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Table 1 Emission trends: summary ⁽¹⁾ (Sheet 1 of 3)

		1991	1992	1993	1994	1995	1996	1997	1998
GREENHOUSE GAS EMISSIONS	kt CO ₂ eq	kt CO ₂ eq	kt CO ₂ eq	kt CO2 eq	kt CO ₂ eq	kt CO2 eq	kt CO2 eq	kt CO2 eq	kt CO ₂ eq
	266 562 10	227 400 50	227 244 57	200,220,07	1 64 000 70	154 174 64	105 707 41	102 (02 40	101 (20, 10)
CO_2 emissions including net CO_2 from LULUCF	266,563.18	237,408.59	227,244.57	200,330.86	164,892.70	154,174.64	135,737.41	123,692.49	124,632.48
CO ₂ emissions excluding net CO ₂ from LULUCF	268,730.18	239,531.59	229,591.23	202,897.53	169,802.37	161,474.97	145,483.41	135,876.82	139,196.48
CH ₄ emissions including CH ₄ from LULUCF	73,328.12	72,285.49	68,992.35	62,460.45	54,040.23	44,511.19	39,030.41	34,603.54	32,727.63
CH ₄ emissions excluding CH ₄ from LULUCF	73,327.77	72,285.04	68,991.95	62,460.21	54,038.67	44,504.22	39,027.30	34,541.45	32,723.35
N ₂ O emissions including N ₂ O from LULUCF	16,319.82	15,127.73	15,863.38	13,858.34	11,040.24	8,945.78	7,133.70	5,949.63	5,336.21
N ₂ O emissions excluding N ₂ O from LULUCF	16,319.71	15,127.60	15,863.27	13,858.27	11,039.78	8,943.72	7,132.78	5,931.30	5,334.94
HFCs	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	0.21	0.40	0.40	42.51
PFCs	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
SF ₆	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Total (including LULUCF)	356,211.11	324,821.82	312,100.30	276,649.65	229,973.17	207,631.81	181,901.92	164,246.06	162,738.83
Total (excluding LULUCF)	358,377.66	326,944.23	314,446.45	279,216.01	234,880.82	214,923.11	191,643.89	176,349.97	177,297.28
CDEENHOUSE CAS SOURCE AND SINK CATECODIES	Base year ^a	1991	1992	1993	1994	1995	1996	1997	1998
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	kt CO ₂ eq	kt CO ₂ eq	kt CO2 eq	kt CO2 eq	kt CO2 eq	kt CO2 eq	kt CO2 eq	kt CO2 eq	kt CO2 eq
1. Energy	299,576.11	270,891.67	260,202.98	230,721.06	196,619.16	180,550.49	163,477.54	149,727.13	153,316.18
2. Industrial Processes	17,916.83	16,721.38	14,691.26	11,008.65	7,381.47	8,144.59	7,091.77	8,858.38	7,382.37
3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
4. Agriculture	38,144.51	36,486.47	36,599.98	34,452.56	27,774.79	23,121.10	17,949.20	14,597.27	13,507.30
5. Land Use, Land-Use Change and Forestry ^b	-2,166.55	-2,122.41	-2,346.15	-2,566.36	-4,907.64	-7,291.30	-9,741.96	-12,103.92	-14,558.45
6. Waste	2,740.21	2,844.72	2,952.23	3,033.75	3,105.39	3,106.93	3,125.38	3,167.19	3,091.44
7. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total (including LULUCF)	356,211.11	324,821.82	312,100.30	276,649.65	229,973.17	207,631.81	181,901.92	164,246.06	162,738.83

Note: All footnotes for this table are given on sheet 3.

¹ The common tabular format will be revised, in accordance with relevant decisions of the Conference of the Parties and, where applicable, with decisions of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol."

Table 1 Emission trends: summary ⁽¹⁾ (Sheet 2 of 3)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
GREENHOUSE GAS EMISSIONS	kt CO ₂ eq	$\mathrm{kt}\mathrm{CO}_2\mathrm{eq}$	kt CO ₂ eq							
CO ₂ emissions including net CO ₂ from LULUCF	97,466.00	122,982.81	118,748.28	139,059.02	156,662.23	162,543.54	177,877.04	199,562.45	197,798.40	184,038.22
CO ₂ emissions excluding net CO ₂ from LULUCF	109,808.00	133,106.47	126,580.28	144,577.35	159,833.90	165,557.54	180,740.70	202,286.78	200,269.73	186,513.22
CH ₄ emissions including CH ₄ from LULUCF	30,175.45	33,035.06	29,881.08	31,719.35	35,436.47	36,902.47	37,753.05	40,015.71	41,573.07	44,854.22
CH ₄ emissions excluding CH ₄ from LULUCF	30,168.41	33,030.67	29,874.61	31,714.21	35,424.87	36,887.09	37,748.66	40,008.26	41,550.14	44,852.24
N2O emissions including N2O from LULUCF	5,537.91	5,663.89	6,047.66	6,456.67	6,886.36	7,161.19	7,545.53	8,012.54	8,449.64	8,309.43
N ₂ O emissions excluding N ₂ O from LULUCF	5,535.83	5,662.60	6,045.75	6,455.15	6,882.94	7,156.65	7,544.23	8,010.34	8,442.87	8,308.85
HFCs	17.55	164.19	197.08	159.90	176.80	235.82	237.12	390.13	610.36	606.49
PFCs	NA, NO	NA, NO	NA, NO	NA, NO	87.17	567.27				
SF ₆	NA, NO	0.45	0.15	0.03	0.02	0.11				
Total (including LULUCF)	133,196.91	161,845.94	154,874.10	177,394.93	199,161.87	206,843.47	223,412.88	247,980.86	248,518.66	238,375.74
Total (excluding LULUCF)	145,529.79	171,963.93	162,697.72	182,906.61	202,318.51	209,837.55	226,270.86	250,695.54	250,960.30	240,848.18
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
OREENHOUSE OAS SOURCE AND SHAR CATEGORIES	$kt CO_2 eq$	$kt \ CO_2 \ eq$	kt CO2 eq	kt CO2 eq	$\mathrm{kt}\mathrm{CO}_2\mathrm{eq}$	kt CO ₂ eq	kt CO ₂ eq	kt CO2 eq	kt CO2 eq	kt CO2 eq
1. Energy	119,403.39	144,113.45	133,559.41	152,094.00	169,478.00	175,084.43	190,447.95	213,943.62	212,439.66	201,458.40
2. Industrial Processes	8,835.40	10,226.43	10,861.47	11,526.37	12,348.09	13,216.26	13,258.11	13,073.31	13,902.54	14,383.47
3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE				
4. Agriculture	14,232.67	14,529.43	15,138.55	16,061.17	17,197.77	18,167.53	19,091.84	20,111.19	20,951.46	21,262.26
5. Land Use, Land-Use Change and Forestry ^b	-12,332.88	-10,117.98	-7,823.62	-5,511.68	-3,156.64	-2,994.08	-2,857.98	-2,714.68	-2,441.63	-2,472.44
6. Waste	3,058.33	3,094.62	3,138.28	3,225.08	3,294.65	3,369.32	3,472.95	3,567.42	3,666.64	3,744.05
7. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total (including LULUCF)	133,196.91	161,845.94	154,874.10	177,394.93	199,161.87	206,843.47	223,412.88	247,980.86	248,518.66	238,375.74

Table 1 Emission trends: summary ⁽¹⁾ (Sheet 3 of 3)

GREENHOUSE GAS EMISSIONS	2009	2010	2011	Change from base to latest reported year
	kt CO ₂ eq	kt CO ₂ eq	kt CO ₂ eq	(%)
CO2 emissions including net CO2 from LULUCF	204,310.23	223,747.28	211,622.79	-20.61
CO ₂ emissions excluding net CO ₂ from LULUCF	206,792.56	226,640.28	214,717.46	-20.10
CH ₄ emissions including CH ₄ from LULUCF	44,654.75	48,328.40	48,635.19	-33.67
CH ₄ emissions excluding CH ₄ from LULUCF	44,654.04	48,326.48	48,634.38	-33.68
N ₂ O emissions including N ₂ O from LULUCF	8,873.27	8,962.57	8,936.96	-45.24
N ₂ O emissions excluding N ₂ O from LULUCF	8,873.05	8,962.00	8,936.71	-45.24
HFCs	646.76	837.37	843.56	100.00
PFCs	678.93	1,201.50	1,328.41	100.00
SF ₆	3.31	NA, NO	NA, NO	0.00
Total (including LULUCF)	259,167.24	283,077.12	271,366.91	-23.82
Total (excluding LULUCF)	261,648.65	285,967.63	274,460.52	-23.42

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		2010	2011	Change from base to latest reported year
	$kt CO_2 eq$	$kt CO_2 eq$	kt CO ₂ eq	(%)
1. Energy	222,221.59	244,609.22	231,802.61	-22.62
2. Industrial Processes	13,598.40	15,108.77	17,159.66	-4.23
3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	0.00
4. Agriculture	21,987.11	22,295.96	21,432.69	-43.81
5. Land Use, Land-Use Change and Forestry ^b	-2,481.41	-2,890.50	-3,093.61	42.79
6. Waste	3,841.55	3,953.68	4,065.56	48.37
7. Other	NA	NA	NA	0.00
Total (including LULUCF)	259,167.24	283,077.12	271,366.91	-23.82

Notes:

(1) Further detailed information could be found in the common reporting format tables of the Party's greenhouse gas inventory, namely "Emission trends (CO_2)", "Emission trends (CH_4)", "Emission trends (N_2O)" and "Emission trends (HFCs, PFCs and SF₆)", which is included in an annex to this biennial report.

(2) 2011 is the latest reported inventory year.

(3) 1 kt CO_2 eq equals 1 Gg CO_2 eq.

Abbreviation: LULUCF = land use, land-use change and forestry.

^a 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 Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

 $^{\rm b}\,$ Includes net CO_2, CH_4 and N_2O from LULUCF.

Table 1 (a) Emission trends (CO₂) (Sheet 1 of 3)

CREENHOUSE CAS SOURCE AND SINK CATEGORIES	Base year ^a	1991	1992	1993	1994	1995	1996	1997	1998
GREENIGUSE GAS SOURCE AND SINK CATEGORIES	kt	kt	kt	kt	kt	kt	kt	kt	kt
1. Energy	250,860.74	222,854.01	214,937.78	191,918.22	162,440.41	153,350.15	138,410.86	127,042.13	131,878.60
A. Fuel Combustion (Sectoral Approach)	244,844.47	216,681.31	208,922.18	186,573.13	157,715.30	148,570.33	133,102.77	121,099.38	125,896.54
1. Energy Industries	113,513.36	111,682.65	111,538.86	102,755.29	85,869.05	85,054.71	75,208.19	66,582.60	62,963.32
2. Manufacturing Industries and Construction	21,891.41	21,376.51	35,242.78	28,118.60	19,563.98	17,846.26	15,789.45	17,398.21	16,165.01
3. Transport	22,490.91	19,616.42	16,733.93	12,358.34	10,568.27	8,963.98	7,401.79	6,846.00	6,513.78
4. Other Sectors	51,747.99	48,072.06	42,809.90	41,105.40	38,162.96	32,445.62	31,175.29	25,550.00	18,649.24
5. Other	35,200.80	15,933.67	2,596.70	2,235.50	3,551.06	4,259.77	3,528.05	4,722.58	21,605.19
B. Fugitive Emissions from Fuels	6,016.27	6,172.71	6,015.60	5,345.09	4,725.10	4,779.82	5,308.09	5,942.75	5,982.06
1. Solid Fuels	169.06	164.38	162.03	142.06	132.75	105.47	108.56	105.07	106.53
2. Oil and Natural Gas	5,847.20	6,008.32	5,853.57	5,203.03	4,592.35	4,674.35	5,199.53	5,837.68	5,875.54
2. Industrial Processes	17,869.44	16,677.58	14,653.45	10,979.31	7,361.96	8,124.83	7,072.55	8,834.69	7,317.88
A. Mineral Products	5,955.81	5,385.50	4,756.77	3,228.78	2,186.76	2,041.39	1,757.30	1,677.18	1,444.46
B. Chemical Industry	1,588.67	1,398.21	1,112.87	528.23	270.14	349.89	334.98	188.43	96.39
C. Metal Production	10,324.96	9,893.87	8,783.80	7,222.31	4,905.06	5,733.54	4,980.27	6,969.08	5,777.03
D. Other Production	NE	NE	NE	NE	NE	NE	NE	NE	NE
E. Production of Halocarbons and SF6									
F. Consumption of Halocarbons and SF6									
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
4. Agriculture									
A. Enteric Fermentation									
B. Manure Management									
C. Rice Cultivation									
D. Agricultural Soils									
E. Prescribed Burning of Savannas									
F. Field Burning of Agricultural Residues									
G. Other									
5. Land Use, Land-Use Change and Forestry	-2,167.00	-2,123.00	-2,346.67	-2,566.67	-4,909.67	-7,300.33	-9,746.00	-12,184.33	-14,564.00
A. Forest Land	-1,774.67	-1,950.67	-2,368.67	-2,797.67	-3,564.00	-4,374.33	-5,239.67	-6,101.33	-6,959.33
B. Cropland	-11.00	58.67	132.00	205.33	165.00	128.33	88.00	47.67	99.00
C. Grassland	-381.33	-231.00	-110.00	25.67	-1,510.67	-3,054.33	-4,594.33	-6,130.67	-7,703.67
D. Wetlands	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
E. Settlements	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
6. Waste	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
A. Solid Waste Disposal on Land	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
B. Waste-water Handling									
C. Waste Incineration	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
7. Other (as specified in the summary table in CRF)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total CO2 emissions including net CO2 from LULUCF	266,563.18	237,408.59	227,244.57	200,330.86	164,892.70	154,174.64	135,737.41	123,692.49	124,632.48
Total CO2 emissions excluding net CO2 from LULUCF	268,730.18	239,531.59	229,591.23	202,897.53	169,802.37	161,474.97	145,483.41	135,876.82	139,196.48
Memo Items:									
International Bunkers	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
Aviation	NE	NE	NE	NE	NE	NE	NE	NE	NE
Marine	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
Multilate ral Ope rations	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO2 Emissions from Biomass	1,083.33	900.44	736.82	662.29	563.57	529.91	520.65	526.01	512.20

Note: All footnotes for this table are given on sheet 3.

