1]	28,205	7,796	-72.4%	7,796	84,645	985.7%
August	Loaded	2,393	73	-96.9%	73	7,952	10,793.2%
	Unloaded	17,300	712	-95.9%	712	87,702	12,217.7%
	Total[1]	19,693	785	-96.0%	785	95,654	12,085.2%
September	Loaded	2,593	-	-100.0%	-	7,806	...
	Unloaded	20,804	20	-99.9%	20	81,517	407,485.0%
	Total[1]	23,397	20	-99.9%	20	89,323	446,515.0%
October	Loaded	9,765	-	-100.0%	-	6,540	…
	Unloaded	20,417	-	-100.0%	-	81,610	…
	Total[1]	30,182	-	-100.0%	-	88,150	…
November	Loaded	3,094	-	-100.0%	-	6,002	…
	Unloaded	31,454	-	-100.0%	-	76,391	…
	Total[1]	34,548	-	-100.0%	-	82,393	…
December	Loaded	3,329	-	-100.0%	-	4,941	…
	Unloaded	28,736	-	-100.0%	-	17,794	…
	Total[1]	32,065	-	-100.0%	-	22,735	…
Total	**Loaded**	**40,388**	**17,063**	-57.8%	**17,063**	**48,387**	183.6%
	Unloaded	**284,375**	**122,619**	-56.9%	**122,619**	**448,409**	265.7%
	Total[1]	**324,763**	**139,682**	-57.0%	**139,682**	**496,796**	255.7%

[1] Total equals loaded freight plus unloaded freight

Source: Airports Authority of Trinidad and Tobago-
Statistical Unit Flight Information Department

TABLE 10.16 MONTHLY DOMESTIC CARGO[1] MOVEMENT AT CPIA (TOBAGO), 2005 – 2007

Months	Cargo (kgs)	2005	2006	Change	2006	2007	Change
January	Loaded	5,010	2,759	-44.9%	2,759	1027	-62.8%
	Unloaded	47,735	32,800	-31.3%	32,800	3,204	-90.2%
	Total[1]	52,745	35,559	-32.6%	35,559	4,231	-88.1%
February	Loaded	-	2,691	Not Appl.	2,691	1,203	-55.3%
	Unloaded	1,191	27,578	2,215.5%	27,578	-	-100.0%
	Total[1]	1,191	30,269	2,441.5%	30,269	1,203	-96.0%
March	Loaded	5,162	4,372	-15.3%	4,372	2,166	-50.5%
	Unloaded	30,612	26,190	-14.4%	26,190	-	-100.0%
	Total[1]	35,774	30,562	-14.6%	30,562	2,166	-92.9%
April	Loaded	3,627	1,878	-48.2%	1,878	2242	19.4%
	Unloaded	22,843	14,124	-38.2%	14,124	4,108	-70.9%
	Total[1]	26,470	16,002	-39.5%	16,002	6,350	-60.3%
May	Loaded	3,224	4,058	25.9%	4,058	999	-75.4%
	Unloaded	17,876	10,710	-40.1%	10,710	5,820	-45.7%
	Total[1]	21,100	14,768	-30.0%	14,768	6,819	-53.8%
June	Loaded	1,263	1,751	38.6%	1,751	2,696	54.0%
	Unloaded	24,005	3,627	-84.9%	3,627	11,694	222.4%
	Total[1]	25,268	5,378	-78.7%	5,378	14,390	167.6%
July	Loaded	1,655	1186	-28.3%	1186	6,080	412.6%
	Unloaded	27,547	6,908	-74.9%	6,908	78,685	1,039.0%
	Total[1]	29,202	8,094	-72.3%	8,094	84,765	947.3%
August	Loaded	2,577	73	-97.2%	73	7,952	10,793.2%
	Unloaded	22,034	712	-96.8%	712	87,702	12,217.7%
	Total[1]	24,611	785	-96.8%	785	95,654	12,085.2%
September	Loaded	2,786	62	-97.8%	62	7,806	12,490.3%
	Unloaded	20,804	20	-99.9%	20	81,517	407,485.0%
	Total[1]	23,590	82	-99.7%	82	89,323	108,830.5%
October	Loaded	10,328	-	-100.0%	-	6,540	…
	Unloaded	21,029	-	-100.0%	-	81,610	…
	Total[1]	31,357	-	-100.0%	-	88,150	…
November	Loaded	3,380	80	-97.6%	80	76391	95,388.8%
	Unloaded	32,219	-	-100.0%	-	6,002	…
	Total[1]	35,599	80	-99.8%	80	82,393	102,891.3%
December	Loaded	3,672	-	-100.0%	-	17,794	…
	Unloaded	28,736	-	-100.0%	-	4,941	…
	Total[1]	32,408	-	-100.0%	-	22,735	…
Total	**Loaded**	**42,684**	**18,910**	**-55.7%**	**18,910**	**132,896**	**602.8%**
	Unloaded	**296,631**	**122,669**	**-58.6%**	**122,669**	**365,283**	**197.8%**
	Total[1]	**339,315**	**141,579**	**-58.3%**	**141,579**	**498,179**	**251.9%**

[1]Cargo = Freight + Mail

Source: Airports Authority of Trinidad and Tobago
Statistical Unit Flight Information Department

