

# Appendix 1: Table A1.1: Crocodile SAM – Total Input Requirements Matrix (1-A<sub>1</sub>)<sup>-1</sup>

Commodity	Commodity	Commodity	Activity	Commodity	Activity	Activity	Commodity	Activity	Commodity	Activity	Commodity	Commodity	Commodity	
Fertilizer	Agro-chemicals & other	Petroleum	Sugar cane Farming	Sugar cane	Sugar mills	Sugar refining	Sugar	Animal Feed	Animal Feed & Molasse	Sub-tropical Orchard Farming	Avoes	Mangoes	Citrus	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1 Fertilizer	1.0000	0.0000	0.0000	0.0569	0.0538	0.0023	0.0002	0.0002	0.0052	0.0043	0.0455	0.0231	0.0143	0.0165
2 Agrochemicals & other	0.0000	1.0000	0.0000	0.0024	0.0023	0.0021	0.0037	0.0034	0.0322	0.0268	0.0489	0.0249	0.0154	0.0177
3 Fuel	0.0000	0.0000	1.0000	0.0263	0.0249	0.0016	0.0011	0.0010	0.0100	0.0083	0.0741	0.0377	0.0234	0.0268
4 Sugar cane farming (Activity)	0.0000	0.0000	0.0000	1.0619	1.0046	0.0429	0.0032	0.0030	0.0004	0.0007	0.0000	0.0000	0.0000	0.0000
5 Sugar Cane	0.0000	0.0000	0.0000	0.0654	1.0619	0.0453	0.0034	0.0031	0.0004	0.0008	0.0000	0.0000	0.0000	0.0000
6 Sugar mills (Activity)	0.0000	0.0000	0.0000	0.0001	0.0001	1.0000	0.0745	0.0694	0.0095	0.0168	0.0004	0.0002	0.0001	0.0002
7 Sugar refining (Activity)	0.0000	0.0000	0.0000	0.0007	0.0007	0.0001	1.0002	0.9324	0.1262	0.2249	0.0017	0.0009	0.0005	0.0006
8 Sugar	0.0000	0.0000	0.0000	0.0007	0.0006	0.0001	0.0002	1.0001	0.1352	0.1108	0.0013	0.0006	0.0004	0.0005
9 Animal feed (Activity)	0.0000	0.0000	0.0000	0.0003	0.0003	0.0000	0.0001	0.0001	1.0002	0.8201	0.0004	0.0002	0.0001	0.0001
10 Animal Feed (& Molasses)	0.0000	0.0000	0.0000	0.0003	0.0003	0.0001	0.0001	0.0001	0.0003	1.0002	0.0005	0.0002	0.0001	0.0002
11 Sub-tropical orchard farming (Activity)	0.0000	0.0000	0.0000	0.0003	0.0003	0.0000	0.0001	0.0001	0.0509	0.0417	1.0501	0.5338	0.3312	0.3804
12 Avoes	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0115	0.0094	0.0266	1.0135	0.0084	0.0096
13 Mangoes	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0114	0.0094	0.0264	0.0134	1.0083	0.0096
14 Citrus	0.0000	0.0000	0.0000	0.0004	0.0003	0.0001	0.0001	0.0001	0.0975	0.0799	0.0260	0.0132	0.0082	1.0094
15 Bananas	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0152	0.0125	0.0469	0.0239	0.0148	0.0170
16 Juice factories (Activity)	0.0000	0.0000	0.0000	0.0008	0.0008	0.0001	0.0002	0.0002	0.0179	0.0147	0.0019	0.0010	0.0006	0.0007
17 Other food & beverages (Activity)	0.0000	0.0000	0.0000	0.0024	0.0023	0.0004	0.0006	0.0005	0.0552	0.0453	0.0059	0.0030	0.0019	0.0021
18 Other food & beverages	0.0000	0.0000	0.0000	0.0055	0.0052	0.0009	0.0013	0.0012	0.1236	0.1015	0.0132	0.0067	0.0042	0.0048
19 Pine Forestry (Activity)	0.0000	0.0000	0.0000	0.0013	0.0012	0.0001	0.0001	0.0001	0.0160	0.0132	0.0045	0.0023	0.0014	0.0016
20 Gum Forestry (Activity)	0.0000	0.0000	0.0000	0.0008	0.0008	0.0001	0.0001	0.0001	0.0103	0.0084	0.0029	0.0015	0.0009	0.0010
