BR CTF submission workbook

Submission Year	2016	Party	RUSSIAN FEDERATION
Submission Version	v1.0	Submission Level	Submitted
Submission Key	RUS_2016_V1.0	Submission Status	Closed
Submitted By	Alexander Nakhutin	Workbook Created	30.12.2015 11:46:31
Submitted Date	30.12.2015 11:46:08		

Contents

Table 1 RUS_BR2_v1.0

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

GREENHOUSE GAS EMISSIONS	Base year[a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt CO_2 eq								
CO_2 emissions without net CO_2 from LULUCF	2,590,118.46	2,590,118.46	2,433,585.43	2,013,571.02	1,909,960.61	1,685,870.97	1,629,865.33	1,581,665.68	1,502,432.57
CO_2 emissions with net CO_2 from LULUCF	2,759,101.86	2,759,101.86	2,620,475.87	2,106,243.01	1,929,839.64	1,634,836.78	1,535,057.16	1,449,456.65	1,245,373.29
CH_4 emissions without CH_4 from LULUCF	1,115,544.88	1,115,544.88	1,049,981.83	968,265.20	904,865.59	844,382.54	815,870.45	799,026.39	780,465.48
CH_4 emissions with CH_4 from LULUCF	1,136,727.64	1,136,727.64	1,070,089.56	988,421.39	925,016.66	863,750.26	834,624.39	820,471.95	799,190.05
N_2O emissions without N_2O from LULUCF	183,229.51	183,229.51	175,731.43	151,396.59	129,028.90	116,046.20	115,174.01	109,415.44	102,014.77
N_2O emissions with N_2O from LULUCF	193,686.36	193,686.36	191,785.59	167,544.64	145,210.26	131,630.20	130,407.38	126,460.62	117,290.11
HFCs	35,937.16	35,937.16	34,229.66	28,192.14	18,278.41	15,469.64	15,447.32	13,611.08	18,009.50
PFCs	15,122.41	15,122.41	16,204.11	14,706.10	14,334.65	13,936.47	13,456.59	11,842.60	10,243.98
Unspecified mix of HFCs and PFCs	NO	NO	NO	NO	NO	NO	NO	NO	NO
SF_6	1,147.15	1,147.15	1,042.19	337.60	161.88	97.16	397.11	1,006.08	1,004.41
NF3	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (without LULUCF)	3,941,099.57	3,941,099.57	3,710,774.65	3,176,468.66	2,976,630.04	2,675,802.98	2,590,210.81	2,516,567.27	2,414,170.70
Total (with LULUCF)	4,141,722.58	4,141,722.58	3,933,826.98	3,305,444.89	3,032,841.50	2,659,720.51	2,529,389.95	2,422,848.97	2,191,111.34
Total (without LULUCF, with indirect)	3,941,099.57	3,941,099.57	3,710,774.65	3,176,468.66	2,976,630.04	2,675,802.98	2,590,210.81	2,516,567.27	2,414,170.70
Total (with LULUCF, with indirect)	4,141,722.58	4,141,722.58	3,933,826.98	3,305,444.89	3,032,841.50	2,659,720.51	2,529,389.95	2,422,848.97	2,191,111.34

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year[a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt CO_2 eq								
1. Energy	3,250,141.08	3,250,141.08	3,066,240.79	2,592,629.43	2,460,919.77	2,211,443.32	2,127,035.33	2,087,873.48	1,999,891.88
2. Industrial processes and product use	298,063.40	298,063.40	263,575.01	237,351.22	198,998.29	169,923.32	181,108.08	163,453.60	164,441.47
3. Agriculture	314,825.56	314,825.56	302,889.05	269,556.32	239,910.35	218,265.98	205,325.53	188,765.57	172,654.94
4. Land Use, Land-Use Change and Forestry[b]	200,623.01	200,623.01	223,052.33	128,976.23	56,211.46	-16,082.47	-60,820.86	-93,718.30	-223,059.37
5. Waste	78,069.53	78,069.53	78,069.79	76,931.70	76,801.63	76,170.36	76,741.87	76,474.62	77,182.42
6. Other									
Total (including LULUCF)	4,141,722.58	4,141,722.58	3,933,826.98	3,305,444.89	3,032,841.50	2,659,720.51	2,529,389.95	2,422,848.97	2,191,111.34

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 RUS_BR2_v1.0

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

GREENHOUSE GAS EMISSIONS	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
CO_2 emissions without net CO_2 from LULUCF	1,476,954.20	1,513,017.07	1,504,542.89	1,542,857.98	1,531,565.35	1,568,887.80	1,575,564.78	1,594,321.72	1,653,686.70	1,653,532.16
CO_2 emissions with net CO_2 from LULUCF	1,286,878.64	1,200,773.81	1,160,540.50	1,108,834.09	1,076,014.32	1,131,068.70	1,111,898.00	1,176,049.49	1,275,403.48	1,232,714.35
CH_4 emissions without CH_4 from LULUCF	772,672.36	773,417.45	790,554.47	816,685.31	847,755.67	901,589.87	944,010.46	958,680.79	978,724.31	988,414.34
CH_4 emissions with CH_4 from LULUCF	797,333.14	792,462.39	810,870.99	836,447.18	868,931.82	924,509.63	962,886.73	981,047.84	1,004,100.11	1,013,015.12
N_2O emissions without N_2O from LULUCF	106,094.83	100,548.79	98,817.18	95,440.74	94,474.50	93,494.89	92,453.23	89,916.94	90,036.27	90,163.41
N_2O emissions with N_2O from LULUCF	125,517.53	116,567.70	116,132.13	112,721.20	113,046.25	113,753.38	110,203.72	129,981.37	143,123.37	147,116.27
HFCs	21,834.14	22,672.04	26,569.51	25,208.60	19,301.73	14,612.19	18,415.37	19,812.47	18,024.70	16,854.29
PFCs	9,883.49	9,617.09	9,894.72	9,045.44	7,313.25	6,731.21	6,651.69	6,345.05	5,552.35	5,017.83
Unspecified mix of HFCs and PFCs	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
SF_6	806.43	650.03	664.46	827.10	896.77	1,050.47	1,179.13	1,278.36	1,298.46	1,327.42
NF3	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (without LULUCF)	2,388,245.45	2,419,922.48	2,431,043.22	2,490,065.18	2,501,307.28	2,586,366.42	2,638,274.67	2,670,355.33	2,747,322.80	2,755,309.45
Total (with LULUCF)	2,242,253.37	2,142,743.06	2,124,672.31	2,093,083.62	2,085,504.15	2,191,725.58	2,211,234.66	2,314,514.59	2,447,502.47	2,416,045.28
Total (without LULUCF, with indirect)	2,388,245.45	2,419,922.48	2,431,043.22	2,490,065.18	2,501,307.28	2,586,366.42	2,638,274.67	2,670,355.33	2,747,322.80	2,755,309.45
Total (with LULUCF, with indirect)	2,242,253.37	2,142,743.06	2,124,672.31	2,093,083.62	2,085,504.15	2,191,725.58	2,211,234.66	2,314,514.59	2,447,502.47	2,416,045.28

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	1,984,520.77	2,008,684.70	2,002,248.96	2,061,617.41	2,077,047.45	2,160,961.38	2,204,235.95	2,238,880.92	2,307,601.46	2,309,565.82
2. Industrial processes and product use	157,576.85	178,285.62	196,991.29	198,085.31	194,447.82	196,873.99	207,573.12	210,122.32	218,978.74	221,808.82
3. Agriculture	168,719.97	154,463.59	152,522.67	149,923.60	148,321.98	145,685.80	142,092.33	135,030.60	132,525.60	133,555.93
4. Land Use, Land-Use Change and Forestry[b]	-145,992.08	-277,179.41	-306,370.92	-396,981.56	-415,803.13	-394,640.84	-427,040.02	-355,840.74	-299,820.32	-339,264.17
5. Waste	77,427.87	78,488.57	79,280.31	80,438.87	81,490.04	82,845.25	84,373.27	86,321.48	88,217.00	90,378.88
6. Other										
Total (including LULUCF)	2,242,253.37	2,142,743.06	2,124,672.31	2,093,083.62	2,085,504.15	2,191,725.58	2,211,234.66	2,314,514.59	2,447,502.47	2,416,045.28

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

Table 1 RUS_BR2_v1.0

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

GREENHOUSE GAS EMISSIONS	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							(%)
CO_2 emissions without net CO_2 from LULUCF	1,685,398.04	1,577,048.46	1,662,964.09	1,717,625.78	1,727,890.48	1,667,056.09	-35.64
CO_2 emissions with net CO_2 from LULUCF	1,258,160.93	1,113,606.56	1,160,148.76	1,196,289.48	1,239,417.01	1,168,489.27	-57.65
CH_4 emissions without CH_4 from LULUCF	992,313.92	948,087.34	994,942.06	1,015,599.13	1,018,423.52	1,025,506.41	-8.07
CH_4 emissions with CH_4 from LULUCF	1,017,799.57	973,648.23	1,017,733.78	1,038,320.64	1,040,994.36	1,046,479.99	-7.94
N_2O emissions without N_2O from LULUCF	88,261.02	89,523.83	94,866.80	90,244.75	94,615.52	89,961.76	-50.90
N_2O emissions with N_2O from LULUCF	142,633.78	140,893.79	125,979.44	122,494.64	121,455.18	119,642.63	-38.23
HFCs	17,929.70	12,508.66	13,389.03	11,280.08	17,613.01	24,955.40	-30.56
PFCs	4,907.41	3,377.83	3,633.21	3,317.94	3,327.86	3,419.50	-77.39
Unspecified mix of HFCs and PFCs	NO	NO	NO	NO	NO	NO	
SF_6	792.64	754.24	636.79	485.97	5,241.11	4,909.13	327.94
NF3	NO	NO	NO	NO	NO	NO	
Total (without LULUCF)	2,789,602.74	2,631,300.36	2,770,431.99	2,838,553.65	2,867,111.50	2,815,808.30	-28.55
Total (with LULUCF)	2,442,224.03	2,244,789.31	2,321,521.01	2,372,188.75	2,428,048.53	2,367,895.91	-42.83
Total (without LULUCF, with indirect)	2,789,602.74	2,631,300.36	2,770,431.99	2,838,553.65	2,867,111.50	2,815,808.30	-28.55
Total (with LULUCF, with indirect)	2,442,224.03	2,244,789.31	2,321,521.01	2,372,188.75	2,428,048.53	2,367,895.91	-42.83

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							(%)
1. Energy	2,351,909.12	2,217,723.12	2,334,604.68	2,402,512.70	2,414,942.67	2,361,132.08	-27.35
2. Industrial processes and product use	212,429.56	186,326.37	202,888.05	205,857.34	212,938.90	216,865.32	-27.24
3. Agriculture	132,997.79	133,160.37	136,456.86	130,522.39	136,531.70	131,803.99	-58.13
4. Land Use, Land-Use Change and Forestry[b]	-347,378.70	-386,511.05	-448,910.98	-466,364.90	-439,062.98	-447,912.38	-323.26
5. Waste	92,266.26	94,090.49	96,482.40	99,661.21	102,698.24	106,006.92	35.79
6. Other							
Total (including LULUCF)	2,442,224.03	2,244,789.31	2,321,521.01	2,372,188.75	2,428,048.53	2,367,895.91	-42.83