TABLE 10.17 PRESENT FACILITIES AT THE PORT OF PORT-OF-SPAIN

Port of Spain	Length (m)	Depth (m)	Type Of Vessel Accommodation	Remarks
Caricom Jetty	248	5	Caricom Cargo Vessels	-
Catwalk (GSS)	107	6	Inter-Island Ferries	-
St. Vincent Jetty	119	6	Tugs	-
Slipway Guide Jetty	215	-	Vessel Repairs	-
Grier Channel and Basin	-	12	-	-
Berth 3	161	9	Passenger	Cruise Ship Complex
Berth 4	161	9	Passenger/Breakbulk	-
Berth 5	185	9	Container Vessels using Gottwald or Ship Gear	Container Terminal
Berth 6	135	9	Container Vessels using STS	Container Terminal
Berth 6E	179	11	Container Vessels using STS	Container Terminal
Berth 6W	189	11	Container Vessels using STS	Container Terminal
Berth 7	143	12	Container Vessels using Ship to Shore Crane	Container Terminal
Berth 8	194	9	Dry Bulk	-

Source: Port Authority of Trinidad and Tobago

TABLE 10.18 PASSENGER ARRIVALS AND DEPARTURES BY (SEA) BETWEEN TRINIDAD AND TOBAGO, 2005 – 2007

Year	Departures by Sea	
	Port of Spain to Scarborough	Scarborough to Port of Spain
2005	439,589	434,422
2006	407,680	405,964
2007	434,740	441,834

Source: Central Statistical Office

TABLE 10.19A IMPORTS OF GOODS BY QUANTITY VIA SEAPORTS TO TRINIDAD AND TOBAGO, 2005 – 2007

Imports	2005	2006	2007
	Quantity (kg)		
Brighton	9,281,179	16,218,478	9,522,841
Cedros	3,121,017	-	-
Charlotteville	-	-	-
Freezone	-	-	-
Pointe a Pierre	5,361,488,533	5,440,712,344	4,998,310,910
Point Fortin	33,363,517	210,857,622	118,428,582
Point Galeota	921,704	24,553	9,036
Point Lisas	3,820,837,384	3,228,161,003	6,194,631,774
Chaguaramas	49,381,933	40,410,165	77,854,263
Port of Spain	1,768,278,556	1,616,972,182	1,796,225,670
Port Point Gourde	16,340	24,947	32,527
Port Tembladora	9,018,077	2,971,829	5,905,904
Queens Wharf	31,381,550	21,820,008	43,038,388
Pt. Lisas H.A Wharf	-	24,947	2,800
San-Fernando	31,574	604,024	59,559
Scarborough	2,507,924	12,686,527	9,711,057
TOTAL	**11,089,629,288**	**10,591,488,629**	**13,253,733,311**

Source: Central Statistical Office, Trade Section

TABLE 10.19B IMPORTS OF GOODS BY VALUE VIA SEAPORTS TO TRINIDAD AND TOBAGO, 2005 – 2007

Imports	2005	2006	2007
	Value TT$		
Brighton	80,626,702	360,533,293	635,570,192
Cedros	12,702,171	-	-
Charlotteville	-	-	-
Freezone	-	-	-
Pointe a Pierre	12,350,681,116	14,161,553,572	16,032,318,412
Point Fortin	158,029,323	753,985,998	473,048,508
Point Galeota	7,519,832	243,906	132,840
Point Lisas	9,586,907,145	10,516,573,671	13,923,497,548
Chaguaramas	378,184,104	500,844,600	664,779,918
Port of Spain	9,905,831,901	10,556,360,931	12,720,696,912
Port Point Gourde	280,532	2,127,927	1,077,443
Port Tembladora	4,953,691	5,050,509	5,820,073
Queens Wharf	92,486,445	103,847,809	181,229,089
Pt. Lisas H.A Wharf	-	518,929	155,204
San-Fernando	9,518,536	21,417,610	9,870,151
Scarborough	9,356,322	19,277,649	62,737,018
TOTAL	**32,597,077,820**	**37,002,336,404**	**44,710,933,308**

Source: Central Statistical Office, Trade Section

TABLE 10.19C EXPORTS OF GOODS BY QUANTITY VIA SEAPORTS FROM TRINIDAD AND TOBAGO, 2005 – 2007

Exports	2005	2006	2007
	Quantity (kg)		
Brighton	9,050,484	8,630,911	2,230,835
Cedros	3,427	3,465	5,460
Charlotteville	360		1,360
Freezone	-	3,062	-
Pointe-a Pierre	8,190,300,350	7,926,543,676	4,525,902,513
Point Fortin	6,087,031,746	12,125,924,106	12,508,158,669
Point Galeota	3,417,982,327	5,101,401,175	2,886,128,197
Point Lisas	11,165,572,067	10,844,387,659	13,121,635,515
Chaguaramas	46,784,312	33,550,643	80,481,239
Port of Spain	875,136,221	819,099,113	364,686,360
Port Point Gourde	18,603	275,522	21,842,469
Port Tembladora	39,974	2,943	-
Queens Wharf	71,029,934	67,255,660	112,517,394
Pt. Lisas H.A Wharf	-	1,900	130
San-Fernando	3,234	4,329	304,707
Scarborough	218,035	1,325	1,732,491
TOTAL	**29,863,171,074**	**36,927,085,489**	**33,625,627,339**

