BR CTF submission workbook

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Table 1 UKR_BR1_v1.0

Emission trends: summary [(1)]
(Sheet 1 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS EMISSIONS	Base year[a]	1991	1992	1993	1994	1995	1996	1997	1998
	kt CO_2 eq	*kt CO_2 eq*	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq
CO_2 emissions including net CO_2 from LULUCF	649,193.99	540,376.82	477,090.25	415,282.97	340,703.90	311,570.92	269,275.04	274,869.92	257,957.38
CO_2 emissions excluding net CO_2 from LULUCF	718,951.47	618,211.62	542,206.30	464,813.63	402,965.22	360,356.18	324,399.74	309,703.55	308,601.12
CH_4 emissions including CH_4 from LULUCF	151,649.21	144,780.56	134,149.37	124,223.66	112,261.38	98,977.61	92,097.66	85,253.79	81,273.37
CH_4 emissions excluding CH_4 from LULUCF	151,640.82	144,775.68	134,137.29	124,207.12	112,214.05	98,963.32	92,059.95	85,251.14	81,259.51
N_2O emissions including N_2O from LULUCF	59,110.02	55,096.46	51,011.83	46,930.21	42,063.24	39,107.13	33,965.05	32,965.64	29,775.88
N_2O emissions excluding N_2O from LULUCF	59,098.04	55,085.36	50,998.82	46,915.56	42,040.74	39,093.28	33,945.33	32,955.00	29,762.80
HFCs	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	5.83	11.35
PFCs	203.23	162.19	122.68	123.72	138.94	153.45	123.45	126.68	103.97
SF_6	0.01	0.02	0.03	0.06	0.07	0.07	0.07	0.13	0.20
Total (including LULUCF)	860,156.45	740,416.05	662,374.17	586,560.63	495,167.53	449,809.18	395,461.27	393,221.99	369,122.16
Total (excluding LULUCF)	929,893.57	818,234.87	727,465.12	636,060.10	557,359.01	498,566.30	450,528.53	428,042.32	419,738.95

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year[a]	1991	1992	1993	1994	1995	1996	1997	1998
	kt CO_2 eq	*kt CO_2 eq*	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq
1. Energy	735,556.41	642,078.50	560,444.49	490,761.10	432,104.09	386,146.51	350,237.27	329,600.82	325,739.79
2. Industrial Processes	79,841.03	66,511.10	65,768.79	51,320.18	40,318.20	35,680.17	33,807.30	37,857.25	37,919.37
3. Solvent and Other Product Use	376.80	377.62	378.98	378.04	375.24	372.11	368.64	365.39	362.11
4. Agriculture	103,602.53	98,749.95	90,422.81	83,262.01	74,490.40	66,469.10	56,324.83	50,456.46	45,936.36
5. Land Use, Land-Use Change and Forestry[b]	-69,737.11	-77,818.82	-65,090.95	-49,499.46	-62,191.49	-48,757.12	-55,067.26	-34,820.33	-50,616.79
6. Waste	10,516.80	10,517.70	10,450.05	10,338.76	10,071.09	9,898.41	9,790.50	9,762.40	9,781.32
7. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total (including LULUCF)	860,156.45	740,416.05	662,374.17	586,560.63	495,167.53	449,809.18	395,461.27	393,221.99	369,122.16

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

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

Table 1 UKR_BR1_v1.0

Emission trends: summary [(1)]
(Sheet 2 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS EMISSIONS	*1999*	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt CO_2 eq	*kt CO_2 eq*	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq
CO_2 emissions including net CO_2 from LULUCF	238,509.09	242,687.71	258,989.84	262,203.21	258,739.68	278,742.45	282,146.26	295,918.02	286,438.71	314,071.67
CO_2 emissions excluding net CO_2 from LULUCF	302,449.17	293,541.68	298,878.73	302,103.38	317,865.12	319,172.49	320,602.57	337,358.11	340,500.23	324,540.64
CH_4 emissions including CH_4 from LULUCF	78,930.97	75,609.26	74,382.38	73,351.95	72,435.52	71,388.28	70,224.71	69,174.03	67,897.49	66,370.63
CH_4 emissions excluding CH_4 from LULUCF	78,912.59	75,605.82	74,368.21	73,340.75	72,429.90	71,387.41	70,219.46	69,165.09	67,791.88	66,337.03
N_2O emissions including N_2O from LULUCF	28,084.41	26,498.38	26,886.39	27,523.02	26,043.43	26,337.66	26,104.49	26,744.87	27,409.32	29,669.85
N_2O emissions excluding N_2O from LULUCF	28,070.15	26,487.97	26,873.22	27,510.62	26,032.36	26,327.83	26,093.52	26,732.87	27,372.52	29,651.83
HFCs	12.07	14.12	25.96	57.47	94.57	167.79	253.76	355.98	498.64	571.58
PFCs	87.74	99.74	96.59	85.02	66.49	80.44	122.66	95.80	133.33	150.16
SF_6	0.32	0.44	0.49	1.12	2.09	3.23	4.68	4.48	5.45	9.79
Total (including LULUCF)	345,624.61	344,909.64	360,381.65	363,221.78	357,381.77	376,719.85	378,856.57	392,293.17	382,382.94	410,843.68
Total (excluding LULUCF)	409,532.06	395,749.77	400,243.20	403,098.37	416,490.52	417,139.17	417,296.66	433,712.33	436,302.05	421,261.03

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1999*	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt CO_2 eq	*kt CO_2 eq*	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq	kt CO_2 eq
1. Energy	318,342.47	305,878.26	307,388.70	309,244.72	321,604.00	320,256.95	320,170.93	332,561.58	329,315.73	318,755.30
2. Industrial Processes	39,579.02	42,278.99	44,643.63	45,227.19	49,341.70	51,592.99	52,395.40	56,409.52	62,673.19	56,147.47
3. Solvent and Other Product Use	358.56	354.89	351.51	348.22	345.45	342.97	340.38	338.52	336.35	334.73
4. Agriculture	41,478.91	37,372.46	37,858.60	38,106.22	34,910.65	34,472.41	33,809.10	33,662.41	33,076.44	35,176.48
5. Land Use, Land-Use Change and Forestry[b]	-63,907.45	-50,840.12	-39,861.54	-39,876.58	-59,108.75	-40,419.33	-38,440.09	-41,419.15	-53,919.11	-10,417.35
6. Waste	9,773.10	9,865.17	10,000.76	10,172.01	10,288.72	10,473.85	10,580.85	10,740.29	10,900.35	10,847.05
7. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total (including LULUCF)	345,624.61	344,909.64	360,381.65	363,221.78	357,381.77	376,719.85	378,856.57	392,293.17	382,382.94	410,843.68

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

Table 1 UKR_BR1_v1.0

Emission trends: summary [(1)]
(Sheet 3 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS EMISSIONS	*2009*	2010	2011	Change from base to latest reported year
	kt CO_2 eq	*kt CO_2 eq*	kt CO_2 eq	(%)
CO_2 emissions including net CO_2 from LULUCF	256,336.56	251,713.87	298,172.52	-54.07
CO_2 emissions excluding net CO_2 from LULUCF	274,633.14	289,707.97	305,463.58	-57.51
CH_4 emissions including CH_4 from LULUCF	63,010.39	63,882.49	63,330.77	-58.24
CH_4 emissions excluding CH_4 from LULUCF	62,995.26	63,859.24	63,329.94	-58.24
N_2O emissions including N_2O from LULUCF	27,049.56	28,968.74	32,057.00	-45.77
N_2O emissions excluding N_2O from LULUCF	27,035.90	28,952.98	32,056.52	-45.76
HFCs	586.03	658.05	717.42	100.00
PFCs	46.49	22.98	IE, NA, NO	-100.00
SF_6	9.81	10.18	8.82	108,429.41
Total (including LULUCF)	347,038.84	345,256.31	394,286.53	-54.16
Total (excluding LULUCF)	365,306.64	383,211.39	401,576.28	-56.81

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2009*	2010	2011	Change from base to latest reported year
	kt CO_2 eq	*kt CO_2 eq*	kt CO_2 eq	(%)
1. Energy	278,484.40	290,857.51	305,225.35	-58.50
2. Industrial Processes	42,095.19	46,480.58	48,783.74	-38.90
3. Solvent and Other Product Use	333.42	332.01	330.77	-12.22
4. Agriculture	33,484.87	34,507.43	36,190.30	-65.07
5. Land Use, Land-Use Change and Forestry[b]	-18,267.80	-37,955.08	-7,289.75	-89.55
6. Waste	10,908.77	11,033.86	11,046.12	5.03
7. Other	NA	NA	NA	0.00
Total (including LULUCF)	347,038.84	345,256.31	394,286.53	-54.16

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) UKR_BR1_v1.0

Emission trends (CO_2)

