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Table 1 KAZ_BR2_v2.0

Emission trends: summary [(1)]
(Sheet 1 of 3)

GREENHOUSE GAS EMISSIONS	Base year[a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt CO_2 eq								
CO_2 emissions without net CO_2 from LULUCF	272,705.46	272,705.46	262,778.24	238,639.06	208,520.10	174,535.81	166,995.76	153,761.97	144,575.79
CO_2 emissions with net CO_2 from LULUCF	256,493.05	256,493.05	247,292.13	223,567.11	197,788.37	168,664.68	167,040.63	155,329.52	151,349.35
CH_4 emissions without CH_4 from LULUCF	96,624.61	96,624.61	86,939.31	82,965.12	75,301.83	64,365.50	53,302.60	46,808.89	41,667.49
CH_4 emissions with CH_4 from LULUCF	96,634.36	96,634.36	86,962.56	82,974.87	75,311.35	64,394.75	53,443.35	46,867.39	41,960.74
N_2O emissions without N_2O from LULUCF	17,884.65	17,884.65	18,656.95	21,342.60	20,218.28	18,222.72	17,284.62	15,667.40	14,704.25
N_2O emissions with N_2O from LULUCF	17,886.82	17,886.82	18,662.43	21,344.81	20,220.42	18,229.73	17,318.17	15,681.41	14,774.02
HFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Unspecified mix of HFCs and PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
SF_6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
NF3	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Total (without LULUCF)	387,214.72	387,214.72	368,374.49	342,946.79	304,040.21	257,124.03	237,582.98	216,238.25	200,947.53
Total (with LULUCF)	371,014.23	371,014.23	352,917.12	327,886.79	293,320.14	251,289.16	237,802.16	217,878.31	208,084.10
Total (without LULUCF, with indirect)	387,214.72	387,214.72	368,374.49	342,946.79	304,040.21	257,124.03	237,582.98	216,238.25	200,947.53
Total (with LULUCF, with indirect)	371,014.23	371,014.23	352,917.12	327,886.79	293,320.14	251,289.16	237,802.16	217,878.31	208,084.10

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year[a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt CO_2 eq								
1. Energy	319,316.62	319,316.62	301,245.21	275,903.65	242,773.84	207,158.27	190,609.53	175,813.56	162,325.84
2. Industrial processes and product use	19,969.21	19,969.21	18,896.56	16,356.91	12,089.36	7,956.69	8,668.62	7,709.69	9,191.99
3. Agriculture	43,551.03	43,551.03	43,731.03	46,046.44	44,451.36	37,153.19	33,489.29	27,853.77	24,537.33
4. Land Use, Land-Use Change and Forestry[b]	-16,200.49	-16,200.49	-15,457.37	-15,060.00	-10,720.06	-5,834.87	219.18	1,640.06	7,136.57
5. Waste	4,377.86	4,377.86	4,501.69	4,639.79	4,725.64	4,855.88	4,815.54	4,861.23	4,892.37
6. Other									
Total (including LULUCF)	371,014.23	371,014.23	352,917.12	327,886.79	293,320.14	251,289.16	237,802.16	217,878.31	208,084.10

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."

Emission trends: summary [(1)]
(Sheet 2 of 3)

GREENHOUSE GAS EMISSIONS	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
CO_2 emissions without net CO_2 from LULUCF	139,500.24	113,552.13	137,371.26	130,793.77	148,705.23	164,771.83	173,114.73	185,769.95	206,907.16	212,309.47
CO_2 emissions with net CO_2 from LULUCF	146,328.83	122,507.95	147,129.02	135,963.38	148,507.99	161,060.43	163,868.25	172,656.31	197,824.39	205,405.51
CH_4 emissions without CH_4 from LULUCF	40,315.07	37,162.00	40,241.85	36,218.82	38,446.74	42,781.22	44,487.29	45,461.97	48,151.04	49,891.13
CH_4 emissions with CH_4 from LULUCF	40,397.82	37,303.00	40,329.35	36,345.32	38,545.74	43,014.22	44,574.04	45,547.22	48,304.79	49,954.13
N_2O emissions without N_2O from LULUCF	14,402.26	14,882.57	15,507.39	14,241.45	13,343.90	12,710.33	11,690.32	11,119.58	11,081.15	11,155.85
N_2O emissions with N_2O from LULUCF	14,421.96	14,916.16	15,528.31	14,271.61	13,367.41	12,765.76	11,711.06	11,139.90	11,117.83	11,170.98
HFCs	46.72	79.37	166.35	171.07	175.89	194.54	259.37	260.89	442.85	720.14
PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	101.15
Unspecified mix of HFCs and PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
SF_6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
NF3	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Total (without LULUCF)	194,264.29	165,676.09	193,286.85	181,425.11	200,671.76	220,457.92	229,551.70	242,612.38	266,582.19	274,177.73
Total (with LULUCF)	201,195.32	174,806.49	203,153.03	186,751.38	200,597.03	217,034.95	220,412.72	229,604.32	257,689.86	267,351.90
Total (without LULUCF, with indirect)	194,264.29	165,676.09	193,286.85	181,425.11	200,671.76	220,457.92	229,551.70	242,612.38	266,582.19	274,177.73
Total (with LULUCF, with indirect)	201,195.32	174,806.49	203,153.03	186,751.38	200,597.03	217,034.95	220,412.72	229,604.32	257,689.86	267,351.90

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	157,738.67	126,374.92	151,969.86	140,218.19	158,924.14	177,654.98	185,824.58	198,818.79	222,336.59	228,093.76
2. Industrial processes and product use	7,981.91	9,595.47	10,802.74	11,664.58	12,360.98	13,187.71	14,240.36	14,170.83	13,892.47	15,162.20
3. Agriculture	23,654.76	24,804.07	25,577.47	24,559.12	24,340.98	24,496.83	24,287.66	24,324.58	24,933.53	25,462.93
4. Land Use, Land-Use Change and Forestry[b]	6,931.03	9,130.40	9,866.18	5,326.26	-74.73	-3,422.98	-9,138.99	-13,008.06	-8,892.33	-6,825.83
5. Waste	4,888.95	4,901.62	4,936.78	4,983.23	5,045.66	5,118.41	5,199.10	5,298.18	5,419.60	5,458.83
6. Other										
Total (including LULUCF)	201,195.32	174,806.49	203,153.03	186,751.38	200,597.03	217,034.95	220,412.72	229,604.32	257,689.86	267,351.90

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

Table 1 KAZ_BR2_v2.0

Emission trends: summary [(1)]
(Sheet 3 of 3)

GREENHOUSE GAS EMISSIONS	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							(%)
CO_2 emissions without net CO_2 from LULUCF	212,411.64	207,990.09	232,911.03	223,634.25	229,442.70	234,877.03	-13.87
CO_2 emissions with net CO_2 from LULUCF	208,270.84	204,428.28	230,411.25	218,206.32	221,278.70	223,989.01	-12.67
CH_4 emissions without CH_4 from LULUCF	53,925.79	53,570.21	57,961.58	58,407.11	60,288.38	62,677.22	-35.13
CH_4 emissions with CH_4 from LULUCF	53,948.04	53,585.46	57,989.58	58,422.11	60,296.38	62,678.37	-35.14
N_2O emissions without N_2O from LULUCF	10,690.30	10,853.84	10,587.22	11,441.76	13,360.95	13,324.08	-25.50
N_2O emissions with N_2O from LULUCF	10,695.64	10,857.62	10,593.72	11,444.98	13,362.89	13,324.31	-25.51
HFCs	715.47	781.85	957.71	966.32	987.38	998.63	
PFCs	663.43	794.01	1,419.58	1,553.59	1,554.73	1,565.49	
Unspecified mix of HFCs and PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
SF_6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
NF3	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Total (without LULUCF)	278,406.63	273,989.99	303,837.13	296,003.02	305,634.14	313,442.44	-19.05
Total (with LULUCF)	274,293.42	270,447.22	301,371.83	290,593.31	297,480.08	302,555.81	-18.45
Total (without LULUCF, with indirect)	278,406.63	273,989.99	303,837.13	296,003.02	305,634.14	313,442.44	-19.05
Total (with LULUCF, with indirect)	274,293.42	270,447.22	301,371.83	290,593.31	297,480.08	302,555.81	-18.45

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							(%)
1. Energy	231,641.71	227,085.62	255,747.59	245,802.52	254,244.35	260,840.56	-18.31
2. Industrial processes and product use	15,678.56	15,293.89	16,347.29	18,426.99	17,474.14	18,073.74	-9.49
3. Agriculture	25,503.42	25,876.66	25,881.15	25,767.14	27,803.93	28,273.39	-35.08
4. Land Use, Land-Use Change and Forestry[b]	-4,113.22	-3,542.78	-2,465.29	-5,409.71	-8,154.06	-10,886.63	-32.80
5. Waste	5,582.94	5,733.83	5,861.10	6,006.37	6,111.71	6,254.75	42.87
6. Other							
Total (including LULUCF)	274,293.42	270,447.22	301,371.83	290,593.31	297,480.08	302,555.81	-18.45

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 SF_6)", 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.

[b] Includes net CO_2, CH_4 and N_2O from LULUCF.