Table 1 (a) Emission trends (CO₂) (Sheet 2 of 3)

CREENHOUSE CAS SOURCE AND SINK CATECORIES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
1. Energy	101,016.29	123,072.49	115,945.06	133,240.15	147,692.40	152,607.90	167,748.51	189,634.18	187,099.38	173,333.91
A. Fuel Combustion (Sectoral Approach)	93,813.70	116,704.86	111,259.28	128,506.09	143,398.17	147,305.29	162,553.21	183,581.43	181,787.76	169,727.77
1. Energy Industries	48,892.05	55,547.75	58,808.24	62,494.28	69,324.81	79,938.30	83,236.20	87,225.65	84,671.04	80,686.88
2. Manufacturing Industries and Construction	19,304.86	21,524.46	23,070.40	24,706.74	25,939.16	23,009.01	25,394.57	27,193.80	28,361.30	26,497.92
3. Transport	5,827.12	9,141.29	10,352.43	12,527.12	13,787.77	11,438.73	13,168.26	17,663.20	20,298.72	21,936.69
4. Other Sectors	7,405.89	8,548.25	9,286.90	10,814.13	12,358.71	12,315.23	10,667.24	14,401.93	12,908.62	15,021.37
5. Other	12,383.76	21,943.12	9,741.31	17,963.82	21,987.72	20,604.01	30,086.92	37,096.85	35,548.07	25,584.91
B. Fugitive Emissions from Fuels	7,202.60	6,367.63	4,685.78	4,734.06	4,294.23	5,302.62	5,195.31	6,052.75	5,311.62	3,606.13
1. Solid Fuels	89.83	117.25	122.11	111.10	127.16	130.75	125.30	139.75	145.69	168.19
2. Oil and Natural Gas	7,112.77	6,250.37	4,563.67	4,622.96	4,167.06	5,171.86	5,070.01	5,913.00	5,165.93	3,437.95
2. Industrial Processes	8,791.70	10,033.99	10,635.22	11,337.20	12,141.50	12,949.63	12,992.19	12,652.60	13,169.95	13,178.71
A. Mineral Products	1,446.70	2,013.50	2,458.11	2,946.66	3,270.25	3,603.89	3,806.24	4,117.03	4,026.33	4,295.40
B. Chemical Industry	48.04	31.27	94.56	111.34	164.34	212.46	152.37	147.30	281.71	285.43
C. Metal Production	7,296.96	7,989.21	8,082.55	8,279.20	8,706.91	9,133.28	9,033.59	8,388.28	8,861.91	8,597.88
D. Other Production	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
E. Production of Halocarbons and SF6										
F. Consumption of Halocarbons and SF6										
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
4. Agriculture										
A. Enteric Fermentation										
B. Manure Management										
C. Rice Cultivation										
D. Agricultural Soils										
E. Prescribed Burning of Savannas										
F. Field Burning of Agricultural Residues										
G. Other										
5. Land Use, Land-Use Change and Forestry	-12,342.00	-10,123.67	-7,832.00	-5,518.33	-3,171.67	-3,014.00	-2,863.67	-2,724.33	-2,471.33	-2,475.00
A. Forest Land	-6,218.67	-5,569.67	-4,851.00	-4,106.67	-3,329.33	-3,083.67	-2,845.33	-2,610.67	-2,394.33	-2,702.33
B. Cropland	69.67	128.33	187.00	249.33	308.00	209.00	106.33	7.33	33.00	-69.67
C. Grassland	-6,193.00	-4,682.33	-3,168.00	-1,661.00	-150.33	-139.33	-124.67	-121.00	-110.00	297.00
D. Wetlands	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
E. Settlements	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6. Waste	NA. NO	NA. NO	NA. NO	NA. NO	NA. NO	NA. NO	NA. NO	0.00	0.41	0.60
A. Solid Waste Disposal on Land	NA. NO	NA. NO	NA. NO	NA. NO	NA. NO	NA. NO	NA. NO	NA. NO	NA. NO	NA. NO
B. Waste-water Handling	,	,	,	,	,	,	,	,	,	
C. Waste Incineration	NO	NO	NO	NO	NO	NO	NO	0.00	0.41	0.60
D. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7. Other (as specified in the summary table in CRF)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total CO2 emissions including net CO2 from LUI UCF	97.466.00	122 982 81	118 748 28	139.059.02	156 662 23	162 543 54	177 877 04	199 562 45	197 798 40	184.038.22
Total CO2 emissions excluding net CO2 from LULUCE	109 808 00	133 106 47	126 580 28	144 577 35	159,833,90	165 557 54	180 740 70	202 286 78	200 269 73	186 513 22
Memo Items:	10,000.00	155,100.17	120,000.20	111,0771.00	107,000.70	100,007101	100,710.70	202,200.70	200,207.75	100,010.22
International Runkers	NA NE	NA NF	NA NF	NA NF	NA NE	NA NE	NA NF	NA NE	NA NE	NA NE
Aviation	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF
Marine	NA NE	NA. NE	NA. NE	NA. NE	NA. NE	NA. NE	NA. NE	NA. NE	NA. NE	NA. NE
Multilateral Operations	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO2 Emissions from Biomoss	581.65	309.42	400.85	405 24	386 79	231.06	315.75	245 55	329.20	357.03
CO- Emissions Hom Diomass	531.05	507.42	100.05	100.24	500.79	251.00	515.15	240.00	527.29	551.05