(Sheet 1 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year* [a]	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
1. Energy	644,641.30	556,511.17	480,617.26	416,922.32	365,471.95	327,008.95	293,207.70	274,733.43	273,179.10
A. Fuel Combustion (Sectoral Approach)	643,745.41	555,735.40	479,890.23	416,301.07	364,916.53	326,473.28	292,680.57	274,193.03	272,637.05
1. Energy Industries	271,267.11	231,768.82	198,275.00	170,574.45	148,431.64	131,964.35	115,135.67	107,455.22	100,985.85
2. Manufacturing Industries and Construction	191,007.54	162,361.69	138,228.91	118,388.90	102,610.19	90,912.98	81,085.37	75,167.78	72,689.55
3. Transport	89,956.53	78,671.58	68,281.40	59,073.11	51,234.21	44,980.79	39,705.19	36,419.90	40,903.04
4. Other Sectors	91,409.20	81,988.25	73,544.57	66,259.66	60,307.00	56,007.55	53,843.17	51,999.66	54,392.88
5. Other	105.03	945.06	1,560.35	2,004.95	2,333.50	2,607.61	2,911.18	3,150.47	3,665.73
B. Fugitive Emissions from Fuels	895.89	775.77	727.03	621.25	555.41	535.67	527.13	540.40	542.05
1. Solid Fuels	458.73	377.99	367.08	280.38	224.80	212.26	202.62	217.31	239.50
2. Oil and Natural Gas	437.15	397.78	359.96	340.87	330.61	323.41	324.50	323.09	302.55
2. Industrial Processes	74,310.18	61,700.45	61,589.04	47,891.32	37,493.27	33,347.22	31,192.04	34,970.12	35,422.03
A. Mineral Products	24,539.01	19,821.37	19,717.01	15,266.44	12,594.86	9,935.74	8,067.24	8,989.25	9,319.42
B. Chemical Industry	6,807.98	6,474.27	6,779.10	5,742.92	4,887.54	5,429.90	5,466.52	5,348.52	5,231.75
C. Metal Production	42,963.19	35,404.81	35,092.93	26,881.96	20,010.87	17,981.58	17,658.28	20,632.34	20,870.85
D. Other Production	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Production of Halocarbons and SF6									
F. Consumption of Halocarbons and SF6									
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
4. Agriculture									
A. Enteric Fermentation									
B. Manure Management									
C. Rice Cultivation									
D. Agricultural Soils									
E. Prescribed Burning of Savannas									
F. Field Burning of Agricultural Residues									
G. Other									
5. Land Use, Land-Use Change and Forestry	-69,757.49	-77,834.80	-65,116.05	-49,530.66	-62,261.32	-48,785.25	-55,124.70	-34,833.62	-50,643.74
A. Forest Land	-57,199.58	-59,744.52	-59,804.55	-59,209.39	-59,935.76	-60,653.04	-58,568.03	-58,915.41	-61,898.36
B. Cropland	-13,191.97	-19,137.65	-6,801.50	8,593.83	-3,481.07	10,790.20	2,332.26	22,907.11	9,002.24
C. Grassland	607.04	1,014.99	1,181.87	1,057.81	1,130.87	1,053.30	1,021.70	1,154.56	1,236.64
D. Wetlands	23.56	23.95	26.19	26.09	24.05	22.33	24.66	18.63	118.70
E. Settlements	3.00	7.29	244.08	0.87	0.53	0.57	47.73	NO	897.05
F. Other Land	0.46	1.13	37.87	0.12	0.05	1.40	16.99	1.48	NO
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Waste	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA
A. Solid Waste Disposal on Land	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Waste-water Handling									
C. Waste Incineration	IE	IE	IE	IE	IE	IE	IE	IE	IE
D. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
7. Other (as specified in the summary table in CRF)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total CO2 emissions including net CO2 from LULUCF	649,193.99	540,376.82	477,090.25	415,282.97	340,703.90	311,570.92	269,275.04	274,869.92	257,957.38
Total CO2 emissions excluding net CO2 from LULUCF	718,951.47	618,211.62	542,206.30	464,813.63	402,965.22	360,356.18	324,399.74	309,703.55	308,601.12
Memo Items:									
International Bunkers	5,896.15	2,044.68	1,721.38	1,398.07	1,074.77	751.47	428.16	415.39	859.98
Aviation	2,367.98	2,044.68	1,721.38	1,398.07	1,074.77	751.47	428.16	415.39	396.70
Marine	3,528.17	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	463.28
Multilateral Operations	NE	NE	NE	NE	NE	NE	NE	NE	NE
CO2 Emissions from Biomass	4,107.16	3,466.36	2,923.84	2,475.31	2,115.46	1,843.28	1,770.60	1,961.97	2,752.29

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

Table 1 (a) UKR_BR1_v1.0

Emission trends (CO_2)

(Sheet 2 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1999*	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
1. Energy	265,505.80	254,320.88	257,250.60	260,336.02	272,160.20	271,028.71	272,064.67	284,945.21	282,842.57	273,036.40
A. Fuel Combustion (Sectoral Approach)	265,018.36	253,810.18	256,733.45	259,856.31	271,547.19	270,325.76	271,500.22	284,405.06	282,174.28	272,306.60
1. Energy Industries	103,695.43	96,731.37	99,861.55	99,530.06	104,995.62	98,330.40	99,515.57	107,242.15	106,623.44	105,644.17
2. Manufacturing Industries and Construction	72,873.34	74,374.74	72,227.26	70,941.41	74,663.33	75,808.30	75,771.78	79,194.06	81,904.91	73,103.49
3. Transport	35,244.40	34,349.39	35,808.60	39,611.77	40,498.98	43,739.71	43,827.44	45,115.63	46,148.15	45,980.40
4. Other Sectors	49,324.37	45,147.16	45,809.91	48,092.39	49,688.84	50,869.94	50,887.91	51,097.94	45,950.77	46,320.99
5. Other	3,880.82	3,207.51	3,026.13	1,680.68	1,700.42	1,577.42	1,497.52	1,755.27	1,547.00	1,257.55
B. Fugitive Emissions from Fuels	487.45	510.71	517.15	479.71	613.01	702.94	564.45	540.15	668.30	729.80
1. Solid Fuels	186.56	214.20	219.59	180.19	295.34	364.33	212.57	176.83	307.07	377.40
2. Oil and Natural Gas	300.88	296.51	297.56	299.52	317.67	338.62	351.88	363.32	361.22	352.40
2. Industrial Processes	36,943.37	39,220.80	41,628.13	41,767.36	45,704.92	48,143.78	48,537.90	52,412.90	57,657.65	51,504.25
A. Mineral Products	9,334.23	9,521.30	10,597.40	10,766.49	11,935.32	13,191.51	14,037.34	14,348.85	15,676.96	14,327.28
B. Chemical Industry	5,894.06	5,684.98	5,910.71	5,959.62	6,392.24	6,128.63	6,554.88	6,575.06	6,397.33	6,156.88
C. Metal Production	21,715.08	24,014.52	25,120.02	25,041.25	27,377.35	28,823.63	27,945.68	31,488.99	35,583.36	31,020.08
D. Other Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Production of Halocarbons and SF6										
F. Consumption of Halocarbons and SF6										
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
4. Agriculture										
A. Enteric Fermentation										
B. Manure Management										
C. Rice Cultivation										
D. Agricultural Soils										
E. Prescribed Burning of Savannas										
F. Field Burning of Agricultural Residues										
G. Other										
5. Land Use, Land-Use Change and Forestry	-63,940.09	-50,853.97	-39,888.88	-39,900.18	-59,125.44	-40,430.04	-38,456.31	-41,440.09	-54,061.51	-10,468.97
A. Forest Land	-61,330.75	-60,247.07	-59,581.92	-58,494.46	-57,345.67	-56,087.30	-56,207.24	-55,673.70	-53,481.36	-55,907.33
B. Cropland	-3,773.68	8,077.23	18,241.51	17,285.38	-3,408.29	13,592.92	15,621.60	11,920.58	-2,937.94	42,472.67
C. Grassland	1,153.61	1,303.29	1,440.67	1,286.90	1,615.40	2,043.56	2,118.95	2,303.09	2,337.80	2,630.61
D. Wetlands	10.15	8.83	7.78	6.38	9.85	6.60	7.14	5.94	10.51	5.94
E. Settlements	0.57	NO	1.53	15.62	NO	10.13	3.25	3.03	3.45	329.14
F. Other Land	0.01	3.74	1.56	NO	3.27	4.05	NO	0.96	6.03	NO
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Waste	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA	IE, NA
A. Solid Waste Disposal on Land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Waste-water Handling										
C. Waste Incineration	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
D. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7. Other (as specified in the summary table in CRF)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total CO2 emissions including net CO2 from LULUCF	238,509.09	242,687.71	258,989.84	262,203.21	258,739.68	278,742.45	282,146.26	295,918.02	286,438.71	314,071.67
Total CO2 emissions excluding net CO2 from LULUCF	302,449.17	293,541.68	298,878.73	302,103.38	317,865.12	319,172.49	320,602.57	337,358.11	340,500.23	324,540.64
Memo Items:										
International Bunkers	734.08	697.19	724.85	622.27	628.66	761.49	847.71	958.14	993.79	1,042.21
Aviation	363.42	360.14	361.75	407.28	475.52	576.50	638.02	752.89	854.03	933.64
Marine	370.66	337.05	363.10	214.99	153.15	184.99	209.69	205.24	139.77	108.57
Multilateral Operations	NE	NE	NE	NE	NE	NE	NE	NE	0.01	0.00
CO2 Emissions from Biomass	2,670.25	2,961.37	3,717.79	3,825.87	4,028.37	3,556.32	3,405.98	3,580.50	3,610.41	3,644.84