Custom Footnotes

Table 1 (a) KAZ_BR2_v2.0

Emission trends (CO_2)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year*[a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	252,736.26	252,736.26	243,881.69	222,282.16	196,430.75	166,579.12	158,327.14	146,052.28	135,383.81
A. Fuel combustion (sectoral approach)	246,139.97	246,139.97	237,708.98	216,266.56	191,085.66	161,854.02	153,547.32	140,744.19	129,441.06
1. Energy industries	141,771.01	141,771.01	139,498.73	116,944.27	107,740.56	95,361.61	96,165.03	88,086.69	81,746.28
2. Manufacturing industries and construction	19,534.93	19,534.93	19,249.27	33,387.05	26,894.70	18,280.45	16,561.88	14,620.37	15,649.10
3. Transport	22,168.38	22,168.38	19,310.10	16,382.89	12,133.01	10,395.86	8,812.89	7,298.46	6,782.62
4. Other sectors	53,786.44	53,786.44	53,773.94	48,099.22	42,858.70	36,383.91	30,600.64	29,327.10	23,794.78
5. Other	8,879.21	8,879.21	5,876.94	1,453.13	1,458.69	1,432.19	1,406.88	1,411.57	1,468.28
B. Fugitive emissions from fuels	6,596.29	6,596.29	6,172.71	6,015.60	5,345.09	4,725.11	4,779.82	5,308.09	5,942.75
1. Solid fuels	169.06	169.06	164.38	162.03	142.06	132.75	105.47	108.56	105.07
2. Oil and natural gas and other emissions from energy production	6,427.23	6,427.23	6,008.32	5,853.57	5,203.03	4,592.35	4,674.35	5,199.53	5,837.68
C. CO2 transport and storage	NA	NA	NA	NA	NA	NA	NA	NA	NA
2. Industrial processes	19,969.20	19,969.20	18,896.55	16,356.90	12,089.36	7,956.68	8,668.61	7,709.69	9,191.98
A. Mineral industry	6,012.18	6,012.18	5,441.79	4,819.24	3,263.86	2,252.63	2,099.13	1,817.80	1,730.21
B. Chemical industry	2,396.98	2,396.98	2,201.38	1,613.04	726.63	344.43	454.85	496.32	311.30
C. Metal industry	11,560.04	11,560.04	11,253.38	9,924.62	8,098.87	5,359.62	6,114.63	5,395.56	7,150.46
D. Non-energy products from fuels and solvent use	NA	NA	NA	NA	NA	NA	NA	NA	NA
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	NA	NA	NA
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Agriculture	NO	NO	NO	NO	NO	NO	NO	NO	NO
A. Enteric fermentation									
B. Manure management									
C. Rice cultivation									
D. Agricultural soils									
E. Prescribed burning of savannas									
F. Field burning of agricultural residues									
G. Liming	NO	NO	NO	NO	NO	NO	NO	NO	NO
H. Urea application	NO	NO	NO	NO	NO	NO	NO	NO	NO
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	NO	NO	NO
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land Use, Land-Use Change and Forestry	-16,212.41	-16,212.41	-15,486.11	-15,071.96	-10,731.73	-5,871.12	44.88	1,567.55	6,773.56
A. Forest land	-4,204.53	-4,204.53	-4,027.07	-3,844.49	-3,663.37	-3,175.72	-2,631.49	-2,215.55	-930.17
B. Cropland	-40.33	-40.33	14.67	69.67	3,897.67	7,725.67	11,553.67	14,681.33	17,805.33
C. Grassland	-9,331.80	-9,331.80	-8,926.83	-8,840.47	-8,594.80	-8,136.73	-6,677.30	-8,782.57	-8,073.93
D. Wetlands	4.25	4.25	1.47	NA, IE	1.10	0.00	0.00	0.00	0.00
E. Settlements	-2,640.00	-2,640.00	-2,548.33	-2,456.67	-2,372.33	-2,284.33	-2,200.00	-2,115.67	-2,027.67
F. Other land	NA	NA	NA	NA	NA	NA	NA, NE	NA, NE	NA, NE
G. Harvested wood products	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
5. Waste	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
A. Solid waste disposal	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
B. Biological treatment of solid waste									
C. Incineration and open burning of waste	NA	NA	NA	NA	NA	NA	NA	NA	NA
D. Waste water treatment and discharge									
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)									
Memo items:									
International bunkers	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aviation	NA	NA	NA	NA	NA	NA	NA	NA	NA
Navigation	NA	NA	NA	NA	NA	NA	NA	NA	NA
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO2 emissions from biomass	1,166.88	1,166.88	994.23	831.12	725.99	603.76	565.59	558.39	569.77
CO2 captured	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Long-term storage of C in waste disposal sites	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indirect N2O									
Indirect CO2 (3)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Total CO2 equivalent emissions without land use, land-use change and forestry	387,214.72	387,214.72	368,374.49	342,946.79	304,040.21	257,124.03	237,582.98	216,238.25	200,947.53
Total CO2 equivalent emissions with land use, land-use change and forestry	371,014.23	371,014.23	352,917.12	327,886.79	293,320.14	251,289.16	237,802.16	217,878.31	208,084.10
Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry									
Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry			247,292.13	223,567.11	197,788.37	168,664.68	167,040.63	155,329.52	151,349.35

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

Table 1 (a) KAZ_BR2_v2.0

Emission trends (CO_2)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	131,565.06	104,036.05	126,734.87	119,300.27	136,520.15	151,778.67	159,133.74	171,860.01	193,457.54	197,968.00
A. Fuel combustion (sectoral approach)	125,583.00	96,833.45	120,367.25	114,614.49	131,786.10	147,484.44	153,831.13	166,664.71	187,404.79	192,656.38
1. Energy industries	77,895.00	53,174.56	60,567.34	63,034.19	67,434.40	76,090.64	87,530.78	91,904.97	99,053.81	94,467.46
2. Manufacturing industries and construction	14,654.05	20,481.77	22,548.24	24,922.40	26,559.47	27,850.62	25,619.59	29,059.38	29,946.10	32,142.39
3. Transport	6,463.61	5,762.88	9,034.69	10,224.75	12,370.77	13,625.50	11,266.15	12,966.30	17,424.32	19,995.54
4. Other sectors	16,962.15	7,620.56	8,822.10	9,680.85	11,524.65	13,972.76	12,627.52	11,885.61	14,930.19	19,303.46
5. Other	9,608.19	9,793.68	19,394.88	6,752.30	13,896.81	15,944.92	16,787.09	20,848.45	26,050.36	26,747.53
B. Fugitive emissions from fuels	5,982.06	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
1. Solid fuels	106.53	89.83	117.25	122.11	111.10	127.16	130.75	125.30	139.75	145.69
2. Oil and natural gas and other emissions from energy production	5,875.54	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
C. CO2 transport and storage	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2. Industrial processes	7,935.18	9,516.09	10,636.38	11,493.50	12,185.08	12,993.16	13,980.98	13,909.94	13,449.62	14,340.91
A. Mineral industry	1,502.01	1,513.07	1,987.87	2,639.05	3,116.07	3,449.77	4,073.91	4,137.54	4,291.37	4,363.39
B. Chemical industry	108.09	72.59	59.78	126.97	130.84	221.08	277.65	161.36	201.21	493.09
C. Metal industry	6,325.09	7,930.43	8,588.73	8,727.48	8,938.17	9,322.31	9,629.42	9,611.03	8,957.05	9,484.43
D. Non-energy products from fuels and solvent use	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Agriculture	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
A. Enteric fermentation										
B. Manure management										
C. Rice cultivation										
D. Agricultural soils										
E. Prescribed burning of savannas										
F. Field burning of agricultural residues										
G. Liming	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
H. Urea application	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land Use, Land-Use Change and Forestry	6,828.59	8,955.82	9,757.76	5,169.61	-197.24	-3,711.40	-9,246.48	-13,113.64	-9,082.77	-6,903.97
A. Forest land	-1,246.01	-1,776.22	-2,381.27	-2,920.79	-3,507.58	-3,990.14	-3,303.54	-2,821.27	-2,144.57	-1,296.03
B. Cropland	20,936.67	24,057.00	27,192.00	24,079.00	20,966.00	17,838.33	14,736.33	11,616.00	11,737.00	11,858.00
C. Grassland	-10,922.40	-11,469.63	-13,281.97	-14,301.93	-16,053.33	-16,037.93	-19,241.93	-20,555.37	-17,406.53	-16,281.60
D. Wetlands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E. Settlements	-1,939.67	-1,855.33	-1,771.00	-1,686.67	-1,602.33	-1,521.67	-1,437.33	-1,353.00	-1,268.67	-1,184.33
F. Other land	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
G. Harvested wood products	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5. Waste	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	0.00	0.57
A. Solid waste disposal	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
B. Biological treatment of solid waste										
C. Incineration and open burning of waste	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D. Waste water treatment and discharge										
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.57
6. Other (as specified in the summary table in CRF)										
Memo items:										
International bunkers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aviation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Navigation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO2 emissions from biomass	554.42	628.84	334.96	433.93	438.70	418.69	250.14	341.67	265.73	355.96
CO2 captured	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Long-term storage of C in waste disposal sites	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indirect N2O										
Indirect CO2 (3)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Total CO2 equivalent emissions without land use, land-use change and forestry	194,264.29	165,676.09	193,286.85	181,425.11	200,671.76	220,457.92	229,551.70	242,612.38	266,582.19	274,177.73
Total CO2 equivalent emissions with land use, land-use change and forestry	201,195.32	174,806.49	203,153.03	186,751.38	200,597.03	217,034.95	220,412.72	229,604.32	257,689.86	267,351.90
Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry										
Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry	146,328.83	122,507.95	147,129.02	135,963.38	148,507.99	161,060.43	163,868.25	172,656.31	197,824.39	205,405.51

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

Table 1(a) KAZ_BR2_v2.0

Emission trends (CO_2)