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) RUS_BR2_v1.0

Emission trends (CO_2)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year* [a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	2,338,398.88	2,338,398.88	2,216,462.49	1,814,952.22	1,740,991.86	1,544,780.43	1,478,720.04	1,446,105.93	1,369,109.05
A. Fuel combustion (sectoral approach)	2,265,874.47	2,265,874.47	2,148,552.58	1,757,249.45	1,691,302.20	1,500,806.79	1,434,889.17	1,402,638.44	1,324,167.36
1. Energy industries	1,167,444.31	1,167,444.31	1,094,634.61	1,067,321.89	1,047,221.74	956,430.95	906,871.40	901,238.15	849,129.06
2. Manufacturing industries and construction	212,269.91	212,269.91	205,560.53	134,651.83	115,063.28	85,538.74	89,870.04	103,320.28	99,779.76
3. Transport	315,523.64	315,523.64	306,871.81	252,303.72	237,353.97	220,568.21	208,415.62	199,329.04	181,573.00
4. Other sectors	257,726.61	257,726.61	245,858.69	231,793.78	224,233.03	205,176.70	191,287.40	170,731.00	164,271.74
5. Other	312,910.01	312,910.01	295,626.95	71,178.23	67,430.18	33,092.19	38,444.72	28,019.97	29,413.81
B. Fugitive emissions from fuels	72,524.41	72,524.41	67,909.91	57,702.77	49,689.66	43,973.64	43,830.86	43,467.49	44,941.69
1. Solid fuels	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
2. Oil and natural gas and other emissions from energy production	72,524.41	72,524.41	67,909.91	57,702.77	49,689.66	43,973.64	43,830.86	43,467.49	44,941.69
C. CO2 transport and storage	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
2. Industrial processes	240,655.41	240,655.41	206,882.67	189,556.86	162,320.91	137,220.38	148,282.73	133,313.84	131,624.84
A. Mineral industry	88,270.36	88,270.36	76,581.91	68,900.12	53,342.35	40,670.65	44,660.36	36,675.51	34,748.25
B. Chemical industry	39,122.01	39,122.01	37,878.41	33,490.80	31,279.55	27,283.91	28,392.15	26,342.89	25,544.18
C. Metal industry	110,504.99	110,504.99	89,782.81	84,940.00	75,917.34	68,141.60	73,899.54	69,050.49	70,212.08
D. Non-energy products from fuels and solvent use	2,758.05	2,758.05	2,639.54	2,225.93	1,781.67	1,124.20	1,330.68	1,244.95	1,120.33
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use									
H. Other	NE	NE	NE	NE	NE	NE	NE	NE	NE
3. Agriculture	11,064.17	11,064.17	10,240.27	9,061.95	6,647.85	3,870.17	2,862.57	2,245.91	1,698.69
A. Enteric fermentation									
B. Manure management									
C. Rice cultivation									
D. Agricultural soils									
E. Prescribed burning of savannas									
F. Field burning of agricultural residues									
G. Liming	10,074.17	10,074.17	9,304.17	8,149.17	5,871.25	3,144.17	1,989.17	1,411.67	1,058.75
H. Urea application	990.00	990.00	936.10	912.78	776.60	726.00	873.40	834.24	639.94
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	NO	NO	NO
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land Use, Land-Use Change and Forestry	168,983.41	168,983.41	186,890.44	92,671.99	19,879.02	-51,034.18	-94,808.18	-132,209.03	-257,059.28
A. Forest land	-190,318.07	-190,318.07	-210,083.90	-212,004.41	-216,784.32	-281,005.38	-344,631.73	-368,765.15	-457,620.80
B. Cropland	315,231.99	315,231.99	327,571.60	243,779.98	168,600.45	173,965.15	220,155.65	222,452.85	193,606.97
C. Grassland	39,526.25	39,526.25	31,483.83	14,575.58	8,836.66	-10,641.20	-39,585.40	-62,435.22	-67,098.89
D. Wetlands	3,389.73	3,389.73	3,374.74	3,359.75	3,344.76	3,329.77	3,314.78	3,299.79	3,212.68
E. Settlements	16,396.40	16,396.40	23,909.58	23,290.41	22,775.75	19,646.96	20,612.90	18,649.62	17,152.52
F. Other land	NA, NO	NA, NO	18,650.30	18,650.30	18,650.30	18,650.30	18,650.30	18,650.30	18,650.30
G. Harvested wood products	-15,242.89	-15,242.89	-8,015.71	1,020.37	14,455.42	25,020.21	26,675.32	35,938.78	35,037.95
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
A. Solid waste disposal	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Biological treatment of solid waste									
C. Incineration and open burning of waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
D. Waste water treatment and discharge									
E. Other									
6. Other (as specified in the summary table in CRF)									
Memo items:									
International bunkers	17,234.70	17,234.70	15,946.09	15,710.07	16,126.62	16,234.52	16,994.73	17,518.80	17,610.99
Aviation	4,528.09	4,528.09	4,333.91	4,192.01	4,505.69	4,565.43	4,879.11	5,267.48	5,215.20
Navigation	12,706.61	12,706.61	11,612.18	11,518.06	11,620.94	11,669.09	12,115.62	12,251.33	12,395.79
Multilateral operations	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO2 emissions from biomass	62,576.10	62,576.10	61,248.36	50,593.61	46,269.61	32,664.43	29,463.58	25,143.76	21,749.97
CO2 captured	NA	NA	NA	NA	NA	NA	NA	NA	NA
Long-term storage of C in waste disposal sites	250,600.31	250,600.31	262,339.52	273,831.83	285,166.93	296,267.64	307,315.54	318,276.14	329,191.41
Indirect N2O									
Indirect CO2 (3)	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO
Total CO2 equivalent emissions without land use, land-use change and forestry	3,941,099.57	3,941,099.57	3,710,774.65	3,176,468.66	2,976,630.04	2,675,802.98	2,590,210.81	2,516,567.27	2,414,170.70
Total CO2 equivalent emissions with land use, land-use change and forestry	4,141,722.58	4,141,722.58	3,933,826.98	3,305,444.89	3,032,841.50	2,659,720.51	2,529,389.95	2,422,848.97	2,191,111.34
Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry	2,590,118.46	2,590,118.46	2,433,585.43	2,013,571.02	1,909,960.61	1,685,870.97	1,629,865.33	1,581,665.68	1,502,432.57
Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry	2,759,101.86	2,759,101.86	2,620,475.87	2,106,243.01	1,929,839.64	1,634,836.78	1,535,057.16	1,449,456.65	1,245,373.29

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

Table 1 (a) RUS_BR2_v1.0

Emission trends (CO_2)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	1,353,732.35	1,369,767.26	1,347,160.51	1,382,587.91	1,367,806.43	1,397,464.97	1,397,513.64	1,415,211.43	1,463,067.13	1,458,704.79
A. Fuel combustion (sectoral approach)	1,308,973.20	1,323,605.71	1,299,291.42	1,332,117.00	1,306,963.27	1,333,031.38	1,326,083.66	1,341,494.40	1,387,970.63	1,376,313.94
1. Energy industries	853,911.89	838,685.95	840,220.52	852,021.86	848,004.38	859,744.97	848,117.91	859,533.29	890,455.67	877,035.77
2. Manufacturing industries and construction	85,781.62	94,183.65	100,913.46	103,982.30	97,413.10	96,689.08	94,974.58	112,326.18	112,454.83	106,699.02
3. Transport	189,308.38	183,653.53	171,221.60	175,301.72	182,397.63	190,951.62	202,121.13	204,334.72	211,286.73	218,008.58
4. Other sectors	154,822.07	169,480.44	176,390.26	186,579.74	160,108.03	162,288.38	153,837.00	133,473.05	135,465.74	134,984.98
5. Other	25,149.22	37,602.14	10,545.57	14,231.38	19,040.12	23,357.34	27,033.05	31,827.16	38,307.66	39,585.59
B. Fugitive emissions from fuels	44,759.15	46,161.56	47,869.09	50,470.91	60,843.16	64,433.59	71,429.98	73,717.03	75,096.50	82,390.85
1. Solid fuels	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
2. Oil and natural gas and other emissions from energy production	44,759.15	46,161.56	47,869.09	50,470.91	60,843.16	64,433.59	71,429.98	73,717.03	75,096.50	82,390.85
C. CO2 transport and storage	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
2. Industrial processes	121,918.60	141,804.80	155,756.07	158,648.08	162,115.93	169,753.50	176,315.11	177,376.14	188,733.79	192,968.30
A. Mineral industry	32,638.84	36,614.24	40,413.01	40,686.66	40,141.17	46,034.28	47,706.87	50,078.62	53,728.90	57,962.04
B. Chemical industry	22,663.11	27,199.80	30,794.15	30,728.59	30,910.81	33,039.88	34,455.86	34,973.51	35,667.07	35,850.01
C. Metal industry	65,705.53	76,738.41	83,255.75	85,725.59	89,709.72	89,416.17	92,812.85	91,090.09	97,964.56	97,883.86
D. Non-energy products from fuels and solvent use	911.12	1,252.35	1,293.15	1,507.24	1,354.23	1,263.17	1,339.53	1,233.93	1,373.25	1,272.39
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use										
H. Other	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
3. Agriculture	1,303.25	1,445.01	1,626.31	1,621.99	1,642.99	1,669.33	1,736.03	1,734.15	1,885.79	1,859.07
A. Enteric fermentation										
B. Manure management										
C. Rice cultivation										
D. Agricultural soils										
E. Prescribed burning of savannas										
F. Field burning of agricultural residues										
G. Liming	737.92	802.08	898.33	866.25	796.63	825.83	756.17	725.21	751.07	673.75
H. Urea application	565.33	642.93	727.98	755.74	846.36	843.50	979.86	1,008.94	1,134.72	1,185.32
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land Use, Land-Use Change and Forestry	-190,075.56	-312,243.26	-344,002.39	-434,023.90	-455,551.03	-437,819.10	-463,666.78	-418,272.22	-378,283.22	-420,817.80
A. Forest land	-437,217.63	-522,138.03	-546,317.87	-573,044.47	-566,913.90	-552,460.93	-587,894.13	-533,919.11	-508,061.73	-514,247.53
B. Cropland	269,704.45	240,904.40	211,506.09	185,065.50	181,058.94	179,527.99	177,396.01	166,230.68	170,914.33	150,194.33
C. Grassland	-96,345.63	-103,451.11	-80,531.54	-115,011.29	-139,148.10	-131,780.30	-118,548.02	-115,544.99	-105,242.37	-109,418.49
D. Wetlands	2,960.58	2,579.72	2,794.76	2,725.81	2,639.04	2,516.51	2,443.84	2,388.67	2,379.29	2,341.52
E. Settlements	16,892.27	17,345.45	17,203.81	15,444.28	15,593.50	14,883.95	14,787.25	14,325.09	14,364.35	14,381.42
F. Other land	18,650.30	18,650.30	18,650.30	18,650.30	18,650.30	18,650.30	18,650.30	18,650.30	18,650.30	18,650.30
G. Harvested wood products	35,280.10	33,866.02	32,692.06	32,145.98	32,569.19	30,843.38	29,497.96	29,597.14	28,712.62	17,280.65
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
A. Solid waste disposal	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Biological treatment of solid waste										
C. Incineration and open burning of waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
D. Waste water treatment and discharge										
E. Other										
6. Other (as specified in the summary table in CRF)										
Memo items:										
International bunkers	17,413.08	17,729.15	18,389.60	18,970.07	19,890.81	20,943.46	23,533.41	24,682.13	26,343.56	29,858.91
Aviation	5,080.76	4,834.30	5,229.90	5,370.41	5,376.21	5,638.68	6,551.97	6,440.47	7,066.91	8,188.85
Navigation	12,332.31	12,894.85	13,159.70	13,599.66	14,514.60	15,304.78	16,981.44	18,241.66	19,276.65	21,670.06
Multilateral operations	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO2 emissions from biomass	17,023.02	22,057.20	18,492.40	17,903.93	17,114.73	17,025.45	16,443.04	16,343.65	16,491.07	17,631.70
CO2 captured	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Long-term storage of C in waste disposal sites	339,980.96	350,766.64	362,802.34	374,620.10	387,287.29	400,828.05	415,355.72	430,258.40	446,284.16	463,274.29
Indirect N2O										
Indirect CO2 (3)	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO
Total CO2 equivalent emissions without land use, land-use change and forestry	2,388,245.45	2,419,922.48	2,431,043.22	2,490,065.18	2,501,307.28	2,586,366.42	2,638,274.67	2,670,355.33	2,747,322.80	2,755,309.45
Total CO2 equivalent emissions with land use, land-use change and forestry	2,242,253.37	2,142,743.06	2,124,672.31	2,093,083.62	2,085,504.15	2,191,725.58	2,211,234.66	2,314,514.59	2,447,502.47	2,416,045.28
Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry	1,476,954.20	1,513,017.07	1,504,542.89	1,542,857.98	1,531,565.35	1,568,887.80	1,575,564.78	1,594,321.72	1,653,686.70	1,653,532.16
Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry	1,286,878.64	1,200,773.81	1,160,540.50	1,108,834.09	1,076,014.32	1,131,068.70	1,111,898.00	1,176,049.49	1,275,403.48	1,232,714.35