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

Table 1(a) UKR_BR1_v1.0

Emission trends (CO_2)

(Sheet 3 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2009*	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
1. Energy	235,914.08	247,387.08	261,674.31	-59.41
A. Fuel Combustion (Sectoral Approach)	235,212.97	246,614.68	260,886.69	-59.47
1. Energy Industries	96,370.73	102,214.54	111,310.92	-58.97
2. Manufacturing Industries and Construction	54,422.45	58,777.21	65,106.46	-65.91
3. Transport	40,103.83	39,462.80	36,230.51	-59.72
4. Other Sectors	43,424.55	45,160.83	47,069.85	-48.51
5. Other	891.40	999.30	1,168.96	1,013.02
B. Fugitive Emissions from Fuels	701.11	772.40	787.62	-12.09
1. Solid Fuels	367.82	472.75	546.20	19.07
2. Oil and Natural Gas	333.29	299.65	241.42	-44.78
2. Industrial Processes	38,719.07	42,320.89	43,788.79	-41.07
A. Mineral Products	9,031.51	9,322.52	10,982.80	-55.24
B. Chemical Industry	3,851.23	5,239.74	6,824.69	0.25
C. Metal Production	25,836.33	27,758.63	25,981.30	-39.53
D. Other Production	NO	NO	NO	0.00
E. Production of Halocarbons and SF6				
F. Consumption of Halocarbons and SF6				
G. Other	NA	NA	NA	0.00
3. Solvent and Other Product Use	NA, NE	NA, NE	NA, NE	0.00
4. Agriculture				
A. Enteric Fermentation				
B. Manure Management				
C. Rice Cultivation				
D. Agricultural Soils				
E. Prescribed Burning of Savannas				
F. Field Burning of Agricultural Residues				
G. Other				
5. Land Use, Land-Use Change and Forestry	-18,296.58	-37,994.09	-7,291.06	-89.55
A. Forest Land	-57,723.04	-55,401.91	-61,892.32	8.20
B. Cropland	36,436.02	14,411.37	51,340.40	-489.18
C. Grassland	2,983.24	2,990.56	3,248.66	435.16
D. Wetlands	5.79	5.82	5.79	-75.41
E. Settlements	1.31	0.06	6.40	113.68
F. Other Land	0.10	0.01	NO	-100.00
G. Other	NO	NO	NO	0.00
6. Waste	IE, NA	IE, NA	0.48	100.00
A. Solid Waste Disposal on Land	NA	NA	NA	0.00
B. Waste-water Handling				
C. Waste Incineration	IE	IE	0.48	100.00
D. Other	NA	NA	NA	0.00
7. Other (as specified in the summary table in CRF)	NA	NA	NA	0.00
Total CO2 emissions including net CO2 from LULUCF	256,336.56	251,713.87	298,172.52	-54.07
Total CO2 emissions excluding net CO2 from LULUCF	274,633.14	289,707.97	305,463.58	-57.51
Memo Items:				
International Bunkers	893.99	1,015.03	879.81	-85.08
Aviation	819.19	892.19	793.44	-66.49
Marine	74.81	122.83	86.36	-97.55
Multilateral Operations	0.00	0.00	NO	0.00
CO2 Emissions from Biomass	3,993.34	3,835.78	3,961.44	-3.55

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) UKR_BR1_v1.0

Emission trends (CH_4)

(Sheet 1 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year* [a]	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
1. Energy	4,229.99	3,989.32	3,728.04	3,453.00	3,118.05	2,767.40	2,675.17	2,574.16	2,465.38
A. Fuel Combustion (Sectoral Approach)	209.09	173.98	143.93	118.81	98.32	82.29	63.98	56.76	50.46
1. Energy Industries	5.54	4.43	3.55	2.87	2.36	2.00	1.69	1.52	1.41
2. Manufacturing Industries and Construction	15.83	13.42	11.36	9.64	8.25	7.19	6.18	5.63	5.21
3. Transport	27.85	23.85	20.26	17.12	14.47	12.34	10.70	9.32	9.88
4. Other Sectors	159.83	132.19	108.64	89.02	73.07	60.57	45.20	40.06	33.70
5. Other	0.05	0.09	0.13	0.15	0.17	0.18	0.20	0.22	0.26
B. Fugitive Emissions from Fuels	4,020.90	3,815.34	3,584.11	3,334.20	3,019.73	2,685.11	2,611.19	2,517.40	2,414.92
1. Solid Fuels	2,478.47	2,388.13	2,212.32	2,037.73	1,805.53	1,522.05	1,428.45	1,375.04	1,353.69
2. Oil and Natural Gas	1,542.43	1,427.21	1,371.79	1,296.47	1,214.20	1,163.06	1,182.74	1,142.36	1,061.23
2. Industrial Processes	62.69	51.42	48.94	37.13	28.45	25.38	24.54	27.91	28.22
A. Mineral Products	NE	NE	NE	NE	NE	NE	NE	NE	NE
B. Chemical Industry	22.26	18.45	17.12	12.73	10.29	9.18	8.49	9.35	9.38
C. Metal Production	40.43	32.97	31.82	24.40	18.16	16.20	16.05	18.55	18.84
D. Other Production									
E. Production of Halocarbons and SF6									
F. Consumption of Halocarbons and SF6									
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use									
4. Agriculture	2,507.56	2,427.16	2,181.99	1,997.92	1,778.11	1,505.09	1,272.26	1,045.75	963.18
A. Enteric Fermentation	1,658.42	1,619.78	1,454.77	1,399.82	1,323.06	1,178.81	1,049.68	891.97	859.24
B. Manure Management	840.84	800.51	719.94	593.42	450.56	321.88	217.98	149.28	99.80
C. Rice Cultivation	8.31	6.87	7.29	4.68	4.48	4.40	4.60	4.50	4.14
D. Agricultural Soils	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
E. Prescribed Burning of Savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
5. Land Use, Land-Use Change and Forestry	0.40	0.23	0.58	0.79	2.25	0.68	1.80	0.13	0.66
A. Forest Land	0.40	0.23	0.58	0.79	2.25	0.68	1.80	0.13	0.66
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C. Grassland	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Wetlands	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Waste	420.75	426.19	428.52	426.57	418.92	414.68	411.85	411.77	412.71
A. Solid Waste Disposal on Land	275.61	285.78	293.00	297.39	298.97	297.84	297.81	298.72	300.50
B. Waste-water Handling	145.14	140.41	135.51	129.18	119.95	116.84	114.04	113.05	112.22
C. Waste Incineration	NE	NE	NE	NE	NE	NE	NE	NE	NE
D. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
7. Other (as specified in the summary table in CRF)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total CH4 emissions including CH4 from LULUCF	7,221.39	6,894.31	6,388.07	5,915.41	5,345.78	4,713.22	4,385.60	4,059.70	3,870.16
Total CH4 emissions excluding CH4 from LULUCF	7,220.99	6,894.08	6,387.49	5,914.62	5,343.53	4,712.54	4,383.81	4,059.58	3,869.50
Memo Items:									
International Bunkers	0.59	0.30	0.26	0.21	0.16	0.11	0.06	0.06	0.08
Aviation	0.35	0.30	0.26	0.21	0.16	0.11	0.06	0.06	0.05
Marine	0.24	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	0.03
Multilateral Operations	NE	NE	NE	NE	NE	NE	NE	NE	NE
CO2 Emissions from Biomass									

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

Table 1(b) UKR_BR1_v1.0

Emission trends (CH_4)