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							%
1. Energy	198,111.16	194,264.54	218,932.97	207,722.22	214,506.31	219,363.97	-13.20
A. Fuel combustion (sectoral approach)	194,505.02	190,855.81	216,310.28	205,134.33	211,906.22	216,530.70	-12.03
1. Energy industries	89,349.13	95,668.56	103,421.29	104,346.16	110,425.88	115,016.07	-18.87
2. Manufacturing industries and construction	29,552.51	28,784.65	29,863.85	30,805.43	30,163.82	28,054.80	43.61
3. Transport	21,617.87	20,382.30	19,809.93	19,910.39	23,066.79	20,336.78	-8.26
4. Other sectors	15,538.76	13,666.18	14,949.63	18,132.75	15,341.31	14,048.84	-73.88
5. Other	38,446.75	32,354.12	48,265.58	31,939.60	32,908.42	39,074.21	340.06
B. Fugitive emissions from fuels	3,606.13	3,408.73	2,622.69	2,587.89	2,600.09	2,833.28	-57.05
1. Solid fuels	168.19	149.08	174.46	181.17	193.35	209.39	23.86
2. Oil and natural gas and other emissions from energy production	3,437.95	3,259.65	2,448.23	2,406.73	2,406.74	2,623.88	-59.18
C. CO2 transport and storage	NA	NA	NA	NA	NA	NA	
2. Industrial processes	14,299.65	13,718.02	13,969.99	15,907.08	14,932.03	15,509.62	-22.33
A. Mineral industry	4,544.14	4,423.50	4,875.64	5,581.91	5,230.48	6,163.63	2.52
B. Chemical industry	511.97	432.10	406.39	500.27	409.22	436.44	-81.79
C. Metal industry	9,243.53	8,862.43	8,687.96	9,824.89	9,292.34	8,909.55	-22.93
D. Non-energy products from fuels and solvent use	NA	NA	NA	NA	NA	NA	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	
H. Other	NA	NA	NA	NA	NA	NA	
3. Agriculture	NO	NO	NO	NO	NO	NO	
A. Enteric fermentation							
B. Manure management							
C. Rice cultivation							
D. Agricultural soils							
E. Prescribed burning of savannas							
F. Field burning of agricultural residues							
G. Liming	NO	NO	NO	NO	NO	NO	
H. Urea application	NO	NO	NO	NO	NO	NO	
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	
J. Other	NO	NO	NO	NO	NO	NO	
4. Land Use, Land-Use Change and Forestry	-4,140.80	-3,561.81	-2,499.79	-5,427.93	-8,164.00	-10,888.02	-32.84
A. Forest land	-948.03	-2,905.11	-4,893.99	-6,900.37	-8,888.34	-10,925.83	159.86
B. Cropland	11,979.00	12,100.00	12,232.00	10,868.00	9,504.00	8,140.00	-20,281.82
C. Grassland	-14,071.77	-11,741.03	-9,224.73	-8,670.00	-8,074.63	-7,446.73	-20.20
D. Wetlands	0.00	0.00	314.60	114.11	46.64	11.88	179.31
E. Settlements	-1,100.00	-1,015.67	-927.67	-839.67	-751.67	-667.33	-74.72
F. Other land	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	
G. Harvested wood products	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	
H. Other	NA	NA	NA	NA	NA	NA	
5. Waste	0.84	7.52	8.07	4.95	4.37	3.44	
A. Solid waste disposal	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	
B. Biological treatment of solid waste							
C. Incineration and open burning of waste	NA	NA	NA	NA	NA	NA	
D. Waste water treatment and discharge							
E. Other	0.84	7.52	8.07	4.95	4.37	3.44	
6. Other (as specified in the summary table in CRF)							
Memo items:							
International bunkers	NA	NA	NA	NA	NA	NA	
Aviation	NA	NA	NA	NA	NA	NA	
Navigation	NA	NA	NA	NA	NA	NA	
Multilateral operations	NA	NA	NA	NA	NA	NA	
CO2 emissions from biomass	400.93	497.90	553.49	535.10	384.76	405.44	-65.25
CO2 captured	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	
Long-term storage of C in waste disposal sites	NA	NA	NA	NA	NA	NA	
Indirect N2O							
Indirect CO2 (3)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	
Total CO2 equivalent emissions without land use, land-use change and forestry	278,406.63	273,989.99	303,837.13	296,003.02	305,634.14	313,442.44	-19.05
Total CO2 equivalent emissions with land use, land-use change and forestry	274,293.42	270,447.22	301,371.83	290,593.31	297,480.08	302,555.81	-18.45
Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry							
Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry	208,270.84	204,428.28	230,411.25	218,206.32	221,278.70	223,989.01	

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 (+).

Custom Footnotes

Table 1(b) KAZ_BR2_v2.0

Emission trends (CH_4)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year* [a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	2,626.55	2,626.55	2,259.89	2,113.28	1,825.75	1,599.80	1,268.62	1,169.77	1,059.05
A. Fuel combustion (sectoral approach)	60.02	60.02	63.02	79.34	60.54	40.89	36.99	35.51	34.51
1. Energy industries	2.27	2.27	2.22	1.66	1.49	1.35	1.44	1.40	1.40
2. Manufacturing industries and construction	1.40	1.40	1.40	2.36	1.90	1.35	1.25	1.12	1.18
3. Transport	5.79	5.79	4.79	4.47	3.49	2.97	2.48	2.07	1.87
4. Other sectors	49.54	49.54	53.86	70.70	53.51	35.07	31.68	30.78	29.91
5. Other	1.02	1.02	0.75	0.15	0.15	0.15	0.14	0.14	0.15
B. Fugitive emissions from fuels	2,566.53	2,566.53	2,196.86	2,033.93	1,765.22	1,558.91	1,231.64	1,134.26	1,024.54
1. Solid fuels	2,009.74	2,009.74	1,749.36	1,639.51	1,461.86	1,328.26	973.03	890.39	878.05
2. Oil and natural gas and other emissions from energy production	556.79	556.79	447.51	394.43	303.36	230.65	258.60	243.87	146.49
C. CO2 transport and storage									
2. Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A. Mineral industry									
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Non-energy products from fuels and solvent use	NA	NA	NA	NA	NA	NA	NA	NA	NA
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	NA	NA	NA
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Agriculture	1,100.03	1,100.03	1,074.45	1,057.76	1,035.20	818.25	708.05	545.09	448.55
A. Enteric fermentation	1,033.10	1,033.10	1,009.57	995.81	974.97	765.81	661.80	507.45	415.87
B. Manure management	47.59	47.59	46.32	44.01	43.38	36.53	31.27	23.60	19.58
C. Rice cultivation	19.34	19.34	18.56	17.94	16.85	15.91	14.98	14.04	13.10
D. Agricultural soils	IE	IE	IE	IE	IE	IE	IE	IE	IE
E. Prescribed burning of savannas	IE, NA	IE, NA	IE, NA	NA	NA	NA	NA, IE	NA	NA
F. Field burning of agricultural residues	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
G. Liming									
H. Urea application									
I. Other carbon-containing fertilizers									
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	0.39	0.39	0.93	0.39	0.38	1.17	5.63	2.34	11.73
A. Forest land	0.02	0.02	0.02	0.02	0.01	0.07	0.33	0.15	2.96
B. Cropland	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
C. Grassland	0.37	0.37	0.91	0.37	0.37	1.10	5.30	2.19	8.77
D. Wetlands	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE
E. Settlements	NA	NA	NA	NA	NA	NA	NA	NA	NA
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA
G. Harvested wood products									
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
5. Waste	138.40	138.40	143.23	147.57	151.12	156.57	155.43	157.50	159.10
A. Solid waste disposal	92.45	92.45	97.10	101.74	106.17	109.74	112.60	115.14	117.41
B. Biological treatment of solid waste	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Incineration and open burning of waste	NA	NA	NA	NA	NA	NA	NA	NA	NA
D. Waste water treatment and discharge	45.95	45.95	46.13	45.83	44.95	46.83	42.83	42.36	41.69
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)									
Total CH4 emissions without CH4 from LULUCF	3,864.98	3,864.98	3,477.57	3,318.60	3,012.07	2,574.62	2,132.10	1,872.36	1,666.70
Total CH4 emissions with CH4 from LULUCF	3,865.37	3,865.37	3,478.50	3,318.99	3,012.45	2,575.79	2,137.73	1,874.70	1,678.43
Memo items:									
International bunkers	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aviation	NA	NA	NA	NA	NA	NA	NA	NA	NA
Navigation	NA	NA	NA	NA	NA	NA	NA	NA	NA
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO2 emissions from biomass									
CO2 captured									
Long-term storage of C in waste disposal sites									
Indirect N2O									
Indirect CO2 (3)									

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

Table 1(b) KAZ_BR2_v2.0

Emission trends (CH_4)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	1,028.88	878.92	991.92	819.19	876.99	1,014.17	1,045.59	1,055.00	1,129.94	1,177.94
A. Fuel combustion (sectoral approach)	31.93	16.18	16.89	18.78	20.82	23.74	28.68	24.81	25.57	28.19
1. Energy industries	1.33	0.74	0.85	0.86	1.01	1.16	1.33	1.52	1.50	1.40
2. Manufacturing industries and construction	1.12	1.57	1.57	1.72	1.78	1.82	1.85	2.06	2.29	2.68
3. Transport	1.77	1.75	2.21	2.39	2.92	3.15	3.09	3.70	4.49	5.24
4. Other sectors	26.68	10.74	10.09	12.98	13.31	15.58	20.22	14.84	13.96	15.71
5. Other	1.03	1.38	2.17	0.83	1.80	2.03	2.19	2.69	3.33	3.16
B. Fugitive emissions from fuels	996.94	862.75	975.03	800.41	856.17	990.43	1,016.91	1,030.19	1,104.37	1,149.75
1. Solid fuels	828.89	695.94	807.72	610.12	674.28	782.52	772.65	752.72	815.40	827.83
2. Oil and natural gas and other emissions from energy production	168.05	166.80	167.31	190.29	181.89	207.90	244.27	277.47	288.97	321.91
C. CO2 transport and storage										
2. Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A. Mineral industry										
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Non-energy products from fuels and solvent use	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Agriculture	423.57	446.06	454.61	464.56	493.74	527.39	561.22	587.55	616.39	637.28
A. Enteric fermentation	392.55	414.89	421.84	432.06	460.33	489.74	523.41	548.34	575.66	595.74
B. Manure management	18.85	19.74	20.68	21.35	22.80	24.48	25.13	25.84	27.00	27.81
C. Rice cultivation	12.17	11.43	12.09	11.15	10.61	13.17	12.68	13.37	13.73	13.73
D. Agricultural soils	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
E. Prescribed burning of savannas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F. Field burning of agricultural residues	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
G. Liming										
H. Urea application										
I. Other carbon-containing fertilizers										
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	3.31	5.64	3.50	5.06	3.96	9.32	3.47	3.41	6.15	2.52
A. Forest land	0.20	0.34	0.21	0.31	0.24	0.55	0.73	0.21	0.35	1.09
B. Cropland	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
C. Grassland	3.11	5.30	3.29	4.75	3.72	8.77	2.74	3.20	5.80	1.43
D. Wetlands	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE
E. Settlements	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G. Harvested wood products										
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5. Waste	160.16	161.50	163.14	165.00	167.14	169.69	172.68	175.93	179.71	180.43
A. Solid waste disposal	118.88	120.31	121.87	123.65	125.65	127.90	130.42	133.27	136.38	139.88
B. Biological treatment of solid waste	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Incineration and open burning of waste	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D. Waste water treatment and discharge	41.28	41.19	41.27	41.35	41.49	41.79	42.26	42.66	43.33	40.55
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)										
Total CH4 emissions without CH4 from LULUCF	1,612.60	1,486.48	1,609.67	1,448.75	1,537.87	1,711.25	1,779.49	1,818.48	1,926.04	1,995.65
Total CH4 emissions with CH4 from LULUCF	1,615.91	1,492.12	1,613.17	1,453.81	1,541.83	1,720.57	1,782.96	1,821.89	1,932.19	1,998.17
Memo items:										
International bunkers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aviation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Navigation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO2 emissions from biomass										
CO2 captured										
Long-term storage of C in waste disposal sites										
Indirect N2O										
Indirect CO2 (3)										