Table 1(a) Emission trends (CO₂) (Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINC CATEGORIDS Image of leases Image of leases Image of leases Image of leases I. Beregr 194.544.58 21.591.11 197.574.18 20.377 A Fiel Combustion (Section Approach) 191.153.58 21.684.28 23.731.71 49.042.88 23.571.71 71.40 C. Image finalization (Section Approach) 25.756.38 25.325.48 26.325.44 26.325.34 26.325.37 26.325.34 26.325.37 26.325.34 26.325.37 26.325.34 26.325.37 26.325.34 26.325.37 26.325.34 26.325.37 26.325.34 26.325.37 26.325.35 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37 26.325.37		2009	2010	2011	Change from
GREENHOUSE GAS SOURCE AND SINK CATEGORIDS Image in the product of the p					base to latest
At N N N L Energy 194,544.56 213,591,11 199,754,18 -20.37 A Fuel Combustion (Sectoral Approach) 191,135.33 210,889.43 93,663,71 71.40 2. Mandfacturing Industries and Construction 257,656,63 252,953 420,922.44 201,973.03 199,103,93 -71.474 3. Transport 20,073.03 198,903,31 199,103,93 -71.474 4. Ober Sectors 13,207,62 14,348,16 40,501.64 16,759,58 -65.99 5. Other 3,408,73 2,722.69 2,587,28 -56.99 1. Solid Pauls 3,408,73 2,722.69 2,587,28 -56.99 1. Solid Pauls 3,408,73 2,722.69 2,587,38 -4.66,73 -8.84 2. Industrial Gac 3,250,65 2,413,24 13,043,37 1,429,97,37 -6.62,8 3. Industrial Paulscrup 2,52,67 2,413,0 1,439,97,37 -6.62,8 3. Other 3,607,99 4,135,4 5,660,16 -0.00 B. Chennical Industry <	GREENHOUSE GAS SOURCE AND SINK CATEGORIES				reported year
Image Image <thimage< th=""> <thi< td=""><td></td><td></td><td></td><td></td><td></td></thi<></thimage<>					
I.Berergy 194,44.56 21.59.11. 1997,54.18 20.02 A Fiel Combantion (Sectoral Approach) 191,155.83 210,868.42 197,166.29 -1947 1. Berergy Industries 67,330.44 93,695.71 -1749 2. Manufacturing Industries and Construction 25,765.63 25,295.34 93,005.71 -1749 3. Transport 20,377.30 194,003.9 19,010.9 14,744.16 16,795.38 67,55.45 5. Other 44,452.44 5,010.01 40,510.80 150.08 150.08 5. Other 3,408.73 2,212.69 2,587.89 -56.99 1. Solid Fuels 3,408.73 2,242.60 13,043.71 71.64 2. Industrial Processes 12,242.60 13,043.71 15,01.61 0.00 8. Chemical Industry 252.67 243.10 273.53 -82.78 C. Metal Production 8,185.44 8,666.72 92.73 -82.78 G. Other NA NA NA 0.00 A. Solvest and Other Product Use NA NA NA		kt	kt	kt	%
AF-bit Combastion (Sectoral Approach)191,38.3820.086.48.97.166.2917.167.901. Berary Industries and Construction25.766.5125.203.3126.202.4120.1013. Transport20.379.3019.809.9191.01.3951.41.414. Other Sectors13.207.6214.348.1616.795.3567.555. Other44.352.4150.10.16116.370.8245.75.55. Other44.352.4150.10.16114.90.8717.44618.11.77.162. Old and Natural Gas3.295.652.548.235.65.991.430.8314.90.872.72.26.92.548.235.60.162. Old and Natural Gas3.297.053.134.3714.99.971.63.283.60.67.23.25.61.61.60.27.33.85.84.63. Conderion3.27.26.94.35.35.41.61.60.003.60.441.60.17.31.63.283.60.67.23.25.61.61.60.27.33.85.84.63. Conderion3.27.26.94.35.35.41.61.60.003.60.79.21.63.281.60.281.60.27.31.63.283. Conderion3.27.26.94.3.65.713.67.094.3.53.416.3.60.27.31.62.281.60.27.31.62.283. Conderion3.27.26.94.3.65.713.67.094.3.53.416.3.60.27.31.62.281.60.27.31.62.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.281.60.28<	1. Energy	194,544.56	213,591.11	199,754.18	-20.37
1. Energy Industries and Construction 87310.84 954.057,17 1749 2. Manufacturing Industries and Construction 25765.65 25.058.34 26.202.34 3. Transport 20.379.30 19,809.31 19110.3 -11.14 4. Other Sectors 13.207.62 14,348.14 16.705.28 6.754.5 5. Other 44,452.44 560.106.14 40.501.01 40.501.01 40.501.01 40.501.01 40.501.01 40.501.01 40.501.01 40.501.01 40.501.01 40.501.01	A. Fuel Combustion (Sectoral Approach)	191,135.83	210,868.42	197,166.29	-19.47
2Manfarturing Industries and Construction25,765.6325,925.4326,202.5420,1013. Transport20,307.3019,809.3019,10.391-14.774. Other Sectors13,207.0214,344.1616,705.38-67.555. Other44,452.4456,01.0140,51.8015.08B. Fugitive Emissions from Fuels3,408.732,722.692,528.79-55.991. Solid Fuels149.0817.44.6181.177.162. Oth and Natural Gas3,279.652,548.232,406.73-58.842. Industrial Processes12,242.0013,043.3714,059.73-16.233. Chernical Industry252.47243.1027.33382.73C. Metal Production8,318.948,666.729,326.04-0.00D. Other Production8,318.948,666.729,326.04-0.00D. Other ProductionNANANA0.00J. Solvent and Other Product UseNA,NENA,NENA,NENA,NEA. Enteric FermentationIIIIB. Maure ManagementIIIIC. GotherNANANA0.00J. Agricultural Residues169.13-3,058.00-3,215.6718.120D. Other Stand Que transport-3,058.00-3,058.00-3,058.00-3,058.00J. Agricultural ResiduesNE,NONE,NONE,NONE,NOC. OtherNANANANA0.000S. Land Use, Land-Use Change and Forestry	1. Energy Industries	87,330.84	95,404.38	93,657.17	-17.49
3. Transport20.379.3019.40.391-11.474. Other Sectors13.207.6214.348.1616.795.38-6.7545. Other44.452.4456.01.0140.510.0140.510.0114.50.8015.80B. Fugithve Emissions from Fuels3.408.732.722.402.587.395.56.991. Solid Fuels14.09.88174.4611.1177.1162. Oti and Natural Gas3.259.052.548.232.406.73-6.2843. Mineral Products3.670.994.133.545.53.016-10.000B. Chemical Industry252.47243.10273.53382.78C. Metal Production8.318.948.666.729.236.04-0.07D. Other ProductionNENENE0.00C. Oscurgtion of Halocarbons and SP6	2. Manufacturing Industries and Construction	25,765.63	25,295.34	26,292.54	20.10
4. Other Sectors 11.207.62 14.348.16 16.757.38 6.754 5. Other 44.452.44 56.0161 40.510.80 15.088 B. Pogitiv Emissions from Fuels 3.408.73 2.722.69 2.587.89 5.569 1. Solid Fuels 1.490.8 17.44.6 181.17 7.16 2. Oll and Sharral Cas 3.259.65 2.548.23 2.406.73 5.584.44 2. Oll and Sharral Products 3.0670.99 4.133.54 5.360.16 -100.0 B. Chemical Industry 252.67 2.431.0 273.53 452.78 C. Metal Production 8.318.94 8.666.72 9.326.04 -9.67 D. Other Production NA NA NA 0.00 E. Production of Halocarbons and SF6 Image Production Image Production Image Production Image Production S. Other NA NK NA NK NA NK NA NK Image Production A. Enteric Fermentation Image Production Image Production Image Production Image Production B. Manuer Management Image Pr	3. Transport	20,379.30	19,809.93	19,910.39	-11.47
5 Other 44,45244 50,010,1 40,510,80 15,008 B. Fugitive Emission from Fuels 3,408,73 2,222,08 2,587,89 -56,09 B. Notif Fuels 14,908 174,46 181,17 71,16 2. Otland Naural Gas 3,259,55 2,587,38 2,406,73 -58,843 2. Industrial Processes 12,242,60 13,043,37 14,959,73 -58,83 B. Chemical Industry 232,67 23,10 27,53 42,278 D. Other Production 8,318,94 8,666,72 9,326,04 -9,67 D. Other Production of Halocarbons and SF6 NE NE NE 0,000 E. Production of Halocarbons and SF6 NA NA NA 0,000 4. Agriculture NA NA NA 0,000 4. Agriculture NA NA NA 0,000 4. Batter for Fronetation NA NA NA 0,000 4. Batter for Fronetation NA NA NA NA B. Other NA NA	4. Other Sectors	13,207.62	14,348.16	16,795.38	-67.54
B. Fugitive Emissions from Fuels3.408.732.722.692.587.89-56.991. Solitel Fuels149.08174.46181.177.162. Oil and Naural Cas3.257.952.548.232.406.73-55.842. Industrial Processes12.242.6013.043.3714.959.73-16.28A. Mineral Products3.670.994.133.345.560.16-10.00B. Chemical Industry25.257243.1027.35345.278C. Metal Production8.318.948.666.729.326.04-9.67D. Other Production of Halocarbons and SF6	5. Other	44,452.44	56,010.61	40,510.80	15.08
1. Solid Fiels144008174.46181.177.162. Oil and Natural Gas3.259.652.548.232.406.73-58.842. Industrial Processes12.242.0013.043.3714.959.73-16.28A. Mineral Productio3.267.0941.33.445.360.16-10.00B. Chemical Industry226.27224.3127.35.33-82.78D. Other Production6.3.1848.666.729.32.604-9.67D. Other Production and SF6Image State St	B. Fugitive Emissions from Fuels	3,408.73	2,722.69	2,587.89	-56.99
2. Oil and Natural Gas3,259,652,548,232,406,73-16.288,42. Industrial Processes12,242,6013,043,3314,999,73-16.288,43. Mineral Products3,670,0941,335,45,360,160.10,00B. Chemical Industry225,67243,10273,53482,78C. Metal Production8,318,948,666,729,326,44-9,67D. Other Productions and SF6NENENENE0.00F. Consumption of Halocarbons and SF6NANANA0,003. Solvent and Other Product UseNA, NENA, NENA, NE0,004. AgricultureNA, NENA, NE0,004. Enteric FormentationNANANA0,005. Agricultural SoltsNANANANA0,007. Gisc CultivationIIIIID. Agricultural SoltsIIIII5. Land Use, Land-Use Change and Forestry-2,482,33-2,893,00-3,215,67181,208. Copland-3,025,00-3,215,67181,20130,70130,709. CoplandSoltaNANANA0,009. CoplandNANANA0,000,00130,709. CoplandSoltaSolta100,00130,70130,709. CoplandNANANA0,000,009. OtherNANANA0,009. OtherNANANA0	1. Solid Fuels	149.08	174.46	181.17	7.16
2. Industrial Processes12,242.0013,043.3714,959.731-16.28A. Mineral Products3,670.904,133.545,500.16-10.00B. Chenical Industry222.67243.10273.535.82.78C. Metal Production8,318.948,666.729,326.04-9,67D. Other Production and SP6NENENE0F. Consumption of Halocarbons and SP6NENANA0.00G. OtherNANANA0.003.50/vent and Other Product UseNA, NENA, NENA, NE0.00J. Solvent and Other Product UseNANANA0.000.003.50/vent and Other Product UseNANANA0.00A. AgricultureNANANANANANANANA0.00B. Manuer ManagementCC <td< td=""><td>2. Oil and Natural Gas</td><td>3,259.65</td><td>2,548.23</td><td>2,406.73</td><td>-58.84</td></td<>	2. Oil and Natural Gas	3,259.65	2,548.23	2,406.73	-58.84
A. Mineral Products3.670.994.133.545.360.16-10.00B. Chenical Industry225.07243.10273.3348.27C. Metal Production8.318.948.666.729.326.04-9.67D. Other ProductionNMNENENE0.00E. Production of Halocarbons and SP6NANANA0.00G. OtherNANANA0.003.50 vent and Other Product UseNA.NENA.NENA.NE0.00A. AgricultureNANANA0.003.50 vent and Other Product UseNA.NENA.NE0.00G. OtherNANANANA0.000.001.50 vent and Other Product UseNA.NE0.00A. AgriculturalC. Rec CultivationIIIIIIB. Manare ManagementC. Rice CultivationIIIIIID. Agricultural SolisIII <td< td=""><td>2. Industrial Processes</td><td>12,242.60</td><td>13,043.37</td><td>14,959.73</td><td>-16.28</td></td<>	2. Industrial Processes	12,242.60	13,043.37	14,959.73	-16.28
B. Chemical Industry225.67243.10273.53-82.78C. Metal Production8.318.948.666.729.326.04-9.67D. Other Production of Halocarbons and SF6IIIF. Consumption of Halocarbons and SF6IIIG. OtherNANANA0.003. Solvent and Other Product UseNA, NENA, NENA, NE0.004. AgricultureIIIIIB. Manare ManagementIIIIID. Agricultural SolisIIIIID. Agricultural SolisIIIIID. Agricultural SolisIIIIIC. OtherIIIIIID. Agricultural SolisIIIIII5. Land Use, Land-Use Change and Forestry-2,482.33-2,893.00-3,094.6742.81A. Forest Land-3,005.00-3,215.6781.20IIG. GraslandGoli322.6711.00-131.73ID. VetlandsNE, NONE, NONE, NO0.000I0.000C. GrasslandINANA0.000I0.000G. CoherNANANA0.000NANANA0.000G. OtherNANANANA0.000I0.000I0.000G. CoherNANANANANA	A. Mineral Products	3,670.99	4,133.54	5,360.16	-10.00
C. Metal Production8,318.948,666.729,326.049.967D. Other Production of Halocarbons and SF6NENENE0.00F. Consumption of Halocarbons and SF6NANANA0.003. Solvent and Other Product UseNANANA0.004. AgricultureNANA, NENA, NE0.00C. Rice CultivationICICICICB. Manure ManagementICICICICC. Rice CultivationICICICICD. Agricultural SolisICICICICF. Field Burning of Agricultural ResiduesICICICICG. OtherJameine ManagementICICICICA. Forest Land Use Change and Forestry-2,482.33-2,893.00-3,215.6718.12.00J. Stand Use, Land-Use Change and Forestry-2,482.33-2,893.00-3,215.6718.12.00G. OtherICICICICICICS. Land Use, Land-Use Change and Forestry-2,482.33-2,893.00-3,215.6718.12.00J. WetlandsNE, NONE, NONE, NO0.000ICICICG. OtherICICICICICICS. Land Use, Land-Use Change and Forestry-2,482.33-2,893.00-3,215.67IR.12.00J. S. Mattide Change and ForestryICICICICICS. Gudd Use, Land-Use Change and ForestryICICIC	B. Chemical Industry	252.67	243.10	273.53	-82.78
D. Other ProductionNENENE0.00E. Production of Halocarbons and SF6ICICICG. OtherNANANANA0.003. Solvent and Other Product UseNA, NENA, NENA, NENA, NE0.004. AgricultureICICICICICB. Manure ManagementICICICICICICD. Agricultural SolisIC<	C. Metal Production	8,318.94	8,666.72	9,326.04	-9.67
E. Production of Halocarbons and SF6 Interfact Interfact Interfact F. Consumption of Halocarbons and SF6 NA NA NA 0.00 G. Other NA NA,NE NA,NE O.00 A. Solvent and Other Product Use NA,NE NA,NE NA,NE 0.00 A. Solvent and Other Product Use NA,NE NA,NE NA,NE 0.00 A. Enteric Fermentation Interfactor Interfactor Interfactor Interfactor B. Manure Management Interfactor Interfactor Interfactor Interfactor C. Rice Cultivation Interfactor Interfactor Interfactor Interfactor D. Agricultural Residues Interfactor Interfactor Interfactor Interfactor G. Other -3.025.00 -3.025.00 -3.025.07 7.81.20 S. Land Use, Land-Use Change and Forestry -2.482.33 -2.893.00 -3.01.57 7.81.20 B. Cropland -58.67 7.86.7 7.86.70 100.00 C. Grassland Max Na Na Na 0.00 E. Settlements Ne,NO Ne,NO Ne,NO 0.00 G. Other NA NA NA NA 0.00 G. Other <td>D. Other Production</td> <td>NE</td> <td>NE</td> <td>NE</td> <td>0.00</td>	D. Other Production	NE	NE	NE	0.00
F. Consumption of Halocarbons and SF6InInInInG. OtherNANANANANA0.003. Solvent and Other Product UseNA, NENA, NENA, NENA, NE0.004. AgricultureInInInInInInA. Enteric FermentationInInInInInInInB. Manure ManagementIn <td>E. Production of Halocarbons and SF6</td> <td></td> <td></td> <td></td> <td></td>	E. Production of Halocarbons and SF6				