21 Roundwood	0.0000	0.0000	0.0000	0.0027	0.0026	0.0002	0.0002	0.0002	0.0335	0.0275	0.0093	0.0047	0.0029	0.0034
22 Saw milling (Activity)	0.0000	0.0000	0.0000	0.0003	0.0003	0.0000	0.0001	0.0001	0.0005	0.0005	0.0020	0.0010	0.0006	0.0007
23 Mining Timber (Activity)	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0002	0.0002	0.0009	0.0005	0.0003	0.0003
24 Poles (Activity)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000
25 Charcoal (Activity)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0003	0.0001	0.0001	0.0001
26 Boards (Activity)	0.0000	0.0000	0.0000	0.0003	0.0003	0.0000	0.0001	0.0001	0.0006	0.0005	0.0021	0.0011	0.0007	0.0008
27 Wood products & Building Board	0.0000	0.0000	0.0000	0.0010	0.0009	0.0001	0.0002	0.0002	0.0018	0.0015	0.0068	0.0035	0.0022	0.0025
28 Furniture (Activity)	0.0000	0.0000	0.0000	0.0007	0.0007	0.0001	0.0002	0.0002	0.0007	0.0006	0.0012	0.0006	0.0004	0.0004
29 Furniture	0.0000	0.0000	0.0000	0.0013	0.0012	0.0002	0.0003	0.0003	0.0012	0.0011	0.0021	0.0011	0.0007	0.0008
30 Pulp&Paper	0.0000	0.0000	0.0000	0.0016	0.0016	0.0006	0.0010	0.0009	0.0099	0.0082	0.0439	0.0223	0.0139	0.0159
31 Paper products	0.0000	0.0000	0.0000	0.0028	0.0027	0.0010	0.0017	0.0016	0.0170	0.0142	0.0758	0.0385	0.0239	0.0274
32 Freight transport	0.0000	0.0000	0.0000	0.1565	0.1480	0.0084	0.0042	0.0039	0.0333	0.0278	0.0568	0.0289	0.0179	0.0206
33 Trade	0.0000	0.0000	0.0000	0.0129	0.0122	0.0054	0.0088	0.0082	0.0790	0.0659	0.0291	0.0148	0.0092	0.0106
34 Other Activities (Activity)	0.0000	0.0000	0.0000	0.1083	0.1025	0.0137	0.0173	0.0162	0.1349	0.1127	0.1689	0.0858	0.0533	0.0612
35 Other Commodities	0.0000	0.0000	0.0000	0.1362	0.1289	0.0180	0.0231	0.0216	0.1682	0.1407	0.2607	0.1325	0.0822	0.0944
36 Water (Activity)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
37 Electricity (Activity)	0.0000	0.0000	0.0000	0.0046	0.0043	0.0004	0.0005	0.0005	0.0014	0.0012	0.0027	0.0014	0.0008	0.0010
38 Electricity Commodity	0.0000	0.0000	0.0000	0.0354	0.0335	0.0034	0.0037	0.0035	0.0108	0.0093	0.0354	0.0104	0.0065	0.0074
39 Labour	0.0000	0.0000	0.0000	0.0949	0.0898	0.0161	0.0225	0.0210	0.0850	0.0725	0.1353	0.0688	0.0427	0.0490
40 Capital	0.0000	0.0000	0.0000	0.0013	0.0012	0.0002	0.0003	0.0003	0.0011	0.0010	0.0018	0.0009	0.0006	0.0007
41 Large Commercial Farmers	0.0000	0.0000	0.0000	0.2635	0.2492	0.0110	0.0014	0.0013	0.0218	0.0180	0.3514	0.1786	0.1108	0.1273
42 Smallholders (Commercial)	0.0000	0.0000	0.0000	0.0069	0.0065	0.0003	0.0001	0.0001	0.0008	0.0006	0.0110	0.0056	0.0035	0.0040
43 Self Substant Farmers	0.0000	0.0000	0.0000	0.0002	0.0002	0.0000	0.0000	0.0000	0.0002	0.0002	0.0003	0.0002	0.0001	0.0001
44 Agro-Industries	0.0000	0.0000	0.0000	0.0001	0.0001	0.0032	0.0057	0.0053	0.0473	0.0395	0.0003	0.0002	0.0001	0.0001
