

Annex A

Summary of emissions and removals from New Zealand's 2003 national inventory

Common Reporting Format for the provision of inventory information by Annex I Parties to the UNFCCC

4NC Table A1: Emissions trends (CO₂)

Greenhouse Gas Source and Sink Categories	Base year	1991	1992	1993	1994	1995
	(1990)					
	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)
1. Energy	22,652.6323	23,040.6307	24,798.1322	24,075.0182	24,263.4540	24,141.2548
A. Fuel Combustion (Sectoral Approach)	22,031.3465	22,332.5861	24,123.2683	23,440.5281	23,585.4837	23,505.1896
1. Energy Industries	6,024.7996	6,099.4373	7,542.9562	6,529.8761	5,389.6471	4,674.4840
2. Manufacturing Industries and Construction	4,538.6117	4,942.4410	4,592.2955	4,707.3963	5,130.3417	5,036.4416
3. Transport	8,632.8050	8,639.9631	9,024.7479	9,440.6414	10,143.7333	10,855.8742
4. Other Sectors	2,835.1302	2,650.7447	2,963.2688	2,762.6142	2,921.7615	2,938.3899
5. Other	NA	NA	NA	NA	NA	NA
B. Fugitive Emissions from Fuels	621.2858	708.0446	674.8639	634.4902	677.9703	636.0652
1. Solid Fuels	NA,NE	NA,NE	NA,NE	NA,NE	NA,NE	NA,NE
2. Oil and Natural Gas	621.2858	708.0446	674.8639	634.4902	677.9703	636.0652
2. Industrial Processes	2,662.1821	2,787.2158	2,893.3275	3,039.1210	2,943.2796	3,019.7925
A. Mineral Products	448.2800	437.1627	500.5182	553.2498	565.9611	586.0167
B. Chemical Industry	426.5780	441.4380	403.2500	425.1910	449.6860	424.6760
C. Metal Production	1,787.3242	1,908.6151	1,989.5593	2,060.6803	1,927.6325	2,009.0998
D. Other Production	NE	NE	NE	NE	NE	NE
E. Production of Halocarbons and SF ₆						
F. Consumption of Halocarbons and SF ₆						
G. Other	NE	NE	NE	NE	NE	NE
3. Solvent and Other Product Use	IE,NE	IE,NE	IE,NE	IE,NE	IE,NE	IE,NE
4. Agriculture						
A. Enteric Fermentation						
B. Manure Management						
C. Rice Cultivation						
D. Agricultural Soils ⁽²⁾						
E. Prescribed Burning of Savannas						
F. Field Burning of Agricultural Residues						
G. Other						
5. Land Use, Land-Use Change and Forestry	-21,370.4538	-20,100.5490	-17,663.6191	-15,241.8085	-14,160.8152	-14,652.0220
6. Waste	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO
A. Solid Waste Disposal on Land	NA,NE	NA,NE	NA,NE	NA,NE	NA,NE	NA,NE
B. Waste-water Handling						
C. Waste Incineration	NE	NE	NE	NE	NE	NE
D. Other	NO	NO	NO	NO	NO	NO
7. Other (as specified in Summary 1.A)	NA	NA	NA	NA	NA	NA
Total CO ₂ emissions including net CO ₂ from LULUCF ⁽⁴⁾	3,944.3606	5,727.2975	10,027.8406	11,872.3308	13,045.9184	12,509.0253
Total CO ₂ emissions excluding net CO ₂ from LULUCF ⁽⁴⁾	25,314.8144	25,827.8465	27,691.4597	27,114.1393	27,206.7336	27,161.0473
Memo Items:						
International Bunkers	2,374.1423	2,194.8290	2,176.9807	2,244.1642	2,755.1750	2,692.8488
Aviation	1,340.9639	1,281.6352	1,310.6254	1,329.5027	1,431.5750	1,568.5705
Marine	1,033.1784	913.1938	866.3554	914.6615	1,323.6000	1,124.2783
Multilateral Operations	NE	NE	NE	NE	NE	NE
CO ₂ Emissions from Biomass	2,599.1348	2,791.6400	2,661.0056	2,691.9901	3,169.4801	3,200.3117