G. OtherNA <th< td=""><td>F. Consumption of Halocarbons and SF6</td><td></td><td></td><td></td><td></td></th<>	F. Consumption of Halocarbons and SF6				
3. Solvent and Other Product UseNA, NENA, NENA, NE0.004. AgricultureII <td< td=""><td>G. Other</td><td>NA</td><td>NA</td><td>NA</td><td>0.00</td></td<>	G. Other	NA	NA	NA	0.00
4. AgricultureIndexIndexIndexA. Entric FermentationIndexIndexIndexB. Manure ManagementIndexIndexIndexC. Rice CultivationIndexIndexIndexD. Agricultural SoilsIndexIndexIndexE. Prescribed Burning of SavannasIndexIndexIndexG. OtherIndexIndexIndexIndexG. Other-2,482.33-2,893.00-3,094.6742.81A Forest Land-3,025.00-3,058.00-3,215.6781.20B. Cropland-58.67S8.67NE,NOIndoxC. Grassland601.33223.67121.00-110.00D. SettlementsNE, NONE, NONE, NO0.000F. OtherNANANA0.000G. OtherNANANA0.000G. OtherS405.793.55100.00G. OtherNANANA0.000G. OtherS405.793.55100.00G. OtherNA, NONA, NONA, NO0.000G. Waste Nate Disposal on LandS405.793.55100.00D. OtherNANANA0.000G. Waste IncinerationS405.793.55100.00D. OtherNANANA0.000G. Waste IncinerationS405.793.55100.00D. OtherNANANA0.000G. Waste IncinerationS4	3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	0.00
A. Enteric FermentationIntervert ManagementIntervert Management<	4. Agriculture				
B. Manure ManagementImagementImagementC. Rice CultivationImagementImagementD. Agricultural SoilsImagementImagementE. Prescribed Burning of SavanasImagementImagementF. Field Burning of Agricultural ResiduesImagementImagementG. Other-Imagement-5. Land Use, Land-Use Change and Forestry-2,482.33-2,893.00-3,094.676. Copland-3,025.00-3,025.00-3,025.0781.20C. Grassland601.33223.67NE, NO-100.00C. Grassland601.33223.67NE, NO-100.00C. Grassland601.33223.67NE, NO0.00G. OtherNENENENONOO ther LandNENNNE, NO0.00G. OtherNANANANA0.00G. OtherNANANA0.00G. OtherNANANA0.00G. OtherNANANA0.00G. OtherNANANA0.00G. OtherNANANA0.00G. Waste base basel nalidingState5.405.793.55C. Waste Incineration5.405.793.55100.00D. OtherNANANA0.00NAD. OtherNANANA0.001.01D. OtherState Incineration5.405.793.55100.00D. Other<	A. Enteric Fermentation				
C. Rice Cultivation Image: Constraint of the summary table in CRF) Image: Constraint of the summary table in CRF) D. Agricultural Soils Image: Constraint of the summary table in CRF) Image: Constraint of the summary table in CRF) F. Field Burning of Savannas Image: Constraint of the summary table in CRF) Image: Constraint of the summary table in CRF) S. Land Use, Land-Use Change and Forestry -2,482.33 -2,893.00 -3,094.67 42.81 A. Forest Land -3,025.00 -3,058.00 -3,215.67 81.20 B. Cropland -58.67 -58.67 NE,NO -100.00 C. Grassland 601.33 22.3.67 121.00 -131.73 D. Wetlands NE,NO NE,NO NE,NO 0.00 F. Other Land NE,NO NE,NO NE,NO 0.00 G. Other NA NA NA 0.00 G. Other NA NA NA 0.00 G. Waste Disposal on Land NA,NO NA,NO NA,NO 0.00 D. Other NA NA NA 0.00 T. Other Cas specified in the summary table in CRF) NA NA 0.00	B. Manure Management				
D. Agricultural Soils International Section Sectin Sectin Section Section Section Section Sectin Section	C. Rice Cultivation				
E. Prescribed Burning of Savannas I I I I F. Field Burning of Agricultural Residues I I I I G. Other -2,482.33 -2,893.00 -3,094.67 42.81 A. Forest Land -3,025.00 -3,058.00 -3,215.67 81.20 B. Cropland -58.67 NE,NO -100.00 C. Grassland 601.33 223.67 121.00 -131.73 D. Wetlands NE,NO NE,NO NE,NO 0.00 E. Settlements NE,NO NE,NO 0.00 G. Other NA NA NA 0.00 G. Waste Disposal on Land NA, NA NA 0.00 B. Waste-water Handling - - - - C. Waste Incineration 5.40 5.79 3.55 100.00 - 0.00 D. Other NA NA <td< td=""><td>D. Agricultural Soils</td><td></td><td></td><td></td><td></td></td<>	D. Agricultural Soils				
F. Field Burning of Agricultural Residues Image: Constraint of Agricultural Residues Image: Constraint of Agricultural Residues G. Other -2,482.33 -2,893.00 -3,094.67 42.81 A. Forest Land -3,025.00 -3,094.67 42.81 A. Forest Land -3,025.00 -3,094.67 42.81 A. Forest Land -3,025.00 -3,215.67 81.20 B. Cropland -58.67 NE,NO -100.00 C. Grassland 0601.33 223.67 121.00 -131.73 D. Wetlands NE,NO NE,NO NE,NO 0.00 E. Settlements NE,NO NE,NO NE,NO 0.00 G. Other NA NA NA 0.00 G. Other NA NA NA 0.00 G. Waste 5.40 5.79 3.55 100.00 G. Waste Na, NO NA, NO NA, NO 0.00 B. Vaste-water Handling NA NA NA 0.00 C. Waste Incineration 5.40 5.79 3.55 100.00 O. Other NA NA	E. Prescribed Burning of Savannas				
G. Other Image: Construct of the symmetry -2,482.33 -2,893.00 -3,094.67 42.81 A. Forest Land -3,025.00 -3,058.00 -3,215.67 81.20 B. Cropland -58.67 -58.67 NE, NO -100.00 C. Grassland 601.33 223.67 121.00 -131.73 D. Wetlands NE, NO NE, NO NE, NO 0.000 F. Other Land NO NO NO 0.000 G. Other NA NA NA 0.00 G. Other NA NA NA 0.00 G. Other NA NA NA 0.00 G. Waste 5.40 5.79 3.55 100.00 G. Waste Disposal on Land NA, NO NA, NO NA, NO 0.00 B. Waste-water Handling	F. Field Burning of Agricultural Residues				
5. Land Use, Land-Use Change and Forestry -2,482.33 -2,893.00 -3,094.67 42.81 A. Forest Land -3,025.00 -3,058.00 -3,215.67 81.20 B. Cropland -58.67 -58.67 NE, NO -100.00 C. Grassland 601.33 223.67 121.00 -131.73 D. Wetlands NE, NO NE, NO NE, NO 0.00 E. Settlements NE, NO NE, NO 0.00 F. Other Land NO NO NO 0.00 G. Other NA NA NA 0.00 G. Other Land NO NO NO 0.00 G. Other Land NA NA NA 0.00 G. Other Land NA NA NA 0.00 G. Waste 5.40 5.79 3.55 100.00 G. Waste NSpoal on Land NA, NO NA, NO NA, NO D. Other NA NA NA 0.00 G. Waste Incineration 5.40 5.79 3.55 100.00 D. Other Solid Waste Disposal on Land	G. Other				
A. Forest Land -3,025.00 -3,058.00 -3,215.67 81.20 B. Cropland -58.67 58.67 NE, NO -100.00 C. Grassland 601.33 223.67 121.00 -131.73 D. Wetlands NE, NO NE, NO NE, NO 0.00 E. Settlements NE, NO NE, NO NE, NO 0.00 F. Other Land NO NO NO 0.00 G. Other NA NA NA 0.00 G. Other NA NA NA 0.00 G. Waste 5.40 5.79 3.55 100.00 D. Other NA NA NA 0.00 G. Waste Incineration 5.40 5.79 3.55 100.00 D. Other NA NA NA 0.00 G. Waste Incineration S.40 5.40 2.79 2.55 <	5. Land Use, Land-Use Change and Forestry	-2,482.33	-2,893.00	-3,094.67	42.81
B. Cropland -58.67 NE, NO -100.00 C. Grassland 601.33 223.67 121.00 -131.73 D. Wetlands NE, NO NE, NO NE, NO 0.00 E. Settlements NE, NO NE, NO NE, NO 0.00 F. Other Land NO NO NO 0.00 G. Other NA NA NA 0.00 G. Other NA NA NA 0.00 G. Waste 5.40 5.79 3.55 100.00 B. Waste-water Handling NA, NO NA, NO NA, NO 0.00 C. Waste Incineration 5.40 5.79 3.55 100.00 D. Other NA NA NA 0.00 C. Waste Incineration 5.40 5.79 3.55 100.00 D. Other NA NA NA 0.00 Total CO2 emissions including net CO2 from LULUCF 204,310.23 223,747.28 211,622.79 -20.61 Total CO2 emissions excluding net CO2 from LULUCF 206,792.56 226,640.22 214,71.76 -20.10 <	A. Forest Land	-3,025.00	-3,058.00	-3,215.67	81.20
C. Grassland 601.33 223.67 121.00 -131.73 D. Wetlands NE, NO NE, NO NE, NO NE, NO 0.00 E. Settlements NE, NO NE, NO NE, NO 0.00 F. Other Land NO NO NO 0.00 G. Other NA NA NA 0.00 G. Other NA NA NA 0.00 G. Waste 5.40 5.79 3.55 100.00 A. Solid Waste Disposal on Land NA, NO NA, NO NA, NO 0.00 B. Waste-water Handling	B. Cropland	-58.67	-58.67	NE, NO	-100.00
D. Wetlands NE, NO NE, NO NE, NO NE, NO NE, NO 0.00 E. Settlements NE, NO NE, NO NE, NO NE, NO 0.00 0.00 F. Other Land NO NO NO NO 0.00 0.00 G. Other NA NA NA NA 0.00 0.00 G. Other NA NA NA NA 0.00 0.00 G. Waste 5.40 S.79 3.55 100.00 0.00 B. Waste-water Handling NA, NO NA, NO 0.00 0.00 C. Waste Incineration 5.40 5.79 3.55 100.00 D. Other NA NA NA 0.00 Total CO2 emissions including net CO2 from LULUCF 204,310.23 223,747.28 211,622.79 -20.61 Total CO2 emissions excluding net CO2 from LULUCF 206,792.56 226,640.28 211,622.79 -20.01 Memo Items: International Bunkers 508.10 458.01 397.95 100.00 </td <td>C. Grassland</td> <td>601.33</td> <td>223.67</td> <td>121.00</td> <td>-131.73</td>	C. Grassland	601.33	223.67	121.00	-131.73
E. Settlements NE, NO NE, NO NE, NO NE, NO NE, NO 0.00 F. Other Land NO NO NO NO 0.00 G. Other NA NA NA NA 0.00 G. Other NA NA NA 0.00 G. Waste 5.40 5.79 3.55 100.00 B. Waste-water Handling NA, NO NA, NO 0.00 C. Waste Incineration 5.40 5.79 3.55 100.00 D. Other NA NA NA 0.00 Total CO2 emissions including net CO2 from LULUCF 204,310.23 223,747.28 211,622.79 -20.61 Total CO2 emissions excluding net CO2 from LULUCF 206,792.56 226,604.28 211,622.79 -20.61 International Bunkers -20.10 -20.10 Marine -20.10 -20.61 -20.10 Multilateral Operations 508.10 458.01 397.95 100.00	D. Wetlands	NE, NO	NE, NO	NE, NO	0.00
F. Other Land NO NO NO 0.00 G. Other NA NA NA 0.00 G. Other NA NA NA 0.00 6. Waste 5.40 5.79 3.55 100.00 A. Solid Waste Disposal on Land NA, NO NA, NO NA, NO 0.00 B. Waste-water Handling NA NA 0.00 C. Waste Incineration 5.40 5.79 3.55 100.00 D. Other NA NA NA 0.00 7. Other (as specified in the summary table in CRF) NA NA NA 0.00 Total CO2 emissions including net CO2 from LULUCF 204,310.23 223,747.28 211,622.79 -20.61 Total CO2 emissions excluding net CO2 from LULUCF 206,792.56 226,640.28 214,627.99 -20.10 Memo Items: International Bunkers 508.10 458.01 397.95 100.00 Marine NA, NE NA, NE 0.00 0.00 0.00 0.00 Multilateral Operations NO NO NO 0.00 0.00 <	E. Settlements	NE, NO	NE, NO	NE, NO	0.00
G. Other NA NA NA 0.00 6. Waste 5.40 5.79 3.55 100.00 A. Solid Waste Disposal on Land NA, NO NA, NO NA, NO 0.00 B. Waste-water Handling 0.00 C. Waste Incineration 5.40 5.79 3.55 100.00 0.00 0.00 0.00 0.00 0.00	F. Other Land	NO	NO	NO	0.00
6. Waste 5.40 5.79 3.55 100.00 A. Solid Waste Disposal on Land NA, NO NA, NO NA, NO 0.00 B. Waste-water Handling -	G. Other	NA	NA	NA	0.00
A. Solid Waste Disposal on Land NA, NO NA, NO NA, NO O.00 B. Waste-water Handling -	6. Waste	5.40	5.79	3.55	100.00
B. Waste-water Handling Image: Constraint of the summary table in CRF) State State <td>A. Solid Waste Disposal on Land</td> <td>NA, NO</td> <td>NA, NO</td> <td>NA, NO</td> <td>0.00</td>	A. Solid Waste Disposal on Land	NA, NO	NA, NO	NA, NO	0.00
C. Waste Incineration 5.40 5.79 3.55 100.00 D. Other NA NA NA 0.00 7. Other (as specified in the summary table in CRF) NA NA NA 0.00 Total CO2 emissions including net CO2 from LULUCF 204,310.23 223,747.28 211,622.79 -20.61 Total CO2 emissions excluding net CO2 from LULUCF 206,792.56 226,640.28 214,717.46 -201.00 Memo Items: - - - - - International Bunkers 508.10 458.01 397.95 100.00 Aviation 508.10 458.01 397.95 100.00 Marine NA, NE NA, NE 0.00 Multilateral Operations NO NO 0.00 CO2 Emissions from Biomass 459.97 511.41 495.34 -54.28	B. Waste-water Handling				
D. Other NA NA NA 0.00 7. Other (as specified in the summary table in CRF) NA NA NA 0.00 Total CO2 emissions including net CO2 from LULUCF 204,310.23 223,747.28 211,622.79 -20.61 Total CO2 emissions excluding net CO2 from LULUCF 206,792.56 226,640.28 214,717.46 -20.10 Memo Items: - - - - - - International Bunkers 508.10 458.01 397.95 100.00 - 100.00 Aviation 508.10 458.01 397.95 100.00 - 0.00 Marine NA, NE NA, NE NA, NE 0.00 0.00 0.00 Multilateral Operations NO NO 0.00 0.00 - 543.83 -54.28	C. Waste Incineration	5.40	5.79	3.55	100.00
7. Other (as specified in the summary table in CRF) NA NA NA 0.00 Total CO2 emissions including net CO2 from LULUCF 204,310.23 223,747.28 211,622.79 -20.61 Total CO2 emissions excluding net CO2 from LULUCF 206,792.56 226,640.28 214,717.46 -20.10 Memo Items: - - - - - - International Bunkers 508.10 458.01 397.95 100.00 Aviation 508.10 458.01 397.95 100.00 Marine NA, NE NA, NE 0.00 Multilateral Operations NO NO 0.00 CO2 Emissions from Biomass 459.97 511.41 495.34 -54.28	D. Other	NA	NA	NA	0.00
Total CO2 emissions including net CO2 from LULUCF 204,310.23 223,747.28 211,622.79 -20.61 Total CO2 emissions excluding net CO2 from LULUCF 206,792.56 226,640.28 214,717.46 -20.10 Memo Items: -	7. Other (as specified in the summary table in CRF)	NA	NA	NA	0.00
Total CO2 emissions excluding net CO2 from LULUCF 206,792.56 226,640.28 214,717.46 -20.10 Memo Items: - - - - - - - - 0 - 0 - 0 - 0 - 0	Total CO2 emissions including net CO2 from LULUCF	204,310.23	223,747.28	211,622.79	-20.61
Memo Items: Image: Control of the image: Contro	Total CO2 emissions excluding net CO2 from LULUCF	206,792.56	226,640.28	214,717.46	-20.10
International Bunkers 508.10 458.01 397.95 100.00 Aviation 508.10 458.01 397.95 100.00 Marine NA, NE NA, NE NA, NE 0.00 Multilateral Operations NO NO 0.00 CO2 Emissions from Biomass 459.97 511.41 495.34 -54.28	Memo Items:				
Aviation 508.10 458.01 397.95 100.00 Marine NA, NE NA, NE NA, NE 0.00 Multilateral Operations NO NO NO 0.00 CO2 Emissions from Biomass 459.97 511.41 495.34 -54.28	International Bunkers	508.10	458.01	397.95	100.00
Marine NA, NE NA, NE NA, NE 0.00 Multilateral Operations NO NO NO 0.00 CO2 Emissions from Biomass 459.97 511.41 495.34 -54.28	Aviation	508.10	458.01	397.95	100.00
Multilateral Operations NO NO 0.00 CO2 Emissions from Biomass 459.97 511.41 495.34 -54.28	Marine	NA, NE	NA, NE	NA, NE	0.00
CO2 Emissions from Biomass 459.97 511.41 495.34 -54.28	Multilateral Operations	NO	NO	NO	0.00
	CO2 Emissions from Biomass	459.97	511.41	495.34	-54.28