(Sheet 2 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1999*	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
1. Energy	2,480.37	2,420.29	2,350.20	2,288.60	2,312.73	2,302.99	2,248.62	2,221.00	2,165.11	2,130.55
A. Fuel Combustion (Sectoral Approach)	46.77	42.39	44.27	46.77	50.71	52.56	50.83	51.72	49.24	45.34
1. Energy Industries	1.42	1.28	1.40	1.29	1.40	1.36	1.40	1.49	1.45	1.43
2. Manufacturing Industries and Construction	5.43	5.70	5.66	5.67	5.99	6.11	6.05	6.39	6.84	6.10
3. Transport	8.94	9.54	12.05	14.54	16.44	18.40	20.67	20.89	21.44	19.65
4. Other Sectors	30.70	25.62	24.92	25.11	26.72	26.52	22.57	22.79	19.36	18.04
5. Other	0.28	0.26	0.23	0.16	0.16	0.16	0.13	0.17	0.15	0.12
B. Fugitive Emissions from Fuels	2,433.61	2,377.90	2,305.93	2,241.83	2,262.02	2,250.43	2,197.79	2,169.27	2,115.87	2,085.21
1. Solid Fuels	1,355.44	1,309.70	1,256.23	1,190.91	1,135.76	1,103.46	1,026.35	1,000.10	962.80	963.10
2. Oil and Natural Gas	1,078.17	1,068.20	1,049.70	1,050.92	1,126.26	1,146.97	1,171.44	1,169.17	1,153.06	1,122.10
2. Industrial Processes	30.39	33.69	34.62	35.49	38.72	40.83	39.21	41.30	44.56	39.58
A. Mineral Products	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
B. Chemical Industry	9.68	10.56	10.87	10.62	12.14	12.95	11.54	11.66	12.47	11.69
C. Metal Production	20.71	23.13	23.74	24.87	26.58	27.88	27.67	29.64	32.08	27.89
D. Other Production										
E. Production of Halocarbons and SF6										
F. Consumption of Halocarbons and SF6										
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use										
4. Agriculture	832.44	727.95	732.71	738.27	660.93	611.53	606.41	574.68	553.77	526.72
A. Enteric Fermentation	747.83	663.16	675.13	676.59	601.48	560.60	553.44	513.35	490.45	462.49
B. Manure Management	80.23	59.75	53.82	57.90	54.96	46.68	48.68	57.00	59.10	60.27
C. Rice Cultivation	4.38	5.04	3.76	3.78	4.48	4.26	4.28	4.32	4.22	3.96
D. Agricultural Soils	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
E. Prescribed Burning of Savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5. Land Use, Land-Use Change and Forestry	0.88	0.16	0.67	0.53	0.27	0.04	0.25	0.43	5.03	1.60
A. Forest Land	0.88	0.16	0.67	0.53	0.27	0.04	0.25	0.43	5.03	1.60
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C. Grassland	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Wetlands	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Waste	414.54	418.34	423.82	430.06	436.66	444.05	449.55	456.60	464.75	462.05
A. Solid Waste Disposal on Land	302.99	306.08	309.64	314.94	319.52	323.51	326.97	333.44	336.29	339.78
B. Waste-water Handling	111.55	112.27	114.19	115.12	117.14	120.55	122.58	123.11	128.45	122.27
C. Waste Incineration	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
D. Other	NO	NO	NO	NO	NO	NO	NO	0.05	0.00	0.00
7. Other (as specified in the summary table in CRF)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total CH4 emissions including CH4 from LULUCF	3,758.62	3,600.44	3,542.02	3,492.95	3,449.31	3,399.44	3,344.03	3,294.00	3,233.21	3,160.51
Total CH4 emissions excluding CH4 from LULUCF	3,757.74	3,600.28	3,541.34	3,492.42	3,449.04	3,399.40	3,343.78	3,293.58	3,228.18	3,158.91
Memo Items:										
International Bunkers	0.07	0.06	0.06	0.05	0.05	0.06	0.06	0.06	0.05	0.04
Aviation	0.04	0.04	0.03	0.04	0.04	0.05	0.04	0.04	0.05	0.03
Marine	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Multilateral Operations	NE	NE	NE	NE	NE	NE	NE	NE	0.00	0.00
CO2 Emissions from Biomass										

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

Table 1(b) UKR_BR1_v1.0

Emission trends (CH_4)

(Sheet 3 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2009*	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
1. Energy	1,985.61	2,027.95	2,009.55	-52.49
A. Fuel Combustion (Sectoral Approach)	38.98	37.65	33.79	-83.84
1. Energy Industries	1.38	1.39	1.62	-70.77
2. Manufacturing Industries and Construction	4.55	4.95	6.74	-57.41
3. Transport	15.55	14.11	6.89	-75.27
4. Other Sectors	17.43	17.11	18.33	-88.53
5. Other	0.08	0.09	0.21	367.07
B. Fugitive Emissions from Fuels	1,946.64	1,990.31	1,975.76	-50.86
1. Solid Fuels	944.18	935.93	929.07	-62.51
2. Oil and Natural Gas	1,002.46	1,054.38	1,046.69	-32.14
2. Industrial Processes	32.80	35.26	37.27	-40.55
A. Mineral Products	NE	NE	NE	0.00
B. Chemical Industry	9.69	10.63	11.28	-49.31
C. Metal Production	23.11	24.63	25.99	-35.73
D. Other Production				
E. Production of Halocarbons and SF6				
F. Consumption of Halocarbons and SF6				
G. Other	NA	NA	NA	0.00
3. Solvent and Other Product Use				
4. Agriculture	514.81	505.23	495.87	-80.23
A. Enteric Fermentation	446.16	427.78	417.24	-74.84
B. Manure Management	63.76	71.59	72.71	-91.35
C. Rice Cultivation	4.90	5.86	5.92	-28.76
D. Agricultural Soils	NA, NE	NA, NE	NA, NE	0.00
E. Prescribed Burning of Savannas	NO	NO	NO	0.00
F. Field Burning of Agricultural Residues	NO	NO	NO	0.00
G. Other	NA	NA	NA	0.00
5. Land Use, Land-Use Change and Forestry	0.72	1.11	0.04	-90.17
A. Forest Land	0.72	1.11	0.04	-90.17
B. Cropland	NA, NO	NA, NO	NA, NO	0.00
C. Grassland	NO	NO	NO	0.00
D. Wetlands	NO	NO	NO	0.00
E. Settlements	NO	NO	NO	0.00
F. Other Land	NO	NO	NO	0.00
G. Other	NO	NO	NO	0.00
6. Waste	466.54	472.47	473.03	12.42
A. Solid Waste Disposal on Land	344.03	347.98	346.83	25.84
B. Waste-water Handling	122.51	124.49	126.19	-13.06
C. Waste Incineration	NE	NE	NE	0.00
D. Other	0.00	0.00	0.00	100.00
7. Other (as specified in the summary table in CRF)	NA	NA	NA	0.00
Total CH4 emissions including CH4 from LULUCF	3,000.49	3,042.02	3,015.75	-58.24
Total CH4 emissions excluding CH4 from LULUCF	2,999.77	3,040.92	3,015.71	-58.24
Memo Items:				
International Bunkers	0.03	0.03	0.01	-97.52
Aviation	0.02	0.02	0.01	-97.51
Marine	0.01	0.01	0.01	-97.55
Multilateral Operations	0.00	0.00	NO	0.00
CO2 Emissions from Biomass				

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

[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)

UKR_BR1_v1.0

Emission trends (N_2O)

(Sheet 1 of 3)

CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year* [a]	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
1. Energy	6.73	5.78	4.96	4.28	3.72	3.30	2.75	2.61	2.54
A. Fuel Combustion (Sectoral Approach)	6.72	5.78	4.96	4.27	3.72	3.29	2.74	2.61	2.54
1. Energy Industries	2.15	1.90	1.68	1.50	1.36	1.26	1.06	1.07	0.99
2. Manufacturing Industries and Construction	1.59	1.34	1.13	0.95	0.81	0.71	0.57	0.53	0.48
3. Transport	1.88	1.61	1.38	1.17	1.00	0.86	0.73	0.65	0.73
4. Other Sectors	1.10	0.92	0.76	0.64	0.53	0.45	0.36	0.34	0.32
5. Other	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
B. Fugitive Emissions from Fuels	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1. Solid Fuels	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
2. Oil and Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Industrial Processes	12.94	11.51	9.77	8.15	6.74	5.31	6.38	7.00	5.77
A. Mineral Products	NE	NE	NE	NE	NE	NE	NE	NE	NE
B. Chemical Industry	12.94	11.51	9.77	8.15	6.74	5.31	6.38	7.00	5.77
C. Metal Production	NE	NE	NE	NE	NE	NE	NE	NE	NE
D. Other Production									
E. Production of Halocarbons and SF6									
F. Consumption of Halocarbons and SF6									
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use	1.22	1.22	1.22	1.22	1.21	1.20	1.19	1.18	1.17
4. Agriculture	164.33	154.13	143.87	133.24	119.84	112.46	95.51	91.92	82.93
A. Enteric Fermentation									
B. Manure Management	27.76	27.27	27.74	25.83	24.74	23.85	21.33	18.33	16.88
C. Rice Cultivation									
D. Agricultural Soils	129.89	120.39	109.78	101.70	89.87	83.78	69.98	70.07	62.87
E. Prescribed Burning of Savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	6.68	6.46	6.36	5.72	5.23	4.84	4.20	3.52	3.18
5. Land Use, Land-Use Change and Forestry	0.04	0.04	0.04	0.05	0.07	0.04	0.06	0.03	0.04
A. Forest Land	0.03	0.03	0.04	0.04	0.07	0.04	0.06	0.03	0.04
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C. Grassland	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Wetlands	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Waste	5.42	5.06	4.68	4.45	4.11	3.84	3.68	3.60	3.59
A. Solid Waste Disposal on Land									
B. Waste-water Handling	5.42	5.06	4.68	4.45	4.11	3.84	3.68	3.60	3.59
C. Waste Incineration	IE	IE	IE	IE	IE	IE	IE	IE	IE
D. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
7. Other (as specified in the summary table in CRF)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total N2O emissions including N2O from LULUCF	190.68	177.73	164.55	151.39	135.69	126.15	109.56	106.34	96.05
Total N2O emissions excluding N2O from LULUCF	190.64	177.69	164.51	151.34	135.62	126.11	109.50	106.31	96.01
Memo Items:									
International Bunkers	0.13	0.09	0.07	0.06	0.05	0.03	0.02	0.02	0.02
Aviation	0.10	0.09	0.07	0.06	0.05	0.03	0.02	0.02	0.02
Marine	0.03	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	0.00
Multilateral Operations	NE	NE	NE	NE	NE	NE	NE	NE	NE
CO2 Emissions from Biomass									