All footnotes for this table are given at the end of the table on page 172

4NC Table A1: Emissions trends (CH₄)

Greenhouse Gas Source and Sink Categories	Base year	1991	1992	1993	1994	1995
	(1990)					
	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)
Total CH₄ emissions	1,203.9988	1,196.0021	1,175.6560	1,189.8507	1,200.1805	1,214.1620
1. Energy	37.9484	32.7610	32.4207	31.6283	33.2826	35.6502
A. Fuel Combustion (Sectoral Approach)	9.9827	9.7025	9.7083	9.6097	8.9447	8.4867
1. Energy Industries	0.2634	0.2812	0.3186	0.2942	0.2379	0.1941
2. Manufacturing Industries and Construction	0.3777	0.4176	0.3912	0.3983	0.4792	0.4991
3. Transport	7.1163	7.1486	7.1800	7.2002	6.7768	6.3718
4. Other Sectors	2.2254	1.8552	1.8185	1.7170	1.4508	1.4218
5. Other	NA	NA	NA	NA	NA	NA
B. Fugitive Emissions from Fuels	27.9657	23.0585	22.7123	22.0186	24.3379	27.1635
1. Solid Fuels	12.9605	8.7340	9.0388	8.6082	10.1859	13.4714
2. Oil and Natural Gas	15.0052	14.3245	13.6735	13.4104	14.1521	13.6921
2. Industrial Processes	1.0280	1.7080	1.4490	1.6260	2.0250	2.8160
A. Mineral Products	NA	NA	NA	NA	NA	NA
B. Chemical Industry	1.0280	1.7080	1.4490	1.6260	2.0250	2.8160
C. Metal Production	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO
D. Other Production						
E. Production of Halocarbons and SF ₆						
F. Consumption of Halocarbons and SF ₆						
G. Other	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use						
4. Agriculture	1,053.6608	1,048.9578	1,046.0159	1,060.8875	1,073.7006	1,084.6042
A. Enteric Fermentation	1,025.2747	1,020.9187	1,018.3487	1,033.1250	1,045.5367	1,056.0998
B. Manure Management	27.3575	26.9907	26.6407	26.7224	27.1344	27.4790
C. Rice Cultivation	NO	NO	NO	NO	NO	NO
D. Agricultural Soils	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO
E. Prescribed Burning of Savannas	0.1342	0.1329	0.1272	0.1024	0.0810	0.0654
F. Field Burning of Agricultural Residues	0.8943	0.9155	0.8993	0.9377	0.9485	0.9600
G. Other	NO	NO	NO	NO	NO	NO
5. Land Use, Land-Use Change and Forestry	0.2016	0.1853	0.2105	0.2689	0.3023	0.2915
6. Waste	111.1600	112.3900	95.5600	95.4400	90.8700	90.8000
A. Solid Waste Disposal on Land	103.7000	104.8900	88.0300	87.8800	83.2800	83.1700
B. Waste-water Handling	7.4600	7.5000	7.5300	7.5600	7.5900	7.6300
C. Waste Incineration	NE	NE	NE	NE	NE	NE
D. Other	NO	NO	NO	NO	NO	NO
7. Other (as specified in Summary 1.A)	NA	NA	NA	NA	NA	NA
	NA	NA	NA	NA	NA	NA
Memo Items:						
International Bunkers	0.1316	0.1190	0.1146	0.1196	0.1621	0.1456
Aviation	0.0298	0.0285	0.0292	0.0296	0.0319	0.0349
Marine	0.1018	0.0905	0.0854	0.0900	0.1303	0.1107
Multilateral Operations	NE	NE	NE	NE	NE	NE
CO₂ Emissions from Biomass						