45 Forestry	0.0000	0.0000	0.0000	0.0012	0.0012	0.0002	0.0002	0.0002	0.0071	0.0059	0.0073	0.0037	0.0023	0.0027
46 Other Capital (urban & other)	0.0000	0.0000	0.0000	0.0252	0.0239	0.0035	0.0046	0.0043	0.0350	0.0292	0.0375	0.0191	0.0118	0.0136
47 Households	0.0000	0.0000	0.0000	0.0524	0.0496	0.0089	0.0125	0.0116	0.0470	0.0400	0.0747	0.0380	0.0236	0.0271

	Activity Charcoal	Activity Boards	Commodity Wood products & building	Activity Furniture	Commodity Furniture	Activity Pulp& Paper	Commodity Paper products	Commodity Freight transport	Commodity Trade	Activity Other Activities	Commodity Other Commodities	Activity Water	Activity Electricity	Commodity Electricity	
	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
1 Fertilizer															
2 Agrochemicals & other															
3 Fuel															
4 Sugar cane farming (Activity)															
5 Sugar Cane		25	26	27	28	29	30	31	32	33	34	35	36	37	38
6 Sugar mills (Activity)															
7 Sugar refining (Activity)	0.0005	0.0005	0.0005	0.0007	0.0011	0.0007	0.0011	0.0010	0.0024	0.0047	0.0023	0.0015	0.0006	0.0001	
8 Sugar	0.0107	0.0129	0.0107	0.0164	0.0121	0.0162	0.0120	0.0036	0.0089	0.0170	0.0085	0.0189	0.0024	0.0003	
9 Animal feed (Activity)	0.0068	0.0082	0.0068	0.0105	0.0114	0.0104	0.0113	0.0074	0.0183	0.0350	0.0174	0.0123	0.0122	0.0016	
10 Animal Feed (& Molasses)	0.0000	0.0000	0.0002	0.0000	0.0000	0.0003	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
11 Sub-tropical orchard farming (Activity)	0.0000	0.0000	0.0003	0.0000	0.0000	0.0003	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12 Avoes	0.0003	0.0003	0.0056	0.0004	0.0003	0.0074	0.0044	0.0001	0.0002	0.0003	0.0001	0.0001	0.0001	0.0000	
13 Mangoes	0.0034	0.0041	0.0743	0.0052	0.0035	0.0052	0.0034	0.0005	0.0014	0.0026	0.0013	0.0009	0.0011	0.0001	
14 Citrus	0.0007	0.0008	0.0007	0.0010	0.0009	0.0010	0.0009	0.0005	0.0012	0.0022	0.0011	0.0008	0.0011	0.0001	
15 Bananas	0.0003	0.0003	0.0003	0.0004	0.0004	0.0004	0.0004	0.0002	0.0004	0.0008	0.0004	0.0003	0.0004	0.0000	
16 Juice factories (Activity)	0.0003	0.0004	0.0003	0.0005	0.0005	0.0005	0.0005	0.0002	0.0005	0.0010	0.0005	0.0004	0.0005	0.0001	
17 Other food & beverages (Activity)	0.0003	0.0003	0.0003	0.0004	0.0004	0.0004	0.0004	0.0002	0.0005	0.0010	0.0005	0.0003	0.0004	0.0001	
18 Other food & beverages	0.0001	0.0002	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0002	0.0005	0.0002	0.0002	0.0002	0.0000	
19 Pine Forestry (Activity)	0.0000	0.0000	0.0000	0.0001	0.0000	0.0001	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0001	0.0000	
20 Gum Forestry (Activity)	0.0004	0.0005	0.0004	0.0006	0.0005	0.0006	0.0005	0.0003	0.0007	0.0013	0.0006	0.0005	0.0006	0.0001	
21 Roundwood	0.0001	0.0002	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0003	0.0006	0.0003	0.0002	0.0002	0.0000	