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

Table 1(c)

UKR_BR1_v1.0

Emission trends (N_2O)

(Sheet 2 of 3)

CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1999*	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
1. Energy	2.42	2.36	2.53	2.74	2.83	2.79	2.86	3.15	3.24	3.15
A. Fuel Combustion (Sectoral Approach)	2.41	2.36	2.53	2.73	2.82	2.79	2.85	3.14	3.24	3.15
1. Energy Industries	0.98	0.91	1.03	1.06	1.09	0.98	1.07	1.27	1.29	1.33
2. Manufacturing Industries and Construction	0.51	0.53	0.51	0.51	0.52	0.52	0.51	0.57	0.61	0.54
3. Transport	0.59	0.62	0.69	0.84	0.89	0.98	0.99	1.03	1.09	1.04
4. Other Sectors	0.30	0.27	0.27	0.31	0.30	0.29	0.27	0.26	0.23	0.23
5. Other	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
B. Fugitive Emissions from Fuels	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1. Solid Fuels	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
2. Oil and Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Industrial Processes	6.12	7.21	6.99	8.29	8.58	7.55	8.56	8.62	11.10	9.94
A. Mineral Products	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
B. Chemical Industry	6.12	7.21	6.99	8.29	8.58	7.55	8.56	8.62	11.10	9.94
C. Metal Production	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
D. Other Production										
E. Production of Halocarbons and SF6										
F. Consumption of Halocarbons and SF6										
G. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Solvent and Other Product Use	1.16	1.14	1.13	1.12	1.11	1.11	1.10	1.09	1.09	1.08
4. Agriculture	77.41	71.24	72.49	72.91	67.84	69.77	67.98	69.66	69.18	77.79
A. Enteric Fermentation										
B. Manure Management	16.14	14.79	14.14	14.52	13.65	12.22	11.62	11.58	11.08	10.37
C. Rice Cultivation										
D. Agricultural Soils	58.26	53.74	55.78	55.73	51.69	55.34	54.23	55.92	56.03	65.48
E. Prescribed Burning of Savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	3.02	2.71	2.57	2.66	2.50	2.22	2.13	2.15	2.07	1.94
5. Land Use, Land-Use Change and Forestry	0.05	0.03	0.04	0.04	0.04	0.03	0.04	0.04	0.12	0.06
A. Forest Land	0.04	0.03	0.04	0.04	0.03	0.03	0.03	0.04	0.12	0.06
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C. Grassland	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Wetlands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Waste	3.44	3.48	3.55	3.68	3.61	3.71	3.68	3.71	3.68	3.69
A. Solid Waste Disposal on Land										
B. Waste-water Handling	3.44	3.48	3.55	3.68	3.61	3.71	3.68	3.71	3.68	3.69
C. Waste Incineration	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
D. Other	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00
7. Other (as specified in the summary table in CRF)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total N2O emissions including N2O from LULUCF	90.59	85.48	86.73	88.78	84.01	84.96	84.21	86.27	88.42	95.71
Total N2O emissions excluding N2O from LULUCF	90.55	85.45	86.69	88.74	83.98	84.93	84.17	86.24	88.30	95.65
Memo Items:										
International Bunkers	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04
Aviation	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04
Marine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations	NE	NE	NE	NE	NE	NE	NE	NE	0.00	0.00
CO2 Emissions from Biomass										

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

Table 1(c) UKR_BR1_v1.0

Emission trends (N_2O)

(Sheet 3 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2009*	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
1. Energy	2.81	2.85	4.36	-35.24
A. Fuel Combustion (Sectoral Approach)	2.81	2.85	4.35	-35.23
1. Energy Industries	1.23	1.28	2.28	6.28
2. Manufacturing Industries and Construction	0.45	0.48	0.64	-59.65
3. Transport	0.90	0.86	1.17	-37.87
4. Other Sectors	0.22	0.22	0.25	-77.07
5. Other	0.01	0.01	0.01	197.81
B. Fugitive Emissions from Fuels	0.00	0.00	0.00	-45.43
1. Solid Fuels	NA, NE	NA, NE	NA, NE	0.00
2. Oil and Natural Gas	0.00	0.00	0.00	-45.43
2. Industrial Processes	6.60	8.80	11.25	-13.09
A. Mineral Products	NE	NE	NE	0.00
B. Chemical Industry	6.60	8.80	11.25	-13.09
C. Metal Production	NE	NE	NE	0.00
D. Other Production				
E. Production of Halocarbons and SF6				
F. Consumption of Halocarbons and SF6				
G. Other	NA	NA	NA	0.00
3. Solvent and Other Product Use	1.08	1.07	1.07	-12.22
4. Agriculture	73.14	77.09	83.15	-49.40
A. Enteric Fermentation				
B. Manure Management	10.27	10.31	10.03	-63.88
C. Rice Cultivation				
D. Agricultural Soils	60.94	64.80	71.18	-45.20
E. Prescribed Burning of Savannas	NO	NO	NO	0.00
F. Field Burning of Agricultural Residues	NO	NO	NO	0.00
G. Other	1.93	1.98	1.94	-70.93
5. Land Use, Land-Use Change and Forestry	0.04	0.05	0.00	-95.97
A. Forest Land	0.04	0.05	0.00	-99.06
B. Cropland	NA, NO	NA, NO	NA, NO	0.00
C. Grassland	NO	NO	NO	0.00
D. Wetlands	0.00	0.00	0.00	-75.39
E. Settlements	NO	NO	NO	0.00
F. Other Land	NO	NO	NO	0.00
G. Other	NO	NO	NO	0.00
6. Waste	3.59	3.59	3.59	-33.84
A. Solid Waste Disposal on Land				
B. Waste-water Handling	3.58	3.59	3.59	-33.85
C. Waste Incineration	IE	IE	0.00	100.00
D. Other	0.00	0.00	0.00	100.00
7. Other (as specified in the summary table in CRF)	NA	NA	NA	0.00
Total N2O emissions including N2O from LULUCF	87.26	93.45	103.41	-45.77
Total N2O emissions excluding N2O from LULUCF	87.21	93.40	103.41	-45.76
Memo Items:				
International Bunkers	0.04	0.04	0.03	-74.26
Aviation	0.03	0.04	0.03	-67.70
Marine	0.00	0.00	0.00	-97.54
Multilateral Operations	0.00	0.00	NO	0.00
CO2 Emissions from Biomass				

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)

UKR_BR1_v1.0

Emission trends (HFCs, PFCs and SF_6)

(Sheet 1 of 3)

CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year* [a]	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
Emissions of HFCsc - (kt CO2 eq)	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	5.83	11.35
HFC-23	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-32	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-41	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-43-10mee	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-125	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-134	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-134a	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	0.00	0.01
HFC-152a	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-143	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-143a	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-227ea	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	0.00	0.00
HFC-236fa	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-245ca	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Unspecified mix of listed HFCsd - (kt CO_2 eq)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Emissions of PFCsc - (kt CO2 eq)	203.23	162.19	122.68	123.72	138.94	153.45	123.45	126.68	103.97
CF_4	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01
C_2F_6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C 3F8	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C_4F_{10}	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
c-C_4F_8	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C_5F_{12}	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C_6F_{14}	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Unspecified mix of listed PFCs(4) - (Gg CO_2 equivalent)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Emissions of SF6(3) - (Gg CO2 equivalent)	0.01	0.02	0.03	0.06	0.07	0.07	0.07	0.13	0.20
SF_6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

Table 1(d) UKR_BR1_v1.0

Emission trends (HFCs, PFCs and SF_6)