Source: Central Statistical Office, Trade Section

TABLE 10.19D EXPORTS OF GOODS BY VALUE VIA SEAPORTS FROM TRINIDAD AND TOBAGO, 2005 – 2007

Exports	2005	2006	2007
	Value TT$		
Brighton	127,178,206	130,377,420	242,932,308
Cedros	24,605	33,810	192,738
Charlotteville	12,064	-	15,025
Freezone	-	56,235	-
Pointe a Pierre	18,146,415,159	23,622,230,828	13,203,963,041
Point Fortin	13,117,754,125	27,841,443,641	26,088,979,841
Point Galeota	8,724,017,967	13,086,843,886	10,741,659,141
Point Lisas	18,509,716,942	20,311,692,836	28,782,436,731
Chaguaramas	789,658,556	195,873,990	474,006,613
Port of Spain	2,326,934,701	2,427,242,593	2,173,450,239
Port Point Gourde	522,048	956,710	42,733,999
Port Tembladora	281,726	72,339	-
Queens Wharf	441,831,939	395,271,773	460,344,669
Pt. Lisas H.A Wharf	-	12,330	6,086
San-Fernando	1,216,915	2,808,332	1,269,190
Scarborough	1,019,367	45,065	73,298,741
TOTAL	**62,186,584,320**	**88,014,961,788**	**82,285,288,362**

Source: Central Statistical Office, Trade Section

CHAPTER ELEVEN

CLIMATE

Courtesy: Meteorological Services Division

CHAPTER TWELVE

NATURAL HAZARDS

Courtesy: Organization of Disaster Preparedness and Management

TABLE 12.1 FLOODING AND RELATED OCCURRENCES FOR 2005

Date	Location	Effects
3 June 2005	Central and South Trinidad	Persistent showers and thundershowers lead to street and flash flooding.
12-14 July 2005	North and Central Trinidad	Flooding due to intense rainfall from Tropical Storm (TS) Emily. Flooding occurred in Caparo, Edinburgh 500, Marabella, Port of Spain, Trincity, Lower Santa Cruz.
26 July 2005	Trinidad	Heavy showers and thundershowers led to street and flash flooding.
8 October 2005	North West Trinidad	Street and flash flooding in Diego Martin.
14 November 2005	Trinidad	Passing of Tropical Depression #27 near islands. Persistent rainfall led to flooding in low lying areas.
21 November 2005	South West Trinidad	Flooding in Penal.
16 December 2005	South Trinidad	Flooding in Penal area- Structural damage occurred.

Source: Trinidad and Tobago Meteorological Service & Office of Disaster Preparedness and Management.

TABLE 12.2 FLOODING AND RELATED OCCURRENCES FOR 2006

Date	Location	Effects
24-26 January 2006	Central and East Trinidad	Central – Caparo, Todd's Road, Caroni and Ravine Sable. Caparo river overflowed its banks making roads impassable. Water two to three feet high was reported on some roadways. Flooding was also reported in Plum Mitan, Arima, Trincity and Navet.
27-28 June 2006	North and Central Trinidad	The passing of the Inter Tropical Convergence Zone (ITCZ) yielded heavy showers and gusty winds in excess of 50km/hr. Landslides occurred along the North Coast Road, Lady Chancellor Hill and in Central Trinidad.
11 July 2006	North and Central Trinidad	Heavy showers and thunder showers associated with ITCZ led to rising levels in water courses such as the Caroni River. Flooding occurred near these areas.
23 August 2006	South Trinidad	Flooding occurred widely in South Trinidad – San Fernando, Navet Village, Mayaro, Gasparillo. High winds led to roofs blown off many houses.
12 November 2006	Islandwide Tobago	Heavy showers and gusty winds over Tobago led to landslides and flash flooding.
6 December 2006	Islandwide Tobago	Heavy showers and thunderstorms led to landslides and flash flooding in Tobago

Source: Trinidad and Tobago Meteorological Service & Office of Disaster Preparedness and Management.

TABLE 12.3 FLOODING AND RELATED OCCURRENCES FOR 2007

Date	Location	Effects
30 July 2007	South Trinidad	High winds and rain in South Trinidad affected many areas including San Fernando, Princes Town, Debe.
31 August 2007	North West Trinidad	High winds and heavy rain associated with TS Felix led to flooding and landslides in Diego Martin, Diamond Vale and Chaguaramas.
11September 2007	South West Trinidad	High winds owing to severe weather led to roofs blown off in Penal, Debe, Palo Seco and Siparia.
06-08 October 2007	North Trinidad and East -West Corridor- Along the Priority Bus Route (PBR)	Heavy rainfall led to flooding and landslides in North Trinidad such as Cascade, Morvant, Beetham, San Juan and Laventille.
14-16 October 2007	Island wide Trinidad	Heavy rainfall led to flooding across the island. Floods occurred in San Fernando as a result of the Cipero River overflowing its banks. Damages to housing occurred in Bangladesh Village as a result of high levels in the St. Joseph River. Landslide occurrences along the Maracas St. Joseph Road.
16 August 2007	Island wide Trinidad and Tobago	Severe weather due to passing of Hurricane Dean. Gusty winds and heavy rainfall occurred. No damage reported.
17 November 2007	South Trinidad	Severe weather led to gusty winds and heavy rainfall. Roofs blown off in San Fernando, Marabella, Vistabella and Princes Town.
12-14 December 2007	Central Trinidad	Heavy rainfall over a three day period led to flooding of low lying areas. Caparo River, Caroni River, South Oropuche and Cipero Rivers recorded very high water levels. Places such as Trantrill Road and Caroni Savannah Roads made impassable.
19 December 2007	Trinidad and Tobago	Gusty winds and heavy rainfall led to damaged roofs of houses in Toco. Flooding reported in Central Trinidad and landslides in Moriah, Speyside and Charlotteville.
21 December 2007	Eastern Trinidad	Heavy rainfall led to flooding in East Trinidad in areas such as Guaico.
22 December 2007	South Eastern Trinidad	Severe weather caused flooding in the Mayaro area making roads in Galeota inaccessible.

Source: Trinidad and Tobago Meteorological Service & Office of Disaster Preparedness and Management.