22 Saw milling (Activity)	0.0008	0.0010	0.0008	0.0013	0.0012	0.0012	0.0012	0.0006	0.0015	0.0029	0.0015	0.0010	0.0015	0.0002	
23 Mining Timber (Activity)	0.0025	0.0030	0.0025	0.0039	0.0036	0.0038	0.0036	0.0019	0.0047	0.0091	0.0045	0.0031	0.0046	0.0006	
24 Poles (Activity)	0.0057	0.0068	0.0056	0.0087	0.0081	0.0086	0.0080	0.0043	0.0106	0.0203	0.0101	0.0070	0.0103	0.0013	
25 Charcoal (Activity)	0.0266	0.0320	0.0261	0.0407	0.0239	0.0369	0.0216	0.0002	0.0005	0.0010	0.0005	0.0002	0.0002	0.0000	
26 Boards (Activity)	0.0170	0.0205	0.0167	0.0260	0.0153	0.0236	0.0138	0.0001	0.0003	0.0007	0.0003	0.0001	0.0001	0.0000	
27 Wood products & Building Board	0.0557	0.0669	0.0545	0.0851	0.0500	0.0772	0.0451	0.0005	0.0011	0.0021	0.0011	0.0004	0.0005	0.0001	
28 Furniture (Activity)	0.0116	0.0139	0.3100	0.0177	0.0106	0.0176	0.0106	0.0004	0.0009	0.0018	0.0009	0.0003	0.0002	0.0000	
29 Furniture	0.0052	0.0062	0.1387	0.0079	0.0047	0.0079	0.0047	0.0002	0.0004	0.0008	0.0004	0.0001	0.0001	0.0000	
30 Pulp&Paper	0.0003	0.0004	0.0082	0.0005	0.0003	0.0005	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
31 Paper products	1.0015	0.0018	0.0408	0.0023	0.0014	0.0023	0.0014	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	
32 Freight transport	0.0119	1.0143	0.3181	0.0182	0.0109	0.0181	0.0108	0.0004	0.0010	0.0018	0.0009	0.0003	0.0002	0.0000	
33 Trade	0.0388	0.0467	1.0380	0.0593	0.0355	0.0590	0.0351	0.0013	0.0031	0.0059	0.0029	0.0010	0.0008	0.0001	
34 Other Activities (Activity)	0.0032	0.0038	0.0031	1.0048	0.5868	0.0048	0.0033	0.0007	0.0017	0.0033	0.0016	0.0010	0.0010	0.0001	
35 Other Commodities	0.0054	0.0065	0.0053	0.0083	1.0057	0.0082	0.0056	0.0012	0.0029	0.0056	0.0028	0.0017	0.0018	0.0002	
36 Water (Activity)	0.0050	0.0061	0.0050	0.0077	0.0068	1.0076	0.5867	0.0031	0.0078	0.0149	0.0074	0.0018	0.0020	0.0003	
37 Electricity (Activity)	0.0087	0.0105	0.0086	0.0133	0.0117	0.0132	1.0115	0.0054	0.0135	0.0257	0.0128	0.0031	0.0035	0.0004	
38 Electricity Commodity	0.0140	0.0168	0.0140	0.0214	0.0211	0.0211	0.0209	1.0120	0.0298	0.0569	0.0283	0.0152	0.0146	0.0019	
39 Labour	0.0104	0.0125	0.0108	0.0159	0.0133	0.0158	0.0132	0.0056	1.0138	0.0264	0.0131	0.0031	0.0042	0.0005	
40 Capital	0.0872	0.1048	0.0865	0.1333	0.2795	0.1318	0.2781	0.2813	0.6972	1.3312	0.6628	0.0934	0.1455	0.0188	
41 Large Commercial Farmers	0.1540	0.1851	0.1522	0.2354	0.2288	0.2326	0.2264	0.1276	0.3162	0.6038	1.3008	0.1763	0.2799	0.0362	
42 Smallholders (Commercial)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	
43 Self Substant Farmers	0.0009	0.0011	0.0010	0.0014	0.0013	0.0014	0.0013	0.0006	0.0016	0.0031	0.0015	0.0055	1.0232	0.1325	
44 Agro-Industries	0.0073	0.0088	0.0074	0.0112	0.0101	0.0111	0.0100	0.0050	0.0124	0.0236	0.0117	0.0423	0.1789	1.0232	
45 Forestry	0.0997	0.1198	0.0991	0.1523	0.1330	0.1503	0.1313	0.0615	0.1525	0.2911	0.1450	0.1236	0.1335	0.0173	