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

Table 1(b) KAZ_BR2_v2.0

Emission trends (CH_4)

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							%
1. Energy	1,314.54	1,285.75	1,442.58	1,495.02	1,559.18	1,628.53	-38.00
A. Fuel combustion (sectoral approach)	31.94	30.90	34.47	41.43	36.91	33.13	-44.80
1. Energy industries	1.38	1.34	1.46	1.43	1.51	1.63	-28.19
2. Manufacturing industries and construction	2.47	2.46	2.52	2.57	2.52	2.30	64.29
3. Transport	5.98	5.90	6.02	5.65	6.79	6.04	4.37
4. Other sectors	17.71	17.69	18.93	28.38	22.70	18.83	-61.99
5. Other	4.40	3.51	5.54	3.40	3.39	4.33	324.51
B. Fugitive emissions from fuels	1,282.60	1,254.84	1,408.10	1,453.59	1,522.27	1,595.39	-37.84
1. Solid fuels	944.15	941.08	1,065.68	1,082.64	1,150.77	1,223.86	-39.10
2. Oil and natural gas and other emissions from energy production	338.45	313.76	342.42	370.95	371.50	371.54	-33.27
C. CO2 transport and storage							
2. Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	-60.09
A. Mineral industry							
B. Chemical industry	NO	NO	NO	NO	NO	NO	
C. Metal industry	0.00	0.00	0.00	0.00	0.00	0.00	-60.09
D. Non-energy products from fuels and solvent use	NA	NA	NA	NA	NA	NA	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	
H. Other	NA	NA	NA	NA	NA	NA	
3. Agriculture	657.59	668.30	683.01	644.12	651.33	672.85	-38.83
A. Enteric fermentation	617.23	625.94	639.02	602.50	610.15	631.64	-38.86
B. Manure management	28.50	28.79	29.33	27.11	26.67	27.17	-42.91
C. Rice cultivation	11.86	13.57	14.66	14.51	14.51	14.04	-27.40
D. Agricultural soils	IE	IE	IE	IE	IE	IE	
E. Prescribed burning of savannas	NA	NA	NA	NA	NA	IE, NA	
F. Field burning of agricultural residues	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	
G. Liming							
H. Urea application							
I. Other carbon-containing fertilizers							
J. Other	NO	NO	NO	NO	NO	NO	
4. Land use, land-use change and forestry	0.89	0.61	1.12	0.60	0.32	0.05	-88.21
A. Forest land	0.09	0.03	0.10	0.04	0.07	0.02	0.00
B. Cropland	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	
C. Grassland	0.80	0.58	1.02	0.56	0.25	0.03	-92.97
D. Wetlands	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	NA, NE, IE	
E. Settlements	NA	NA	NA	NA	NA	NA	
F. Other land	NA	NA	NA	NA	NA	NA	
G. Harvested wood products							
H. Other	NA	NA	NA	NA	NA	NA	
5. Waste	184.90	188.76	192.88	197.14	201.02	205.71	48.63
A. Solid waste disposal	142.40	145.50	148.86	152.37	155.51	159.44	72.46
B. Biological treatment of solid waste	NO	NO	NO	NO	NO	NO	
C. Incineration and open burning of waste	NA	NA	NA	NA	NA	NA	
D. Waste water treatment and discharge	42.50	43.26	44.02	44.77	45.51	46.27	0.70
E. Other	NO	NO	NO	NO	NO	NO	
6. Other (as specified in the summary table in CRF)							
Total CH4 emissions without CH4 from LULUCF	2,157.03	2,142.81	2,318.46	2,336.28	2,411.54	2,507.09	-35.13
Total CH4 emissions with CH4 from LULUCF	2,157.92	2,143.42	2,319.58	2,336.88	2,411.86	2,507.13	-35.14
Memo items:							
International bunkers	NA	NA	NA	NA	NA	NA	
Aviation	NA	NA	NA	NA	NA	NA	
Navigation	NA	NA	NA	NA	NA	NA	
Multilateral operations	NA	NA	NA	NA	NA	NA	
CO2 emissions from biomass							
CO2 captured							
Long-term storage of C in waste disposal sites							
Indirect N2O							
Indirect CO2 (3)							

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

[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.

Custom Footnotes

Table 1(c) KAZ_BR2_v2.0

Emission trends (N_2O)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year*[a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	3.08	3.08	2.91	2.65	2.35	1.96	1.90	1.74	1.56
A. Fuel combustion (sectoral approach)	3.08	3.08	2.91	2.65	2.35	1.96	1.90	1.74	1.56
1. Energy industries	1.82	1.82	1.78	1.54	1.43	1.25	1.25	1.13	1.03
2. Manufacturing industries and construction	0.22	0.22	0.22	0.37	0.30	0.21	0.19	0.17	0.19
3. Transport	0.22	0.22	0.11	0.09	0.06	0.05	0.05	0.04	0.04
4. Other sectors	0.73	0.73	0.74	0.64	0.55	0.44	0.40	0.39	0.31
5. Other	0.10	0.10	0.06	0.01	0.01	0.01	0.01	0.01	0.01
B. Fugitive emissions from fuels	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
1. Solid fuels	NA	NA	NA	NA	NA	NA	NA	NA	NA
2. Oil and natural gas and other emissions from energy production	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C. CO2 transport and storage									
2. Industrial processes	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE
A. Mineral industry									
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Agriculture	53.86	53.86	56.61	65.78	62.32	56.03	52.98	47.74	44.71
A. Enteric fermentation									
B. Manure management	18.58	18.58	18.29	17.98	17.74	14.65	12.24	9.39	7.60
C. Rice cultivation									
D. Agricultural soils	35.28	35.28	38.32	47.80	44.58	41.38	40.74	38.35	37.11
E. Prescribed burning of savannas	IE, NA	IE, NA	IE, NA	NA	NA	NA	NA, IE	NA	NA
F. Field burning of agricultural residues	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
G. Liming									
H. Urea application									
I. Other carbon containing fertlizers									
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	0.01	0.01	0.02	0.01	0.01	0.02	0.11	0.05	0.23
A. Forest land	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.06
B. Cropland	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
C. Grassland	0.01	0.01	0.02	0.01	0.01	0.02	0.11	0.04	0.18
D. Wetlands	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
E. Settlements	NA	NA	NA	NA	NA	NA	NA	NA	NA
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA
G. Harvested wood products									
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
5. Waste	3.08	3.08	3.09	3.19	3.18	3.16	3.12	3.10	3.07
A. Solid waste disposal									
B. Biological treatment of solid waste	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Incineration and open burning of waste	NA	NA	NA	NA	NA	NA	NA	NA	NA
D. Waste water treatment and discharge	3.08	3.08	3.09	3.19	3.18	3.16	3.12	3.10	3.07
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)									
Total direct N2O emissions without N2O from LULUCF	60.02	60.02	62.61	71.62	67.85	61.15	58.00	52.58	49.34
Total direct N2O emissions with N2O from LULUCF	60.02	60.02	62.63	71.63	67.85	61.17	58.11	52.62	49.58
Memo items:									
International bunkers	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aviation	NA	NA	NA	NA	NA	NA	NA	NA	NA
Navigation	NA	NA	NA	NA	NA	NA	NA	NA	NA
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO2 emissions from biomass									
CO2 captured									
Long-term storage of C in waste disposal sites									
Indirect N2O	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Indirect CO2 (3)									

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

Table 1(c) KAZ_BR2_v2.0

Emission trends (N_2O)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	1.52	1.23	1.47	1.47	1.61	1.75	1.85	1.96	2.12	2.27
A. Fuel combustion (sectoral approach)	1.52	1.23	1.47	1.47	1.61	1.75	1.85	1.96	2.12	2.27
1. Energy industries	0.97	0.69	0.79	0.86	0.88	0.98	1.13	1.15	1.23	1.21
2. Manufacturing industries and construction	0.18	0.27	0.29	0.32	0.34	0.36	0.34	0.37	0.40	0.45
3. Transport	0.04	0.02	0.03	0.08	0.10	0.06	0.05	0.07	0.12	0.13
4. Other sectors	0.20	0.10	0.11	0.13	0.15	0.19	0.16	0.15	0.15	0.20
5. Other	0.13	0.14	0.25	0.09	0.15	0.17	0.16	0.22	0.23	0.29
B. Fugitive emissions from fuels	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
1. Solid fuels	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2. Oil and natural gas and other emissions from energy production	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C. CO2 transport and storage										
2. Industrial processes	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE
A. Mineral industry										
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Agriculture	43.84	45.81	47.69	43.44	40.26	37.96	34.42	32.34	31.96	31.98
A. Enteric fermentation										
B. Manure management	7.12	7.24	7.53	7.85	8.37	8.93	9.38	9.73	10.22	10.54
C. Rice cultivation										
D. Agricultural soils	36.72	38.57	40.16	35.59	31.89	29.03	25.04	22.61	21.74	21.44
E. Prescribed burning of savannas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F. Field burning of agricultural residues	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
G. Liming										
H. Urea application										
I. Other carbon containing fertlizers										
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	0.07	0.11	0.07	0.10	0.08	0.19	0.07	0.07	0.12	0.05
A. Forest land	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.02
B. Cropland	NA, IE	NO, NA, IE	NO, NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
C. Grassland	0.06	0.11	0.07	0.10	0.07	0.18	0.06	0.06	0.12	0.03
D. Wetlands	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE
E. Settlements	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G. Harvested wood products										
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5. Waste	2.97	2.90	2.88	2.88	2.91	2.94	2.96	3.02	3.11	3.18
A. Solid waste disposal										
B. Biological treatment of solid waste	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Incineration and open burning of waste	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D. Waste water treatment and discharge	2.97	2.90	2.88	2.88	2.91	2.94	2.96	3.02	3.11	3.18
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)										
Total direct N2O emissions without N2O from LULUCF	48.33	49.94	52.04	47.79	44.78	42.65	39.23	37.31	37.19	37.44
Total direct N2O emissions with N2O from LULUCF	48.40	50.05	52.11	47.89	44.86	42.84	39.30	37.38	37.31	37.49
Memo items:										
International bunkers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aviation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Navigation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO2 emissions from biomass										
CO2 captured										
Long-term storage of C in waste disposal sites										
Indirect N2O	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Indirect CO2 (3)										