(Sheet 2 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1999*	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
Emissions of HFCsc - (kt CO2 eq)	12.07	14.12	25.96	57.47	94.57	167.79	253.76	355.98	498.64	571.58
HFC-23	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-32	NA, NO	NA, NO	NA, NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-41	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-43-10mee	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-125	NA, NO	NA, NO	NA, NO	0.00	0.00	0.00	0.01	0.01	0.02	0.02
HFC-134	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-134a	0.01	0.01	0.02	0.04	0.05	0.08	0.10	0.14	0.20	0.25
HFC-152a	NA, NO	NA, NO	NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	NA, NO	NA, NO	NA, NO
HFC-143	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-143a	NA, NO	NA, NO	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
HFC-227ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-236fa	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-245ca	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Unspecified mix of listed HFCsd - (kt CO_2 eq)	NA, NO	NA, NO	NA, NO	3.83	13.05	44.77	82.64	105.18	136.94	137.55
Emissions of PFCsc - (kt CO2 eq)	87.74	99.74	96.59	85.02	66.49	80.44	122.66	95.80	133.33	150.16
CF_4	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.02
C_2F_6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C 3F8	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C_4F_{10}	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
c-C_4F_8	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C_5F_{12}	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C_6F_{14}	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Unspecified mix of listed PFCs(4) - (Gg CO_2 equivalent)	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Emissions of SF6(3) - (Gg CO2 equivalent)	0.32	0.44	0.49	1.12	2.09	3.23	4.68	4.48	5.45	9.79
SF_6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

Table 1(d) UKR_BR1_v1.0

Emission trends (HFCs, PFCs and SF_6)

(Sheet 3 of 3) CRF: UKR_CRF__ v1.1

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2009*	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
Emissions of HFCsc - (kt CO2 eq)	586.03	658.05	717.42	100.00
HFC-23	NA, NO	NA, NO	NA, NO	0.00
HFC-32	0.00	0.00	0.03	100.00
HFC-41	NA, NO	NA, NO	NA, NO	0.00
HFC-43-10mee	NA, NO	NA, NO	NA, NO	0.00
HFC-125	0.03	0.03	0.05	100.00
HFC-134	NA, NO	NA, NO	NA, NO	0.00
HFC-134a	0.25	0.28	0.31	100.00
HFC-152a	NA, NO	NA, NO	NA, NO	0.00
HFC-143	NA, NO	NA, NO	NA, NO	0.00
HFC-143a	0.01	0.01	0.01	100.00
HFC-227ea	0.00	0.00	0.00	100.00
HFC-236fa	NA, NO	NA, NO	NA, NO	0.00
HFC-245ca	NA, NO	NA, NO	NA, NO	0.00
Unspecified mix of listed HFCsd - (kt CO_2 eq)	134.41	142.16	91.98	100.00
Emissions of PFCsc - (kt CO2 eq)	46.49	22.98	IE, NA, NO	-100.00
CF_4	0.01	0.00	NA, NO	-100.00
C_2F_6	0.00	0.00	NA, NO	-100.00
C 3F8	NA, NO	NA, NO	NA, NO	0.00
C_4F_{10}	NA, NO	NA, NO	NA, NO	0.00
c-C_4F_8	NA, NO	NA, NO	NA, NO	0.00
C_5F_{12}	NA, NO	NA, NO	NA, NO	0.00
C_6F_{14}	NA, NO	NA, NO	NA, NO	0.00
Unspecified mix of listed PFCs(4) - (Gg CO_2 equivalent)	NA, NO	NA, NO	NA, NO	0.00
Emissions of SF6(3) - (Gg CO2 equivalent)	9.81	10.18	8.82	108,429.41
SF_6	0.00	0.00	0.00	108,429.41

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) UKR_BR1_v1.0

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

Party	*Ukraine*	
Base year /base period	1990	
Emission reduction target	% of base year/base period	% of 1990 [b]
	100.00	0.00
Period for reaching target	2008-2012	

[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) UKR_BR1_v1.0

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		
Other Gases (specify)		
Sectors covered[b]	Energy	Yes
	Transport[f]	Yes
	Industrial processes[g]	Yes
	Agriculture	Yes
	LULUCF	Yes
	Waste	Yes
	Other Sectors (specify)	
	Solvents and Other Product Use	Yes

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) UKR_BR1_v1.0

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

Gases	*GWP values* [b]
CO_2	2nd AR
CH_4	2nd AR
N_2O	2nd AR
HFCs	2nd AR
PFCs	2nd AR
SF_6	2nd AR
NF_3	2nd AR
Other Gases (specify)	

Abbreviations: GWP = global warming potential

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

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

Table 2(d) UKR_BR1_v1.0

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	Included
	Contribution of LULUCF is calculated using	Land-based approach

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 UKR_BR1_v1.0

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	0.00
ERUs	0.00
AAUs[i]	46,041,846.63
Carry-over units[j]	0.00
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 UKR_BR1_v1.0

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 UKR_BR1_v1.0

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)*	
Green Investment Scheme projects	Energy, Transport, Other (Manufacturing industries and construction)	CO_2	Reduction of CO2 emissions	Other (Financing of these activities has been conducted with funds gained from selling of AAUs, as it provided by Article 17 of KP with an agreement of quote buyer.)	Adopted	The projects are confirmed with Parties purchased AAUs and are realized in different regions of Ukraine. The projects presumably imply increase of energy efficiency in social sphere.	2011	State Environmental Investment Agency, local self-government institutions.	120.00	
Sectoral program of energy efficiency and energy saving up to 2017	Energy, Other (Manufacturing industries and construction)	CO_2	Energy efficiency.	Regulatory|Economic|Voluntary Agreement|Information|Other (Budget financing)	Adopted	The program is developed for black iron, machine building, chemical and oil, light industry, woodworking and other industries of Ukraine .	2009	Ministry of industrial policy, local self-government institutions, private entities.	19,000.00	
State targeted economic program of energy efficiency and development of the alternative energy generation secor for 2010-2015.	Energy, Transport, Other (Manufacturing industries and construction)	CO_2	Energy efficiency.	Economic|Voluntary Agreement|Regulatory|Information|Other (Budget financing)	Adopted	Decrease of energy capacity of the GDP.	2010	Cabinet of Ministers of Ukraine, central executive authorities,local self-government institutions.	50,000.00	

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.

Custom Footnotes

Table 4 UKR_BR1_v1.0

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)	929,893.57	-69,737.11				
2010	383,211.39	-37,955.08	0.00	0.00	0.00	0.00
2011	401,576.28	-7,289.75				
2012						

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

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

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

[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

The share of sinks of LULUCF sector in total emissions is stated in Table 1.

Table 4(a)I UKR_BR1_v1.0

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 2011 [a,b]

	Net GHG emissions/removals from LULUCF categories [c]	*Base year/period or reference level value* [d]	*Contribution from LULUCF for reported year*	*Cumulative contribution from LULUCF* [e]	*Accounting approach* [f]
	(kt CO_2 eq)				
Total LULUCF					Land-based approach
A. Forest land					Land-based approach
1. Forest land remaining forest land					Land-based approach
2. Land converted to forest land					Land-based approach
3. Other [g]					Land-based approach
B. Cropland					Land-based approach
1. Cropland remaining cropland					Land-based approach
2. Land converted to cropland					Land-based approach
3. Other [g]					Land-based approach
C. Grassland					Land-based approach
1. Grassland remaining grassland					Land-based approach
2. Land converted to grassland					Land-based approach
3. Other [g]					Land-based approach
D. Wetlands					Land-based approach
1. Wetland remaining wetland					Land-based approach
2. Land converted to wetland					Land-based approach
3. Other [g]					Land-based approach
E. Settlements					Land-based approach
1. Settlements remaining settlements					Land-based approach
2. Land converted to settlements					Land-based approach
3. Other [g]					Land-based approach
F. Other land					Land-based approach
1. Other land remaining other land					Land-based approach
2. Land converted to other land					Land-based approach
3. Other [g]					Land-based approach
Harvested wood products					Land-based approach

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 UKR_BR1_v1.0

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 2012 [a, b]

	Net GHG emissions/removals from LULUCF categories [c]	*Base year/period or reference level value* [d]	*Contribution from LULUCF for reported year*	*Cumulative contribution from LULUCF* [e]	*Accounting approach* [f]
	(kt CO_2 eq)				
Total LULUCF					Land-based approach
A. Forest land					Land-based approach
1. Forest land remaining forest land					Land-based approach
2. Land converted to forest land					Land-based approach
3. Other [g]					Land-based approach
B. Cropland					Land-based approach
1. Cropland remaining cropland					Land-based approach
2. Land converted to cropland					Land-based approach
3. Other [g]					Land-based approach
C. Grassland					Land-based approach
1. Grassland remaining grassland					Land-based approach
2. Land converted to grassland					Land-based approach
3. Other [g]					Land-based approach
D. Wetlands					Land-based approach
1. Wetland remaining wetland					Land-based approach
2. Land converted to wetland					Land-based approach
3. Other [g]					Land-based approach
E. Settlements					Land-based approach
1. Settlements remaining settlements					Land-based approach
2. Land converted to settlements					Land-based approach
3. Other [g]					Land-based approach
F. Other land					Land-based approach
1. Other land remaining other land					Land-based approach
2. Land converted to other land					Land-based approach
3. Other [g]					Land-based approach
Harvested wood products					Land-based approach