EARTHQUAKE OCCURRENCES 2005 - 2007
TABLE 12.4 RECORDED EARTHQUAKES GREATER THAN MAGNITUDE 4.0

Date	Local Time	Location	Depth (km)	Magnitude (Richter Scale)	Areas Felt
22 March 2005	12:21 PM	10.56N 62.12W	10	4.6	North Trinidad
24 October 2005	5:20 AM	11.11N 62.14W	116	4.9	North Trinidad and Grenada
01 December 2005	11:30 PM	10.59N 61.45W	18	4.1	Mainly in West Trinidad. More than 6 aftershocks felt.
29 September 2006	2:23 PM	10.83N 61.43W	32	5.1	St. Augustine, Point Lisas and parts of South Trinidad. Three persons injured.
29 September 2006	9:08 AM	10.83N 61.41W	40	5.8	Throughout Trinidad – cracks developed in walls.
15 November 2006	4:26 PM	10.76N 62.54W	80	4.8	San Fernando, San Juan, Diego Martin
17 November 2006	4:33 AM	11.37N 62.16W	119	4.5	West Trinidad
23 February 2007	10:48 AM	10.77N 61.43W	86	4.7	Arima, San Fernando, Point Lisas, Port of Spain, Claxton Bay, Tobago
29 November 2007	3:00PM	15.00N 61.30W	158	7.3	Throughout the Eastern Caribbean from Puerto Rico to Guyana

Source: Seismic Research Centre, the University of the West Indies, St. Augustine

TABLE 12.5 TROPICAL CYCLONES AFFECTING TRINIDAD AND TOBAGO 2004 – 2007

Designated No. for the year	Date of Passage	Intensity	Areas Affected
Ivan……9	6 September 2004	H	North Tobago
Dennis …..5	6 July 2005	TS	North East Tobago
Emily…….6	14 July 2005	TS/ H (1)	Windward Tobago, North and Central Trinidad
Felix……..6	1 September 2007	TS/ H (5)	North Trinidad

TS- Tropical Storm
H (X) – Hurricane (Category)

NB. All Tropical Cyclones are numbered as they form; however, only cyclones which attain tropical storm intensity are named.

Source: Trinidad and Tobago Meteorological Service

CHAPTER THIRTEEN

TOURISM

Photo courtesy: Tourism Development Company Limited

Photo courtesy: Tourism Development Company Limited

TABLE 13.1 PASSENGER ARRIVALS BY AIR AND SEA TO TRINIDAD AND TOBAGO, 2005 – 2007

Year	Arrivals			Temporary Halt Passengers		
	Air	Sea	**Total**	Air	Sea	**Total**
2005	1,092,362	67,286	**1,159,648**	236,567	67,286	**303,853**
2006	960,580	85,859	**1,046,439**	105,170	85,859	**191,029**
2007	1,066,990	76,741	**1,143,731**	217,637	76,741	**294,378**

Source: CSO Trade and Travel Statistics

TABLE 13.2 TOTAL ARRIVALS BY BY CATEGORY OF OF PASSENGERS, 2005 – 2007

Category	Year		
	2005	2006	2007
Visitors Total	**463,192**	**457,435**	**449,453**
Hotel holiday visitors	117,169	115,184	101,554
Private home holiday visitors	274,752	270,942	293,004
Guest House	20,074	20,207	13,896
All other visitors	51,197	51,102	40,999
Temporary Halt Passengers	**357,825**	**241,981**	**352,640**
Air	236,567	105,170	217,637
Sea	67,286	85,859	76,741
Intransit passengers	53,972	50,952	58,262
Sub-Total	**821,017**	**699,416**	**802,093**
Students	-	-	-
Residents	-	-	-
Non-residents	-	-	-
Returning residents	338,631	347,023	341,638
Immigrants	-	-	-
Permanent	-	-	-
Temporary	-	-	-
Diplomats	-	-	-
Refused leave to land	-	-	-
Total Arrivals	**1,159,648**	**1,046,439**	**1,143,731**

[1/] Business visitors are incorporated in all categories

Source: CSO Annual Statistical Digest

TABLE 13.3 VISITOR ARRIVALS BY COUNTRY OF NORMAL RESIDENCE, 2005 – 2007

Category	Year		
	2005	2006	2007
United States	**167,985**	**170,893**	**180,557**
Canada	**47,702**	**49,242**	**51,411**
United Kingdom	**63,523**	**58,612**	**58,660**
Venezuela	**10,191**	**9,906**	**12,392**
Caricom Countries[1]	**117,762**	**111,693**	**90,533**
Jamaica	7,848	8,663	8,099
Guyana	22,208	23,673	25,668
Barbados	35,319	31,218	21,491
Antigua and Bermuda	4,692	4,805	3,843
Dominica	1,777	2,141	1,510
Grenada	19,501	14,810	10,169
Montserrat	231	251	198
St. Kitts/Nevis	1,779	1,730	1,340
St Lucia	8,823	8,902	6,006
St. Vincent and the Grenadines	12,658	12,288	8,860
Suriname	2,926	3,212	3,349
Europe (excluding United Kingdom)	**27,913**	**25,647**	**23,851**
South America (excluding Venezuela, Guyana and Suriname)	**4,716**	**5,325**	**4,988**
Rest of the World	**23,399**	**26,116**	**27,060**
TOTAL	**463,191**	**457,434**	**449,452**

[1]Suriname is included as part of CARICOM from 1996 onwards

Source: CSO Trade and Travel Statistics

TABLE 13.4 CRUISE SHIP PASSENGER ARRIVALS, 2005 - 2007

Activity	Year		
	2005	2006	2007
	PORT OF SPAIN		
Ship Calls	45	40	51
Passenger Arrivals	32,768	43,404	63,467
	SCARBOROUGH		
Ship Calls	37	54	35
Passenger Arrivals	34,518	42,455	13,274
Total Ship Calls	**82**	**94**	**86**
Total Passenger Arrivals	**67,286**	**85,859**	**76,741**