46 Other Capital (urban & other)	0.0013	0.0016	0.0013	0.0020	0.0018	0.0020	0.0018	0.0008	0.0020	0.0039	0.0019	0.0017	0.0018	0.0002	
47 Households	0.0033	0.0040	0.0033	0.0051	0.0104	0.0051	0.0104	0.0104	0.0258	0.0493	0.0246	0.0035	0.0055	0.0007	
	0.0002	0.0002	0.0002	0.0003	0.0005	0.0003	0.0005	0.0006	0.0014	0.0026	0.0013	0.0002	0.0003	0.0000	
	0.0002	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0012	0.0024	0.0012	0.0002	0.0003	0.0000	
	0.0002	0.0002	0.0006	0.0002	0.0002	0.0003	0.0002	0.0001	0.0003	0.0005	0.0002	0.0002	0.0002	0.0000	
	0.0797	0.0958	0.0780	0.1218	0.0724	0.1200	0.0709	0.0019	0.0046	0.0089	0.0044	0.0009	0.0011	0.0001	
	0.0275	0.0331	0.0273	0.0421	0.0672	0.0417	0.0688	0.0595	0.1474	0.2815	0.1402	0.5684	0.5714	0.0740	
	0.0551	0.0662	0.0547	0.0842	0.0735	0.0830	0.0725	0.0340	0.0842	0.1608	0.0801	0.0683	0.0738	0.0095	

Table A1.2: Crocodile SAM – Environmental Impacts Matrix (E)

			Commodity Fertilizer	Commodity Agro-chemicals & other	Commodity Petroleum	Activity Sugar cane Farming	Commodity Sugar cane	Activity Sugar mills	Activity Sugar refining	Commodity Sugar	Activity Animal Feed	Commodity Animal Feed & Molasse	Activity Sub-tropical Orchard Farming	Commodity Avocoes		
			1	2	3	4	5	6	7	8	9	10	11	12		
Source	Water	Intake	m3/R	0.004292	0.0010415	0.00044	0	0.543478	0	0	0.149142	0	0.54013	0	0.130072	
		Electricity	Mkw-hr/milR	0.000271	3.43E-05	4.51E-05	0	2.57E-05	0	0	1.73E-05	0	2.37E-05	0	1.45E-05	
		Energy	TJ/milR	0.003377	0.0003813	0.002159	0	0.00058	0	0	0.000951	0	0.000183	0	0.000135	
		Bitum	mt/milR	0.066299	0.0066043	0.000365	0	0	0	0	0.020436	0	0.002873	0	0	
		Anth	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0	
		NatGas	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0	
		LNG	mt/milR	0	0	0.011344	0	0	0	0	0	0	0	0	0	
		LPG	mt/milR	0.003775	0.0015554	0.027612	0	0.002464	0	0	0.000646	0	6.44E-05	0	0	
		MotGas	mt/milR	0.00999	0.0006119	0.000206	0	0.007367	0	0	0.001909	0	0.000608	0	0.001934	
		Kero	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0.000235	
		AvFuel	mt/milR	0	0	5.38E-06	0	0	0	0	0	0	0	0	0.000223	
		JetFuel	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0.000148	
		LFO	mt/milR	0.009877	0.0007718	0.000788	0	0.001957	0	0	0.003692	0	0.000768	0	0	
		HFO	mt/milR	0.005001	0.0006071	0.000671	0	0	0	0	0.002358	0	0.000352	0	0	
		Soil	Nitrogenous	Rmill/milR	0	0	0	0	0	0	0	0	0	0	0	1.39E-08
			Ammonium Nitrate	Rmill/milR	0	0	0	0	0	0	0	0	0	0	0	1.42E-06
			Ammonium Sulfate	Rmill/milR	0	0	0	0	3.29E-07	0	0	0	0	0	0	2.07E-06
			Organic	Rmill/milR	0	0	0	0	8.22E-08	0	0	0	0	0	0	3.33E-06
			Phosphatic	Rmill/milR	0	0	0	0	0	0	0	0	0	0	0	4.17E-08
Super Phosphates	Rmill/milR		0	0	0	0	0	0	0	0	0	0	0	3.98E-06		
Mixed	Rmill/milR		0	0	0	0	6.58E-07	0	0	0	0	0	0	5.06E-06		
Sink	Air	SO2	mt/milR	0.000201	0.0001622	0.000581	0	4.05E-06	0	0	0.000446	0	1.25E-05	0	4.35E-06	