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

Table 1(c) KAZ_BR2_v2.0

Emission trends (N_2O)

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							%
1. Energy	2.24	2.27	2.52	2.37	2.55	2.56	-16.71
A. Fuel combustion (sectoral approach)	2.24	2.27	2.52	2.37	2.55	2.56	-16.71
1. Energy industries	1.15	1.23	1.32	1.35	1.42	1.52	-16.14
2. Manufacturing industries and construction	0.42	0.42	0.42	0.44	0.43	0.39	79.82
3. Transport	0.11	0.11	0.11	0.11	0.15	0.10	-55.32
4. Other sectors	0.17	0.16	0.18	0.23	0.19	0.17	-76.17
5. Other	0.39	0.35	0.49	0.25	0.36	0.38	284.69
B. Fugitive emissions from fuels	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
1. Solid fuels	NA	NA	NA	NA	NA	NA	
2. Oil and natural gas and other emissions from energy production	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
C. CO2 transport and storage							
2. Industrial processes	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	
A. Mineral industry							
B. Chemical industry	NO	NO	NO	NO	NO	NO	
C. Metal industry	NO	NO	NO	NO	NO	NO	
D. Non-energy products from fuels and solvent use	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	NE, NA	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	
H. Other	NA	NA	NA	NA	NA	NA	
3. Agriculture	30.42	30.77	29.55	32.43	38.66	38.43	-28.65
A. Enteric fermentation							
B. Manure management	10.83	11.07	11.28	10.66	10.55	10.77	-42.03
C. Rice cultivation							
D. Agricultural soils	19.59	19.70	18.27	21.77	28.11	27.66	-21.60
E. Prescribed burning of savannas	NA	NA	NA	NA	NA	IE, NA	
F. Field burning of agricultural residues	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	
G. Liming							
H. Urea application							
I. Other carbon containing fertlizers							
J. Other	NO	NO	NO	NO	NO	NO	
4. Land use, land-use change and forestry	0.02	0.01	0.02	0.01	0.01	0.00	-89.04
A. Forest land	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Cropland	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	
C. Grassland	0.02	0.01	0.02	0.01	0.01	0.00	-92.86
D. Wetlands	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	NA, IE	
E. Settlements	NA	NA	NA	NA	NA	NA	
F. Other land	NA	NA	NA	NA	NA	NA	
G. Harvested wood products							
H. Other	NA	NA	NA	NA	NA	NA	
5. Waste	3.22	3.38	3.46	3.60	3.63	3.72	20.78
A. Solid waste disposal							
B. Biological treatment of solid waste	NO	NO	NO	NO	NO	NO	
C. Incineration and open burning of waste	NA	NA	NA	NA	NA	NA	
D. Waste water treatment and discharge	3.22	3.38	3.46	3.60	3.63	3.72	20.78
E. Other	NO	NO	NO	NO	NO	NO	
6. Other (as specified in the summary table in CRF)							
Total direct N2O emissions without N2O from LULUCF	35.87	36.42	35.53	38.40	44.84	44.71	-25.50
Total direct N2O emissions with N2O from LULUCF	35.89	36.43	35.55	38.41	44.84	44.71	-25.51
Memo items:							
International bunkers	NA	NA	NA	NA	NA	NA	
Aviation	NA	NA	NA	NA	NA	NA	
Navigation	NA	NA	NA	NA	NA	NA	
Multilateral operations	NA	NA	NA	NA	NA	NA	
CO2 emissions from biomass							
CO2 captured							
Long-term storage of C in waste disposal sites							
Indirect N2O	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	
Indirect CO2 (3)							

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

[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.

Custom Footnotes

Table 1(d)

KAZ_BR2_v2.0

Emission trends (HFCs, PFCs and SF_6)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year*[a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
Emissions of HFCs and PFCs - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of HFCs - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-23	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-32	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-41	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-43-10mee	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-125	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-134	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-134a	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-143	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-143a	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-152	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-152a	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-161	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-227ea	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-236cb	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-236ea	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-236fa	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-245ca	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-245fa	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-365mfc	NA	NA	NA	NA	NA	NA	NA	NA	NA
Unspecified mix of HFCs(4) - (kt CO_2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of PFCs - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
CF_4	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C_2F_6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C_3F_8	NA	NA	NA	NA	NA	NA	NA	NA	NA
C_4F_{10}	NA	NA	NA	NA	NA	NA	NA	NA	NA
c-C_4F_8	NA	NA	NA	NA	NA	NA	NA	NA	NA
C_5F_{12}	NA	NA	NA	NA	NA	NA	NA	NA	NA
C_6F_{14}	NA	NA	NA	NA	NA	NA	NA	NA	NA
C10F18	NA	NA	NA	NA	NA	NA	NA	NA	NA
c-C3F6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Unspecified mix of PFCs(4) - (kt CO_2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Unspecified mix of HFCs and PFCs - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of SF6 - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
SF_6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of NF3 - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
NF3	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA

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

Table 1(d)

KAZ_BR2_v2.0

Emission trends (HFCs, PFCs and SF_6)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
Emissions of HFCs and PFCs - (kt CO2 equivalent)	46.72	79.37	166.35	171.07	175.89	194.54	259.37	260.89	442.85	821.29
Emissions of HFCs - (kt CO2 equivalent)	46.72	79.37	166.35	171.07	175.89	194.54	259.37	260.89	442.85	720.14
HFC-23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-32	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	0.00
HFC-41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-43-10mee	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-125	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	0.03
HFC-134	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-134a	0.03	0.06	0.12	0.12	0.12	0.14	0.18	0.18	0.31	0.34
HFC-143	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-143a	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	0.03
HFC-152	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-152a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-161	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-227ea	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-236cb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-236ea	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-236fa	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-245ca	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-245fa	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFC-365mfc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Unspecified mix of HFCs(4) - (kt CO_2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of PFCs - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	101.15
CF_4	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	0.01
C_2F_6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	0.00
C_3F_8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C_4F_{10}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
c-C_4F_8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C_5F_{12}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C_6F_{14}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C10F18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
c-C3F6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Unspecified mix of PFCs(4) - (kt CO_2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Unspecified mix of HFCs and PFCs - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of SF6 - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
SF_6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of NF3 - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
NF3	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA

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

Table 1(d) KAZ_BR2_v2.0

Emission trends (HFCs, PFCs and SF_6)

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							%
Emissions of HFCs and PFCs - (kt CO2 equivalent)	1,378.90	1,575.86	2,377.29	2,519.91	2,542.10	2,564.12	
Emissions of HFCs - (kt CO2 equivalent)	715.47	781.85	957.71	966.32	987.38	998.63	
HFC-23	NA	NA	NA	NA	NA	NA	
HFC-32	0.00	0.01	0.01	0.03	0.02	0.03	
HFC-41	NA	NA	NA	NA	NA	NA	
HFC-43-10mee	NA	NA	NA	NA	NA	NA	
HFC-125	0.03	0.04	0.06	0.06	0.06	0.06	
HFC-134	NA	NA	NA	NA	NA	NA	
HFC-134a	0.34	0.36	0.35	0.38	0.39	0.40	
HFC-143	NO, NA	0.00	0.00	0.00	0.00	0.00	
HFC-143a	0.03	0.03	0.05	0.04	0.04	0.04	
HFC-152	NA	NA	NA	NA	NA	NA	
HFC-152a	NA	NA	NA	NA	NA	NA	
HFC-161	NA	NA	NA	NA	NA	NA	
HFC-227ea	NA	NA	NA	NA	NA	NA	
HFC-236cb	NA	NA	NA	NA	NA	NA	
HFC-236ea	NA	NA	NA	NA	NA	NA	
HFC-236fa	NA	NA	NA	NA	NA	NA	
HFC-245ca	NA	NA	NA	NA	NA	NA	
HFC-245fa	NA	NA	NA	NA	NA	NA	
HFC-365mfc	NA	NA	NA	NA	NA	NA	
Unspecified mix of HFCs(4) - (kt CO_2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Emissions of PFCs - (kt CO2 equivalent)	663.43	794.01	1,419.58	1,553.59	1,554.73	1,565.49	
CF_4	0.07	0.09	0.15	0.17	0.17	0.17	
C_2F_6	0.01	0.01	0.02	0.02	0.02	0.03	
C_3F_8	NA	NA	NA	NA	NA	NA	
C_4F_{10}	NA	NA	NA	NA	NA	NA	
c-C_4F_8	NA	NA	NA	NA	NA	NA	
C_5F_{12}	NA	NA	NA	NA	NA	NA	
C_6F_{14}	NA	NA	NA	NA	NA	NA	
C10F18	NA	NA	NA	NA	NA	NA	
c-C3F6	NA	NA	NA	NA	NA	NA	
Unspecified mix of PFCs(4) - (kt CO_2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Unspecified mix of HFCs and PFCs - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Emissions of SF6 - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
SF_6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Emissions of NF3 - (kt CO2 equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
NF3	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	

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.

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

[d]In 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) KAZ_BR2_v2.0

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]
	15.00	15.00
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_BR2_v2.0

Description of quantified economy-wide emission reduction target: gases and sectors covered[a]

Gases covered		*Base year for each gas (year):*
CO_2		1990
CH_4		1990
N_2O		1990
HFCs		1990
PFCs		1990
SF_6		1990
NF_3		NA
Other Gases (specify)		
Sectors covered[b]	Energy	Yes
	Transport[f]	Yes
	Industrial processes[g]	Yes
	Agriculture	Yes
	LULUCF	No
	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_BR2_v2.0

Description of quantified economy-wide emission reduction target: global warming potential values (GWP)[a]

Gases	*GWP values* [b]
CO_2	4th AR
CH_4	4th AR
N_2O	4th AR
HFCs	4th AR
PFCs	4th AR
SF_6	4th AR
NF_3	4th 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.

Table 2(d) KAZ_BR2_v2.0

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	Excluded
	Contribution of LULUCF is calculated using	Other (NA)

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_BR2_v2.0

Description of quantified economy-wide emission reduction target: market-based mechanisms under the Convention[a]

Market-based mechanisms under the Convention	*Possible scale of contributions (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)II KAZ_BR2_v2.0

Description 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.