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

Table 1(a)

RUS_BR2_v1.0

Emission trends (CO_2)

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							%
1. Energy	1,500,056.01	1,411,824.50	1,482,224.44	1,531,572.61	1,545,589.65	1,488,198.29	-36.36
A. Fuel combustion (sectoral approach)	1,428,149.38	1,338,387.75	1,400,914.92	1,446,976.87	1,459,534.74	1,405,196.27	-37.98
1. Energy industries	896,266.25	836,069.01	876,637.99	886,121.89	908,660.26	851,164.75	-27.09
2. Manufacturing industries and construction	123,024.27	116,357.67	125,890.33	133,300.17	143,565.15	137,359.38	-35.29
3. Transport	224,129.06	209,703.01	226,515.14	241,616.92	240,143.14	249,175.78	-21.03
4. Other sectors	139,352.68	139,061.72	132,665.17	142,324.25	121,722.02	136,718.99	-46.95
5. Other	45,377.14	37,196.34	39,206.28	43,613.64	45,444.16	30,777.37	-90.16
B. Fugitive emissions from fuels	71,906.62	73,436.75	81,309.52	84,595.74	86,054.91	83,002.01	14.45
1. Solid fuels	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	
2. Oil and natural gas and other emissions from energy production	71,906.62	73,436.75	81,309.52	84,595.74	86,054.91	83,002.01	14.45
C. CO2 transport and storage	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	
2. Industrial processes	183,573.23	163,561.59	178,872.85	184,132.28	180,284.40	176,852.32	-26.51
A. Mineral industry	53,586.12	43,536.17	49,462.12	52,817.60	52,395.23	53,932.23	-38.90
B. Chemical industry	35,357.59	33,808.99	35,005.79	36,531.75	35,969.04	37,497.71	-4.15
C. Metal industry	93,400.56	85,312.04	93,281.17	93,602.53	90,621.82	84,157.53	-23.84
D. Non-energy products from fuels and solvent use	1,228.96	904.38	1,123.77	1,180.41	1,298.30	1,264.86	-54.14
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use							
H. Other	NE	NE	NE	NE	NE	NE	
3. Agriculture	1,768.81	1,662.38	1,866.81	1,920.88	2,016.43	2,005.48	-81.87
A. Enteric fermentation							
B. Manure management							
C. Rice cultivation							
D. Agricultural soils							
E. Prescribed burning of savannas							
F. Field burning of agricultural residues							
G. Liming	739.89	577.91	657.42	648.01	712.16	660.65	-93.44
H. Urea application	1,028.92	1,084.47	1,209.38	1,272.88	1,304.27	1,344.84	35.84
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	
J. Other	NO	NO	NO	NO	NO	NO	
4. Land Use, Land-Use Change and Forestry	-427,237.11	-463,441.91	-502,815.33	-521,336.30	-488,473.47	-498,566.82	-395.04
A. Forest land	-508,948.58	-573,914.57	-618,742.66	-580,813.65	-589,750.85	-583,731.42	206.71
B. Cropland	119,659.43	128,114.43	182,412.38	127,249.69	165,055.29	122,663.01	-61.09
C. Grassland	-91,233.20	-79,755.53	-84,926.78	-86,593.67	-82,697.67	-60,362.21	-252.71
D. Wetlands	2,303.74	2,265.97	2,228.20	2,190.42	2,152.65	2,114.88	-37.61
E. Settlements	15,498.50	20,498.88	-1,083.41	1,865.36	463.27	-2,461.20	-115.01
F. Other land	18,650.30	18,650.30	269.32	38.41	367.58	10,518.07	
G. Harvested wood products	16,832.70	20,698.61	17,027.63	14,727.13	15,936.26	12,692.05	-183.27
H. Other	NO	NO	NO	NO	NO	NO	
5. Waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NE, NO	IE, NE, NO	
A. Solid waste disposal	NO	NO	NO	NO	NE, NO	NE, NO	
B. Biological treatment of solid waste							
C. Incineration and open burning of waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	
D. Waste water treatment and discharge							
E. Other							
6. Other (as specified in the summary table in CRF)							
Memo items:							
International bunkers	24,840.46	23,696.26	27,006.90	32,008.36	39,629.13	46,238.87	168.29
Aviation	9,153.93	7,718.64	7,697.91	8,721.14	9,646.83	10,661.16	135.44
Navigation	15,686.53	15,977.62	19,308.99	23,287.23	29,982.30	35,577.71	179.99
Multilateral operations	NO	NO	NO	NO	NO	NO	
CO2 emissions from biomass	15,408.27	14,340.01	14,720.75	14,605.40	14,673.71	13,641.13	-78.20
CO2 captured	NA	NA	NA	NA	NA	NA	
Long-term storage of C in waste disposal sites	480,823.97	499,197.56	518,630.47	538,980.98	560,986.15	583,710.72	132.92
Indirect N2O							
Indirect CO2 (3)	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	
Total CO2 equivalent emissions without land use, land-use change and forestry	2,789,602.74	2,631,300.36	2,770,431.99	2,838,553.65	2,867,111.50	2,815,808.30	-28.55
Total CO2 equivalent emissions with land use, land-use change and forestry	2,442,224.03	2,244,789.31	2,321,521.01	2,372,188.75	2,428,048.53	2,367,895.91	-42.83
Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry	1,685,398.04	1,577,048.46	1,662,964.09	1,717,625.78	1,727,890.48	1,667,056.09	-35.64
Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry	1,258,160.93	1,113,606.56	1,160,148.76	1,196,289.48	1,239,417.01	1,168,489.27	-57.65

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) RUS_BR2_v1.0

Emission trends (CH_4)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year* [a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	36,099.40	36,099.40	33,636.16	30,831.30	28,539.63	26,453.11	25,725.12	25,468.96	25,043.33
A. Fuel combustion (sectoral approach)	547.22	547.22	520.36	330.97	374.88	272.45	260.11	213.99	200.16
1. Energy industries	29.90	29.90	28.39	26.53	25.05	22.63	21.85	20.22	19.15
2. Manufacturing industries and construction	10.22	10.22	9.82	5.60	4.73	3.50	3.62	3.83	3.42
3. Transport	41.59	41.59	41.23	38.69	38.11	37.26	36.43	35.77	34.77
4. Other sectors	300.49	300.49	285.83	238.50	223.84	178.79	165.32	149.54	138.33
5. Other	165.02	165.02	155.08	21.66	83.15	30.26	32.89	4.63	4.48
B. Fugitive emissions from fuels	35,552.17	35,552.17	33,115.80	30,500.33	28,164.75	26,180.66	25,465.01	25,254.98	24,843.17
1. Solid fuels	3,505.16	3,505.16	2,941.85	2,938.10	2,679.20	2,425.43	2,343.23	2,207.33	2,060.69
2. Oil and natural gas and other emissions from energy production	32,047.01	32,047.01	30,173.95	27,562.23	25,485.54	23,755.23	23,121.78	23,047.64	22,782.47
C. CO2 transport and storage									
2. Industrial processes	18.01	18.01	16.93	15.65	14.45	13.19	12.98	10.54	11.86
A. Mineral industry									
B. Chemical industry	14.34	14.34	13.36	12.12	10.91	9.80	9.58	7.06	8.34
C. Metal industry	3.67	3.67	3.57	3.53	3.54	3.40	3.40	3.48	3.53
D. Non-energy products from fuels and solvent use	NE	NE	NE	NE	NE	NE	NE	NE	NE
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use									
H. Other	NE	NE	NE	NE	NE	NE	NE	NE	NE
3. Agriculture	5,503.98	5,503.98	5,344.02	4,919.06	4,680.98	4,373.77	3,936.96	3,526.78	3,185.22
A. Enteric fermentation	5,042.72	5,042.72	4,896.72	4,511.64	4,301.17	4,028.32	3,630.55	3,253.33	2,943.71
B. Manure management	427.03	427.03	415.59	376.02	349.04	322.69	286.26	253.38	223.94
C. Rice cultivation	34.23	34.23	31.70	31.40	30.77	22.77	20.15	20.07	17.57
D. Agricultural soils	IE	IE	IE	IE	IE	IE	IE	IE	IE
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. Liming									
H. Urea application									
I. Other carbon-containing fertilizers									
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	847.31	847.31	804.31	806.25	806.04	774.71	750.16	857.82	748.98
A. Forest land	501.40	501.40	457.87	463.63	466.07	444.84	425.48	529.46	430.10
B. Cropland	222.15	222.15	219.94	215.61	211.77	206.72	202.76	198.21	192.77
C. Grassland	113.34	113.34	116.13	116.68	117.92	112.92	111.73	120.01	116.25
D. Wetlands	10.41	10.41	10.37	10.32	10.28	10.23	10.18	10.14	9.87
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA
G. Harvested wood products									
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	3,000.40	3,000.40	3,002.17	2,964.60	2,959.57	2,935.23	2,959.76	2,954.77	2,978.21
A. Solid waste disposal	1,878.57	1,878.57	1,926.58	1,969.92	2,007.79	2,041.47	2,070.24	2,096.37	2,119.56
B. Biological treatment of solid waste	0.96	0.96	0.96	0.96	0.96	1.44	1.44	1.44	1.44
C. Incineration and open burning of waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
D. Waste water treatment and discharge	1,120.87	1,120.87	1,074.63	993.71	950.82	892.32	888.08	856.97	857.21
E. Other									
6. Other (as specified in the summary table in CRF)									
Total CH4 emissions without CH4 from LULUCF	44,621.80	44,621.80	41,999.27	38,730.61	36,194.62	33,775.30	32,634.82	31,961.06	31,218.62
Total CH4 emissions with CH4 from LULUCF	45,469.11	45,469.11	42,803.58	39,536.86	37,000.67	34,550.01	33,384.98	32,818.88	31,967.60
Memo items:									
International bunkers	1.19	1.19	1.09	1.08	1.09	1.09	1.13	1.15	1.16
Aviation	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04
Navigation	1.15	1.15	1.05	1.05	1.06	1.06	1.10	1.11	1.13
Multilateral operations	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO2 emissions from biomass									
CO2 captured									
Long-term storage of C in waste disposal sites									
Indirect N2O									
Indirect CO2 (3)									