Source: Port Authority of Trinidad and Tobago,
Port of Spain Cruise Ship Complex

TABLE 13.5: NUMBER OF HOTEL ROOMS BY ACCOMMODATION FACILITY, 2005 – 2007

Accommodation	2005	2006 re	2007 e
Hotels	**4,063**	**4,157**	**4,239**
All Hotels	3,235	3,295	3,360
Apartments	828	862	879
Similar Establishments	**907**	**912**	**931**
Guesthouses	907	912	931
Total	**4,970**	**5,069**	**5,170**

Notes:

1. Estimates are no longer prepared for Bed and Breakfast establishments from 2001 onwards.

2. In July 2008, it was decided that the data from the National Accounts Division facilitated a more efficient estimate of the number of hotel rooms. As a result, the figures from 2000 and onwards were modified to reflect the estimations made in the respective Production Account.

re - Revised Estimate

e - Estimate

Source: Central Statistical Office (C.S.O), National Accounts Division

CHAPTER FOURTEEN

SOLID WASTE

Courtesy: Solid Waste Management Company Limited

TABLE 14.1 LANDFILL STATISTICS

Site	**Area ($km^{2)}$**	**Daily Tonnage (metric)**	**Catchment**	**Special Feature Notes**
Beetham	0.61	873	Chaguaramas in the West, to Curepe in the East and as far South as Chaguanas	No cover material available on site. Site has been earmarked for closure.
Forres Park	0.08	491	Chaguanas in the South, to Mayaro in the East inclusive of areas further South of Chaguanas	Cover material is excavated at the site; site contains a leachate collection system and is the only engineered site.
Guanapo	0.07	266	St Augustine in the East, to Toco in the North-East and includes areas South of Mayaro	Cover material is excavated north of the site. Site has been earmarked for closure. The Guanapo Landfill has the potential to have a direct impact (negative) on the underlying aquifer and all surface water downstream of the site.

Notes:
1. Figures shown are estimates.
2. There is overlapping in the type of waste that is delivered in all three (3) sites

Topographical maps of the Beetham, Guanapo and Forres Park landfills are shown at Appendices D1, D2 and D3 respectively. Aerial photographs of these landfills are shown at appendices E1, E2 and E3.

TABLE 14.2 WASTE DISPOSALS (BY NUMBER OF TRUCKLOADS AND TONNAGE) AT SWMCOL LANDFILL SITES IN TRINIDAD, 2005 – 2007

BEETHAM LANDFILL SITE			
YEAR	**2005**	**2006**	**2007**
Total Annual No. of Loads	175,504	172,039	180,110
Monthly Average No. of Loads	14,625	14,337	15,009
Daily Average No. of Loads	481	471	493
Total Estimated Annual Tonnes	319,266	301,612	318,643
FORRES PARK LANDFILL SITE			
YEAR	**2005**	**2006**	**2007**
Total Annual No. of Loads	80,319	86,456	97,844
Monthly Average No. of Loads	6,693	7,205	8,154
Daily Average No. of Loads	220	237	268
Total Estimated Annual Tonnes	153,327	163,571	179,052
GUANAPO LANDFILL SITE			
YEAR	**2005**	**2006**	**2007**
Total Annual No. of Loads	64,948	50,930	51,540
Monthly Average No. of Loads	5,412	4,244	4,295
Daily Average No. of Loads	178	140	141
Total Estimated Annual Tonnes	92,371	95,704	96,946
TOTAL ALL THREE SITES			
YEAR	**2005**	**2006**	**2007**
Total Annual No. of Loads	320,771	309,425	329,494
Monthly Average No. of Loads	26,731	25,785	27,458
Daily Average No. of Loads	879	848	903
Total Estimated Annual Tonnes	564,964	560,887	594,641

Source: SWMCOL

TABLE 14.3 NUMBER OF ANIMALS DISPOSED OF BY MONTH, 2005 – 2007

Month	2005				2006				2007			
	Dogs	Cats	Other	**TOTAL**	Dogs	Cats	Other	**TOTAL**	Dogs	Cats	Other	**TOTAL**
Jan	161	15	2	**178**	142	14	2	**158**	123	24	3	**150**
Feb	81	11	2	**94**	80	19	-	**99**	117	20	1	**138**
Mar	105	16	5	**126**	148	18	-	**166**	135	23	3	**161**
Apr	104	17	4	**125**	114	34	4	**152**	105	14	1	**120**
May	136	21	5	**162**	149	36	4	**189**	147	15	4	**166**
June	161	19	4	**184**	138	18	1	**157**	149	13	4	**166**
July	148	18	5	**171**	176	14	6	**196**	169	23	1	**193**
Aug	150	21	3	**174**	169	29	-	**198**	179	14	2	**195**
Sept	122	8	4	**134**	144	21	4	**169**	148	17	-	**165**
Oct	154	10	-	**164**	151	19	4	**174**	184	18	-	**202**
Nov	157	18	1	**176**	158	22	3	**183**	164	17	3	**184**
Dec	148	22	1	**171**	138	21	2	**161**	144	21	4	**169**
Total	**1,627**	**196**	**36**	**1,859**	**1,707**	**265**	**30**	**2,002**	**1,764**	**219**	**26**	**2,009**

N.B. The “Other” category refers to small animals excluding dogs and cats such as birds, rodents, small reptiles or amphibians.