Abbreviations: CRF = common reporting format, LULUCF = land use, land-use change and forestry.

^{*a*} 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 Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

^b Fill in net emissions/removals as reported in CRF table Summary 1.A of the latest reported inventory year. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

Table 1(b) Emission trends (CH₄) (Sheet 1 of 3)

	Base year"	1991	1992	1993	1994	1995	1996	1997	1998
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	kt								
1. Energy	2,278.30	2,250.29	2,119.75	1,815.67	1,600.23	1,268.97	1,169.96	1,059.15	999.32
A. Fuel Combustion (Sectoral Approach)	61.87	52.90	58.81	50.46	41.32	37.33	35.70	34.61	32.38
1. Energy Industries	1.87	1.82	1.61	1.45	1.18	1.19	1.06	0.94	0.89
2. Manufacturing Industries and Construction	1.58	1.56	2.63	2.08	1.46	1.32	1.17	1.27	1.20
3. Transport	5.98	4.98	4.64	3.59	3.06	2.55	2.12	1.90	1.80
4. Other Sectors	49.36	43.00	49.77	43.19	35.44	32.07	31.17	30.29	27.00
5. Other	3.08	1.53	0.16	0.15	0.18	0.20	0.18	0.21	1.49
B. Fugitive Emissions from Fuels	2,216.43	2,197.39	2,060.93	1,765.22	1,558.91	1,231.64	1,134.26	1,024.54	966.94
1. Solid Fuels	1,782.44	1,749.88	1,666.51	1,461.86	1,328.26	973.03	890.39	878.05	828.89
2. Oil and Natural Gas	433.99	447.51	394.43	303.36	230.65	258.60	243.87	146.49	138.05
2. Industrial Processes	2.26	2.09	1.80	1.40	0.93	0.93	0.90	1.11	1.05
A. Mineral Products	NO								
B. Chemical Industry	2.26	2.09	1.80	1.40	0.93	0.93	0.90	1.11	1.05
C. Metal Production	IE, NA, NE, NO								
D. Other Production									
E. Production of Halocarbons and SF6									
F. Consumption of Halocarbons and SF6									
G. Other	NA								
3. Solvent and Other Product Use									
4. Agriculture	1,099.26	1,074.17	1,044.44	1,034.67	847.00	721.96	558.92	453.73	427.25
A. Enteric Fermentation	1,017.73	994.74	967.04	959.28	782.04	666.24	515.06	417.62	393.53
B. Manure Management	74.09	72.29	70.50	68.91	58.84	49.96	38.45	31.07	29.04
C. Rice Cultivation	7.44	7.14	6.90	6.48	6.12	5.76	5.40	5.04	4.68
D. Agricultural Soils	NA, NE								
E. Prescribed Burning of Savannas	NA								
F. Field Burning of Agricultural Residues	NA, NO								
G. Other	NA								
5. Land Use, Land-Use Change and Forestry	0.02	0.02	0.02	0.01	0.07	0.33	0.15	2.96	0.20
A. Forest Land	0.02	0.02	0.02	0.01	0.07	0.33	0.15	2.96	0.20
B. Cropland	NO								
C. Grassland	NE, NO								
D. Wetlands	NO								
E. Settlements	NE, NO								
F. Other Land	NE, NO	NO							
G. Other	NE								
6. Waste	111.98	115.60	119.35	122.55	125.11	127.39	128.67	130.84	130.64
A. Solid Waste Disposal on Land	111.98	115.60	119.35	122.55	125.11	127.39	128.67	130.84	130.64
B. Waste-water Handling	NA, NO								
C. Waste Incineration	NO								
D. Other	NA								
7. Other (as specified in the summary table in CRF)	NA								
Total CH4 emissions including CH4 from LULUCF	3,491.82	3,442.17	3,285.35	2,974.31	2,573.34	2,119.58	1,858.59	1,647.79	1,558.46
Total CH4 emissions excluding CH4 from LULUCF	3,491.80	3,442.14	3,285.33	2,974.30	2,573.27	2,119.25	1,858.44	1,644.83	1,558.25
Memo Items:									
International Bunkers	NA, NE								
Aviation	NE								
Marine	NA, NE								
Multilateral Operations	NO								
CO2 Emissions from Biomass									

Table 1(b) Emission trends (CH₄) (Sheet 2 of 3)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	kt	kt								
1. Energy	858.57	981.66	818.85	875.96	1,013.10	1,045.10	1,053.63	1,128.42	1,176.31	1,311.56
A. Fuel Combustion (Sectoral Approach)	15.64	16.63	18.44	19.79	22.67	28.18	23.44	24.05	26.48	28.96
1. Energy Industries	0.66	0.79	0.80	0.94	1.05	1.23	1.36	1.28	1.22	1.22
2. Manufacturing Industries and Construction	1.50	1.61	1.68	1.71	1.76	1.71	1.87	2.18	2.46	2.25
3. Transport	1.78	2.27	2.46	3.00	3.23	3.17	3.80	4.62	5.38	6.15
4. Other Sectors	10.71	10.12	12.78	13.09	15.29	21.03	14.57	13.96	14.92	18.00
5. Other	0.99	1.86	0.71	1.05	1.34	1.04	1.83	2.02	2.50	1.34
B. Fugitive Emissions from Fuels	842.93	965.03	800.41	856.17	990.43	1,016.91	1,030.19	1,104.37	1,149.83	1,282.60
1. Solid Fuels	695.94	807.72	610.12	674.28	782.52	772.65	752.72	815.40	827.91	944.15
2. Oil and Natural Gas	146.99	157.31	190.29	181.89	207.90	244.27	277.47	288.97	321.91	338.45
2. Industrial Processes	1.25	1.35	1.39	1.39	1.42	1.45	1.36	1.45	1.67	1.47
A. Mineral Products	NO	NO								
B. Chemical Industry	1.25	1.35	1.39	1.39	1.42	1.45	1.36	1.45	1.67	1.47
C. Metal Production	IE, NA, NE, NO	IE, NA, NO								
D. Other Production										
E. Production of Halocarbons and SF6										
F. Consumption of Halocarbons and SF6										
G. Other	NA	NA								
3. Solvent and Other Product Use										
4. Agriculture	445.70	457.74	468.74	497.07	534.07	568.72	597.90	626.74	647.87	666.67
A. Enteric Fermentation	411.58	422.24	432.29	458.74	492.26	525.54	553.07	580.23	600.07	618.61
B. Manure Management	29.72	30.85	32.16	34.25	36.75	38.30	39.69	41.23	42.52	43.50
C. Rice Cultivation	4.40	4.65	4.29	4.08	5.06	4.88	5.14	5.28	5.28	4.56
D. Agricultural Soils	NA, NE	NA, NE								
E. Prescribed Burning of Savannas	NA	NA								
F. Field Burning of Agricultural Residues	NA, NO	NA, NO								
G. Other	NA	NA								
5. Land Use, Land-Use Change and Forestry	0.34	0.21	0.31	0.24	0.55	0.73	0.21	0.35	1.09	0.09
A. Forest Land	0.34	0.21	0.31	0.24	0.55	0.73	0.21	0.35	1.09	0.09
B. Cropland	NO	NO								
C. Grassland	NE, NO	NE, NO								
D. Wetlands	NO	NO								
E. Settlements	NE, NO	NE, NO								
F. Other Land	NO	NO								
G. Other	NE	NE								
6. Waste	131.08	132.14	133.63	135.77	138.31	141.27	144.66	148.54	152.73	156.12
A. Solid Waste Disposal on Land	131.08	132.14	133.63	135.77	138.31	141.27	144.66	148.54	152.73	156.12
B. Waste-water Handling	NA, NO	NA, NO								
C. Waste Incineration	NO	NO								
D. Other	NA	NA								
7. Other (as specified in the summary table in CRF)	NA	NA								
Total CH4 emissions including CH4 from LULUCF	1,436.93	1,573.10	1,422.91	1,510.45	1,687.45	1,757.26	1,797.76	1,905.51	1,979.67	2,135.92
Total CH4 emissions excluding CH4 from LULUCF	1,436.59	1,572.89	1,422.60	1,510.20	1,686.90	1,756.53	1,797.56	1,905.16	1,978.58	2,135.82
Memo Items:										
International Bunkers	NA, NE	NA, NE								
Aviation	NE	NE								
Marine	NA, NE	NA, NE								
Multilateral Operations	NO	NO								
CO2 Emissions from Biomass										

Table 1(b) Emission trends (CH₄) (Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2009	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
1. Energy	1,285.92	1,442.22	1,494.01	-34.42
A. Fuel Combustion (Sectoral Approach)	31.08	33.34	40.43	-34.66
1. Energy Industries	1.21	1.33	1.28	-31.66
2. Manufacturing Industries and Construction	2.25	2.16	2.26	43.23
3. Transport	5.90	6.02	5.80	-2.98
4. Other Sectors	18.29	19.56	27.68	-43.93
5. Other	3.43	4.27	3.42	10.86
B. Fugitive Emissions from Fuels	1,254.84	1,408.88	1,453.59	-34.42
1. Solid Fuels	941.08	1,066.46	1,082.64	-39.26
2. Oil and Natural Gas	313.76	342.42	370.95	-14.53
2. Industrial Processes	1.28	1.26	1.33	-40.99
A. Mineral Products	NO	NO	NO	0.00
B. Chemical Industry	1.28	1.26	1.33	-40.99
C. Metal Production	IE, NA, NO	IE, NA, NO	IE, NA, NO	0.00
D. Other Production				
E. Production of Halocarbons and SF6				
F. Consumption of Halocarbons and SF6				
G. Other	NA	NA	NA	0.00
3. Solvent and Other Product Use				
4. Agriculture	678.93	692.77	650.46	-40.83
A. Enteric Fermentation	629.57	642.28	603.28	-40.72
B. Manure Management	44.14	44.85	41.60	-43.85
C. Rice Cultivation	5.22	5.64	5.58	-25.00
D. Agricultural Soils	NA, NE	NA, NE	NA, NE	0.00
E. Prescribed Burning of Savannas	NA	NA	NA	0.00
F. Field Burning of Agricultural Residues	NA, NO	NA, NO	NA, NO	0.00
G. Other	NA	NA	NA	0.00
5. Land Use, Land-Use Change and Forestry	0.03	0.09	0.04	135.29
A. Forest Land	0.03	0.09	0.04	135.29
B. Cropland	NO	NO	NO	0.00
C. Grassland	NE, NO	NE, NO	NE, NO	0.00
D. Wetlands	NO	NO	NO	0.00
E. Settlements	NE, NO	NE, NO	NE, NO	0.00
F. Other Land	NO	NO	NO	0.00
G. Other	NE	NE	NE	0.00
6. Waste	160.25	165.01	170.12	51.92
A. Solid Waste Disposal on Land	160.25	165.01	170.12	51.92
B. Waste-water Handling	NA, NO	NA, NO	NA, NO	0.00
C. Waste Incineration	NO	NO	NO	0.00
D. Other	NA	NA	NA	0.00
7. Other (as specified in the summary table in CRF)	NA	NA	NA	0.00
Total CH4 emissions including CH4 from LULUCF	2,126.42	2,301.35	2,315.96	-33.67
Total CH4 emissions excluding CH4 from LULUCF	2,126.38	2,301.26	2,315.92	-33.68
Memo Items:				
International Bunkers	0.00	0.00	0.00	100.00
Aviation	0.00	0.00	0.00	100.00
Marine	NA, NE	NA, NE	NA, NE	0.00
Multilateral Operations	NO	NO	NO	0.00
CO2 Emissions from Biomass				

Abbreviations: CRF = common reporting format, LULUCF = land use, land-use change and fores

^a 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 Conference of the Parties. For these Parties, this different base year is used to calculate the

percentage change in the final column of this table.