All footnotes for this table are given at the end of the table on page 172

1996	1997	1998	1999	2000	2001	2002	2003	Change from base to latest reported year
(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	%
1,218.2463	1,217.2955	1,221.8350	1,232.5942	1,245.9897	1,263.0712	1,265.0155	1,268.8083	5.3829
35.4672	36.9458	40.0152	42.0355	40.3580	41.8021	41.1411	40.0466	5.5291
7.8497	7.4058	6.8150	6.2004	5.7349	5.2415	4.8402	4.4171	55.7525
0.2182	0.2718	0.2042	0.2579	0.2495	0.2939	0.2483	0.2418	8.1703
0.5207	0.5079	0.5247	0.5760	0.5994	0.5708	0.6032	0.5556	47.1146
5.7381	5.2676	4.7387	4.0781	3.6479	3.2425	2.9032	2.4779	65.1803
1.3727	1.3585	1.3474	1.2885	1.2382	1.1343	1.0855	1.1418	48.6921
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
27.6174	29.5400	33.2002	35.8350	34.6231	36.5606	36.3009	35.6295	27.4043
13.9432	13.6306	16.2593	16.8421	16.1922	16.9739	16.8609	15.8215	22.0753
13.6742	15.9095	16.9409	18.9930	18.4308	19.5867	19.4400	19.8080	32.0071
3.7510	3.8770	3.6670	4.1033	4.9704	4.4103	4.6558	2.0434	98.7743
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
3.7510	3.8770	3.6670	4.1033	4.9704	4.4103	4.6558	2.0434	98.7743
IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
1,090.0191	1,096.6949	1,098.9097	1,108.5949	1,126.0519	1,142.2849	1,144.2056	1,150.7340	9.2129
1,061.4970	1,068.4534	1,070.9870	1,081.0173	1,098.7404	1,115.0634	1,116.9759	1,123.4387	9.5744
27.4611	27.1378	26.8381	26.5491	26.2797	26.1351	26.1175	26.1640	4.3626
NO	NO	NO	NO	NO	NO	NO	NO	0.0000
NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	0.0000
0.0593	0.0532	0.0402	0.0365	0.0384	0.0439	0.0404	0.0401	70.1088
1.0018	1.0504	1.0445	0.9919	0.9935	1.0424	1.0718	1.0912	22.0075
NO	NO	NO	NO	NO	NO	NO	NO	0.0000
0.3290	0.3579	0.2930	0.2605	0.2093	0.2039	0.1931	0.1943	3.6186
88.6800	79.4200	78.9500	77.6000	74.4000	74.3700	74.8200	75.7900	31.8190
81.0200	71.7300	71.2300	69.8400	66.6100	66.5500	66.9600	67.8800	34.5419
7.6600	7.6900	7.7200	7.7600	7.7900	7.8200	7.8600	7.9100	6.0322
NE	NE	NE	NE	NE	NE	NE	NE	0.0000
NO	NO	NO	NO	NO	NO	NO	NO	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
0.1406	0.1468	0.1426	0.1323	0.1116	0.1188	0.1455	0.1268	3.6259
0.0364	0.0380	0.0378	0.0432	0.0391	0.0418	0.0427	0.0496	66.3144
0.1042	0.1088	0.1048	0.0891	0.0726	0.0769	0.1028	0.0772	24.1276
NE	NE	NE	NE	NE	NE	NE	NE	0.0000

4NC Table A1: Emissions trends (N₂O)