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

Table 1(b) RUS_BR2_v1.0

Emission trends (CH_4)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	25,052.06	25,371.29	26,013.91	26,967.55	28,174.60	30,343.91	32,067.37	32,740.12	33,565.88	33,826.04
A. Fuel combustion (sectoral approach)	179.74	206.98	141.41	150.39	146.69	147.28	143.84	154.65	160.38	151.47
1. Energy industries	19.54	19.84	19.67	19.99	20.00	19.27	20.20	20.14	21.07	19.86
2. Manufacturing industries and construction	3.01	3.46	3.80	3.96	3.56	3.49	3.48	4.02	4.04	4.15
3. Transport	34.23	33.48	32.42	33.64	34.55	34.91	35.76	36.38	36.70	35.57
4. Other sectors	119.44	144.98	77.75	83.64	73.21	73.19	68.12	62.52	67.70	62.11
5. Other	3.52	5.22	7.77	9.17	15.37	16.42	16.28	31.59	30.87	29.79
B. Fugitive emissions from fuels	24,872.32	25,164.31	25,872.50	26,817.16	28,027.91	30,196.63	31,923.53	32,585.47	33,405.50	33,674.56
1. Solid fuels	1,861.77	1,981.61	2,019.87	2,109.76	1,920.73	2,035.15	2,110.91	2,187.17	2,303.60	2,309.56
2. Oil and natural gas and other emissions from energy production	23,010.55	23,182.70	23,852.63	24,707.40	26,107.18	28,161.48	29,812.62	30,398.30	31,101.90	31,365.00
C. CO2 transport and storage										
2. Industrial processes	10.71	13.48	15.72	16.71	17.28	19.28	19.70	19.62	20.72	21.38
A. Mineral industry										
B. Chemical industry	7.27	9.45	11.48	12.22	12.72	14.55	14.87	14.81	15.45	16.23
C. Metal industry	3.44	4.03	4.24	4.49	4.56	4.73	4.82	4.82	5.27	5.16
D. Non-energy products from fuels and solvent use	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use										
H. Other	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
3. Agriculture	2,855.68	2,518.76	2,525.54	2,571.26	2,566.05	2,494.89	2,407.02	2,247.04	2,147.09	2,191.11
A. Enteric fermentation	2,635.36	2,313.31	2,321.65	2,372.39	2,370.10	2,298.25	2,222.39	2,078.65	1,978.61	2,014.95
B. Manure management	203.12	185.19	183.09	180.75	178.42	178.32	168.94	151.15	148.89	156.64
C. Rice cultivation	17.20	20.25	20.79	18.12	17.54	18.31	15.69	17.24	19.59	19.52
D. Agricultural soils	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
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. Liming										
H. Urea application										
I. Other carbon-containing fertilizers										
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	986.43	761.80	812.66	790.47	847.05	916.79	755.05	894.68	1,015.03	984.03
A. Forest land	662.65	452.95	498.90	483.11	537.66	599.40	466.77	606.33	714.78	694.23
B. Cropland	185.55	178.00	173.58	171.17	168.54	159.87	157.63	153.21	150.44	148.93
C. Grassland	129.14	122.92	131.59	127.82	132.74	149.79	123.14	127.80	142.50	133.68
D. Wetlands	9.10	7.93	8.59	8.37	8.11	7.73	7.51	7.34	7.31	7.19
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G. Harvested wood products										
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	2,988.44	3,033.17	3,067.01	3,111.90	3,152.29	3,205.52	3,266.33	3,340.45	3,415.28	3,498.05
A. Solid waste disposal	2,140.42	2,158.13	2,174.25	2,207.67	2,235.47	2,274.05	2,322.82	2,382.82	2,444.22	2,518.08
B. Biological treatment of solid waste	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
C. Incineration and open burning of waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
D. Waste water treatment and discharge	846.31	873.33	891.05	902.52	915.12	929.76	941.80	955.92	969.36	978.25
E. Other										
6. Other (as specified in the summary table in CRF)										
Total CH4 emissions without CH4 from LULUCF	30,906.89	30,936.70	31,622.18	32,667.41	33,910.23	36,063.59	37,760.42	38,347.23	39,148.97	39,536.57
Total CH4 emissions with CH4 from LULUCF	31,893.33	31,698.50	32,434.84	33,457.89	34,757.27	36,980.39	38,515.47	39,241.91	40,164.00	40,520.60
Memo items:										
International bunkers	1.16	1.21	1.23	1.27	1.36	1.43	1.59	1.70	1.80	2.03
Aviation	0.04	0.03	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06
Navigation	1.12	1.17	1.20	1.24	1.32	1.39	1.54	1.66	1.75	1.97
Multilateral operations	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO2 emissions from biomass										
CO2 captured										
Long-term storage of C in waste disposal sites										
Indirect N2O										
Indirect CO2 (3)										

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

Table 1(b) RUS_BR2_v1.0

Emission trends (CH_4)

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							%
1. Energy	33,864.63	32,036.78	33,898.46	34,627.63	34,560.80	34,708.85	-3.85
A. Fuel combustion (sectoral approach)	150.83	144.12	146.74	149.91	149.36	133.01	-75.69
1. Energy industries	19.93	19.09	20.09	19.91	20.46	19.01	-36.44
2. Manufacturing industries and construction	4.94	5.18	5.23	5.54	5.88	5.82	-43.07
3. Transport	33.68	31.65	29.82	30.93	30.64	30.93	-25.62
4. Other sectors	59.17	54.25	57.90	58.56	57.71	49.75	-83.44
5. Other	33.11	33.94	33.70	34.98	34.67	27.50	-83.34
B. Fugitive emissions from fuels	33,713.80	31,892.66	33,751.72	34,477.72	34,411.43	34,575.84	-2.75
1. Solid fuels	2,354.19	2,183.98	2,233.98	2,273.93	2,339.39	2,345.33	-33.09
2. Oil and natural gas and other emissions from energy production	31,359.60	29,708.68	31,517.74	32,203.79	32,072.04	32,230.51	0.57
C. CO2 transport and storage							
2. Industrial processes	21.81	18.32	20.73	21.59	21.61	23.08	28.15
A. Mineral industry							
B. Chemical industry	16.86	13.77	15.72	16.38	16.32	17.82	24.27
C. Metal industry	4.95	4.55	5.01	5.21	5.29	5.26	43.30
D. Non-energy products from fuels and solvent use	NE	NE	NE	NE	NE	NE	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use							
H. Other	NE	NE	NE	NE	NE	NE	
3. Agriculture	2,233.97	2,223.98	2,140.09	2,108.96	2,170.24	2,172.15	-60.53
A. Enteric fermentation	2,053.92	2,044.95	1,960.62	1,926.41	1,983.89	1,984.55	-60.65
B. Manure management	160.23	156.71	154.56	156.80	161.68	164.38	-61.51
C. Rice cultivation	19.82	22.31	24.91	25.75	24.67	23.22	-32.16
D. Agricultural soils	IE	IE	IE	IE	IE	IE	
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	
G. Liming							
H. Urea application							
I. Other carbon-containing fertilizers							
J. Other	NO	NO	NO	NO	NO	NO	
4. Land use, land-use change and forestry	1,019.43	1,022.44	911.67	908.86	902.83	838.94	-0.99
A. Forest land	738.27	743.44	632.98	636.21	630.91	567.64	13.21
B. Cropland	148.70	148.84	147.30	146.39	146.05	145.72	-34.41
C. Grassland	125.38	123.19	124.46	119.45	119.08	117.77	3.90
D. Wetlands	7.08	6.96	6.92	6.81	6.79	7.82	-24.96
E. Settlements	NO	NO	NO	NO	NO	NO	
F. Other land	NA	NA	NA	NA	NA	NA	
G. Harvested wood products							
H. Other	NO	NO	NO	NO	NO	NO	
5. Waste	3,572.15	3,644.42	3,738.40	3,865.79	3,984.29	4,116.17	37.19
A. Solid waste disposal	2,601.17	2,687.08	2,780.77	2,883.07	2,992.38	3,119.21	66.04
B. Biological treatment of solid waste	1.71	1.73	2.27	1.68	1.95	2.18	127.50
C. Incineration and open burning of waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	
D. Waste water treatment and discharge	969.28	955.60	955.37	981.04	989.96	994.78	-11.25
E. Other							
6. Other (as specified in the summary table in CRF)							
Total CH4 emissions without CH4 from LULUCF	39,692.56	37,923.49	39,797.68	40,623.97	40,736.94	41,020.26	-8.07
Total CH4 emissions with CH4 from LULUCF	40,711.98	38,945.93	40,709.35	41,532.83	41,639.77	41,859.20	-7.94
Memo items:							
International bunkers	1.49	1.51	1.81	2.18	2.79	3.31	178.80
Aviation	0.06	0.05	0.05	0.06	0.07	0.07	135.44
Navigation	1.42	1.45	1.75	2.12	2.72	3.23	179.99
Multilateral operations	NO	NO	NO	NO	NO	NO	
CO2 emissions from biomass							
CO2 captured							
Long-term storage of C in waste disposal sites							
Indirect N2O							
Indirect CO2 (3)							