Table 1(c) Emission trends (N₂O) (Sheet 1 of 3)

kt kt<	kt 1.46 1.46 0.82
1. Energy 2.81 2.52 2.42 2.17 1.85 1.78 1.61 1.43 A. Fuel Combustion (Sectoral Approach) 2.81 2.52 2.42 2.17 1.85 1.78 1.61 1.43 I. Energy Industries 1.40 1.38 1.43 1.32 1.13 1.11 0.98 0.87	1.46 1.46 0.82
A. Fuel Combustion (Sectoral Approach) 2.81 2.52 2.42 2.17 1.85 1.78 1.61 1.43 I. Energy Industries 1.40 1.38 1.43 1.32 1.13 1.11 0.98 0.87	1.46 0.82
I. Energy Industries 1.40 1.38 1.43 1.32 1.11 0.98 0.87	0.82
2. Manufacturing Industries and Construction 0.21 0.20 0.35 0.28 0.20 0.18 0.16 0.18	0.17
3. Transport 0.11 0.11 0.09 0.06 0.05 0.05 0.04 0.04	0.04
4. Other Sectors 0.68 0.64 0.53 0.49 0.44 0.40 0.39 0.31	0.21
5. Other 0.41 0.19 0.02 0.03 0.04 0.03 0.04	0.23
B. Fugitive Emissions from Fuels NA, NE, NO	NE, NO
1. Solid Fuels NA, NO	NA, NO
2. Oil and Natural Gas NA, NE, NO NA	NE, NO
2. Industrial Processes NA, NO	NA, NO
A. Mineral Products NO	NO
B. Chemical Industry NA, NO	NA, NO
C. Metal Production NA NA NA NA NA NA	NA
D. Other Production	
E. Production of Halocarbons and SF6	
F. Consumption of Halocarbons and SF6	
G. Other NA NA NA NA NA NA NA NA NA	NA
3. Solvent and Other Product Use NA, NE	NA, NE
4. Agriculture 48.58 44.93 47.31 41.05 32.22 25.68 20.04 16.35	14.63
A. Enteric Fermentation	
B. Manure Management 18.32 18.03 17.72 17.48 14.45 12.07 9.25 7.51	7.03
C. Rice Cultivation	
D. Agricultural Soils 30.26 26.90 29.59 23.56 17.77 13.61 10.78 8.84	7.60
E. Prescribed Burning of Savannas NA NA NA NA NA NA NA NA	NA
F. Field Burning of Agricultural Residues NA, NO	NA, NO
G. Other NA NA NA NA NA NA NA NA NA	NA
5. Land Use, Land-Use Change and Forestry 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	0.00
A. Forest Land 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	0.00
B. Cropland NE, NO	NE, NO
C. Grassland NE, NO	NE, NO
D. Wetlands NO NO NO NO NO NO NO NO NO	NO
E. Settlements NE, NO	NE, NO
F. Other Land NE, NO	NO
G. Other NE NE NE NE NE NE NE NE	NE
6. Waste 1.25 1.35 1.44 1.48 1.54 1.39 1.37 1.35	1.12
A. Solid Waste Disposal on Land	
B. Waste-water Handling 1.25 1.35 1.44 1.48 1.54 1.39 1.37 1.35	1.12
C. Waste Incineration NO NO NO NO NO NO NO NO NO	NO
D. Other NA NA NA NA NA NA NA NA NA	NA
7. Other (as specified in the summary table in CRF) NA NA NA NA NA NA NA NA	NA
Total N2O emissions including N2O from LULUCF 52.64 48.80 51.17 44.70 35.61 28.86 23.01 19.19	17.21
Total N2O emissions excluding N2O from LULUCF 52.64 48.80 51.17 44.70 35.61 28.85 23.01 19.13	17.21
Memo Itens:	
International Bunkers NA, NE	NA, NE
Aviation NE NE NE NE NE NE NE NE	NE
Marine NA, NE	NA, NE
Multilateral Operations NO NO NO NO NO NO NO	NO
CO2 Emissions from Biomass	

Table 1(c) Emission trends (N₂O) (Sheet 2 of 3)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	kt									
1. Energy	1.15	1.37	1.35	1.48	1.65	1.71	1.85	1.98	2.06	1.88
A. Fuel Combustion (Sectoral Approach)	1.15	1.37	1.35	1.48	1.65	1.71	1.85	1.98	2.06	1.88
1. Energy Industries	0.63	0.72	0.78	0.80	0.89	1.03	1.04	1.10	1.09	1.03
2. Manufacturing Industries and Construction	0.25	0.27	0.29	0.30	0.32	0.30	0.31	0.34	0.37	0.35
3. Transport	0.02	0.04	0.05	0.06	0.06	0.06	0.06	0.08	0.09	0.11
4. Other Sectors	0.10	0.10	0.12	0.14	0.16	0.15	0.13	0.14	0.14	0.16
5. Other	0.15	0.25	0.11	0.18	0.22	0.17	0.30	0.32	0.36	0.22
B. Fugitive Emissions from Fuels	NA, NE, NO									
1. Solid Fuels	NA, NO									
2. Oil and Natural Gas	NA, NE, NO									
2. Industrial Processes	NA, NO									
A. Mineral Products	NO									
B. Chemical Industry	NA, NO									
C. Metal Production	NA									
D. Other Production										
E. Production of Halocarbons and SF6										
F. Consumption of Halocarbons and SF6										
G. Other	NA									
3. Solvent and Other Product Use	NA, NE									
4. Agriculture	15.72	15.86	17.08	18.14	19.30	20.08	21.08	22.42	23.70	23.43
A. Enteric Fermentation										
B. Manure Management	7.17	7.44	7.75	8.26	8.82	9.25	9.61	10.08	10.40	10.68
C. Rice Cultivation										
D. Agricultural Soils	8.55	8.42	9.33	9.88	10.48	10.83	11.47	12.34	13.30	12.74
E. Prescribed Burning of Savannas	NA									
F. Field Burning of Agricultural Residues	NA, NO									
G. Other	NA									
5. Land Use, Land-Use Change and Forestry	0.01	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.02	0.00
A. Forest Land	0.01	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.02	0.00
B. Cropland	NE, NO									
C. Grassland	NE, NO									
D. Wetlands	NO									
E. Settlements	NE, NO									
F. Other Land	NO									
G. Other	NE									
6. Waste	0.99	1.03	1.07	1.21	1.26	1.30	1.40	1.45	1.48	1.50
A. Solid Waste Disposal on Land										
B. Waste-water Handling	0.99	1.03	1.07	1.21	1.26	1.30	1.40	1.45	1.48	1.50
C. Waste Incineration	NO									
D. Other	NA									
7. Other (as specified in the summary table in CRF)	NA									
Total N2O emissions including N2O from LULUCF	17.86	18.27	19.51	20.83	22.21	23.10	24.34	25.85	27.26	26.80
Total N2O emissions excluding N2O from LULUCF	17.86	18.27	19.50	20.82	22.20	23.09	24.34	25.84	27.24	26.80
Memo Items:										
International Bunkers	NA, NE									
Aviation	NE									
Marine	NA, NE									
Multilateral Operations	NO									
CO2 Emissions from Biomass										

Table 1(c) Emission trends (N₂O) (Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2009	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
1. Energy	2.17	2.36	2.17	-22.61
A. Fuel Combustion (Sectoral Approach)	2.17	2.36	2.17	-22.61
1. Energy Industries	1.12	1.21	1.19	-14.97
2. Manufacturing Industries and Construction	0.35	0.33	0.35	69.92
3. Transport	0.11	0.11	0.11	-6.07
4. Other Sectors	0.16	0.16	0.20	-70.34
5. Other	0.44	0.55	0.33	-20.34
B. Fugitive Emissions from Fuels	NA, NE, NO	NA, NE, NO	NA, NE, NO	0.00
1. Solid Fuels	NA, NO	NA, NO	NA, NO	0.00
2. Oil and Natural Gas	NA, NE, NO	NA, NE, NO	NA, NE, NO	0.00
2. Industrial Processes	NA, NO	NA, NO	NA, NO	0.00
A. Mineral Products	NO	NO	NO	0.00
B. Chemical Industry	NA, NO	NA, NO	NA, NO	0.00
C. Metal Production	NA	NA	NA	0.00
D. Other Production				
E. Production of Halocarbons and SF6				
F. Consumption of Halocarbons and SF6				
G. Other	NA	NA	NA	0.00
3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	0.00
4. Agriculture	24.93	24.99	25.07	-48.39
A. Enteric Fermentation				
B. Manure Management	10.92	11.12	10.50	-42.66
C. Rice Cultivation				
D. Agricultural Soils	14.01	13.87	14.57	-51.85
E. Prescribed Burning of Savannas	NA	NA	NA	0.00
F. Field Burning of Agricultural Residues	NA, NO	NA, NO	NA, NO	0.00
G. Other	NA	NA	NA	0.00
5. Land Use, Land-Use Change and Forestry	0.00	0.00	0.00	135.29
A. Forest Land	0.00	0.00	0.00	135.29
B. Cropland	NE, NO	NE, NO	NE, NO	0.00
C. Grassland	NE, NO	NE, NO	NE, NO	0.00
D. Wetlands	NO	NO	NO	0.00
E. Settlements	NE, NO	NE, NO	NE, NO	0.00
F. Other Land	NO	NO	NO	0.00
G. Other	NE	NE	NE	0.00
6. Waste	1.52	1.56	1.58	25.98
A. Solid Waste Disposal on Land				
B. Waste-water Handling	1.52	1.56	1.58	25.98
C. Waste Incineration	NO	NO	NO	0.00
D. Other	NA	NA	NA	0.00
7. Other (as specified in the summary table in CRF)	NA	NA	NA	0.00
Total N2O emissions including N2O from LULUCF	28.62	28.91	28.83	-45.24
Total N2O emissions excluding N2O from LULUCF	28.62	28.91	28.83	-45.24
Memo Items:				
International Bunkers	0.02	0.02	0.01	100.00
Aviation	0.02	0.02	0.01	100.00
Marine	NA, NE	NA, NE	NA, NE	0.00
Multilateral Operations	NO	NO	NO	0.00
CO2 Emissions from Biomass				

Abbreviations: CRF = common reporting format, LULUCF = land use, land-use change and fores

^{*a*} 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 Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

Table 1(d) Emission trends (HFCs, PFCs and SF₆) (Sheet 1 of 3)

	Base year ^a	1991	1992	1993	1994	1995	1996	1997	1998
GREENHOUSE GAS SOURCE AND SINK CALEGORIES	kt	kt	kt	kt	kt	kt	kt	kt	kt
Emissions of HFCsc - (kt CO2 eq)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	0.21	0.40	0.40	42.51
HFC-23	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-32	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-41	NA, NO	NA, NO	NA, NO	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	NA, NO	NA, NO	NA, NO
HFC-125	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-134	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-134a	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	0.00	0.00	0.00	0.03
HFC-152a	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-143	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-143a	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-227ea	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-236fa	NA, NO	NA, NO	NA, NO	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	NA, NO	NA, NO	NA, NO
Unspecified mix of listed HFCsd - (kt CO ₂ eq)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Emissions of PFCsc - (kt CO2 eq)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
CF_4	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C_2F_6	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C 3F8	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C_4F_{10}	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
c-C ₄ F ₈	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C ₅ F ₁₂	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C_6F_{14}	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Unspecified mix of listed PFCs(4) - (Gg CO ₂ equivalent)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Emissions of SF6(3) - (Gg CO2 equivalent)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
SF ₆	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO

Table 1(d) Emission trends (HFCs, PFCs and SF₆) (Sheet 2 of 3)

CREENHOUSE CAS SOURCE AND SINK CATECORIES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
GREENHOUSE GAS SOURCE AND SINK CALEGORIES	kt									
Emissions of HFCsc - (kt CO2 eq)	17.55	164.19	197.08	159.90	176.80	235.82	237.12	390.13	610.36	606.49
HFC-23	NA, NO									
HFC-32	NA, NO	0.00	0.00							
HFC-41	NA, NO									
HFC-43-10mee	NA, NO									
HFC-125	NA, NO	0.03	0.03							
HFC-134	NA, NO									
HFC-134a	0.01	0.13	0.15	0.12	0.14	0.18	0.18	0.30	0.32	0.32
HFC-152a	NA, NO									
HFC-143	NA, NO									
HFC-143a	NA, NO	0.03	0.03							
HFC-227ea	NA, NO									
HFC-236fa	NA, NO									
HFC-245ca	NA, NO									
Unspecified mix of listed HFCsd - (kt CO2 eq)	NA, NO									
Emissions of PFCsc - (kt CO2 eq)	NA, NO	87.17	567.27							
CF_4	NA, NO	0.01	0.07							
C ₂ F ₆	NA, NO	0.00	0.01							
C 3F8	NA, NO									
C_4F_{10}	NA, NO									
c-C ₄ F ₈	NA, NO									
C ₅ F ₁₂	NA, NO									
$C_{6}F_{14}$	NA, NO									
Unspecified mix of listed PFCs(4) - (Gg CO ₂ equivalent)	NA, NO									
Emissions of SF6(3) - (Gg CO2 equivalent)	NA, NO	0.45	0.15	0.03	0.02	0.11				
SF ₆	NA, NO	0.00	0.00	0.00	0.00	0.00				

Table 1(d) Emission trends (HFCs, PFCs and SF₆) (Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2009	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
Emissions of HFCsc - (kt CO2 eq)	646.76	837.37	843.56	100.00
HFC-23	NA, NO	NA, NO	NA, NO	0.00
HFC-32	0.01	0.01	0.03	100.00
HFC-41	NA, NO	NA, NO	NA, NO	0.00
HFC-43-10mee	NA, NO	NA, NO	NA, NO	0.00
HFC-125	0.04	0.06	0.06	100.00
HFC-134	NA, NO	NA, NO	NA, NO	0.00
HFC-134a	0.32	0.35	0.38	100.00
HFC-152a	NA, NO	NA, NO	NA, NO	0.00
HFC-143	NA, NO	NA, NO	NA, NO	0.00
HFC-143a	0.03	0.05	0.04	100.00
HFC-227ea	NA, NO	NA, NO	NA, NO	0.00
HFC-236fa	NA, NO	NA, NO	NA, NO	0.00
HFC-245ca	NA, NO	NA, NO	NA, NO	0.00
Unspecified mix of listed HFCsd - (kt CO2 eq)	NA, NO	NA, NO	NA, NO	0.00
Emissions of PFCsc - (kt CO2 eq)	678.93	1,201.50	1,328.41	100.00
CF ₄	0.09	0.15	0.17	100.00
C ₂ F ₆	0.01	0.02	0.02	100.00
C 3F8	NA, NO	NA, NO	NA, NO	0.00
C ₄ F ₁₀	NA, NO	NA, NO	NA, NO	0.00
c-C ₄ F ₈	NA, NO	NA, NO	NA, NO	0.00
C ₅ F ₁₂	NA, NO	NA, NO	NA, NO	0.00
C_6F_{14}	NA, NO	NA, NO	NA, NO	0.00
Unspecified mix of listed PFCs(4) - (Gg CO ₂ equivalent)	NA, NO	NA, NO	NA, NO	0.00
Emissions of SF6(3) - (Gg CO2 equivalent)	3.31	NA, NO	NA, NO	0.00
SF ₆	0.00	NA, NO	NA, NO	0.00

 $\label{eq:abstructure} Abbreviations: CRF = \text{common reporting format, } LULUCF = \text{land use, land-use change and forestry.}$

^a 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 Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

^cEnter 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.