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)II

UKR_BR1_v1.0
Source: UKR_CRF__ v1.1

Progress in achievement of the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the counting of emissions and removals from the land use, land-use change and forestry sector in relation to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol[a,b,c]

GREENHOUSE GAS SOURCE AND SINK ACTIVITIES	*Base year*[d]	*Net emissions/removals*[e]					*Accounting parameters*[h]	*Accounting quantity*[i]
		2008	2009	*2010*	*2011*	Total[g]		
	(kt CO_2 eq)							
A. Article 3.3 activities								
A.1. Afforestation and Reforestation								-2'001.56
A.1.1. Units of land not harvested since the beginning of the commitment periodj		-27.58	-27.35	-57.80	-160.32	-273.04		-273.04
A.1.2. Units of land harvested since the beginning of the commitment periodj								-1'728.51
A.2. Deforestation		329.14	1.80	0.10	6.40	337.45		337.44596
B. Article 3.4 activities								
B.1. Forest Management (if elected)		-56,351.81	-58,197.86	-55,816.82	-61,282.08	-231,648.57		-20350
3.3 offset[k]							0	0
FM cap[l]							20350	-20350
B.2. Cropland Management (if elected)	NA	NA	NA	NA	NA	NA	NA	NA
B.3. Grazing Land Management (if elected)	NA	NA	NA	NA	NA	NA	NA	NA
B.4. Revegetation (if elected)	NA	NA	NA	NA	NA	NA	NA	NA

Note: 1 kt CO_2 eq equals 1 Gg CO_2 eq.

Abbreviations: CRF = common reporting format, 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] Developed country Parties with a quantified economy-wide emission reduction target as communicated to the secretariat and contained in document FCCC/SB/2011/INF.1/Rev.1 or any update to that document, that are Parties to the Kyoto Protocol, may use table 4(a)II for reporting of accounting quantities if LULUCF is contributing to the attainment of that target.

[c] Parties can include references to the relevant parts of the national inventory report, where accounting methodologies regarding LULUCF are further described in the documentation box or in the biennial

[d] Net emissions and removals in the Party's base year, as established by decision 9/CP.2.

[e] All values are reported in the information table on accounting for activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, of the CRF for the relevant inventory year as reported in the current submission and are automatically entered in this table.

[f] Additional columns for relevant years should be added, if applicable.

[g] Cumulative net emissions and removals for all years of the commitment period reported in the current submission.

[h] The values in the cells "3.3 offset" and "Forest management cap" are absolute values.

[i] The accounting quantity is the total quantity of units to be added to or subtracted from a Party's assigned amount for a particular activity in accordance with the provisions of Article 7, paragraph 4, of the Kyoto Protocol.

[j] In accordance with paragraph 4 of the annex to decision 16/CMP.1, debits resulting from harvesting during the first commitment period following afforestation and reforestation since 1990 shall not be greater than the credits accounted for on that unit of land.

[k] In accordance with paragraph 10 of the annex to decision 16/CMP.1, for the first commitment period a Party included in Annex I that incurs a net source of emissions under the provisions of Article 3 paragraph 3, may account for anthropogenic greenhouse gas emissions by sources and removals by sinks in areas under forest management under Article 3, paragraph 4, up to a level that is equal to the net source of emissions under the provisions of Article 3, paragraph 3, but not greater than 9.0 megatonnes of carbon times five, if the total anthropogenic greenhouse gas emissions by sources and removals by sinks in the managed forest since 1990 is equal to, or larger than, the net source of emissions incurred under Article 3, paragraph 3.

[l] In accordance with paragraph 11 of the annex to decision 16/CMP.1, for the first commitment period of the Kyoto Protocol only, additions to and subtractions from the assigned amount of a Party resulting from Forest management under Article 3, paragraph 4, after the application of paragraph 10 of the annex to decision 16/CMP.1 and resulting from forest management project activities undertaken under Article 6, shall not exceed the value inscribed in the appendix of the annex to decision 16/CMP.1, times five.

Custom Footnotes

Documentation Box:

Table 4(b) UKR_BR1_v1.0

Reporting on progress[a, b, c]

Units of market based mechanisms			*Year*	
			2011	*2012*
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

Ukraine did not use flexible mechanisms of KP to reach quantified economy-wide emission reduction targets, as the results were clear in 2008 a priori.

Table 5 UKR_BR1_v1.0

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

[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

on GHG emission assessment in the perspective.   Development indicators of economy sectors, energy consomption level, GDP, GHG emission and others are to be determined during the forecasting on the base of the multivariate calculations using specialized modeling software.

Table 6(a) UKR_BR1_v1.0

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	2011	2020	2030
Sector[d,e]									
Energy	735,556.41	735,556.41	386,146.51	305,878.26	320,170.93	290,857.51	305,225.35	334,086.00	423,377.00
Transport	91,123.59	91,123.59	45,505.58	34,743.27	44,567.87	40,025.41	36,736.88	40,210.00	50,960.00
Industry/industrial processes	79,841.03	79,841.03	35,680.17	42,278.99	52,395.40	46,480.58	48,783.74	71,825.00	67,817.00
Agriculture	103,602.53	103,602.53	66,469.10	37,372.46	33,809.10	34,507.43	36,190.30	43,100.00	43,800.00
Forestry/LULUCF	-69,737.11	-69,737.11	-48,757.12	-50,840.12	-38,440.09	37,955.08	-7,289.75	-11,340.00	-11,346.00
Waste management/waste	10,516.80	10,516.80	9,898.41	9,865.17	10,580.85	11,033.86	11,046.12	9,000.00	6,000.00
Other (specify)	376.80	376.80	372.11	354.89	340.38	332.01	330.77	365.00	450.00
Solvents and Other Product Use	376.80	376.80	372.11	354.89	340.38	332.01	330.77	365.00	450.00
Gas									
CO_2 emissions including net CO_2 from LULUCF	649,193.99	649,193.99	311,570.92	242,687.71	282,146.26	251,713.87	298,172.52	322,086.82	389,536.76
CO_2 emissions excluding net CO_2 from LULUCF	718,951.47	718,951.47	360,356.18	293,541.68	320,602.57	289,707.97	305,463.58	351,865.16	424,743.07
CH_4 emissions including CH_4 from LULUCF	151,649.21	151,649.21	98,977.61	75,609.26	70,224.71	63,882.49	63,330.77	67,860.58	77,645.61
CH_4 emissions excluding CH_4 from LULUCF	151,640.82	151,640.82	98,963.32	75,605.82	70,219.46	63,859.24	63,329.94	67,857.21	77,641.62
N_2O emissions including N_2O from LULUCF	59,110.02	59,110.02	39,107.13	26,498.38	26,104.49	28,968.74	32,057.00	38,659.34	39,043.42
N_2O emissions excluding N_2O from LULUCF	59,098.04	59,098.04	39,093.28	26,487.96	26,093.52	28,952.98	32,056.52	38,657.37	39,041.08
HFCs	NA	NA	NA	14.12	253.76	658.05	717.42	710.25	532.68
PFCs	203.23	203.23	153.45	99.74	122.66	22.98	NA	NA	NA
SF_6	0.01	0.01	0.07	0.44	4.68	10.18	8.82	14.11	22.58
Other (specify)									
Total with LULUCF[f]	860,156.46	860,156.46	449,809.18	344,909.65	378,856.56	345,256.31	394,286.53	429,331.10	506,781.05
Total without LULUCF	929,893.57	929,893.57	498,566.30	395,749.76	417,296.65	383,211.40	401,576.28	459,104.10	541,981.03

Table 6(a) UKR_BR1_v1.0

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	2011	2020	2030

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

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

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

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

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

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

[f] Parties may choose to report total emissions with or without LULUCF, as appropriate.