Source: SWMCOL

TABLE 14.4 NUMBER OF ITEMS COLLECTED BY CATEGORY OF DEBRIS ON MAYARO BEACH, 2005 – 2007

Category Of Debris	2005	2006	2007
Shoreline/Recreational Activities	3,061	17,837	6,669
Ocean/Waterway Activities	254	729	679
Smoking related activities	39	219	104
Dumping Activities	1	35	19
Medical/Personal Hygiene	35	89	66
Debris of Local Concern	12	108	197

Source: SWMCOL

TABLE 14.5 CATEGORIZATION OF BMW PRODUCERS IN TRINIDAD AND TOBAGO

Small	Medium	Large
▪ Geriatric Homes, Destitute and Infirm ▪ Industrial Facilities with Dispensaries ▪ Funeral Parlours ▪ Tattoo Parlours	▪ Private Nursing Homes ▪ Clinics (medical, dental and veterinary) ▪ Laboratories (medical and dental) ▪ Medical Practitioners ▪ Dentists ▪ Veterinarians	▪ All Departments in General Hospitals ▪ District Hospitals ▪ Medical Complexes / Institutions ▪ Health Care Centres ▪ Medical Teaching Facilities

TABLE 14.6 THE VARIOUS SECTORS AND WASTE TYPES SURVEYED

Sector	Description of Compostable Waste Type
Residential, Commercial & Institutional (residences, businesses, schools)	This includes the broad spectrum from yard trimmings, shredded or otherwise, (e.g. grass clippings, leaves and weeds, and shrub) to food scraps (e.g. vegetable and fruit peels/rinds and scraps, egg and nut shells, ground coffee and tea bags) and selected other organics such as soiled paper napkins and cardboard. Compostable waste from this sector should also include larger items such as tree prunings etc. routinely collected by the "cuttings" truck sanctioned through the Regional Corporations.
Food Industry	This includes "pre-consumer" (raw vegetative food items) material from supermarkets, other markets, green grocers, restaurants and food manufacturers. This would largely comprise vegetative food items in various states of spoilage.
Agricultural	This includes stalks, stems and other post-harvest agricultural crop residues. This should also include soiled paper products and material used as fodder for livestock once free from any meat content.
Wood & Furniture	This includes carbonaceous material such as sawdust and wood chips.
CEPEP[3], URP[4] , Self Help, Forestry Division, MoWT[5][17]	This includes compostable wastes of the types alluded to in most of the above sectors.

[3] Community-based Environmental Protection and Enhancement Programme
[4] Unemployment Relief Programme
[5] Ministry of Works and Transport

APPENDIX C

WASTE DISPOSALS (BY NUMBER OF TRUCKLOADS AND TONNAGE) AT SWMCOL LANDFILL SITES IN TRINIDAD, 1996 – 2000

BEETHAM LANDFILL SITE					
YEAR	**1996**	**1997**	**1998**	**1999**	**2000**
Total Annual No. of Loads	79,422	91,774	89,753	95,039	105,692
Monthly Average No. of Loads	6,619	7,648	7,479	7,920	8,808
Daily Average No. of Loads	217	251	246	260	289
Total Estimated Annual Tonnes	133,722	177,434	176,949	172,263	195,967
FORRES PARK LANDFILL SITE					
YEAR	**1996**	**1997**	**1998**	**1999**	**2000**
Total Annual No. of Loads	45,022	44,393	54,331	63,599	96,836
Monthly Average No. of Loads	3,752	3,699	4,528	5,300	8,070
Daily Average No. of Loads	123	122	149	174	265
Total Estimated Annual Tonnes	77,869	79,378	98,285	113,858	178,957
GUANAPO LANDFILL SITE					
YEAR	**1996**	**1997**	**1998**	**1999**	**2000**
Total Annual No. of Loads	28,095	21,909	27,790	28,487	29,136
Monthly Average No. of Loads	2,341	1,826	2,316	2,374	2,428
Daily Average No. of Loads	77	60	76	78	80
Total Estimated Annual Tonnes	47,838	39,069	47,984	49,863	48,818
TOTAL ALL THREE SITES					
YEAR	**1996**	**1997**	**1998**	**1999**	**2000**
Total Annual No. of Loads	152,539	158,076	171,874	187,125	231,664
Monthly Average No. of Loads	12,712	13,173	14,323	15,594	19,305
Daily Average No. of Loads	417	432	471	513	633
Total Estimated Annual Tonnes	259,429	295,881	323,218	335,984	423,742

Source: SWMCOL (2006)

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APPENDIX C – *concluded*

WASTE DISPOSALS (BY NUMBER OF TRUCKLOADS AND TONNAGE) AT SWMCOL LANDFILL SITES IN TRINIDAD, 2001 – 2004

BEETHAM LANDFILL SITE				
YEAR	**2001**	**2002**	**2003**	**2004**
Total Annual No. of Loads	104,901	127,192	138,706	154,661
Monthly Average No. of Loads	8,742	10,599	11,559	12,888
Daily Average No. of Loads	287	348	380	423
Total Estimated Annual Tonnes	200,527	238,540	269,440	283,456
FORRES PARK LANDFILL SITE				
YEAR	**2001**	**2002**	**2003**	**2004**
Total Annual No. of Loads	54,924	52,618	67,885	76,485
Monthly Average No. of Loads	4,577	4,385	5,657	6,374
Daily Average No. of Loads	150	144	186	210
Total Estimated Annual Tonnes	104,809	103,051	131,449	149,600
GUANAPO LANDFILL SITE				
YEAR	**2001**	**2002**	**2003**	**2004**
Total Annual No. of Loads	39,960	43,886	45,818	51,954
Monthly Average No. of Loads	3,330	3,657	3,818	4,330
Daily Average No. of Loads	109	120	126	142
Total Estimated Annual Tonnes	73,448	83,393	85,307	97,034
TOTAL ALL THREE SITES				
YEAR	**2001**	**2002**	**2003**	**2004**
Total Annual No. of Loads	199,785	223,696	252,409	283,100
Monthly Average No. of Loads	16,649	18,641	21,034	23,592
Daily Average No. of Loads	547	613	692	773
Total Estimated Annual Tonnes	378,784	424,984	486,196	530,089