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

Custom Footnotes

Table 1(c) RUS_BR2_v1.0

Emission trends (N_2O)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year* [a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	31.06	31.06	29.78	23.14	21.60	17.90	17.41	16.92	15.77
A. Fuel combustion (sectoral approach)	30.46	30.46	29.20	22.65	21.18	17.54	17.04	16.55	15.39
1. Energy industries	10.08	10.08	9.48	8.41	8.20	7.50	7.27	7.10	6.52
2. Manufacturing industries and construction	1.51	1.51	1.45	0.85	0.72	0.50	0.50	0.55	0.50
3. Transport	12.00	12.00	11.75	10.00	9.11	7.30	7.14	7.16	6.71
4. Other sectors	3.95	3.95	3.77	2.76	2.41	1.88	1.73	1.50	1.39
5. Other	2.91	2.91	2.75	0.63	0.76	0.35	0.40	0.25	0.25
B. Fugitive emissions from fuels	0.61	0.61	0.58	0.49	0.42	0.37	0.37	0.37	0.38
1. Solid fuels	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
2. Oil and natural gas and other emissions from energy production	0.61	0.61	0.58	0.49	0.42	0.37	0.37	0.37	0.38
C. CO2 transport and storage									
2. Industrial processes	15.94	15.94	16.08	13.98	11.88	9.63	10.74	11.46	10.95
A. Mineral industry									
B. Chemical industry	14.13	14.13	14.38	12.30	10.24	7.97	9.09	9.82	9.31
C. Metal industry									
D. Non-energy products from fuels and solvent use	NE	NE	NE	NE	NE	NE	NE	NE	NE
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	1.81	1.81	1.71	1.68	1.65	1.66	1.65	1.65	1.64
H. Other	NE	NE	NE	NE	NE	NE	NE	NE	NE
3. Agriculture	557.59	557.59	533.72	461.47	390.06	352.52	349.12	330.03	306.46
A. Enteric fermentation									
B. Manure management	70.96	70.96	68.82	62.26	58.17	54.19	48.01	42.06	37.63
C. Rice cultivation									
D. Agricultural soils	486.63	486.63	464.90	399.21	331.89	298.33	301.11	287.97	268.83
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. Liming									
H. Urea application									
I. Other carbon containing fertlizers									
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	35.09	35.09	53.87	54.19	54.30	52.30	51.12	57.20	51.26
A. Forest land	32.73	32.73	30.25	30.57	30.78	29.57	28.47	34.06	28.71
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C. Grassland	0.64	0.64	0.93	0.95	0.95	0.39	0.22	0.96	0.54
D. Wetlands	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.14
E. Settlements	1.29	1.29	10.77	10.75	10.68	10.47	10.56	10.34	10.20
F. Other land	NA, NO	NA, NO	7.99	7.99	7.99	7.99	7.99	7.99	7.99
G. Harvested wood products									
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	10.27	10.27	10.12	9.45	9.44	9.36	9.22	8.74	9.15
A. Solid waste disposal									
B. Biological treatment of solid waste	0.07	0.07	0.07	0.07	0.07	0.11	0.11	0.11	0.11
C. Incineration and open burning of waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
D. Waste water treatment and discharge	10.19	10.19	10.05	9.38	9.37	9.25	9.11	8.63	9.04
E. Other									
6. Other (as specified in the summary table in CRF)									
Total direct N2O emissions without N2O from LULUCF	614.86	614.86	589.70	508.04	432.98	389.42	386.49	367.17	342.33
Total direct N2O emissions with N2O from LULUCF	649.95	649.95	643.58	562.23	487.28	441.71	437.61	424.36	393.59
Memo items:									
International bunkers	0.46	0.46	0.42	0.42	0.43	0.43	0.45	0.47	0.47
Aviation	0.13	0.13	0.12	0.12	0.13	0.13	0.14	0.15	0.15
Navigation	0.33	0.33	0.30	0.30	0.30	0.30	0.31	0.32	0.32
Multilateral operations	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO2 emissions from biomass									
CO2 captured									
Long-term storage of C in waste disposal sites									
Indirect N2O	2,038.92	2,038.92	2,009.48	1,876.05	1,873.13	1,850.64	1,822.64	1,726.92	1,808.70
Indirect CO2 (3)									

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

Table 1(c)

RUS_BR2_v1.0

Emission trends (N_2O)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	15.06	15.55	15.91	16.24	16.36	16.44	16.91	17.34	18.08	17.48
A. Fuel combustion (sectoral approach)	14.67	15.15	15.50	15.81	15.83	15.88	16.28	16.69	17.42	16.75
1. Energy industries	6.44	6.31	6.39	6.57	6.40	6.30	6.21	6.28	6.53	6.12
2. Manufacturing industries and construction	0.44	0.51	0.54	0.57	0.50	0.48	0.47	0.57	0.57	0.60
3. Transport	6.39	6.57	7.06	7.08	7.61	7.76	8.33	8.65	9.07	8.78
4. Other sectors	1.18	1.44	1.37	1.43	1.09	1.08	1.01	0.80	0.82	0.81
5. Other	0.22	0.32	0.13	0.18	0.23	0.26	0.27	0.40	0.44	0.43
B. Fugitive emissions from fuels	0.38	0.40	0.41	0.43	0.53	0.56	0.62	0.64	0.65	0.73
1. Solid fuels	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
2. Oil and natural gas and other emissions from energy production	0.38	0.40	0.41	0.43	0.53	0.56	0.62	0.64	0.65	0.73
C. CO2 transport and storage										
2. Industrial processes	9.62	10.75	12.46	13.22	14.73	14.24	15.17	16.17	16.28	17.14
A. Mineral industry										
B. Chemical industry	7.95	9.09	10.77	11.50	13.01	12.53	13.44	14.46	14.56	15.39
C. Metal industry										
D. Non-energy products from fuels and solvent use	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	1.67	1.66	1.69	1.72	1.71	1.72	1.73	1.72	1.72	1.75
H. Other	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
3. Agriculture	322.23	302.18	294.49	281.95	276.94	273.97	269.06	258.79	258.26	258.12
A. Enteric fermentation										
B. Manure management	34.28	30.95	30.76	31.15	31.55	31.29	30.01	28.05	27.43	28.79
C. Rice cultivation										
D. Agricultural soils	287.95	271.23	263.73	250.80	245.39	242.69	239.05	230.75	230.83	229.32
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. Liming										
H. Urea application										
I. Other carbon containing fertlizers										
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	65.18	53.75	58.10	57.99	62.32	67.98	59.57	134.44	178.14	191.12
A. Forest land	41.61	31.03	34.65	35.01	38.87	43.62	37.54	112.14	154.48	168.25
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C. Grassland	1.46	0.62	1.34	1.08	1.60	2.66	0.29	0.63	2.01	1.23
D. Wetlands	0.13	0.11	0.12	0.12	0.12	0.11	0.11	0.11	0.10	0.10
E. Settlements	10.29	10.30	10.31	10.12	10.09	9.97	10.00	9.95	9.93	9.92
F. Other land	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99
G. Harvested wood products										
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	9.12	8.92	8.74	8.86	9.00	9.08	9.11	9.43	9.51	9.82
A. Solid waste disposal										
B. Biological treatment of solid waste	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
C. Incineration and open burning of waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
D. Waste water treatment and discharge	8.99	8.80	8.61	8.74	8.87	8.96	8.98	9.30	9.39	9.70
E. Other										
6. Other (as specified in the summary table in CRF)										
Total direct N2O emissions without N2O from LULUCF	356.02	337.41	331.60	320.27	317.03	313.74	310.25	301.73	302.14	302.56
Total direct N2O emissions with N2O from LULUCF	421.20	391.17	389.71	378.26	379.35	381.72	369.81	436.18	480.28	493.68
Memo items:										
International bunkers	0.46	0.47	0.49	0.50	0.53	0.55	0.62	0.65	0.70	0.79
Aviation	0.14	0.14	0.15	0.15	0.15	0.16	0.18	0.18	0.20	0.23
Navigation	0.32	0.33	0.34	0.35	0.38	0.40	0.44	0.47	0.50	0.56
Multilateral operations	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO2 emissions from biomass										
CO2 captured										
Long-term storage of C in waste disposal sites										
Indirect N2O	1,797.74	1,759.14	1,722.71	1,747.14	1,774.84	1,791.35	1,796.48	1,860.48	1,877.05	1,939.31
Indirect CO2 (3)										

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

Table 1(c) RUS_BR2_v1.0

Emission trends (N_2O)

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							%
1. Energy	17.58	16.71	16.51	17.62	17.90	17.49	-43.69
A. Fuel combustion (sectoral approach)	16.96	16.08	15.79	16.87	17.13	16.76	-44.97
1. Energy industries	6.51	6.06	6.03	6.09	6.41	5.83	-42.18
2. Manufacturing industries and construction	0.72	0.73	0.74	0.78	0.81	0.80	-46.79
3. Transport	8.41	8.07	7.75	8.65	8.64	9.02	-24.89
4. Other sectors	0.79	0.74	0.73	0.76	0.68	0.65	-83.65
5. Other	0.52	0.49	0.54	0.57	0.59	0.47	-83.92
B. Fugitive emissions from fuels	0.61	0.63	0.72	0.75	0.76	0.73	20.39
1. Solid fuels	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	
2. Oil and natural gas and other emissions from energy production	0.61	0.63	0.72	0.75	0.76	0.73	20.39
C. CO2 transport and storage							
2. Industrial processes	15.71	19.01	19.59	20.47	19.91	20.64	29.49
A. Mineral industry							
B. Chemical industry	13.96	17.22	17.77	18.63	18.06	18.78	32.88
C. Metal industry							
D. Non-energy products from fuels and solvent use	NE	NE	NE	NE	NE	NE	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	1.75	1.80	1.82	1.84	1.85	1.87	3.03
H. Other	NE	NE	NE	NE	NE	NE	
3. Agriculture	252.95	254.69	272.11	254.62	269.33	253.34	-54.57
A. Enteric fermentation							
B. Manure management	29.81	29.73	29.46	28.73	30.02	30.73	-56.70
C. Rice cultivation							
D. Agricultural soils	223.14	224.96	242.65	225.90	239.30	222.61	-54.25
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	
G. Liming							
H. Urea application							
I. Other carbon containing fertlizers							
J. Other	NO	NO	NO	NO	NO	NO	
4. Land use, land-use change and forestry	182.46	172.38	104.40	108.22	90.07	99.60	183.84
A. Forest land	159.78	143.58	102.65	106.88	88.83	96.04	193.45
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	
C. Grassland	0.98	1.01	0.94	0.65	0.57	0.51	-20.25
D. Wetlands	0.10	0.10	0.10	0.10	0.09	0.09	-37.61
E. Settlements	9.98	15.13	0.59	0.48	0.43	0.44	-65.79
F. Other land	7.99	7.99	0.03	0.03	0.06	2.07	
G. Harvested wood products							
H. Other	NO	NO	NO	NO	NO	NO	
5. Waste	9.94	10.00	10.14	10.12	10.37	10.41	1.41
A. Solid waste disposal							
B. Biological treatment of solid waste	0.13	0.13	0.17	0.13	0.15	0.16	127.50
C. Incineration and open burning of waste	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	
D. Waste water treatment and discharge	9.81	9.87	9.97	10.00	10.23	10.25	0.52
E. Other							
6. Other (as specified in the summary table in CRF)							
Total direct N2O emissions without N2O from LULUCF	296.18	300.42	318.34	302.83	317.50	301.89	-50.90
Total direct N2O emissions with N2O from LULUCF	478.64	472.80	422.75	411.06	407.57	401.49	-38.23
Memo items:							
International bunkers	0.66	0.63	0.72	0.85	1.05	1.22	167.63
Aviation	0.26	0.22	0.22	0.24	0.27	0.30	135.44
Navigation	0.41	0.41	0.50	0.60	0.78	0.92	179.99
Multilateral operations	NO	NO	NO	NO	NO	NO	
CO2 emissions from biomass							
CO2 captured							
Long-term storage of C in waste disposal sites							
Indirect N2O	1,962.59	1,974.04	1,994.40	1,999.21	2,045.18	2,046.89	0.39
Indirect CO2 (3)							