Greenhouse Gas Source and Sink Categories	Base year	1991	1992	1993	1994	1995
	(1990)					
	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)
Total N₂O emissions	33.5442	33.6285	33.9342	34.8772	35.9172	36.6874
1. Energy	0.4663	0.4670	0.4961	0.5118	0.5552	0.5891
A. Fuel Combustion (Sectoral Approach)	0.4663	0.4670	0.4961	0.5118	0.5552	0.5891
1. Energy Industries	0.0206	0.0164	0.0298	0.0208	0.0185	0.0194
2. Manufacturing Industries and Construction	0.1216	0.1297	0.1204	0.1247	0.1464	0.1431
3. Transport	0.2398	0.2422	0.2597	0.2791	0.3062	0.3396
4. Other Sectors	0.0844	0.0786	0.0862	0.0872	0.0841	0.0871
5. Other	NA	NA	NA	NA	NA	NA
B. Fugitive Emissions from Fuels	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO
1. Solid Fuels	NA,NE	NA,NE	NA,NE	NA,NE	NA,NE	NA,NE
2. Oil and Natural Gas	IE,NE,NO	IE,NE,NO	IE,NE,NO	IE,NE,NO	IE,NE,NO	IE,NE,NO
2. Industrial Processes	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO
A. Mineral Products	NA	NA	NA	NA	NA	NA
B. Chemical Industry	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO
C. Metal Production	NA	NA	NA	NA	NA	NA
D. Other Production						
E. Production of Halocarbons and SF ₆						
F. Consumption of Halocarbons and SF ₆						
G. Other	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use	0.1340	0.1380	0.1390	0.1410	0.1430	0.1450
4. Agriculture	32.4738	32.5535	32.8190	33.7443	34.7389	35.4631
A. Enteric Fermentation						
B. Manure Management	0.1224	0.1231	0.1255	0.1322	0.1430	0.1511
C. Rice Cultivation						
D. Agricultural Soils	32.3290	32.4076	32.6712	33.5892	34.5733	35.2894
E. Prescribed Burning of Savannas	0.0017	0.0016	0.0016	0.0013	0.0010	0.0008
F. Field Burning of Agricultural Residues	0.0208	0.0212	0.0207	0.0215	0.0216	0.0218
G. Other	NO	NO	NO	NO	NO	NO
5. Land Use, Land-Use Change and Forestry	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
6. Waste	0.4700	0.4700	0.4800	0.4800	0.4800	0.4900
A. Solid Waste Disposal on Land						
B. Waste-water Handling	0.4700	0.4700	0.4800	0.4800	0.4800	0.4900
C. Waste Incineration	NE	NE	NE	NE	NE	NE
D. Other	NO	NO	NO	NO	NO	NO
7. Other (as specified in Summary 1.A)	NA	NA	NA	NA	NA	NA
	NA	NA	NA	NA	NA	NA
Memo Items:						
International Bunkers	0.0669	0.0620	0.0613	0.0632	0.0776	0.0758
Aviation	0.0378	0.0361	0.0369	0.0375	0.0403	0.0442
Marine	0.0291	0.0259	0.0244	0.0257	0.0372	0.0316
Multilateral Operations	NE	NE	NE	NE	NE	NE
CO₂ Emissions from Biomass						