Source: SWMCOL (2006)

CHAPTER FIFTEEN
ENVIRONMENTAL CONVENTIONS AND INTERNATIONAL PROTOCOLS

TABLE 15.1 DESIGNATED ACTIVITIES UNDER THE DRAFT AIR POLLUTION RULES 2007

Designated Activities	Designated Activities
1. Agriculture	9. Inorganic Chemical Manufacturing
2. Stationary Fuel Combustion	10. Industry Cooling
3. Wood Products	11. Oil and Gas Storage and Distribution
4. Petroleum Related Industries	12. Industrial/Commercial Electroplating
5. Chemical Product Industries	13. Industrial/Commercial Cleaning
6. Metal Processing	14. Industrial/Commercial Coating
7. Health Sector	15. Waste Handling
8. Polymers and Resins	16. Tertiary Education

Source: Environmental Management Authority 2008

TABLE 15.2 ESSs DECLARED AND PROPOSED OVER THE 2005 – 2007 PERIOD

Year	Species	Island
2005	Manatee or Sea Cow (*Trichechus manatus manatus)*	Trinidad
2005	Pawi or Trinidad Piping Guan (*Pipile pipile*)*	Trinidad
2005	White-tailed Sabrewing Hummingbird (*Campylopterus ensipennis*)	Tobago
Pending	Ocelot *(Felis pardalis)*	Trinidad
Pending	Golden Tree Frog *(Phyllodytes auratus)**	Trinidad

Source: *Environmental Management Authority 2008*
******* *Denotes species which are endemic to Trinidad and Tobago*

TABLE 15.3 ESAs DECLARED AND PROPOSED OVER THE 2005 – 2007 PERIOD

Year	Area	Island
2006	Nariva Swamp Managed Resource Protected Area	Trinidad
2007	Aripo Savannas	Trinidad
Pending	Buccoo Reef	Tobago
Pending	Main Ridge	Tobago

Source: Environmental Management Authority 2008

TABLE 15.4 REGISTER OF WATER POLLUTANTS UNDER THE WATER POLLUTION RULES

No.	Parameters or Substances	Quantity, Condition or Concentration at which Substance or Parameter is Defined as a Pollutant [a]
1	Temperature	Maximum variation of 3 ^{o}C from ambient
2	Hydrogen ion (pH)	Less than 6 or greater than 9
3	Dissolved Oxygen Content (DO)	<4
4	Five day Biological Oxygen Demand (BOD_5 at	>10
5	Chemical Oxygen Demand (COD)	>60
6	Total Suspended Solids (TSS)	>15
7	Total Oil and Grease (TO&G) or n-Hexane Extractable Material (HEM)	>10
8	Ammoniacal Nitrogen (as NH_3-N)	>0.01
9	Total Phosphorus (as P)	>0.1
10	Sulphide (as H_2S)	>0.2
11	Chloride (as Cl^-)	>250
12	Total Residual Chlorine (as Cl_2)	0.2
13	Dissolved Hexavalent Chromium (Cr^{6+})	>0.01
14	Total Chromium (Cr)	>0.1
15	Dissolved Iron (Fe)	>1.0
16	Total Petroleum Hydrocarbons (TPH)	NIAA
17	Total Nickel (Ni)	>0.5
18	Total Copper (Cu)	>0.01
19	Total Zinc (Zn)	>0.1
20	Total Arsenic (As)	>0.01
21	Total Cadmium (Cd)	>0.01
22	Total Mercury (Hg)	>0.005
23	Total Lead (Pb)	>0.05
24	Total Cyanide (as CN^-)	>0.01
25	Phenolic Compounds (as phenol)	>0.1
26	Radioactivity	NIAA
27	Toxicity	NATE
28	Faecal Coliforms	>100
29	Solid Waste	No solid debris

Source: Environmental Management Authority 2007

[a] All units are in milligrams per litre (mg/L) except for temperature (^{o}C), pH (pH units), faecal coliforms (counts per 100ml), radioactivity (Bq/L) and toxicity (toxic units).
NIAA – no increase above ambient; NATE – no acute toxic effects; NSD – no solid debris; < - less than

TABLE 15.5 NUMBER OF NOISE COMPLAINTS RECEIVED AND RESOLVED BY THE EMA (2006 AND 2007)

Complaints - Noise	Number received in 2006	Number received in 2007
Received	198	201
Closed/Resolved	65	69

Source: Environmental Management Authority 2008

TABLE15.6 CHEMICAL POLLUTION

Amended Citation	Date of Assent
Pesticides and Toxic Chemicals (Amendment) Act, 2005	29th March 2005

Source: Environmental Management Authority 2008

TABLE15.7 POLLUTION FROM DESIGNATED ACTIVITIES

Law	Section Amended
Certificate of Environmental Clearance Rules 2001 (Designated Activities) Order, 2001 as amended by the CEC (Designated Activities) (Amendment) Order, 2007:"	Activity 23 of the CEC Designated Activities Order

Source: Environmental Management Authority 2008

TABLE 15.8 DESIGNATED RAMSAR SITES IN TRINIDAD AND TOBAGO

Ramsar Site	Date of Designation	State	Area	Co-ordinates
Nariva Swamp	21 Dec. 1992	Trinidad	6,234 ha	10°23'N 061°04'W
Buccoo Reef / Bon Accord Lagoon Complex	8 Jul. 2005	Tobago	1,287 ha	11°10'N 060°57'W
Caroni Swamp	8 Jul. 2005	Trinidad	8,398 ha	10°34'N 061°27'W

Source: Ministry of Planning, Housing and the Environment, June 2008.