Custom Footnotes

technical progress, structural and technological changes in economy of Ukraine, changes of environment on internal and external markets of goods and services. It includes all economically reasonable activities for GHG emission reductions, as well as neither economically nor ecologically reasonable for Ukrainian conditions development of wind and solar energy.The "without measures" scenario assumes that GDP target of the basic scenario in 2030 will be achieved with constant margin GHG emissions in all sectors, and its raise will be proportional of emissions' development to corresponding levels of Gross Added Value, which will provide GDP's necessary level. At the same time in LULUCF sector it is assumed, that raise of GHG emissions from land

Table 6(b) UKR_BR1_v1.0

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	2011	2020	2030
Sector[d,e]									
Energy	735,556.41	735,556.41	386,146.51	305,878.26	320,170.93	290,857.51	305,225.35	386,840.00	607,310.00
Transport	91,123.59	91,123.59	45,505.58	34,743.27	44,567.87	40,025.41	36,736.88	53,234.00	83,573.00
Industry/industrial processes	79,841.03	79,841.03	35,680.17	42,278.99	52,395.40	46,480.58	48,783.74	61,819.00	97,051.00
Agriculture	103,602.53	103,602.53	66,469.10	37,372.46	33,809.10	34,507.43	36,190.30	45,895.00	72,052.00
Forestry/LULUCF	-69,737.11	-69,737.11	-48,757.12	-50,840.12	-38,440.09	37,955.08	-7,289.75	0.00	0.00
Waste management/waste	10,516.80	10,516.80	9,898.41	9,865.17	10,580.85	11,033.86	11,046.12	11,267.04	11,492.38
Other (specify)	376.80	376.80	372.11	354.89	340.38	332.01	330.77	442.00	693.00
Solvents and Other Product Use	376.80	376.80	372.11	354.89	340.38	332.01	330.77	442.00	693.00
Gas									
CO_2 emissions including net CO_2 from LULUCF	649,193.99	649,193.99	311,570.92	242,687.71	282,146.26	251,713.87	298,172.52	385,312.00	604,910.00
CO_2 emissions excluding net CO_2 from LULUCF	718,951.47	718,951.47	360,356.18	293,541.68	320,602.57	289,707.97	305,463.58	385,312.00	604,910.00
CH_4 emissions including CH_4 from LULUCF	151,649.21	151,649.21	98,977.61	75,609.26	70,224.71	63,882.49	63,330.77	84,932.79	133,338.09
CH_4 emissions excluding CH_4 from LULUCF	151,640.82	151,640.82	98,963.32	75,605.82	70,219.46	63,859.24	63,329.94	84,933.00	133,338.00
N_2O emissions including N_2O from LULUCF	59,110.02	59,110.02	39,107.13	26,498.38	26,104.49	28,968.74	32,057.00	38,507.00	60,454.00
N_2O emissions excluding N_2O from LULUCF	59,098.04	59,098.04	39,093.28	26,487.96	26,093.52	28,952.98	32,056.52	38,507.00	60,454.00
HFCs	NA	NA	NA	14.12	253.76	658.05	717.42	875.00	1,374.00
PFCs	203.23	203.23	153.45	99.74	122.66	22.98	NA	NA	NA
SF_6	0.01	0.01	0.07	0.44	4.68	10.18	8.82	14.00	21.00
Other (specify)									
Total with LULUCF[f]	860,156.46	860,156.46	449,809.18	344,909.65	378,856.56	345,256.31	394,286.53	509,640.79	800,097.09
Total without LULUCF	929,893.57	929,893.57	498,566.30	395,749.76	417,296.65	383,211.40	401,576.28	509,641.00	800,097.00

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.

Table 6(b) UKR_BR1_v1.0

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	2011	2020	2030

[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) UKR_BR1_v1.0

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	2011	2020	2030
Sector[d,e]									
Energy	735,556.41	735,556.41	386,146.51	305,878.26	320,170.93	290,857.51	305,225.35	326,582.70	401,343.10
Transport	91,123.59	91,123.59	45,505.58	34,743.27	44,567.87	40,025.41	36,736.88	38,511.88	45,416.23
Industry/industrial processes	79,841.03	79,841.03	35,680.17	42,278.99	52,395.40	46,480.58	48,783.74	71,825.00	67,817.00
Agriculture	103,602.53	103,602.53	66,469.10	37,372.46	33,809.10	34,507.43	36,190.30	43,100.00	43,800.00
Forestry/LULUCF	-69,737.11	-69,737.11	-48,757.12	-50,840.12	-38,440.09	37,955.08	-7,289.75	-11,339.80	-17,189.80
Waste management/waste	10,516.80	10,516.80	9,898.41	9,865.17	10,580.85	11,033.86	11,046.12	9,000.00	6,000.00
Other (specify)	376.80	376.80	372.11	354.89	340.38	332.01	330.77	365.00	450.00
Solvents and Other Product Use	376.80	376.80	372.11	354.89	340.38	332.01	330.77	365.00	450.00
Gas									
CO_2 emissions including net CO_2 from LULUCF	649,193.99	649,193.99	311,570.92	242,687.71	282,146.26	251,713.87	298,172.52	314,763.80	368,026.40
CO_2 emissions excluding net CO_2 from LULUCF	718,951.47	718,951.47	360,356.18	293,541.68	320,602.57	289,707.97	305,463.58	344,542.10	403,232.70
CH_4 emissions including CH_4 from LULUCF	151,649.21	151,649.21	98,977.61	75,609.26	70,224.71	63,882.49	63,330.77	67,857.36	77,636.32
CH_4 emissions excluding CH_4 from LULUCF	151,640.82	151,640.82	98,963.32	75,605.82	70,219.46	63,859.24	63,329.94	67,853.99	77,632.33
N_2O emissions including N_2O from LULUCF	59,110.02	59,110.02	39,107.13	26,498.38	26,104.49	28,968.74	32,057.00	38,658.96	39,042.32
N_2O emissions excluding N_2O from LULUCF	59,098.04	59,098.04	39,093.28	26,487.96	26,093.52	28,952.98	32,056.52	38,656.99	39,041.23
HFCs	NA	NA	NA	14.12	253.76	658.05	717.42	710.25	532.68
PFCs	203.23	203.23	153.45	99.74	122.66	22.98	NA	NA	NA
SF_6	0.01	0.01	0.07	0.44	4.68	10.18	8.82	14.11	22.58
Other (specify)									
Total with LULUCF[f]	860,156.46	860,156.46	449,809.18	344,909.65	378,856.56	345,256.31	394,286.53	422,004.48	485,260.30
Total without LULUCF	929,893.57	929,893.57	498,566.30	395,749.76	417,296.65	383,211.40	401,576.28	451,777.44	520,461.52

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.

Table 6(c) UKR_BR1_v1.0

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	2011	2020	2030

[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 UKR_BR1_v1.0

Provision of public financial support: summary information in 2011[a]

Allocation channels	*Year*									
	Ukrainian hryvnia - UAH					*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

[*]Ukraine as a country not included in Annex 2 to the UNFCCC, as a country with economy in transition, has not financial commitments according to the articles 4.3, 4.4 and 4.5 of the UNFCCC.

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 UKR_BR1_v1.0

Provision of public financial support: summary information in 2012[a]

Allocation channels	*Year*									
	Ukrainian hryvnia - UAH					*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.

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[f] Please specify.

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[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

[*]Ukraine as a country not included in Annex 2 to the UNFCCC, as a country with economy in transition, has not financial commitments according to the articles 4.3, 4.4 and 4.5 of the UNFCCC.

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) UKR_BR1_v1.0

Provision of public financial support: contribution through multilateral channels in 2011[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]						
	Ukrainian hryvnia - UAH	*USD*	*Ukrainian hryvnia - UAH*	*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

[*]Ukraine as a country not included in Annex 2 to the UNFCCC, as a country with economy in transition, has not financial commitments according to the articles 4.3, 4.4 and 4.5 of the UNFCCC.

Table 7(a) UKR_BR1_v1.0

Provision of public financial support: contribution through multilateral channels in 2012[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]						
	Ukrainian hryvnia - UAH	*USD*	*Ukrainian hryvnia - UAH*	*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

*Ukraine as a country not included in Annex 2 to the UNFCCC, as a country with economy in transition, has not financial commitments according to the articles 4.3, 4.4 and 4.5 of the UNFCCC.

Table 7(b) UKR_BR1_v1.0

Provision of public financial support: contribution through bilateral, regional and other channels in 2011[a]

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

[*]Ukraine as a country not included in Annex 2 to the UNFCCC, as a country with economy in transition, has not financial commitments according to the articles 4.3, 4.4 and 4.5 of the UNFCCC.

Table 7(b) UKR_BR1_v1.0

Provision of public financial support: contribution through bilateral, regional and other channels in 2012[a]

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

[*]Ukraine as a country not included in Annex 2 to the UNFCCC, as a country with economy in transition, has not financial commitments according to the articles 4.3, 4.4 and 4.5 of the UNFCCC.

Table 8 UKR_BR1_v1.0

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]
	Mitigation and Adaptation			Public	Public	Implemented	

[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

[*]Ukraine as a country not included in Annex 2 to the UNFCCC, as a country with economy in transition, has not financial commitments according to the articles 4.3, 4.4 and 4.5 of the UNFCCC.

Table 9 UKR_BR1_v1.0

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

[*]Ukraine as a country not included in Annex 2 to the UNFCCC, as a country with economy in transition, has not financial commitments according to the articles 4.3, 4.4 and 4.5 of the UNFCCC.