All footnotes for this table are given at the end of the table on page 172



1996	1997	1998	1999	2000	2001	2002	2003	Change from base to latest reported year
(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	%
37.0543	37.3649	37.6127	38.3359	39.6108	41.2578	42.4935	43.5469	29.8193
0.5991	0.6202	0.6251	0.6611	0.6938	0.7184	0.7497	0.8078	73.2354
0.5991	0.6202	0.6251	0.6611	0.6938	0.7184	0.7497	0.8078	73.2354
0.0208	0.0315	0.0221	0.0296	0.0252	0.0339	0.0323	0.0586	185.0074
0.1437	0.1378	0.1430	0.1517	0.1562	0.1554	0.1610	0.1695	39.4763
0.3490	0.3646	0.3742	0.3872	0.4146	0.4277	0.4511	0.4704	96.1624
0.0856	0.0863	0.0859	0.0925	0.0978	0.1014	0.1052	0.1093	29.5003
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	0.0000
NA,NE	NA,NE	NA,NE	NA,NE	NA,NE	NA,NE	NA,NE	NA,NE	0.0000
IE,NE,NO	IE,NE,NO	IE,NE,NO	IE,NE,NO	IE,NE,NO	IE,NE,NO	IE,NE,NO	IE,NE,NO	0.0000
IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	IE,NA,NE,NO	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
0.1480	0.1490	0.1500	0.1510	0.1520	0.1530	0.1560	0.1560	16.4179
35.8170	36.1056	36.3374	37.0237	38.2649	39.8763	41.0777	42.0575	29.5121
0.1571	0.1611	0.1659	0.1718	0.1783	0.1861	0.1917	0.1970	61.0004
							NA	0
35.6366	35.9202	36.1476	36.8294	38.0641	39.6664	40.8615	41.8354	29.4055
0.0007	0.0007	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	70.1088
0.0226	0.0237	0.0234	0.0221	0.0220	0.0232	0.0240	0.0246	17.9270
NO	NO	NO	NO	NO	NO	NO	NO	0.0000
0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	3.6186
0.4900	0.4900	0.5000	0.5000	0.5000	0.5100	0.5100	0.5254	11.7969
0.4900	0.4900	0.5000	0.5000	0.5000	0.5100	0.5100	0.5254	11.7969
NE	NE	NE	NE	NE	NE	NE	NE	0.0000
NO	NO	NO	NO	NO	NO	NO	NO	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
0.0758	0.0792	0.0779	0.0802	0.0702	0.0750	0.0834	0.0849	26.9841
0.0461	0.0482	0.0479	0.0547	0.0495	0.0530	0.0541	0.0629	66.3144
0.0298	0.0311	0.0299	0.0255	0.0207	0.0220	0.0294	0.0221	24.1276
NE	NE	NE	NE	NE	NE	NE	NE	0.0000



4NC Table A1: Emissions trends (HFCs, PFCs and SF₆)

Greenhouse Gas Source and Sink Categories	Base year	1991	1992	1993	1994	1995
	(1990)					
	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)
Emissions of HFCs⁽⁶⁾ - (Gg CO₂ equivalent)	IE,NA,NO	NA,NO	1.8200	5.4600	25.8655	83.7772
HFC-23	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
HFC-32	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	0.0004
HFC-41	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
HFC-43-10mee	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
HFC-125	NA,NO	NA,NO	NA,NO	NA,NO	0.0012	0.0005
HFC-134	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
HFC-134a	IE,NA,NO	NA,NO	0.0014	0.0042	0.0161	0.0398
HFC-152a	NA,NO	NA,NO	NA,NO	NA,NO	0.0004	0.0012
HFC-143	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
HFC-143a	NA,NO	NA,NO	NA,NO	NA,NO	0.0004	0.0079
HFC-227ea	NA,NO	NA,NO	NA,NO	NA,NO	0.0000	0.0001
HFC-236fa	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
HFC-245ca	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Unspecified mix of listed HFCs ⁽⁶⁾ - (Gg CO ₂ equivalent)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Emissions of PFCs⁽⁶⁾ - (Gg CO₂ equivalent)	515.6000	651.6400	638.1000	524.8000	183.6000	147.5000
CF ₄	0.0680	0.0844	0.0826	0.0680	0.0240	0.0190
C ₂ F ₆	0.0080	0.0112	0.0110	0.0090	0.0030	0.0020
C ₃ F ₈	NA,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	0.0008
C ₄ F ₁₀	NA,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO
c-C ₄ F ₈	NA,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO
C ₃ F ₁₂	NA,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO
C ₆ F ₁₄	NA,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO
Unspecified mix of listed PFCs ⁽⁶⁾ - (Gg CO ₂ equivalent)	NA,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO
Emissions of SF₆⁽⁹⁾ - (Gg CO₂ equivalent)	12.3324	12.6431	12.9777	14.0532	14.4117	15.0092
SF ₆	0.0005	0.0005	0.0005	0.0006	0.0006	0.0006