		CO	mt/milR	0.001784	0.0003462	0.000312	0	0.001604	0	0	0.000627	0	1.21E-06	0	2.33E-07	
		NO2	mt/milR	0.000509	0.000111	0.000385	0	0.001792	0	0	0.000475	0	7.06E-06	0	2.2E-06	
		VOC	mt/milR	0.000381	0.0001059	0.000299	0	0.000283	0	0	9.66E-05	0	1.84E-05	0	1.42E-06	
		Lead	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0	
		PM10	mt/milR	0.000286	9.475E-06	2.86E-05	0	0	0	0	0.000119	0	2.27E-05	0	2.55E-06	
		Non-Point Air	mt/milR	0	1.099E-05	2.22E-05	0	0	0	0	2.48E-06	0	2.65E-06	0	0	
		Point Air	mt/milR	0	2.141E-05	1.43E-05	0	0	0	0	7.43E-05	0	1.17E-05	0	0	
		Air Releases	mt/milR	0	3.221E-05	3.66E-05	0	0	0	0	7.43E-05	0	1.43E-05	0	0	
		CO2	MTCO2E/milR	0.252438	0.0271141	0.116108	0	0.036132	0	0	0.077262	0	0.012682	0	0.007938	
		CH4	MTCO2E/milR	0.000181	1.364E-05	3.85E-05	0	0.000109	0	0	4.21E-05	0	1.09E-05	0	3.49E-05	
		N2O	MTCO2E/milR	0.001476	0.000322	0.001117	0	0.005197	0	0	0.001377	0	2.05E-05	0	6.38E-06	
		CFCs	MTCO2E/milR	0	0.0111412	0.000366	0	0	0	0	0	0	0	0	0	
		Non-Point Air	mt/milR	0	3.6E-06	1.51E-06	0	0	0	0	0	0	1.21E-06	0	0	
		Point Air	mt/milR	0	4.169E-06	1.66E-06	0	0	0	0	4.95E-06	0	1.1E-06	0	0	
		Water	Recycled/Reused	m3/R '000	0	2.8689748	29.13669	0	0	0	0	18.74659	0	0	0	0
			Discharged Untreated	m3/R '000	0	0	1.751386	0	0	0	0	9.373294	0	0	0	0
			Discharged Treated	m3/R '000	0	0	2.037976	0	0	0	0	9.373294	0	0	0	0
		Soil	Waste	Generated	mt/milR	7.7E-06	0.013077	0.073078	0	0	0	0	0	1.1E-07	0	0
				Managed	mt/milR	0	0.0019128	0.068877	0	0	0	0	0	0	0	0
Shipped	mt/milR			7.7E-06	0.0005988	0.000702	0	0	0	0	0	0	1.1E-07	0	0	

				Activity Charcoal	Activity Boards	Commodity Wood	Activity Furniture	Commodity Furniture	Activity Pulp & Paper	Commodity Paper	Commodity Freight transport	Commodity Trade	Activity Other Activities	Commodity Other Commodities	Activity Water		
				25	26	27	28	29	30	31	32	33	34	35	36		
Source	Water	Intake	m3/R	0.247633	0.0326591	0	0	0.011954	0	0.015144	0.005287	0.002881	0	0	2.405454		
		Electricity	Mkw-hr/milR	0.000208	0.0001876	0	0	1.91E-05	0	0.000188	1.34E-05	7.89E-05	0	0	4.36E-05		
		Energy	TJ/milR	0.000547	0.0006957	0	0	0.000324	0	0.002181	0.000316	0.000523	0	0	0.000257		
		Bitum	mt/milR	0.006381	0.0020458	0	0	0.003501	0	0.051455	0	0	0	0	0		
		Anth	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0		
		NatGas	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0		
		LNG	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0		
		LPG	mt/milR	0.000859	0.0013753	0	0	0.000471	0	0.000551	0.000164	0.000549	0	0	0.000582		
		MotGas	mt/milR	0	0.0019474	0	0	0.001853	0	0.000659	0.004001	0.002939	0	0	0.002521		
		Kero	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0		
		AvFuel	mt/milR	0	0	0	0	0	0	0	5.39E-05	0	0	0	0		
		JetFuel	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0		
		LFO	mt/milR	0.000852	0.0060092	0	0	0.002338	0	0.001204	0.002442	0.006434	0	0	0.001446		