^dIn accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories", 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 kt of CO2 equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.)

Custom Footnotes

Documentation Box:

Table 2(a)

Description of quantified economy-wide emission reduction target: base year^a

Party	Kazakhstan	
Base year /base period	1990	
Emission reduction target	% of base year/base period	% of 1990 ^b
	95.00	
Period for reaching target	BY-2020	

^{*a*} Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b Optional.

Table 2(b)KAZ_BR1_v1.0Description of quantified economy-wide emission reduction target: gases andsectors covered a

Gases	covered	Base year for each gas (year):
CO ₂		1990
CH ₄		1990
N ₂ O		1990
HFCs		1995
PFCs		1995
SF ₆		1995
NF ₃		
Other Gases (specify)		
Sectors covered ^b	Energy	Yes
	Transport ^f	Yes
	Industrial processes ^g	Yes
	Agriculture	Yes
	LULUCF	Yes
	Waste	Yes
	Other Sectors (specify)	·

Abbreviations : LULUCF = land use, land-use change and forestry.

^{*a*} Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b More than one selection will be allowed. If Parties use sectors other than those indicated above, the explanation of how these sectors relate to the sectors defined by the IPCC should be provided.

^f Transport is reported as a subsector of the energy sector.

^g Industrial processes refer to the industrial processes and solvent and other product use sectors.

Table 2(c)KAZ_BR1_v1.0Description of quantified economy-wide emission reduction target: globalwarming potential values $(GWP)^a$

Gases	GWP values ^b
CO ₂	2nd AR
CH ₄	2nd AR
N ₂ O	2nd AR
HFCs	2nd AR
PFCs	2nd AR
SF ₆	2nd AR
NF ₃	2nd AR
Other Gases (specify)	

Abbreviations : GWP = global warming potential

^{*a*} Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b Please specify the reference for the GWP: Second Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) or the Fourth Assessment Report of the IPCC.

Description of quantified economy-wide emission reduction target: approach to counting emissions and removals from the LULUCF sector^a

Role of LULUCF	LULUCF in base year level and target	Included
	Contribution of LULUCF is calculated using	

Abbreviation : LULUCF = land use, land-use change and forestry.

^{*a*} Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

Table 2(e)I KAZ_BR1_v1.0 Description of quantified economy-wide emission reduction target: market-based mechanisms under the Convention^{*a*}

Market-based mechanisms	Possible scale of contributions			
under the Convention	(estimated kt CO_2 eq)			
CERs				
ERUs				
AAUs ⁱ				
Carry-over units ^j				
Other mechanism units under the Convention (specify) ^d				

Abbreviations : AAU = assigned amount unit, CER = certified emission reduction, ERU = emission reduction unit.

^{*a*} Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

 d As indicated in paragraph 5(e) of the guidelines contained in annex I of decision 2/CP.17 .

^{*i*} AAUs issued to or purchased by a Party.

^{*j*} Units carried over from the first to the second commitment periods of the Kyoto Protocol, as described in decision 13/CMP.1 and consistent with decision 1/CMP.8.

Table 2(e)IIKAZ_BR1_v1.0Description of quantified economy-wide emission reduction target: other market-based mechanisms a

Other market-based mechanisms	Possible scale of contributions
(Specify)	(estimated kt $CO_2 eq$)

^{*a*} Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

Table 2(f)

Description of quantified economy-wide emission reduction target: any other information^{*a,b*}

^{*a*} Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b This information could include information on the domestic legal status of the target or the total assigned amount of emission units for the period for reaching a target. Some of this information is presented in the narrative part of the biennial report.

Table 3 Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects

Name of mitigation action ^a	Sector(s) affected ^b	GHG(s) affected	Objective and/or activity affected	Type of instrument ^c	Status of implementation ^d	Brief description ^e Start year of implementation		Implementing entity or entities	Estimate of mitigation impact (no cumulative, in kt CO ₂ eq)	
					Implemented					

Note : The two final columns specify the year identified by the Party for estimating impacts (based on the status of the measure and whether an expost or ex ante estimation is available).

Abbreviations : GHG = greenhouse gas; LULUCF = land use, land-use change and forestry.

^a Parties should use an asterisk (*) to indicate that a mitigation action is included in the 'with measures' projection.

^b To the extent possible, the following sectors should be used: energy, transport, industry/industrial processes, agriculture, forestry/LULUCF, waste management/waste, other sectors, cross-cutting, as appropriate.

^c To the extent possible, the following types of instrument should be used: economic, fiscal, voluntary agreement, regulatory, information, education, research, other.

^d To the extent possible, the following descriptive terms should be used to report on the status of implementation: implemented, adopted, planned.

^e Additional information may be provided on the cost of the mitigation actions and the relevant timescale.

^f Optional year or years deemed relevant by the Party.

Table 4**Reporting on progress**^{a, b}

	Total emissions excluding LULUCF	Contribution from LULUCF ^d	Quantity of units from market based mechanisms under the Convention		Quantity of units from other market based mechanisms		
Year ^c	$(kt \ CO_2 \ eq)$	$(kt \ CO_2 \ eq)$	(number of units)	$(kt \ CO_2 \ eq)$	(number of units)	$(kt \ CO_2 \ eq)$	
(1990)							
2010							
2011							
2012							

Abbreviation: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b For the base year, information reported on the emission reduction target shall include the following: (a) total GHG emissions, excluding emissions and removals from the LULUCF sector; (b) emissions and/or removals from the LULUCF sector based on the accounting approach applied taking into consideration any relevant decisions of the Conference of the Parties and the activities and/or land that will be accounted for; (c) total GHG emissions, including emissions and removals from the LULUCF sector. For each reported year, information reported on progress made towards the emission reduction targets shall include, in addition to the information noted in paragraphs 9(a--c) of the UNFCCC biennial reporting guidelines for developed country Parties, information on the use of units from market-based mechanisms.

 $^{\rm c}\,$ Parties may add additional rows for years other than those specified below.

^d Information in this column should be consistent with the information reported in table 4(a)I or 4(a)II, as appropriate. The Parties for which all relevant information on the LULUCF contribution is reported in table 1 of this common tabular format can refer to table 1.

Table 4(a)I

Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2011^{a,b}

	Net GHG emissions/removals from LULUCF categories ^c	Base year/period or reference level value ^d	Contribution from LULUCF for reported year	Cumulative contribution from LULUCF ^e	Accounting approach
		(kt CO 2 eq)		
Total LULUCF					
A. Forest land					
1. Forest land remaining forest land					
2. Land converted to forest land					
3. Other ^g					
B. Cropland					
1. Cropland remaining cropland					
2. Land converted to cropland					
3. Other ^g					
C. Grassland					
1. Grassland remaining grassland					
2. Land converted to grassland					
3. Other ^g					
D. Wetlands					
1. Wetland remaining wetland					
2. Land converted to wetland					
3. Other ^g					
E. Settlements					
1. Settlements remaining settlements					
2. Land converted to settlements					
3. Other ^g					
F. Other land					
1. Other land remaining other land					
2. Land converted to other land					
3. Other ^g					
Harvested wood products					

Abbreviations : GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from marketbased mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b Parties that use the LULUCF approach that is based on table 1 do not need to complete this table, but should indicate the approach in table 2. Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^c For each category, enter the net emissions or removals reported in the most recent inventory submission for the corresponding inventory year. If a category differs from that used for the reporting under the Convention or its Kyoto Protocol, explain in the biennial report how the value was derived.

^d Enter one reference level or base year/period value for each category. Explain in the biennial report how these values have been calculated.

^e If applicable to the accounting approach chosen. Explain in this biennial report to which years or period the cumulative contribution refers to.

^f Label each accounting approach and indicate where additional information is provided within this biennial report explaining how it was implemented, including all relevant accounting parameters (i.e. natural disturbances, caps).

^g Specify what was used for the category "other". Explain in this biennial report how each was defined and how it relates to the categories used for reporting under the Convention or its Kyoto Protocol.

Custom Footnotes

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Table 4(a)I

Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2012^{a, b}

	Net GHG emissions/removals from LULUCF categories ^c	Base year/period or reference level value ^d	Contribution from LULUCF for reported year	Cumulative contribution from LULUCF ^e	Accounting approach
		(kt CO 2 eq	()		
Total LULUCF					
A. Forest land					
1. Forest land remaining forest land					
2. Land converted to forest land					
3. Other ^g					
B. Cropland					
1. Cropland remaining cropland					
2. Land converted to cropland					
3. Other ^g					
C. Grassland					
1. Grassland remaining grassland					
2. Land converted to grassland					
3. Other ^g					
D. Wetlands					
1. Wetland remaining wetland					
2. Land converted to wetland					
3. Other ^g					
E. Settlements					
1. Settlements remaining settlements					
2. Land converted to settlements					
3. Other ^g					
F. Other land					
1. Other land remaining other land					
2. Land converted to other land					
3. Other ^g					
Harvested wood products					

Abbreviations : GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from marketbased mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b Parties that use the LULUCF approach that is based on table 1 do not need to complete this table, but should indicate the approach in table 2. Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^c For each category, enter the net emissions or removals reported in the most recent inventory submission for the corresponding inventory year. If a category differs from that used for the reporting under the Convention or its Kyoto Protocol, explain in the biennial report how the value was derived.

^d Enter one reference level or base year/period value for each category. Explain in the biennial report how these values have been calculated.

e If applicable to the accounting approach chosen. Explain in this biennial report to which years or period the cumulative contribution refers to.

^f Label each accounting approach and indicate where additional information is provided within this biennial report explaining how it was implemented, including all relevant accounting parameters (i.e. natural disturbances, caps).

⁸ Specify what was used for the category "other". Explain in this biennial report how each was defined and how it relates to the categories used for reporting under the Convention or its Kyoto Protocol.

Custom Footnotes

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Table 4(b) **Reporting on progress**^{a, b, c}

	Units of market based mechanisms		Ye	ear
	Onits of market based mechanisms		2011	2012
	Kusta Drotagal unita	(number of units)		
	Kyolo Frolocol units	$(kt \ CO_2 \ eq)$		
	A A T I -	(number of units)		
	AAUS	(kt CO2 eq)		
	EDIL	(number of units)		
Kyoto Broto col	EKUS	(kt CO2 eq)		
r roiocoi units ^d		(number of units)		
unns	CERS	(kt CO2 eq)		
		(number of units)		
	tCERs .	(kt CO2 eq)		
		(number of units)		
	ICERS	(kt CO2 eq)		
	Units from market-based mechanisms under the	(number of units)		
	Convention	$(kt \ CO_2 \ eq)$		
Other units				
d,e	Units from other market based mochanisms	(number of units)		
	Units from other market-basea mechanisms	$(kt \ CO_2 \ eq)$		
Total		(number of units)		
10101		$(kt \ CO_2 \ eq)$		

Abbreviations: AAUs = assigned amount units, CERs = certified emission reductions, ERUs = emission reduction units, ICERs = long-term certified emission reductions, tCERs = temporary certified emission reductions.

Note: 2011 is the latest reporting year.

^{*a*} Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b For each reported year, information reported on progress made towards the emission reduction target shall include, in addition to the information noted in paragraphs 9(a-c) of the reporting guidelines, on the use of units from market-based mechanisms.

^c Parties may include this information, as appropriate and if relevant to their target.

^d Units surrendered by that Party for that year that have not been previously surrendered by that or any other Party.

^e Additional rows for each market-based mechanism should be added, if applicable.

Table 5

Summary of key variables and assumptions used in the projections analysis^a

Key underlying assum	Historical ^b							Projected			
Assumption	Unit	1990	1995	2000	2005	2010	2011	2015	2020	2025	2030
Population	thousands	16,297.98	15,675.80	14,865.60	15,219.30	16,442.00	16,559.00	17,604.00	18,891.00	20,179.00	21,466.00
Population growth	%	99.00	96.18	91.21	93.38	100.88	101.60	108.01	115.91	123.81	131.71

^{*a*} Parties should include key underlying assumptions as appropriate.