All footnotes for this table are given at the end of the table on page 172



1996	1997	1998	1999	2000	2001	2002	2003	Change from base to latest reported year
(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	%
139.0257	114.2695	210.6913	174.8195	173.2844	254.1239	387.6822	403.9601	100.0000
NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	0.0000
NA,NE,NO	NA,NE,NO	NA,NE,NO	0.0074	NA,NE,NO	0.0001	0.0009	0.0018	100.0000
NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	0.0000
NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	0.0000
0.0067	0.0105	0.0095	0.0104	0.0041	0.0128	0.0194	0.0236	100.0000
NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	0.0000
0.0716	0.0379	0.1138	0.0757	0.1054	0.1239	0.1923	0.1806	100.0000
0.0004	0.0002	0.0004	0.0017	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	0.0000
NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	0.0000
0.0071	0.0093	0.0094	0.0110	0.0064	0.0149	0.0216	0.0266	100.0000
0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0003	0.0003	100.0000
NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	0.0000
NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	0.0000
NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	0.0000
265.4000	166.2000	130.2000	74.2000	59.2500	59.2500	83.5000	84.9000	83.5337
0.0300	0.0210	0.0100	0.0100	0.0077	0.0077	0.0110	0.0110	83.8235
0.0040	0.0030	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	87.5000
0.0048	0.0003	0.0080	NA,NE,NO	NA,NE,NO	NA,NE,NO	0.0004	0.0006	100.0000
NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NO	0.0000
NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NO	0.0000
NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NO	0.0000
NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NO	0.0000
NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NE,NO	NA,NO	0.0000
14.7941	15.2960	14.0293	13.1928	11.9500	12.0456	12.5714	12.3802	0.3876
0.0006	0.0006	0.0006	0.0006	0.0005	0.0005	0.0005	0.0005	0.3876



4NC Table A1: Emissions trends (Summary)

	Base year (1990)	1991	1992	1993	1994	1995
	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)
Greenhouse Gas Emissions						
CO ₂ emissions including net CO ₂ from LULUCF ⁽⁴⁾	3,944.3606	5,727.2975	10,027.8406	11,872.3308	13,045.9184	12,509.0253
CO ₂ emissions excluding net CO ₂ from LULUCF ⁽⁴⁾	25,314.8144	25,827.8465	27,691.4597	27,114.1393	27,206.7336	27,161.0473
CH ₄	25,283.9751	25,116.0440	24,688.7769	24,986.8644	25,203.7913	25,497.4010
N ₂ O	10,398.7099	10,424.8469	10,519.5908	10,811.9245	11,134.3448	11,373.0872
HFCs	IE,NA,NO	NA,NO	1.8200	5.4600	25.8655	83.7772
PFCs	515.6000	651.6400	638.1000	524.8000	183.6000	147.5000
SF ₆	12.3324	12.6431	12.9777	14.0532	14.4117	15.0092
Total (including net CO₂ from LULUCF⁽⁴⁾)	40,154.9780	41,932.4715	45,889.1060	48,215.4329	49,607.9317	49,625.7999
Total (excluding net CO₂ from LULUCF⁽⁴⁾)	61,525.4318	62,033.0205	63,552.7251	63,457.2414	63,768.7469	64,277.8219
Greenhouse Gas Source and Sink Categories						
1. Energy	23,594.1102	23,873.3693	25,632.7451	24,897.8622	25,134.5120	25,072.5288
2. Industrial Processes	3,211.7025	3,487.3669	3,576.6542	3,617.5802	3,209.6818	3,325.2149
3. Solvent and Other Product Use	41.5400	42.7800	43.0900	43.7100	44.3300	44.9500
4. Agriculture	32,193.7569	32,119.6971	32,140.2241	32,739.3637	33,316.7606	33,770.2643
5. Land Use, Land-Use Change and Forestry ⁽⁷⁾	-21,366.1916	-20,096.6317	-17,659.1675	-15,236.1232	-14,154.4226	-14,645.8581
6. Waste	2,480.0600	2,505.8900	2,155.5600	2,153.0400	2,057.0700	2,058.7000
7. Other	NA	NA	NA	NA	NA	NA
Total (including LULUCF⁽⁷⁾)	40,154.9780	41,932.4715	45,889.1060	48,215.4329	49,607.9317	49,625.7999