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

[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) RUS_BR2_v1.0

Emission trends (HFCs, PFCs and SF_6)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*Base year*[a]	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
Emissions of HFCs and PFCs - (kt CO2 equivalent)	51,059.57	51,059.57	50,433.77	42,898.24	32,613.06	29,406.10	28,903.91	25,453.67	28,253.47
Emissions of HFCs - (kt CO2 equivalent)	35,937.16	35,937.16	34,229.66	28,192.14	18,278.41	15,469.64	15,447.32	13,611.08	18,009.50
HFC-23	2.43	2.43	2.31	1.90	1.23	1.04	1.04	0.92	1.21
HFC-32	NO	NO	NO	NO	NO	NO	NO	NO	0.00
HFC-41	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-43-10mee	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-125	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	0.00	0.00
HFC-134	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-134a	NA, NO	NA, NO	NA, NO	0.00	0.01	0.01	0.01	0.02	0.05
HFC-143	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-143a	NO	NO	NO	NO	NO	NO	NO	NO	0.00
HFC-152	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-152a	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
HFC-161	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-227ea	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	0.00
HFC-236cb	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-236ea	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-236fa	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-245ca	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-245fa	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-365mfc	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of HFCs(4) - (kt CO_2 equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO
Emissions of PFCs - (kt CO2 equivalent)	15,122.41	15,122.41	16,204.11	14,706.10	14,334.65	13,936.47	13,456.59	11,842.60	10,243.98
CF_4	1.77	1.77	1.88	1.73	1.68	1.62	1.58	1.40	1.21
C_2F_6	0.16	0.16	0.19	0.16	0.15	0.16	0.14	0.12	0.10
C_3F_8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NE, NO	0.00
C_4F_{10}	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
c-C_4F_8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C_5F_{12}	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
C_6F_{14}	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
C10F18	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
c-C3F6	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Unspecified mix of PFCs(4) - (kt CO_2 equivalent)	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Unspecified mix of HFCs and PFCs - (kt CO2 equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO
Emissions of SF6 - (kt CO2 equivalent)	1,147.15	1,147.15	1,042.19	337.60	161.88	97.16	397.11	1,006.08	1,004.41
SF_6	0.05	0.05	0.05	0.01	0.01	0.00	0.02	0.04	0.04
Emissions of NF3 - (kt CO2 equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO
NF3	NO	NO	NO	NO	NO	NO	NO	NO	NO

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

Table 1(d) RUS_BR2_v1.0

Emission trends (HFCs, PFCs and SF_6)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007
Emissions of HFCs and PFCs - (kt CO2 equivalent)	31,717.63	32,289.14	36,464.23	34,254.05	26,614.99	21,343.39	25,067.07	26,157.53	23,577.05	21,872.12
Emissions of HFCs - (kt CO2 equivalent)	21,834.14	22,672.04	26,569.51	25,208.60	19,301.73	14,612.19	18,415.37	19,812.47	18,024.70	16,854.29
HFC-23	1.47	1.52	1.78	1.68	1.27	0.93	1.16	1.22	1.05	0.94
HFC-32	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.05
HFC-41	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-43-10mee	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-125	0.00	0.00	0.01	0.01	0.02	0.03	0.06	0.10	0.15	0.21
HFC-134	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-134a	0.07	0.08	0.10	0.19	0.29	0.41	0.58	0.76	1.02	0.96
HFC-143	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-143a	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.06	0.10	0.15
HFC-152	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-152a	0.00	0.00	0.00	0.06	0.12	0.17	0.23	0.28	0.34	0.12
HFC-161	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-227ea	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02
HFC-236cb	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-236ea	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-236fa	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-245ca	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-245fa	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-365mfc	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of HFCs(4) - (kt CO_2 equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Emissions of PFCs - (kt CO2 equivalent)	9,883.49	9,617.09	9,894.72	9,045.44	7,313.25	6,731.21	6,651.69	6,345.05	5,552.35	5,017.83
CF_4	1.17	1.12	1.15	1.05	0.87	0.80	0.78	0.75	0.66	0.59
C_2F_6	0.10	0.10	0.11	0.10	0.07	0.06	0.06	0.06	0.05	0.04
C_3F_8	0.00	NE, NO	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
C_4F_{10}	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
c-C_4F_8	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01
C_5F_{12}	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
C_6F_{14}	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
C10F18	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
c-C3F6	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Unspecified mix of PFCs(4) - (kt CO_2 equivalent)	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Unspecified mix of HFCs and PFCs - (kt CO2 equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Emissions of SF6 - (kt CO2 equivalent)	806.43	650.03	664.46	827.10	896.77	1,050.47	1,179.13	1,278.36	1,298.46	1,327.42
SF_6	0.04	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.06
Emissions of NF3 - (kt CO2 equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NF3	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

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

Table 1(d) RUS_BR2_v1.0

Emission trends (HFCs, PFCs and SF_6)

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	*2008*	2009	2010	2011	2012	2013	Change from base to latest reported year
							%
Emissions of HFCs and PFCs - (kt CO2 equivalent)	22,837.12	15,886.49	17,022.24	14,598.02	20,940.87	28,374.90	-44.43
Emissions of HFCs - (kt CO2 equivalent)	17,929.70	12,508.66	13,389.03	11,280.08	17,613.01	24,955.40	-30.56
HFC-23	0.96	0.57	0.57	0.32	0.64	1.05	-56.82
HFC-32	0.06	0.07	0.08	0.18	0.26	0.35	
HFC-41	NO	NO	NO	NO	NO	NO	
HFC-43-10mee	NO	NO	NO	NO	NO	NO	
HFC-125	0.27	0.30	0.37	0.55	0.70	0.83	
HFC-134	NO	NO	NO	NO	NO	NO	
HFC-134a	1.29	1.39	1.64	2.02	2.50	2.85	
HFC-143	NO	NO	NO	NO	NO	NO	
HFC-143a	0.19	0.20	0.25	0.33	0.39	0.43	
HFC-152	NO	NO	NO	NO	NO	NO	
HFC-152a	0.13	0.06	0.21	0.39	0.72	0.85	
HFC-161	NO	NO	NO	NO	NO	NO	
HFC-227ea	0.02	0.02	0.03	0.04	0.05	0.06	
HFC-236cb	NO	NO	NO	NO	NO	NO	
HFC-236ea	NO	NO	NO	NO	NO	NO	
HFC-236fa	NO	NO	NO	NO	NO	NO	
HFC-245ca	NO	NO	NO	NO	NO	NO	
HFC-245fa	NO	NO	NO	NO	NO	NO	
HFC-365mfc	NO	NO	NO	NO	NO	NO	
Unspecified mix of HFCs(4) - (kt CO_2 equivalent)	NO	NO	NO	NO	NO	NO	
Emissions of PFCs - (kt CO2 equivalent)	4,907.41	3,377.83	3,633.21	3,317.94	3,327.86	3,419.50	-77.39
CF_4	0.57	0.39	0.42	0.38	0.39	0.40	-77.18
C_2F_6	0.04	0.03	0.03	0.03	0.03	0.02	-85.40
C_3F_8	0.01	0.00	0.00	0.00	0.00	0.00	3,120.22
C_4F_{10}	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	
c-C_4F_8	0.01	0.01	0.01	0.02	0.01	0.01	347.83
C_5F_{12}	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	
C_6F_{14}	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	
C10F18	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	
c-C3F6	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	
Unspecified mix of PFCs(4) - (kt CO_2 equivalent)	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	
Unspecified mix of HFCs and PFCs - (kt CO2 equivalent)	NO	NO	NO	NO	NO	NO	
Emissions of SF6 - (kt CO2 equivalent)	792.64	754.24	636.79	485.97	5,241.11	4,909.13	327.94
SF_6	0.03	0.03	0.03	0.02	0.23	0.22	327.94
Emissions of NF3 - (kt CO2 equivalent)	NO	NO	NO	NO	NO	NO	
NF3	NO	NO	NO	NO	NO	NO	

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

Table 2(a) RUS_BR2_v1.0

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

Party	*Russian Federation*	
Base year /base period	1990	
Emission reduction target	% of base year/base period	% of 1990 [b]
	75.00	75.00
Period for reaching target	BY-2020	

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

[b] Optional.

Table 2(b) RUS_BR2_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		1990
Other Gases (specify)		
Sectors covered[b]	Energy	Yes
	Transport[f]	Yes
	Industrial processes[g]	Yes
	Agriculture	Yes
	LULUCF	No
	Waste	Yes
	Other Sectors (specify)	

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

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

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

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

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

Table 2(c) RUS_BR2_v1.0

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

Gases	*GWP values* [b]
CO_2	4th AR
CH_4	4th AR
N_2O	4th AR
HFCs	4th AR
PFCs	4th AR
SF_6	4th AR
NF_3	4th AR
Other Gases (specify)	

Abbreviations: GWP = global warming potential

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

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

Table 2(d) RUS_BR2_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	Excluded
	Contribution of LULUCF is calculated using	Other (NA)

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

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

Table 2(e)I RUS_BR2_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	NA
ERUs	NA
AAUs[i]	NA
Carry-over units[j]	NA
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 RUS_BR2_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]

The target was established by the Decree of the President of the Russian Federation.