TABLE 15.9 TRINIDAD AND TOBAGO'S CONSUMPTION OF OZONE DEPLETING SUBSTANCES (ODS) IN OZONE DEPLETING POTENTIAL (ODP) TONNES FOR THE PERIOD 2005 – 2007

Annex	Group	Annex Group Name	2005	2006	2007	Baseline
A	I	Chlorofluorocarbons (CFCs)	18.3	2.9	-	120.0
A	II	Halons	-	-	-	46.6
B	I	Other Fully Halogenated CFCs	-	-	-	-
B	II	Carbon Tetrachloride	-	-	-	-
B	III	Methyl Chloroform	-	-	-	0.7
C	I	Hydrochlorofluorocarbons (HCFCs)	33.7	69.7	45.4	--
C	II	Hydrobromofluorocarbons (HBFCs)	-	-	-	--
C	III	Bromochloromethane	-	-	-	--
E	I	Methyl Bromide	0.1	0.4	0.4	1.7

Source: Ministry of Planning, Housing and the Environment, June 2008.

TABLE 15.10 SUMMARY OF FACTS ON INTERNATIONAL CONVENTIONS AND PROTOCOLS

Convention	(A)/(Ac)/(R)* by Trinidad & Tobago	Date of entry into force	No. of Parties (at 31/12/07)	Focal point
Biodiversity-related Conventions				
Cartagena Protocol on	5 Oct. 2000	11 Sep. 2003	143	MPUE
SPAW Protocol, 1990	10 Aug. 1999	18 Jun. 2000	12	MPUE
CBD, 1992	1 Aug. 1996	21 Dec. 1975	190	MPUE
Ramsar Convention[6], 1971	21 Apr. 1993	21 Dec. 1975	158	MPUE[a]
Cartagena Convention, 1983	24 Jan. 1986	11 Oct. 1986	23	MPUE
CITES[7], 1973	19 Jan. 1984	1 Jul. 1975	172	MPUE
Chemicals and Hazardous Wastes Conventions				
LBS Protocol, 1999	28 Mar. 2003	Not in force	3	MPUE
Stockholm Convention, 2001	13 Dec. 2002	17 May 2004	151	MPUE
Basel Convention, 1989	18 Feb. 1994	5 May 1992	173	MPUE
UNCLOS, 1982	25 Apr. 1986	16 Nov. 1994	155	
Oil Spills Protocol	24 Jan. 1986	11 Oct. 1986	23	MEEI[b]
MARPOL[8] 73/78 (Annex I/II)		2 Oct.1983	146	MOWT[c]
Atmosphere Conventions				
Kyoto Protocol, 1997	28 Jan. 1999	16 Feb. 2005	177	MPUE
UNFCCC, 1992	24 Jun. 1994	21 Mar. 1994	192	MPUE
Montreal Protocol, 1987	28 Aug. 1989	1 Jan. 1989	191	MPUE
Vienna Convention, 1895	28 Aug. 1989	22 Sep. 1988	191	MPUE
Land Degradation Conventions				
UNCCD, 1994	8 Jun. 2000	26 Dec. 1996	192	MPUE

Source: Ministry of Planning, Housing and the Environment, June 2008.

* (A) Accession, (Ac) Approval, (R) Ratification
[a] Ministry of Public Utilities and the Environment (now Min. of Planning, Housing and the Environment)
[b] Ministry of Energy and Energy Industries
[c] Ministry of Works and Transport

[6] The Ramsar Convention enters into force for each Party four (4) months after the day of its signature, without reservation as to ratification, or its deposit of an instrument of ratification or accession.
[7] CITES enters into force for each Party ninety (90) days after their deposit of the instrument of ratification, acceptance, approval or accession
[8] The various annexes of MARPOL 73/78 all have different dates of entry into force and different numbers of Contracting Parties

APPENDIX

TRINIDAD AND TOBAGO'S CONSUMPTION OF OZONE DEPLETING SUBSTANCES (ODS) IN OZONE DEPLETING POTENTIAL (ODP) TONNES FOR THE PERIOD 1997 - 2004

Annex	Group	Annex Group Name	1997	1998	1999	2000	2001	2002	2003	2004
A	I	Chlorofluorocarbons (CFCs)	134.6	155.6	81.7	101.3	79.2	63.6	62.5	35.0
A	II	Halons	46.9	46.9	5.0	-	-	1.1	-	-
B	I	Other Fully Halogenated CFCs	-	-	-	-	-	-	-	-
B	II	Carbon Tetrachloride	-	-	-	-	-	-	-	-
B	III	Methyl Chloroform	1.1	1.1	1.0	-	0.1	0.3	-	-
C	I	Hydrochlorofluorocarbons (HCFCs)	6.9	7.9	10.4	7.0	10.3	28.2	11.5	19.7
C	II	Hydrobromofluorocarbons (HBFCs)	-	-	-	-	-	-	-	-
C	III	Bromochloromethane	--	--	--	--	--	-	-	-
E	I	Methyl Bromide	1.2	3.3	2.1	0.8	1.1	0.7	0.4	0.2

Source: Ministry of Planning, Housing and the Environment, June 2008.