		HFO	mt/milR	0.001565	0.0005011	0	0	0	0	0.011047	0	0	0	0	0		
		Soil		Nitrogenous	Rmill/milR	0	0	0	0	0	0	0	0	0	0	0	
				Ammonium Nitrate	Rmill/milR	0	0	0	0	0	0	0	0	0	0	0	
				Ammonium Sulfate	Rmill/milR	0	0	0	0	0	0	0	0	0	0	0	
				Organic	Rmill/milR	0	0	0	0	0	0	0	0	0	0	0	
				Phosphatic	Rmill/milR	0	0	0	0	0	0	0	0	0	0	0	
Super Phosphates	Rmill/milR			0	0	0	0	0	0	0	0	0	0	0			
Mixed	Rmill/milR			0	0	0	0	0	0	0	0	0	0	0			
Sink	Air	SO2	mt/milR	0.000305	8.009E-05	0	0	0.000127	0	0.001216	0	2.14E-05	0	0	5.93E-05		
		CO	mt/milR	0.003395	0.0006179	0	0	1.43E-07	0	0.001173	0.000475	4.85E-06	0	0	0.000198		
		NO2	mt/milR	6.19E-05	0.0003524	0	0	5.72E-07	0	0.000862	9.39E-06	1.5E-05	0	0	0.000277		
		VOC	mt/milR	0.000117	0.0006888	0	0	1.1E-05	0	0.000237	0.000157	0.00022	0	0	0.00016		
		Lead	mt/milR	0	0	0	0	0	0	0	0	0	0	0	0		
		PM10	mt/milR	8.03E-05	0.0002609	0	0	7.97E-08	0	7.46E-05	5.21E-07	3.74E-06	0	0	1.71E-05		
		Non-Point Air	mt/milR	6.7E-06	4.577E-06	0	0	7.52E-06	0	1.07E-05	0	0	0	0	0		
		Point Air	mt/milR	1.34E-05	0.0001465	0	0	2.69E-05	0	0.00017	0	0	0	0	0		
		Air Releases	mt/milR	2.01E-05	0.000151	0	0	3.44E-05	0	0.00018	0	0	0	0	0		
		CO2	MTCO2E/milR	0.025828	0.0357326	0	0	0.023166	0	0.168623	0.020725	0.031095	0	0	0.014058		
		CH4	MTCO2E/milR	6.7E-06	3.89E-05	0	0	3.05E-05	0	4.24E-05	6.15E-05	5.04E-05	0	0	3.79E-05		
		N2O	MTCO2E/milR	0.000179	0.0010229	0	0	1.66E-06	0	0.0025	2.73E-05	4.33E-05	0	0	0.000802		
		CFCs	MTCO2E/milR	0	0	0	0	0	0	0	0	0	0	0	0		
		Non-Point Air	mt/milR	1.67E-06	2.288E-06	0	0	3.17E-08	0	2.51E-07	0	0	0	0	0		
		Point Air	mt/milR	3.35E-06	6.636E-05	0	0	1.14E-07	0	2.33E-05	0	0	0	0	0		
		Water		Recycled/Reused	m3/R`000	6.335653	0	0	0	0	75.81635	0	0	0	0	0	
				Discharged Untreated	m3/R`000	0	0	0	0	0	6.344464	0	0	0	0	0	
				Discharged Treated	m3/R`000	0	0	0	0	0	16.49561	0	0	0	0	0	
		Soil	Waste	Generated	mt/milR	6.19E-05	6.865E-06	0	0	1.81E-05	0	4.53E-05	8.17E-06	0.006772	0	0	0.00097
				Managed	mt/milR	0	0	0	0	0	0	1.74E-07	0.004116	0	0	0.000947	
				Shipped	mt/milR	6.19E-05	4.577E-06	0	0	1.8E-05	0	4.19E-06	7.3E-06	0.005333	0	0	2.86E-05

Source: See Section 4.4

## Appendix 2: Table 5.4.1

All values given in R'000		Xt					
		1998	2000	2005	2010	2015	2020
1	Fertilizer	36,061	37,886	42,865	48,498	54,871	62,081
2	Agrochemicals & other	66,211	69,563	78,704	89,046	100,747	113,986
3	Fuel	132,532	139,241	157,538	178,240	201,662	228,163
4	Sugar cane farming (Activity)	384,212	403,663	456,708	516,723	584,625	661,449
5	Sugar Cane	406,019	426,574	482,629	546,050	617,806	698,991
6	Sugar mills (Activity)	10,941	11,495	13,006	14,715	16,648	18,836
7	Sugar refining (Activity)	46,741	49,108	55,561	62,862	71,123	80,469
8	Sugar	51,616	54,229	61,355	69,418	78,540	88,861
9	Animal feed (Activity)	22,062	23,179	26,224	29,670	33,569	37,981
10	Animal Feed (& Molasses)	26,900	28,262	31,975	36,177	40,931	46,310