[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

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)*	
The Concept for Greenhouse Gas Emission Monitoring, Reporting and Verification in the Russian Federation (approved by the Decree of the Government of the Russian Federation, 2015)	Energy, Transport, Industry/industrial processes, Agriculture, Waste management/waste, Cross-cutting	CH_4, CO_2, HFCs, N_2O, NF_3, PFCs, SF_6	Realization in the Russian Federation of policies and measures aimed at the greenhouse gas emission reduction to ensure the long-term low carbon development	Economic|Information|Regulatory	Adopted	The Concept establishes the set of modalities and guidelines for provision transparent information on greenhouse gas sources and emissions. The information provided will form the basis for sector-specific emission reduction efforts to ensure sustainable low emission development of the national economy and civil society.	2016	Federal government authorities, state and private companies and other stakeholders		NE
The Decrees of the Ministry of Environment on the methodological issues of regional and corporate greenhouse gas inventory (2015)	Energy, Transport, Industry/industrial processes, Agriculture, Waste management/waste	CH_4, CO_2, HFCs, N_2O, PFCs, SF_6	Establishment of the unified methodology for regional (voluntary) and corporate greenhouse gas emission inventory development	Information|Regulatory|Voluntary Agreement	Adopted	The decrees put in force unified methodological guidelines for regional (voluntary) and corporate greenhouse gas inventory compilation and reporting.	2015-2016	State and private companies and other stakeholders, those activities result in greenhouse gas emission to the atmosphese		NE
Energy Efficiency and Energy Sector Development (State Programme, 2014) *	Energy	CH_4, CO_2, N_2O	Enhance the energy efficiency of the national energy sector	Other (Education)	Implemented	The Programme envisages a set of measures for efficient energy utilization, modernization of energy facilities and providing incentives for the use of renewable energy sources		Regional authorities, state and private stakeholders		NE
Energy Strategy of the Russian Federation *	Energy	CH_4, CO_2, N_2O, SF_6	The updated Programme sets the frameworks for the sustainable developmwnt of the Energy sector till the year 2035	Economic|Regulatory|Fiscal	Planned	Transition from resource-intensive to innovation development is envisaged in the fuel and energy complex of the Russian Federation. The updated project of the Eergy Strategy envisages enhancement of the energy efficiency and energy saving including inter alia the efficient utilization of 95 per cent of the extracted associated petrol gas. It is expected that the measures included in the updated strategy enable the sectoral greenhouse gas emission reduction by 10.5 per cent below the 1990 level in the year 2035		Ministry of Energy, state and private companies in the energy sector		NE
State Programme for Development of Coal Mining Industry (2014)*	Industry/industrial processes, Energy	CH_4, CO_2	Optimization of coal production technologies and mitigation of environmental effects	Economic	Implemented	The Programme envisages the measures on enhancement of coalbed degasation along with reduction of environmental pollution through decreased atmospheric emission intensity and water discharge. The best available coal production technologies would be deployed at the mining entrprises.	2015	Ministry of Industry and Technology, coal producing companies		83750 -167500

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)*	
Transport Strategy of the Russian Federation (2014)*	Transport	CO_2	Enhance the efficiency and environment integrity of the national transport sector	Economic|Fiscal|Regulatory	Implemented	The Stretagy envisages a set of measures on enhancement efficiency of fuel use and the substitution of oil-based fuel with alternative fuel types. It is envisaged that by 2030 specific carbon dioxide emissions will decreae by 20-22 per cent from automobile and by 50-51 per cent from railway below the 1990 level of the respective emissions from these sub-sector categories.	2014	Ministry of Transport, companies operating in the road and railway transport sub-sectors		NE
Action Plan on the Provision of Greenhouse Gas Emission Reduction by 2020 (Approved by the Decree of the Government of the Russian Federation, 2014)*	Energy, Transport, Industry/industrial processes, Agriculture, Forestry/LULUCF, Waste management/waste, Cross-cutting	CH_4, CO_2, HFCs, N_2O, PFCs, SF_6, NF_3	Provide for total national greenhouse gas emission reduction to at least 75 per cent of the 1990 level by the year 2020	Economic|Fiscal|Information|Regulatory|Research|Other (Reporting)	Implemented	Action Plan includes a package of measures. It establishes the frameworks for low carbon emission sustainable development of the country	2014	Government of the Russian Federation and federal ministries and agencies, regional administration authorities, state and private companies and business community		NA

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 RUS_BR2_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)	3,941,099.57	NA	NO	NO	NO	NO
2010	2,770,431.99	NA	NO	NO	NO	NO
2011	2,838,553.65	NA	NO	NO	NO	NO
2012	2,867,111.50	NA	NO	NO	NO	NO
2013	2,815,808.30	NA	NO	NO	NO	NO
2014	NE	NA	NO	NO	NO	NO

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

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

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

[c] Parties may add additional rows for years other than those specified below.

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

Custom Footnotes

Table 4(a)I RUS_BR2_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 2013 [a,b]

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

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

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

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

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

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

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

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

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

Custom Footnotes

Table 4(a)I RUS_BR2_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 2014 [a, b]

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

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

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

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

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

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

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

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

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

Custom Footnotes

Table 4(a)II

RUS_BR2_v1.0
Source: Submission 2016 v4, RUSSIAN FEDERATION

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]									*<r xmlns="http://schemas.openxmlformats.org/sp*	*<r xmlns="http://schemas.openxmlformats.org/sp*
		2013	2014	*2015*	*2016*	2017	2018	2019	2020	Total[g]		
	($kt CO_2$ eq)											
A. Article 3.3 activities												
A.1. Afforestation/reforestation		7,776.95								7,776.95		7776.95
Excluded emissions from natural disturbances(5)		NO								NO		NO
Excluded subsequent removals from land subject to natural disturbances(6)		NO								NO		NO
A.2. Deforestation		18,043.66								18,043.66		18043.66
B. Article 3.4 activities												
B.1. Forest management										-407,715.00		-175163.31
Net emissions/removalse		-407,715.00								-407,715.00		
Excluded emissions from natural disturbances(5)		NA								NA		NA
Excluded subsequent removals from land subject to natural disturbances(6)		NA								NA		NA
Any debits from newly established forest (CEF-ne)(7),(8)												
Forest management reference level (FMRL)(9)												
Technical corrections to FMRL(10)											-116251.69	
Forest management capl												-175163.31
B.2. Cropland management (if elected)	NA	NA								NA		NA
B.3. Grazing land management (if elected)	NA	NA								NA		NA
B.4. Revegetation (if elected)	NA	NA								NA		NA
B.5. Wetland drainage and rewetting (if elected)	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

[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) RUS_BR2_v1.0

Reporting on progress[a, b, c]

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

Abbreviations: AAUs = assigned amount units, CERs = certified emission reductions, ERUs = emission reduction units, lCERs = long-term certified emission reductions, tCERs = temporary certified emission reductions.
Note: 2011 is the latest reporting year.

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

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

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

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

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

Custom Footnotes

Table 5 RUS_BR2_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
GDP growth rate	*%*	NE	NE	10.00	6.40	4.50	4.30	NA	3.10	2.50	1.80
Population growth	*%*	0.41	-0.11	-0.40	-0.39	0.02	0.13	NA	-0.04	-0.16	-0.21

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

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

Custom Footnotes

Table 6(a) RUS_BR2_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	2013	2020	2030
Sector[d,e]									
Energy	2,714,711.14	2,714,711.14	1,777,993.92	1,668,022.95	1,739,309.98	1,824,316.80	NA	1,980,000.00	2,130,000.00
Transport									
Industry/industrial processes									
Agriculture									
Forestry/LULUCF									
Waste management/waste									
Other (specify)									
Gas									
CO_2 emissions including net CO_2 from LULUCF								NE	NE
CO_2 emissions excluding net CO_2 from LULUCF	2,498,542.30	2,498,542.30	1,572,597.28	1,471,337.44	1,524,789.87	1,598,210.91	NA	1,730,000.00	1,870,000.00
CH_4 emissions including CH_4 from LULUCF								NE	NE
CH_4 emissions excluding CH_4 from LULUCF	593,579.00	593,579.00	461,177.22	434,627.80	473,756.25	491,083.84	NA	530,000.00	570,000.00
N_2O emissions including N_2O from LULUCF								NE	NE
N_2O emissions excluding N_2O from LULUCF	218,530.20	218,530.20	142,593.71	112,038.81	108,690.50	113,771.17	NA	120,000.00	130,000.00
HFCs	28,409.78	28,409.78	12,220.79	21,037.20	15,450.86	10,859.90	NA	IE	IE
PFCs	11,680.24	11,680.24	10,019.27	7,298.60	4,722.14	2,677.57	NA	20,000.00	20,000.00
SF_6	1,202.49	1,202.49	416.27	696.52	1,340.04	667.52	NA	IE	IE
Other (specify)									
Total with LULUCF[f]	41,292.51	41,292.51	22,656.33	29,032.32	21,513.04	14,204.99	NA	20,000.00	20,000.00
Total without LULUCF	3,351,944.01	3,351,944.01	2,199,024.54	2,047,036.37	2,128,749.66	2,217,270.91	NA	2,400,000.00	2,590,000.00

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.

[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).

Table 6(a) RUS_BR2_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	2013	2020	2030

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

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

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

Custom Footnotes

Table 6(b) RUS_BR2_v1.0

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

	GHG emissions and removals[b] *(kt CO_2 eq)*							GHG emission projections (kt CO_2 eq)	
	Base year (1990)	1990	1995	2000	2005	2010	2013	2020	2030
Sector[d,e]									
Energy	2,714,711.14	2,714,711.14	1,777,993.92	1,668,022.95	1,739,309.98	1,824,316.80	NA	2,350,000.00	2,870,000.00
Transport									
Industry/industrial processes									
Agriculture									
Forestry/LULUCF									
Waste management/waste									
Other (specify)									
Gas									
CO_2 emissions including net CO_2 from LULUCF								NE	NE
CO_2 emissions excluding net CO_2 from LULUCF	2,498,542.30	2,498,542.30	1,572,597.28	1,471,337.44	1,524,789.87	1,598,210.91	NA	2,060,000.00	2,520,000.00
CH_4 emissions including CH_4 from LULUCF								NE	NE
CH_4 emissions excluding CH_4 from LULUCF	593,579.00	593,579.00	461,177.22	434,627.80	473,756.25	491,083.84	NA	630,000.00	770,000.00
N_2O emissions including N_2O from LULUCF								NE	NE
N_2O emissions excluding N_2O from LULUCF	218,530.20	218,530.20	142,593.71	112,038.81	108,690.50	113,771.17	NA	150,000.00	180,000.00
HFCs	28,409.78	28,409.78	12,220.79	21,037.20	15,450.86	10,859.90	NA	IE	IE
PFCs	11,680.24	11,680.24	10,019.27	7,298.60	4,722.14	2,677.57	NA	20,000.00	20,000.00
SF_6	1,202.49	1,202.49	416.27	696.52	1,340.04	667.52	NA	IE	IE
Other (specify)									
Total with LULUCF[f]	41,292.51	41,292.51	22,656.33	29,032.32	21,513.04	14,204.99	NA	20,000.00	20,000.00
Total without LULUCF	3,351,944.01	3,351,944.01	2,199,024.54	2,047,036.37	2,128,749.66	2,217,270.91	NA	2,860,000.00	3,490,000.00