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.

Custom Footnotes

Table 3 KAZ_BR2_v2.0

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 (not cumulative, in kt CO_2 eq)*	
CONCEPT on transition of Kazakhstan to Green Economy	Other (Cross-sectoral)	CO_2, CH_4, N_2O	Reducing GDP energy intensity in comparison with the level of 2008.	Regulatory	Adopted	25% by 2020 30% by 2030 50% by 2050	2013	Government of Kazakhstan, Council on Transition of Kazakhstan to Green Economy chaired by the President of the Republic of Kazakhstan		NE
* CONCEPT on transition of Kazakhstan to Green Economy	Energy	CO_2, CH_4, N_2O	Share of alternative energy sources in power generation	Regulatory	Adopted	2020 - 3% (SPP and WPP) 2030 - 30% (SPP, WPP, HPP, NPP) 2050 - 50% (SPP, WPP, HPP, NPP)	2013	Government of Kazakhstan, Council on Transition of Kazakhstan to Green Economy chaired by the President of the Republic of Kazakhstan		NE
* CONCEPT on transition of Kazakhstan to Green Economy	Energy	CO_2, CH_4, N_2O	Share of gas power stations in power generation	Regulatory	Adopted	20% by 2020 25% by 2030 30% by 2050	2013	Government of Kazakhstan, Council on Transition of Kazakhstan to Green Economy chaired by the President of the Republic of Kazakhstan		NE
* CONCEPT on transition of Kazakhstan to Green Economy	Energy	CO_2, CH_4, N_2O	Reducing the current level of carbon dioxide emissions in the power sector	Regulatory	Adopted	2020 – level of 2012 2030 - minus 15% 2050 - minus 40%	2013	Government of Kazakhstan, Council on Transition of Kazakhstan to Green Economy chaired by the President of the Republic of Kazakhstan		NE
* State program of industrial and innovative development of Kazakhstan for 2015-2019	Industry/industrial processes	CH_4, CO_2, N_2O	Reducing manufacturing energy intensity by at least 15 % by 2020 in comparison with 2012	Regulatory	Adopted	Program activities will address problems to overcome key barriers and projects in priority sectors of the manufacturing sector to ensure achievement of target indicators	2014	Ministry of investment and development of RK		NE
*Strategic Plan of the Ministry of Energy of the Republic of Kazakhstan for 2014 – 2018	Energy	CO_2	Power sector development	Regulatory	Adopted	Upgrading Shardarinskaya HPP from 100 to 116 MWt	2014	Ministry of Energy of RK, SWF Samruk-Kazyna JSC		17

Table 3 KAZ_BR2_v2.0

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 (not cumulative, in kt CO_2 eq)*	
*Concept for development of fuel and energy sector of the Republic of Kazakhstan until 2030	Energy	CH_4	Development of power generation from coal-bed methane	Regulatory	Adopted	2015 - Power generation up to 6 MW 2020 - Partial satisfaction of electricity needs of mining companies 2030 – Satisfaction of 10% of electricity needs of mining companies	2014	Ministry of Energy of RK		NE
* Concept for development of fuel and energy sector of the Republic of Kazakhstan until 2030	Energy	CO_2, CH_4, N_2O	Nuclear generation development	Regulatory	Adopted	By 2030 - NPP up to 1000 MW will be built and provided with the network infrastructure	2014	Ministry of Energy of RK		0
* Concept for development of fuel and energy sector of the Republic of Kazakhstan until 2030	Energy	CO_2, CH_4, N_2O	Share of WPP and SPP in power generation	Regulatory	Adopted	3% by 2020 10% by 2030	2014	Ministry of Energy of RK		NE
*Governmental Decree on approval of feed-in tariffs in the Republic of Kazakhstan	Energy	CO_2, CH_4, N_2O	Adoption of feed-in tariffs for the supply of electrical energy produced by renewable energy sources	Economic	Adopted	Wind power plants with the exception of a feed-in tariff for the wind power plant of "Astana EXPO-2017" with capacity of 100 MW, to convert wind energy (22.68 KZT / kWh excluding VAT); Wind power plant "Astana EXPO-2017" with capacity of 100 MW to convert wind energy (59.7 KZT / kWh excluding VAT); Photoelectric converters of solar energy, with the exception of a feed-in tariff for projects of solar power plants using photovoltaic modules produced of Kazakh silicon (Kaz PV), for the conversion of solar radiation energy (34.61 KZT / kWh excluding VAT); Small hydro power plants (16.71 KZT / kWh excluding VAT); Biogas plants (32.23 KZT / kWh excluding VAT);	2014	Ministry of Energy of RK		NE

Table 3 KAZ_BR2_v2.0

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 (not cumulative, in kt CO_2 eq)*	
*Rules on provision of targeted support to individual consumers	Energy	CO_2, CH_4, N_2O	Provision of targeted support to individual consumers for the purchase of renewable energy installations	Regulatory	Adopted	Rules determine the procedure for providing targeted assistance to individual consumers for the purchase of renewable energy installations. The government provides targeted support to individual consumers in the amount of fifty percent of the cost of a renewable energy installation with a total capacity of not more than five kilowatts. Targeted assistance is paid after putting the renewable energy installations into operation.	2014	Ministry of Energy of RK		NE
* Action Plan for the development of alternative and renewable energy in Kazakhstan for 2013 - 2020	Energy	CO_2, CH_4, N_2O	Implementation of projects in the field of renewable energy	Regulatory	Adopted	By 2020 it is planned to put into operation about 106 renewable energy installations with a total installed capacity of 3054.55 MW, including: 34 WPP: 1787 MW; 41 HPP: 539 MW; 28 SPP: 713.5 MW; 3 bio power stations: 15.05 MW.	2013	Ministry of Energy of RK		26500
*Gasification Master plan of the Republic of Kazakhstan for 2015 – 2030	Other (Cross-sectoral)	CO_2, CH_4, N_2O	Creating conditions to increase gas consumption by increasing domestic commercial gas consumption	Regulatory	Adopted	Domestic commercial gas consumption 2015 - 13.6 billion m3. 2020 - 16.2 billion m3. 2030 - 18.4 billion m3.	2014	Central and local authorities		3600
*National Allocation Plan for GHG allowances for 2013	Energy, Industry/industrial processes	CO_2, CH_4, N_2O	Energy, Manufacturing, Production of coal, oil and gas,	Regulatory	Adopted	Allowance allocation (limiting) for CO2 emissions	2013	Allocates allowances (limits) for carbon dioxide emissions from facility operators of the energy sector, manufacturing and coal mining industry, oil and gas, which total carbon dioxide emissions exceed 20 000 tonnes of carbon dioxide per year;		NE
* National Allocation Plan for GHG allowances for 2014-2015	Energy, Industry/industrial processes	CO_2, CH_4, N_2O	Allowance allocation (limiting) for CO2 emissions	Regulatory	Adopted	Allocates allowances (limits) for carbon dioxide emissions from facility operators of the energy sector, manufacturing and coal mining industry, oil and gas, which total carbon dioxide emissions exceed 20 000 tonnes of carbon dioxide per year;	2014	Ministry of Energy of RK		NE

Table 3 KAZ_BR2_v2.0

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 (not cumulative, in kt CO_2 eq)*	
* National Allocation Plan for GHG allowances for 2013 2016-2020	Energy, Industry/industrial processes	CO_2, CH_4, N_2O	Allowance allocation (limiting) for CO2 emissions	Regulatory	Adopted	Allocates allowances (limits) for carbon dioxide emissions from facility operators of the energy sector, manufacturing and coal mining industry, oil and gas, which total carbon dioxide emissions exceed 20 000 tonnes of carbon dioxide per year;	2016	Ministry of Energy of RK	NE	
*Nationally determined contributions	Other (Cross-sectoral)	CH_4, CO_2, N_2O, HFCs, PFCs, SF_6	Limitation of GHG emissions	Regulatory	Adopted	Unconditional goal is a 15% reduction of greenhouse gas emissions by 31 December 2030 compared to the base year; Conditional goal is a 25% reduction of greenhouse gas emissions by 31 December 2030 compared to the base year, taking into account additional international investments, access to the mechanism of low-carbon technologies transfer, access to the Green Climate Fund and flexible mechanism for countries with economies in transition.	2021	Ministry of Energy of RK	NE	
Use of biogas plants in agriculture	Agriculture, Energy	CO_2	Use of organic wastes in agriculture	Other (Private investments)	Planned	Use of biogas plants in agriculture. Coverage of livestock with biogas plants at 7% by 2030.	2015	Ministry of Energy of RK	132264	
* National Allocation Plan for GHG allowances for 2013,2014-2015, 2016-2020	Other (Cross-sectoral (reviewed in a part of industrial processes: metal industry, chemical industry))	CO_2	Allowance allocation (limiting) for CO2 emissions	Regulatory	Adopted	Allocates allowances (limits) for carbon dioxide emissions from industrial plants, which total carbon dioxide emissions exceed 20 000 tonnes of carbon dioxide per year. Enterprises will reduce emissions by 1.5% in 2015 relative to 2012, in 2016-2020 enterprises will not exceed the average level of their emissions for the years 2013-14 (reviewed in a part of industrial processes: metal industry, chemical industry)	2013	Ministry of Energy of RK	400	
*RK Law as of January 13, 2012 "On energy saving and energy efficiency" approves mandatory energy audit, mandatory formation and maintenance of the State Energy registry	Other (Cross-sectoral (reviewed in a part of industrial processes: metal industry, chemical industry))	CO_2, CH_4	Reduces costs of fuel and energy resources per unit of output	Regulatory	Adopted	Reducing GHG emissions through optimization of technological processes. During the years 2013-2019 a decrease by 3.5%, starting from 2020 by 6% relative to the scenario "without measures"	2013	Ministry of investment and development of RK	1500	