(1) The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the COP. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

(2) Fill in net emissions/removals as reported in Table Summary 1.A. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(3) The information in these rows is requested to facilitate comparison of data, because Parties differ in the way they report CO₂ emissions and removals from LULUCF.

(4) Enter actual emissions estimates. If only potential emissions estimates are available, these should be reported in this table and an indication for this be provided in the documentation box. Only in these rows are the emissions expressed as CO₂ equivalent emissions.

(5) In accordance with the UNFCCC reporting guidelines, HFC and PFC emissions should be reported for each relevant chemical. However, if it is not possible to report values for each chemical (i.e. mixtures, confidential data, lack of disaggregation), this row could be used for reporting aggregate figures for HFCs and PFCs, respectively. Note that the unit used for this row is Gg of CO₂ equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.

(6) These totals will differ from the totals reported in table Summary 2 if Parties report non-CO₂ emissions from LULUCF.

(7) Includes net CO₂, CH₄ and N₂O from LULUCF.



1996	1997	1998	1999	2000	2001	2002	2003	Change from base to latest reported year
CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	CO ₂ equivalent (Gg)	%
13,251.2684	13,975.0218	9,754.4762	9,392.1620	8,182.6917	9,792.4426	9,680.3294	11,833.8397	200.0192
28,176.1559	30,434.2897	29,059.0341	30,504.4491	31,006.0462	32,983.4414	33,011.1415	34,699.5478	37.0721
25,583.1726	25,563.2059	25,658.5346	25,884.4773	26,165.7829	26,524.4942	26,565.3261	26,644.9743	5.3829
11,486.8337	11,583.1309	11,659.9233	11,884.1405	12,279.3339	12,789.9169	13,172.9809	13,499.5297	29.8193
139.0257	114.2695	210.6913	174.8195	173.2844	254.1239	387.6822	403.9601	100.0000
265.4000	166.2000	130.2000	74.2000	59.2500	59.2500	83.5000	84.9000	83.5337
14.7941	15.2960	14.0293	13.1928	11.9500	12.0456	12.5714	12.3802	0.3876
50,740.4945	51,417.1240	47,427.8546	47,422.9921	46,872.2928	49,432.2732	49,902.3899	52,479.5839	30.6926
65,665.3820	67,876.3920	66,732.4125	68,535.2792	69,695.6474	72,623.2720	73,233.2020	75,345.2920	22.4620
26,118.6178	28,511.4834	27,045.4305	28,379.8830	28,905.7929	30,828.7499	30,864.6664	32,320.9222	36.9872
3,486.0724	3,268.1057	3,479.6410	3,560.6231	3,511.7005	3,673.2662	3,824.3756	4,014.1870	24.9863
45.8800	46.1900	46.5000	46.8100	47.1200	47.4300	48.3600	48.3600	16.4179
33,993.6749	34,223.3260	34,341.6954	34,757.8542	35,509.2091	36,349.6438	36,762.3977	37,203.2368	15.5604
-14,917.9305	-16,451.7011	-19,298.3622	-21,106.7782	-22,818.9297	-23,186.6867	-23,326.7299	-22,861.6001	6.9989
2,014.1800	1,819.7200	1,812.9500	1,784.6000	1,717.4000	1,719.8700	1,729.3200	1,754.4781	29.2566
NA	NA	NA	NA	NA	NA	NA	NA	0.0000
50,740.4945	51,417.1240	47,427.8546	47,422.9921	46,872.2928	49,432.2732	49,902.3899	52,479.5839	30.6926