11	Sub-tropical orchard farming (Activity)	235,736	247,670	280,216	317,038	358,700	405,836
12	Avoes	75,316	79,129	89,527	101,292	114,602	129,662
13	Mangoes	26,765	28,120	31,815	35,996	40,726	46,078
14	Citrus	186,788	196,244	222,032	251,209	284,220	321,569
15	Bananas	159,709	167,794	189,844	214,791	243,016	274,951
16	Juice factories (Activity)	71,879	75,518	85,442	96,670	109,373	123,745
17	Other food & beverages (Activity)	292,217	307,010	347,354	392,999	444,643	503,072
18	Other food & beverages	654,341	687,467	777,806	880,016	995,658	1,126,495
19	Pine Forestry (Activity)	33,884	35,599	40,277	45,570	51,558	58,333
20	Gum Forestry (Activity)	21,663	22,760	25,751	29,135	32,963	37,295
21	Roundwood	70,681	74,259	84,017	95,058	107,549	121,682
22	Saw milling (Activity)	400,717	421,003	476,327	538,920	609,738	689,863
23	Mining Timber (Activity)	156,039	163,939	185,482	209,856	237,432	268,633
24	Poles (Activity)	23,496	24,686	27,929	31,600	35,752	40,450
25	Charcoal (Activity)	10,566	11,100	12,559	14,209	16,077	18,189
26	Boards (Activity)	167,657	176,145	199,292	225,481	255,111	288,634
27	Wood products & Building Board	772,054	811,139	917,729	1,038,327	1,174,771	1,329,146
28	Furniture (Activity)	339,777	356,979	403,889	456,963	517,012	584,951
29	Furniture	33,681	35,386	40,037	45,298	51,250	57,985
30	Pulp&Paper	1,386,742	1,456,946	1,648,401	1,865,014	2,110,092	2,387,376
31	Paper products	448,676	471,391	533,335	603,420	682,714	772,428
32	Freight transport	226,913	238,400	269,728	305,173	345,275	390,647
33	Trade	203,459	213,759	241,849	273,629	309,587	350,269
34	Other Activities (Activity)	1,730,476	1,818,081	2,056,992	2,327,298	2,633,124	2,979,138
35	Other Commodities	3,135,500	3,294,235	3,727,125	4,216,899	4,771,035	5,397,988
36	Water (Activity)	30,086	31,609	35,762	40,462	45,779	51,794
37	Electricity (Activity)	15,866	16,669	18,860	21,338	24,142	27,315
38	Electricity Commodity	122,555	128,759	145,679	164,823	186,482	210,987
39	Labour	1,147,513	1,205,606	1,364,033	1,543,278	1,746,077	1,975,526
40	Capital	121,145	127,278	144,003	162,926	184,336	208,559
41	Large Commercial Farmers	215,186	226,080	255,789	289,401	327,431	370,458
42	Smallholders (Commercial)	11,011	11,569	13,089	14,809	16,755	18,957
43	Self Substant Farmers	1,723	1,810	2,048	2,317	2,621	2,966
44	Agro-Industries	42,102	44,234	50,046	56,623	64,063	72,482
45	Forestry	64,487	67,752	76,655	86,728	98,125	111,020
46	Other Capital (urban & other)	250,488	263,169	297,751	336,878	381,147	431,233
47	Households	1,452,340	1,525,864	1,726,376	1,953,235	2,209,907	2,500,307
	Total (excluding Activities where duplicate commodity exists)	11,630,479	12,219,272	13,824,985	15,641,701	17,697,149	20,022,700
<b>E</b>							
	Water Use	623,152	654,699	740,732	838,070	948,199	1,072,801
	Water Use / Mean Annual Runoff (%)	49%	52%	59%	66%	75%	85%