Table 3 KAZ_BR2_v2.0

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 (not cumulative, in kt CO_2 eq)*	
*Concept of innovative development of RK until 2020 (as of 4 June 2013 № 579)	Other (Cross-sectoral (reviewed in a part of industrial processes: chemical industry))	CO_2	Innovative development	Regulatory	Adopted	Introduction of advanced technologies in the chemical and petrochemical industries. Reconstruction and modernization of factories LLP "Kazphosphate" and LLP "KazAzot". Reducing emissions by 2% until 2020, reducing emissions by 3% until 2030.	2013	Ministry of investment and development of RK	20	
* Modernization of JSC "ArcelorMittal Temirtau". Termination of open-hearth steel production. Reducing production of ferrosilicon. Modernization of JSC "Kazzinc".	Industry/industrial processes	CO_2, CH_4	Modernization of production	Other (Private investments for modernization)	Implemented	Emissions from iron and steel production decreased by 15%, the emissions factor per tonne of zinc was 0, ferrosilicon production decreased compared to the 2007 level.	2000	Ministry of investment and development of RK	2000	
* The state program of industrial and innovative development (SPAIID) for 2015–2019	Industry/industrial processes	CO_2, CH_4	Modernization of production	Regulatory	Adopted	Modernization will bring GHG emission factors in the Republic of Kazakhstan to the level of European countries, there will be a transition to new technologies that consume less heat (counted in the fuel combustion sector)	2015	Ministry of investment and development of RK	NE	
* Penalties for GHG emissions in excess of the allowed amount, for submission of incorrect data on the greenhouse gas inventory	Other (Cross-sectoral (reviewed in a part of industrial processes))	CO_2	Limits on carbon dioxide emissions	Regulatory	Adopted	Penalty for GHG emissions in excess of the allowed amount, a fine for providing false information on the greenhouse gas inventory	2014	Ministry of Justice of RK, Ministry of Energy of RK	NE	
Installation of CO2 capturing and storage technology in the production of clinker and lime (with a capture ratio of 80%)	Industry/industrial processes	CO_2	GHG emissions reduction	Regulatory	Planned	Coverage of plants for the production of clinker and lime 10% until 2017, 20% by 2020, 30% up to 2030.	2017	Ministry of investment and development of RK	704	
Process optimization in the production of ammonia	Industry/industrial processes	CO_2	Modernization of production	Other (Private investments into modernization)	Planned	Use of low-grade heat industrial furnaces, new energy-efficient catalysts, decarbonators with lesser power consumption, energy-efficient synthesis column (emission reduction of 4.8%)	2020	Ministry of investment and development of RK	32	

Table 3 KAZ_BR2_v2.0

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 (not cumulative, in kt CO_2 eq)*	
Process optimization in the production of calcium carbide	Industry/industrial processes	CO_2	Modernization of production	Other (Private investments into modernization)	Planned	Boiler systems for direct combustion of gases of closed industrial furnaces, boiler systems for heat recovery from waste gases of semi-closed furnaces, and technology that uses furnace gases in furnaces for lime burning (reduction of emissions up to 9%)	2020	Ministry of investment and development of RK		7
Modernization and optimization of iron production (to European standards)	Industry/industrial processes	CO_2	Modernization of production	Other (Private investments into modernization)	Planned	The national average GHG emission factor for iron production is equal to 1.89, the average European one is 1.35. Modernization of the ferrous metal industry in order to reduce the national factor to 1.6 (for 2016-2020 years) and to 1.4 (after 2020).	2016	Ministry of investment and development of RK		963
Use of biogas plants in agriculture	Agriculture, Energy	CH_4	Use of organic wastes in agriculture	Other (Private investments)	Planned	Use of biogas plants in agriculture. Livestock coverage with biogas plants at 7% by 2030.	2015	Ministry of Energy of RK		79358
* The Strategic Plan of the Ministry of Agriculture of the Republic of Kazakhstan for 2014-2018	Agriculture, Forestry/LULUCF	CO_2	The increase in forest cover area	Regulatory	Adopted	The increase of forest cover in the Republic, prevention of forest fires, their timely detection and elimination, counteracting illegal felling	2014	Ministry of Agriculture of Kazakhstan		NE
* Introduction of separate collection of biodegradable wastes	Waste management/waste	CH_4	The degree of coverage: 10% by 2020 and 30% by 2030	Regulatory	Adopted	Expenditures for 2015-2020: 7 billion tenge from local budgets. 4.7 bln. tenge of private investments (public-private partnership and international financing institutions)	2015	Local authorities		NE
*Construction of processing plants for municipal solid wastes	Waste management/waste	CH_4	The share of waste processed: 10% by 2020 and 40% by 2030	Regulatory	Adopted	Expenditures for 2015-2020: 40 billion tenge of private investments (public-private partnership and international financing institutions).	2015	Local authorities		NE

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 ex post 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 3 KAZ_BR2_v2.0

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 (not cumulative, in kt CO_2 eq)*	

Custom Footnotes

Table 4 KAZ_BR2_v2.0

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)	387,215.00	-16,200.00		0.00		0.00
2010	303,837.00	-2,465.00		0.00		0.00
2011	296,003.00	-5,410.00		0.00		0.00
2012	305,634.00	-8,154.00		0.00		0.00
2013	313,442.00	-10,887.00		0.00		0.00
2014						

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.

[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.

Custom Footnotes

Table 4(a)I KAZ_BR2_v2.0

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 2013 [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* [f]
	(kt CO_2 eq)				
Total LULUCF					Other (NA)
A. Forest land					Other (NA)
1. Forest land remaining forest land					Other (NA)
2. Land converted to forest land					Other (NA)
3. Other [g]					Other (NA)
B. Cropland					Other (NA)
1. Cropland remaining cropland					Other (NA)
2. Land converted to cropland					Other (NA)
3. Other [g]					Other (NA)
C. Grassland					Other (NA)
1. Grassland remaining grassland					Other (NA)
2. Land converted to grassland					Other (NA)
3. Other [g]					Other (NA)
D. Wetlands					Other (NA)
1. Wetland remaining wetland					Other (NA)
2. Land converted to wetland					Other (NA)
3. Other [g]					Other (NA)
E. Settlements					Other (NA)
1. Settlements remaining settlements					Other (NA)
2. Land converted to settlements					Other (NA)
3. Other [g]					Other (NA)
F. Other land					Other (NA)
1. Other land remaining other land					Other (NA)
2. Land converted to other land					Other (NA)
3. Other [g]					Other (NA)
Harvested wood products					Other (NA)

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 market-based 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

Table 4(a)I KAZ_BR2_v2.0

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 2014 [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* [f]
	(kt CO_2 eq)				
Total LULUCF					Other (NA)
A. Forest land					Other (NA)
1. Forest land remaining forest land					Other (NA)
2. Land converted to forest land					Other (NA)
3. Other [g]					Other (NA)
B. Cropland					Other (NA)
1. Cropland remaining cropland					Other (NA)
2. Land converted to cropland					Other (NA)
3. Other [g]					Other (NA)
C. Grassland					Other (NA)
1. Grassland remaining grassland					Other (NA)
2. Land converted to grassland					Other (NA)
3. Other [g]					Other (NA)
D. Wetlands					Other (NA)
1. Wetland remaining wetland					Other (NA)
2. Land converted to wetland					Other (NA)
3. Other [g]					Other (NA)
E. Settlements					Other (NA)
1. Settlements remaining settlements					Other (NA)
2. Land converted to settlements					Other (NA)
3. Other [g]					Other (NA)
F. Other land					Other (NA)
1. Other land remaining other land					Other (NA)
2. Land converted to other land					Other (NA)
3. Other [g]					Other (NA)
Harvested wood products					Other (NA)

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 market-based 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

Table 4(b) KAZ_BR2_v2.0

Reporting on progress[a, b, c]

Units of market based mechanisms			*Year*	
			2013	*2014*
Kyoto Protocol units[d]	*Kyoto Protocol units*	*(number of units)*		
		(kt CO_2 eq)		
	AAUs	*(number of units)*		
		(kt CO2 eq)		
	ERUs	*(number of units)*		
		(kt CO2 eq)		
	CERs	*(number of units)*		
		(kt CO2 eq)		
	tCERs	*(number of units)*		
		(kt CO2 eq)		
	lCERs	*(number of units)*		
		(kt CO2 eq)		
Other units[d,e]	*Units from market-based mechanisms under the Convention*	*(number of units)*		
		(kt CO_2 eq)		
	Units from other market-based mechanisms	*(number of units)*		
		(kt CO_2 eq)		
Total		*(number of units)*		
		(kt CO_2 eq)		

Abbreviations: AAUs = assigned amount units, CERs = certified emission reductions, ERUs = emission reduction units, lCERs = 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.

Custom Footnotes

Table 5 KAZ_BR2_v2.0

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

Key underlying assumptions		*Historical*[b]							Projected		
Assumption	*Unit*	*1990*	*1995*	2000	2005	2010	2011	2015	2020	2025	2030
Population	*thousands*	16.30	15.70	14.90	15.20	16.40	17.30	17.60	18.70	20.00	21.00
GDP growth rate	*%*	NE	-8.20	9.80	9.70	7.30	4.30	1.50	3.00	3.00	3.00

[a] Parties should include key underlying assumptions as appropriate.

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

Custom Footnotes

Table 6(a) KAZ_BR2_v2.0

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

	GHG emissions and removals[b]							GHG emission projections	
	(kt CO_2 eq)							(kt CO_2 eq)	
	Base year (1990)	1990	1995	2000	2005	2010	2013	2020	2030
Sector[d,e]									
Energy	296,938.00	296,938.00	181,720.00	142,870.00	185,740.00	235,754.00	240,324.00	257,732.00	331,913.00
Transport	22,378.00	22,378.00	8,890.00	9,100.00	13,079.00	19,993.00	20,517.00	24,953.00	36,126.00
Industry/industrial processes	19,969.00	19,969.00	8,669.00	10,803.00	14,171.00	16,347.00	18,074.00	21,397.00	24,014.00
Agriculture	43,551.00	43,551.00	33,489.00	25,577.00	24,325.00	25,881.00	28,273.00	31,913.00	38,987.00
Forestry/LULUCF	-16,200.00	-16,200.00	219.00	9,866.00	-13,008.00	-2,465.00	-10,887.00	-8,634.00	-8,562.00
Waste management/waste	4,378.00	4,378.00	4,816.00	4,937.00	5,298.00	5,861.00	6,255.00	7,083.00	8,304.00
Other (specify)									
Gas									
CO_2 emissions including net CO_2 from LULUCF	256,493.00	256,493.00	167,041.00	147,129.00	172,656.00	230,411.00	223,989.00	239,410.00	295,701.00
CO_2 emissions excluding net CO_2 from LULUCF	272,705.00	272,705.00	166,996.00	137,371.00	185,770.00	232,911.00	234,877.00	248,044.00	304,263.00
CH_4 emissions including CH_4 from LULUCF	96,634.00	96,634.00	53,453.00	40,329.00	45,547.00	57,990.00	62,678.00	77,202.00	112,405.00
CH_4 emissions excluding CH_4 from LULUCF	96,625.00	96,625.00	53,303.00	40,242.00	45,462.00	57,962.00	62,677.00	77,202.00	112,405.00
N_2O emissions including N_2O from LULUCF	17,887.00	17,887.00	17,318.00	15,528.00	11,140.00	10,594.00	13,324.00	15,872.00	20,571.00
N_2O emissions excluding N_2O from LULUCF	17,885.00	17,885.00	17,285.00	15,507.00	11,120.00	10,587.00	13,324.00	15,872.00	20,571.00
HFCs				166.00	261.00	958.00	999.00	1,100.00	1,244.00
PFCs						1,420.00	1,565.00	861.00	861.00
SF_6									
Other (specify)									
Total with LULUCF[f]	371,014.00	371,014.00	237,812.00	203,152.00	229,604.00	301,373.00	302,555.00	334,445.00	430,782.00
Total without LULUCF	387,215.00	387,215.00	237,584.00	193,286.00	242,613.00	303,838.00	313,442.00	343,079.00	439,344.00

Table 6(a) KAZ_BR2_v2.0

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

	GHG emissions and removals[b]							GHG emission projections	
	(kt CO_2 eq)							(kt CO_2 eq)	
	Base year (1990)	1990	1995	2000	2005	2010	2013	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.