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) RUS_BR2_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	2013	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) RUS_BR2_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	2013	2020	2030
Sector[d,e]									
Energy	2,714,711.14	2,714,711.14	1,777,993.92	1,668,022.95	1,739,309.98	1,824,316.80	NA	1,840,000.00	1,860,000.00
Transport									
Industry/industrial processes									
Agriculture									
Forestry/LULUCF									
Waste management/waste									
Other (specify)									
Gas									
CO_2 emissions including net CO_2 from LULUCF								NE	NE
CO_2 emissions excluding net CO_2 from LULUCF	2,498,542.30	2,498,542.30	1,572,597.28	1,471,337.44	1,524,789.87	1,598,210.91	NA	1,620,000.00	1,630,000.00
CH_4 emissions including CH_4 from LULUCF								NE	NE
CH_4 emissions excluding CH_4 from LULUCF	593,579.00	593,579.00	461,177.22	434,627.80	473,756.25	491,083.84	NA	500,000.00	500,000.00
N_2O emissions including N_2O from LULUCF								NE	NE
N_2O emissions excluding N_2O from LULUCF	218,530.20	218,530.20	142,593.71	112,038.81	108,690.50	113,771.17	NA	120,000.00	120,000.00
HFCs	28,409.78	28,409.78	12,220.79	21,037.20	15,450.86	10,859.90	NA	IE	IE
PFCs	11,680.24	11,680.24	10,019.27	7,298.60	4,722.14	2,677.57	NA	10,000.00	10,000.00
SF_6	1,202.49	1,202.49	416.27	696.52	1,340.04	667.52	NA	IE	IE
Other (specify)									
Total with LULUCF[f]	41,292.51	41,292.51	22,656.33	29,032.32	21,513.04	14,204.99	NA	10,000.00	10,000.00
Total without LULUCF	3,351,944.01	3,351,944.01	2,199,024.54	2,047,036.37	2,128,749.66	2,217,270.91	NA	2,250,000.00	2,260,000.00

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.

[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).

Table 6(c) RUS_BR2_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	2013	2020	2030

[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 RUS_BR2_v1.0

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

Allocation channels	*Year*									
	Russian ruble - RUB					*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:	NA, NO		NO	NA, NO	NA	8,000,000.00		NA	NA	NA
Multilateral climate change funds[g]	NA, NO			NA	NA	2,500,000.00			NA	NA
Other multilateral climate change funds[h]										
Multilateral financial institutions, including regional development banks	NA				NA	NA				NA
Specialized United Nations bodies	NO, NA		NO	NO	NA	5,500,000.00		NA	NA	NA
Total contributions through bilateral, regional and other channels										
Total	NA, NO		NO	NA, NO	NA	8,000,000.00		NA	NA	NA

Abbreviation: USD = United States dollars.

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

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

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

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

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

[f] Please specify.

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

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

Custom Footnotes

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

Table 7 RUS_BR2_v1.0

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

Allocation channels	*Year*									
	Russian ruble - RUB					*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:	NA, NO		NO	NA, NO	NA	8,000,000.00		NA	NA	NA
Multilateral climate change funds[g]	NA, NO			NA	NA	2,500,000.00			NA	NA
Other multilateral climate change funds[h]										
Multilateral financial institutions, including regional development banks	NA				NA	NA				NA
Specialized United Nations bodies	NO		NO	NO		5,500,000.00		NA	NA	
Total contributions through bilateral, regional and other channels										
Total	NA, NO		NO	NA, NO	NA	8,000,000.00		NA	NA	NA

Abbreviation: USD = United States dollars.

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

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

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

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

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

[f] Please specify.

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

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

Custom Footnotes

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

Table 7(a) RUS_BR2_v1.0

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

Donor funding	*Total amount*				*Status*[b]	*Funding source*[f]	*Financial instrument*[f]	*Type of support*[f,g]	*Sector*[c]
	Core/general[d]		*Climate-specific*[e]						
	Russian ruble - RUB	*USD*	*Russian ruble - RUB*	*USD*					
Total contributions through multilateral channels	NA, NO	8,000,000.00	NA, NO	NA, NO					
Multilateral climate change funds[g]	NA, NO	2,500,000.00	NA	NA					
1. Global Environment Facility	NO	2,500,000.00	NA	NA	Provided	ODA	Grant	Cross-cutting	Cross-cutting
2. Least Developed Countries Fund	NA	NA	NA	NA					
3. Special Climate Change Fund	NA	NA	NA	NA					
4. Adaptation Fund	NA	NA	NA	NA					
5. Green Climate Fund	NA	NA	NA	NA					
6. UNFCCC Trust Fund for Supplementary Activities	NA	NA	NA	NA					
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks	NA	NA	NA	NA					
1. World Bank	NA	NA	NA	NA					
2. International Finance Corporation	NA	NA	NA	NA					
3. African Development Bank	NA	NA	NA	NA					
4. Asian Development Bank	NA	NA	NA	NA					
5. European Bank for Reconstruction and Development	NA	NA	NA	NA					
6. Inter-American Development Bank	NA	NA	NA	NA					
7. Other									
Specialized United Nations bodies	NO, NA	5,500,000.00	NO, NA	NA					
1. United Nations Development Programme	NO	5,500,000.00	NO	NA					
Disaster resilience for Pacific SIDS	NO	3,750,000.00	NO	NA	Provided	ODA	Grant	Adaptation	Cross-cutting
Programme on Comprehensive Development of the Naryn Area of the Kyrgyz Republic	NO	1,750,000.00	NO	NA	Provided	ODA	Grant	Cross-cutting	Cross-cutting
2. United Nations Environment Programme	NA	NA	NA	NA					
	NA	NA	NA	NA					
3. Other									

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

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

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

[c] Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under “Other”.

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

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

[f] Please specify.

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

Custom Footnotes

Table 7(a) RUS_BR2_v1.0

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

Donor funding	*Total amount*				*Status*[b]	*Funding source*[f]	*Financial instrument*[f]	*Type of support*[f, g]	*Sector*[c]
	Core/general[d]		*Climate-specific*[e]						
	Russian ruble - RUB	*USD*	*Russian ruble - RUB*	*USD*					
Total contributions through multilateral channels	NO, NA	8,000,000.00	NO, NA	NO, NA					
Multilateral climate change funds[g]	NA, NO	2,500,000.00	NA	NA					
1. Global Environment Facility	NO	2,500,000.00	NA	NA	Provided	ODA	Grant	Cross-cutting	Cross-cutting
2. Least Developed Countries Fund	NA	NA	NA	NA					
3. Special Climate Change Fund	NA	NA	NA	NA					
4. Adaptation Fund	NA	NA	NA	NA					
5. Green Climate Fund	NA	NA	NA	NA					
6. UNFCCC Trust Fund for Supplementary Activities	NA	NA	NA	NA					
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks	NA	NA	NA	NA					
1. World Bank	NA	NA	NA	NA					
2. International Finance Corporation	NA	NA	NA	NA					
3. African Development Bank	NA	NA	NA	NA					
4. Asian Development Bank	NA	NA	NA	NA					
5. European Bank for Reconstruction and Development	NA	NA	NA	NA					
6. Inter-American Development Bank	NA	NA	NA	NA					
7. Other									
Specialized United Nations bodies	NO	5,500,000.00	NO	NA					
1. United Nations Development Programme	NO	5,500,000.00	NO	NA					
Disaster resilience for Pacific SIDS	NO	3,750,000.00	NO	NA	Provided	ODA	Grant	Adaptation	Cross-cutting
Programme on Comprehensive Development of the Naryn Area of the Kyrgyz Republic	NO	1,750,000.00	NO	NA	Provided	ODA	Grant	Cross-cutting	Cross-cutting
2. United Nations Environment Programme									
3. Other									

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

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

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

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

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

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

[f] Please specify.

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

Custom Footnotes

Table 7(b) RUS_BR2_v1.0

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

Recipient country/ region/project/programme [b]	*Total amount*		*Status* [c]	*Funding source* [g]	*Financial instrument* [g]	*Type of support* [g, h]	*Sector* [d]	*Additional information* [e]
	Climate-specific [f]							
	Russian ruble - RUB	*USD*						
Total contributions through bilateral, regional and other channels								

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

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

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

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

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

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

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

[g] Please specify.

[h] Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

Custom Footnotes

Table 7(b) RUS_BR2_v1.0

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

Recipient country/ region/project/programme [b]	*Total amount*		*Status* [c]	*Funding source* [g]	*Financial instrument* [g]	*Type of support* [g, h]	*Sector* [d]	*Additional information* [e]
	Climate-specific [f]							
	Russian ruble - RUB	*USD*						
Total contributions through bilateral, regional and other channels								

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

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

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

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

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

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

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

[g] Please specify.

[h] Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

Custom Footnotes

Table 8 RUS_BR2_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]
Bangladesh, China, India, Iran (Islamic Republic of), Viet Nam	Mitigation	Nuclear power station construction	Energy	Private and Public	Private and Public	Implemented	The activities include both construction and subsequent servicing the nuclear power plants and the education of the local personnel.

[a] To be reported to the extent possible.

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

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

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

Custom Footnotes

Provision of capacity-building support[a]

Recipient country/region	*Targeted area*	*Programme or project title*	*Description of programme or project* [b,c]
Africa, Middle East and North Africa, CIS	Multiple Areas	Higher and post-graduate education programmes for respersentatives of CIS and developing countries	Russian Federation universities provide environmental and climate-relevant programmes for higher and post-graduate education. The costs for the education are covered by the Government of the Russian Federation. The representatives from developing and CIS countries are eligible for participation in the education programmes.
SIDS	Adaptation	Disaster resilience for Pacific SIDS	Capacity building support is provided to 15 Pacific SIDS for enhancement of warning systems and elimination of consequences of the natural disasters caused inter alia by the climate change. The project was implemented through the UNDP in 2013-2014. Russian Federation contibuted 7.5M US Dollars to the project implementation.
Kyrgyzstan	Multiple Areas	Programme on Comprehensive Development of the Naryn Area of the Kyrgyz Republic	The project is aimed at enhancement of rural structure, energy efficiency and sustainable water management. It was implemented in 2013-2014 through the UNDP. Russian Federation contributed 3.5 M US Dollars for the project implementation.
Armenia	Multiple Areas	Integrated Support to Rural Development: Building Resilient Communities	The intergrated support is provided for enhancement of rural infrastructure, energy efficiency, sustainable water management and increase of the adaptation to climate-induced unfavorable events. The project is under the implementation through the UNDP. Russian Federation contributed 5.0 M US Dollars for the project implementation.
Community of Independent States (CIS)	Multiple Areas	Regional (CIS) capacity building for developing programmes for mitigation of global environmental problems	The project is implemented through the UNIDO in the Community of Independent States (CIS countries, the former republics of the USSR). It is aimed at enhancement of resilence and capacity to withstand challenges associated with environmental problems and climate change. In 2014-2015, Russian Federation contributed 442.5 thousand US Dollars to the project implementation.

[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