^b Parties should include historical data used to develop the greenhouse gas projections reported.

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Information on updated greenhouse gas projections under a 'with measures' scenario^a

			GHG emi	ssions and ren	novals ^b			GHG emission	projections
				$(kt CO_2 eq)$				(kt CO ₂	eq)
	Base year (1990)	1990	1995	2000	2005	2010	2011	2020	2030
Sector ^{d,e}									
Energy	299,576.11	299,576.11	180,550.49	144,113.45	190,447.95	244,609.22	231,802.61	265.40	377.10
Transport	NE	NE	NE	NE	NE	NE	NE	NE	NE
Industry/industrial processes	17,816.83	17,816.83	8,144.59	10,226.43	13,258.11	15,108.77	17,159.66	21.60	28.50
Agriculture	38,144.51	38,144.51	23,121.10	14,529.43	19,091.84	22,295.96	21,432.69	28.50	35.50
Forestry/LULUCF	-2,166.55	-2,166.55	-7,291.30	-10,117.98	-2,857.98	-2,890.50	-3,098.61	-3.20	-3.20
Waste management/waste	2,740.21	2,740.21	3,106.93	3,094.62	3,472.95	3,953.68	4,065.56	5.20	6.40
Other (specify)									
Gas									
CO ₂ emissions including net CO ₂ from LULUCF	266,563.18	266,563.18	154,147.64	122,982.81	177,877.04	223,747.28	211,622.79	NE	NE
CO ₂ emissions excluding net CO ₂ from LULUCF	268,730.18	268,730.18	161,474.97	133,106.47	180,740.70	226,640.28	214,717.46	284.00	401.10
CH ₄ emissions including CH ₄ from LULUCF	73,328.12	73,328.12	44,511.19	33,035.06	37,753.05	48,328.40	48,635.19	NE	NE
CH ₄ emissions excluding CH ₄ from LULUCF	73,327.77	73,327.77	44,504.22	33,030.67	37,748.66	48,326.48	48,634.38	58.40	73.90
N ₂ O emissions including N ₂ O from LULUCF	16,319.82	16,319.82	8,945.78	5,663.89	7,545.53	8,962.57	8,936.86	NE	NE
N ₂ O emissions excluding N ₂ O from LULUCF	16,319.71	16,319.71	8,943.72	5,662.60	7,544.23	8,962.00	8,936.71	12.40	15.90
HFCs	NE	NE	0.21	164.19	237.12	837.37	843.56	1.50	2.70
PFCs	NE	NE	NE	NE	NE	1,201.50	1,328.41	1.30	1.30
SF ₆	NE	NE	NE	NE	0.15	NE	NE	NE	NE
Other (specify)									
Total with LULUCF ^f	356,211.12	356,211.12	207,604.82	161,845.95	223,412.89	283,077.12	271,366.81	2.80	4.00
Total without LULUCF	358,377.66	358,377.66	214,923.12	171,963.93	226,270.86	285,967.63	274,460.52	357.60	494.90

Table 6(a)

Table 6(a) Information on updated greenhouse gas projections under a 'with measures' scenario^a

		GHG em	issions and rer	novals ^b			GHG emissio	on projections
	$(kt CO_2 eq)$							
Base year (1990)	1990	1995	2000	2005	2010	2011	2020	2030

Abbreviations : GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^{*a*} In accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications", at a minimum Parties shall report a 'with measures' scenario, and may report 'without measures' and 'with additional measures' scenarios. If a Party chooses to report 'without measures' and/or 'with additional measures' scenarios they are to use tables 6(b) and/or 6(c), respectively. If a Party does not choose to report 'without measures' or 'with additional measures' scenarios then it should not include tables 6(b) or 6(c) in the biennial report.

^b Emissions and removals reported in these columns should be as reported in the latest GHG inventory and consistent with the emissions and removals reported in the table on GHG emissions and trends provided in this biennial report. Where the sectoral breakdown differs from that reported in the GHG inventory Parties should explain in their biennial report how the inventory sectors relate to the sectors reported in this table.

^c 20XX is the reporting due-date year (i.e. 2014 for the first biennial report).

^d In accordance with paragraph 34 of the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications", projections shall be presented on a sectoral basis, to the extent possible, using the same sectoral categories used in the policies and measures section. This table should follow, to the extent possible, the same sectoral categories as those listed in paragraph 17 of those guidelines, namely, to the extent appropriate, the following sectors should be considered: energy, transport, industry, agriculture, forestry and waste management.

^e To the extent possible, the following sectors should be used: energy, transport, industry/industrial processes, agriculture, forestry/LULUCF, waste management/waste, other sectors (i.e. cross-cutting), as appropriate.

^{*f*} Parties may choose to report total emissions with or without LULUCF, as appropriate.

Table 7 Provision of public financial support: summary information in 2011^a

					Ye	ar				
		Kaza	khstani tenge -	KZT				USD ^b		
Allocation channels	Core/		Climate-	specific ^d		Core		Climate-	specific ^d	
	general ^c	Mitigation	Adaptation	Cross- cutting ^e	<i>Other</i> ^f	general ^c	Mitigation	Adaptation	Cross- cutting ^e	<i>Other</i> ^f
Total contributions through multilateral channels:										
Multilateral climate change funds ^g										
Other multilateral climate change funds ^h										
Multilateral financial institutions, including regional development banks Specialized United Nations bodies										
Total contributions through bilateral, regional and other channels Total										

Abbreviation: USD = United States dollars.

^{*a*} Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^b Parties should provide an explanation on methodology used for currency exchange for the information provided in table 7, 7(a) and 7(b) in the box below.

^c This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

^d Parties should explain in their biennial reports how they define funds as being climate-specific.

^e This refers to funding for activities which are cross-cutting across mitigation and adaptation.

^{*f*} Please specify.

^g Multilateral climate change funds listed in paragraph 17(a) of the "UNFCCC biennial reporting guidelines for developed country Parties" in decision 2/CP.17.

^h Other multilateral climate change funds as referred in paragraph 17(b) of the "UNFCCC biennial reporting guidelines for developed country Parties" in decision 2/CP.17.

Custom Footnotes

Each Party shall provide an indication of what new and additional financial resources they have provided, and clarify how they have determined that such resources are new and additional. Please provide this information in relation to table 7(a) and table 7(b).

Documentation Box:

Table 7

Provision of public financial support: summary information in 2012^a

-					Ye	ar					
		Kaza	khstani tenge -	KZT				USD^{b}			
Allocation channels	Core		Climate-	specific ^d		Cora		Climate-specific ^d			
	general ^c	Mitigation	Adaptation	Cross- cutting ^e	<i>Other</i> ^f	general ^c	Mitigation	Adaptation	Cross- cutting ^e	<i>Other</i> ^f	
Total contributions through multilateral channels:											
Multilateral climate change funds ^g											
Other multilateral climate change funds ^h											
Multilateral financial institutions, including regional development banks											
Specialized United Nations bodies											
Total contributions through bilateral, regional and other channels											
Total											

Abbreviation: USD = United States dollars.

^a Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^b Parties should provide an explanation on methodology used for currency exchange for the information provided in table 7, 7(a) and 7(b) in the box below.

^c This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

^d Parties should explain in their biennial reports how they define funds as being climate-specific.

^e This refers to funding for activities which are cross-cutting across mitigation and adaptation.

^{*f*} Please specify.

^g Multilateral climate change funds listed in paragraph 17(a) of the "UNFCCC biennial reporting guidelines for developed country Parties" in decision 2/CP.17.

^h Other multilateral climate change funds as referred in paragraph 17(b) of the "UNFCCC biennial reporting guidelines for developed country Parties" in decision 2/CP.17.

Custom Footnotes

Each Party shall provide an indication of what new and additional financial resources they have provided, and clarify how they have determined that such resources are new and additional. Please provide this information in relation to table 7(a) and table 7(b).

Documentation Box:

Table 7(a)

Provision of public financial support: contribution through multilateral channels in 2011^a

		Total	amount						
Donor funding	Core/ge	neral ^d	Climate-s	specific ^e	Status ^b	Funding source ^f	Financial	Type of support ^{f, g}	Sector ^c
	Kazakhstani tenge - KZT	USD	Kazakhstani tenge - KZT	USD	514145	T anality source	instrument ³	Type of support	50007
Total contributions through multilateral channels									
Multilateral climate change funds g									
1. Global Environment Facility									
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund									
6. UNFCCC Trust Fund for Supplementary Activities									
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks									
1. World Bank									
2. International Finance Corporation									
3. African Development Bank									
4. Asian Development Bank									
5. European Bank for Reconstruction and Development									
6. Inter-American Development Bank									
7. Other									
Specialized United Nations bodies									
1. United Nations Development Programme									
2. United Nations Environment Programme									
3. Other									

Abbreviations: ODA = official development assistance, OOF = other official flows.

^a Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^b Parties should explain, in their biennial reports, the methodologies used to specify the funds as provided, committed and/or pledged. Parties will provide the information for as many status categories as appropriate in the following order of priority: provided, committed, pledged.

^c Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under "Other".

d This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

^e Parties should explain in their biennial reports how they define funds as being climate-specific.

^f Please specify.

^g Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

Table 7(a) Provision of public financial support: contribution through multilateral channels in 2012^a

		Total	amount						
Donor funding	Core/ger	neral ^d	Climate-s	pecific ^e	Status ^b	Funding source ^f	Financial	Tune of support ^{f, g}	Sector ^c
Donor Janang	Kazakhstani tenge - KZT	USD	Kazakhstani tenge - KZT	USD	Siulus	Funding source	instrument ^f	Type of support	Sector
Total contributions through multilateral channels									
Multilateral climate change funds ^g									
1. Global Environment Facility									
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund									
6. UNFCCC Trust Fund for Supplementary Activities									
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks									
1. World Bank									
2. International Finance Corporation									
3. African Development Bank									
4. Asian Development Bank									
5. European Bank for Reconstruction and Development									
6. Inter-American Development Bank									
7. Other									
Specialized United Nations bodies									
1. United Nations Development Programme									
2. United Nations Environment Programme									
3. Other									

Abbreviations: ODA = official development assistance, OOF = other official flows.

^a Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^b Parties should explain, in their biennial reports, the methodologies used to specify the funds as provided, committed and/or pledged. Parties will provide the information for as many status categories as appropriate in the following order of priority: provided, committed, pledged.

^c Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under "Other".

^d This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

^e Parties should explain in their biennial reports how they define funds as being climate-specific.

f Please specify.

^g Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

Table 7(b) Provision of public financial support: contribution through bilateral, regional and other channels in 2011^a

Recipient country/ region/project/programme ^b	Total amount		Status ^c	Funding	Financial	Type of	Sector ^d	Additional information ^e
	Climate-specific ^f							
	Kazakhstani tenge - KZT	USD		source*	insirument [*]	support		
Total contributions through bilateral, regional and other channels								

Abbreviations: ODA = official development assistance, OOF = other official flows; USD = United States dollars.

^{*a*} Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^b Parties should report, to the extent possible, on details contained in this table.

^c Parties should explain, in their biennial reports, the methodologies used to specify the funds as provided, committed and/or pledged. Parties will provide the information for as many status categories as appropriate in the following order of priority: provided, committed, pledged.

^d Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under "Other".

^e Parties should report, as appropriate, on project details and the implementing agency.

^f Parties should explain in their biennial reports how they define funds as being climate-specific.

^{*g*} Please specify.

^{*h*} Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

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Table 7(b) Provision of public financial support: contribution through bilateral, regional and other channels in 2012^a

Recipient country/ region/project/programme ^b	Total amount		Status ^c	Funding	Financial	Type of g, h	Sector ^d	Additional information ^e
	Climate-specific ^f							
	Kazakhstani tenge - KZT	USD		source*	instrument	support		
Total contributions through bilateral,								

Abbreviations: ODA = official development assistance, OOF = other official flows; USD = United States dollars.

^{*a*} Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^b Parties should report, to the extent possible, on details contained in this table.

^c Parties should explain, in their biennial reports, the methodologies used to specify the funds as provided, committed and/or pledged. Parties will provide the information for as many status categories as appropriate in the following order of priority: provided, committed, pledged.

^d Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under "Other".

^e Parties should report, as appropriate, on project details and the implementing agency.

^f Parties should explain in their biennial reports how they define funds as being climate-specific.

^{*g*} Please specify.

^{*h*} Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

Table 8

Provision of technology development and transfer $support^{a,b}$

Recipient country and/or region	Targeted area	Measures and activities related to technology transfer	Sector ^c	Source of the funding for technology transfer	Activities undertaken by	Status	Additional information ^d

^{*a*} To be reported to the extent possible.

^b The tables should include measures and activities since the last national communication or biennial report.

^d Additional information may include, for example, funding for technology development and transfer provided, a short description of the measure or activity and co-financing arrangements.

Custom Footnotes

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^c Parties may report sectoral disaggregation, as appropriate.

Table 9Provision of capacity-building support^a

Recipient country/region	Targeted area	Programme or project title	Description of programme or project b,c

^{*a*} To be reported to the extent possible.

^b Each Party included in Annex II to the Convention shall provide information, to the extent possible, on how it has provided capacity-building support that responds to the existing and emerging capacity-building needs identified by Parties not included in Annex I to the Convention in the areas of mitigation, adaptation and technology development and transfer.

 c Additional information may be provided on, for example, the measure or activity and co-financing arrangements.