Custom Footnotes

Table 6(b) KAZ_BR2_v2.0

Information on updated greenhouse gas projections under a 'without measures' scenario[a]

	GHG emissions and removals[b]							GHG emission projections	
	(kt CO_2 eq)							(kt CO_2 eq)	
	Base year (1990)	1990	1995	2000	2005	2010	2013	2020	2030
Sector[d,e]									
Energy	296,938.00	296,938.00	181,720.00	142,870.00	185,740.00	235,754.00	240,324.00	290,602.00	345,036.00
Transport	22,378.00	22,378.00	8,890.00	9,100.00	13,079.00	19,993.00	20,517.00	25,943.00	35,484.00
Industry/industrial processes	19,969.00	19,969.00	8,669.00	10,803.00	14,171.00	16,347.00	18,074.00	25,767.00	28,766.00
Agriculture	43,551.00	43,551.00	33,489.00	25,577.00	24,325.00	25,881.00	28,273.00	31,913.00	38,987.00
Forestry/LULUCF	-16,200.00	-16,200.00	219.00	9,866.00	-13,008.00	-2,465.00	-10,887.00	-8,634.00	-8,562.00
Waste management/waste	4,378.00	4,378.00	4,816.00	4,937.00	5,298.00	5,861.00	6,255.00	7,083.00	8,304.00
Other (specify)									
Gas									
CO_2 emissions including net CO_2 from LULUCF	256,493.00	256,493.00	167,041.00	147,129.00	172,656.00	230,411.00	223,989.00	270,996.00	312,767.00
CO_2 emissions excluding net CO_2 from LULUCF	272,705.00	272,705.00	166,996.00	137,371.00	185,770.00	232,911.00	234,877.00	279,630.00	321,329.00
CH_4 emissions including CH_4 from LULUCF	96,634.00	96,634.00	53,453.00	40,329.00	45,547.00	57,990.00	62,678.00	82,967.00	111,734.00
CH_4 emissions excluding CH_4 from LULUCF	96,625.00	96,625.00	53,303.00	40,242.00	45,462.00	57,962.00	62,677.00	82,967.00	111,734.00
N_2O emissions including N_2O from LULUCF	17,887.00	17,887.00	17,318.00	15,528.00	11,140.00	10,594.00	13,324.00	15,970.00	20,630.00
N_2O emissions excluding N_2O from LULUCF	17,885.00	17,885.00	17,285.00	15,507.00	11,120.00	10,587.00	13,324.00	15,970.00	20,630.00
HFCs				166.00	261.00	958.00	999.00	1,100.00	1,244.00
PFCs						1,420.00	1,565.00	1,641.00	1,641.00
SF_6									
Other (specify)									
Total with LULUCF[f]	371,014.00	371,014.00	237,812.00	203,152.00	229,604.00	301,373.00	302,555.00	372,674.00	448,016.00
Total without LULUCF	387,215.00	387,215.00	237,584.00	193,286.00	242,613.00	303,838.00	313,442.00	381,308.00	456,578.00

Table 6(b) KAZ_BR2_v2.0

Information on updated greenhouse gas projections under a 'without measures' scenario[a]

	GHG emissions and removals[b]							GHG emission projections	
	(kt CO_2 eq)							(kt CO_2 eq)	
	Base year (1990)	1990	1995	2000	2005	2010	2013	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 6(c) KAZ_BR2_v2.0

Information on updated greenhouse gas projections under a 'with additional measures' scenario[a]

	GHG emissions and removals[b]							GHG emission projections	
	(kt CO_2 eq)							(kt CO_2 eq)	
	Base year (1990)	1990	1995	2000	2005	2010	2013	2020	2030
Sector[d,e]									
Energy	296,938.00	296,938.00	181,720.00	142,870.00	185,740.00	235,754.00	240,324.00	237,556.00	221,272.00
Transport	22,378.00	22,378.00	8,890.00	9,100.00	13,079.00	19,993.00	20,517.00	25,755.00	33,418.00
Industry/industrial processes	19,969.00	19,969.00	8,669.00	10,803.00	14,171.00	16,347.00	18,074.00	19,625.00	20,401.00
Agriculture	43,551.00	43,551.00	33,489.00	25,577.00	24,325.00	25,881.00	28,273.00	31,913.00	38,987.00
Forestry/LULUCF	-16,200.00	-16,200.00	219.00	9,866.00	-13,008.00	-2,465.00	-10,887.00	-8,634.00	-8,562.00
Waste management/waste	4,378.00	4,378.00	4,816.00	4,937.00	5,298.00	5,861.00	6,255.00	7,083.00	8,304.00
Other (specify)									
Gas									
CO_2 emissions including net CO_2 from LULUCF	256,493.00	256,493.00	167,041.00	147,129.00	172,656.00	230,411.00	223,989.00	220,509.00	207,202.00
CO_2 emissions excluding net CO_2 from LULUCF	272,705.00	272,705.00	166,996.00	137,371.00	185,770.00	232,911.00	234,877.00	229,143.00	215,764.00
CH_4 emissions including CH_4 from LULUCF	96,634.00	96,634.00	53,453.00	40,329.00	45,547.00	57,990.00	62,678.00	75,054.00	84,324.00
CH_4 emissions excluding CH_4 from LULUCF	96,625.00	96,625.00	53,303.00	40,242.00	45,462.00	57,962.00	62,677.00	75,054.00	84,324.00
N_2O emissions including N_2O from LULUCF	17,887.00	17,887.00	17,318.00	15,528.00	11,140.00	10,594.00	13,324.00	15,776.00	20,190.00
N_2O emissions excluding N_2O from LULUCF	17,885.00	17,885.00	17,285.00	15,507.00	11,120.00	10,587.00	13,324.00	15,776.00	20,190.00
HFCs				166.00	261.00	958.00	999.00	1,100.00	1,244.00
PFCs						1,420.00	1,565.00	861.00	861.00
SF_6									
Other (specify)									
Total with LULUCF[f]	371,014.00	371,014.00	237,812.00	203,152.00	229,604.00	301,373.00	302,555.00	313,300.00	313,821.00
Total without LULUCF	387,215.00	387,215.00	237,584.00	193,286.00	242,613.00	303,838.00	313,442.00	321,934.00	322,383.00

Table 6(c) KAZ_BR2_v2.0

Information on updated greenhouse gas projections under a 'with additional measures' scenario[a]

	GHG emissions and removals[b]							GHG emission projections	
	(kt CO_2 eq)							(kt CO_2 eq)	
	Base year (1990)	1990	1995	2000	2005	2010	2013	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 KAZ_BR2_v2.0

Provision of public financial support: summary information in 2013[a]

Allocation channels	*Year*									
	Kazakhstani tenge - KZT					*USD*[b]				
	Core/ general[c]	*Climate-specific*[d]				*Core/ general*[c]	*Climate-specific*[d]			
		Mitigation	*Adaptation*	*Cross-cutting*[e]	*Other*[f]		*Mitigation*	*Adaptation*	*Cross-cutting*[e]	*Other*[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 KAZ_BR2_v2.0

Provision of public financial support: summary information in 2014[a]

Allocation channels	*Year*									
	Kazakhstani tenge - KZT					*USD [b]*				
	Core/ general [c]	*Climate-specific [d]*				*Core/ general [c]*	*Climate-specific [d]*			
		Mitigation	*Adaptation*	*Cross-cutting [e]*	*Other [f]*		*Mitigation*	*Adaptation*	*Cross-cutting [e]*	*Other [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) KAZ_BR2_v2.0

Provision of public financial support: contribution through multilateral channels in 2013[a]

Donor funding	*Total amount*				*Status*[b]	*Funding source*[f]	*Financial instrument*[f]	*Type of support*[f, g]	*Sector*[c]
	Core/general[d]		*Climate-specific*[e]						
	Kazakhstani tenge - KZT	*USD*	*Kazakhstani tenge - KZT*	*USD*					
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.

Custom Footnotes

Table 7(a) KAZ_BR2_v2.0

Provision of public financial support: contribution through multilateral channels in 2014[a]

Donor funding	*Total amount*				*Status*[b]	*Funding source*[f]	*Financial instrument*[f]	*Type of support*[f, g]	*Sector*[c]
	Core/general[d]		*Climate-specific*[e]						
	Kazakhstani tenge - KZT	*USD*	*Kazakhstani tenge - KZT*	*USD*					
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.

Custom Footnotes

Table 7(b) KAZ_BR2_v2.0

Provision of public financial support: contribution through bilateral, regional and other channels in 2013[a]

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

Custom Footnotes

Table 7(b) KAZ_BR2_v2.0

Provision of public financial support: contribution through bilateral, regional and other channels in 2014[a]

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

Custom Footnotes

Table 8 KAZ_BR2_v2.0

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.

[c] Parties may report sectoral disaggregation, as appropriate.

[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

Provision 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.

Custom Footnotes