

BR CTF submission workbook

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Table 1

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

<i>GREENHOUSE GAS EMISSIONS</i>	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	<i>kt CO₂ eq</i>								
CO ₂ emissions without net CO ₂ from LULUCF	44,896.42	44,896.42	46,536.77	50,767.20	49,432.14	50,090.68	54,105.06	51,478.46	54,317.10
CO ₂ emissions with net CO ₂ from LULUCF	45,933.37	45,933.37	47,527.30	47,153.11	44,687.68	44,614.51	48,846.96	42,510.92	44,443.63
CH ₄ emissions without CH ₄ from LULUCF	11,339.18	11,339.18	11,594.39	11,784.81	11,812.75	12,248.47	12,602.33	12,567.44	12,763.17
CH ₄ emissions with CH ₄ from LULUCF	11,544.25	11,544.25	11,870.86	11,872.89	11,888.00	12,368.75	12,858.73	12,664.45	12,802.35
N ₂ O emissions without N ₂ O from LULUCF	4,190.03	4,190.03	4,160.87	4,141.59	4,127.97	4,179.03	4,369.04	4,597.95	4,602.55
N ₂ O emissions with N ₂ O from LULUCF	4,730.84	4,730.84	4,694.47	4,625.41	4,590.78	4,637.08	4,846.46	5,046.31	5,038.50
HFCs	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	30.65	48.91	71.47
PFCs	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO	NO	NO
Unspecified mix of HFCs and PFCs	NO	NO	NO	NO	NO	NO	NO	NO	NO
SF ₆	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	14.62	15.12	16.87
NF ₃	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (without LULUCF)	60,425.62	60,425.62	62,292.03	66,693.60	65,372.87	66,518.18	71,121.70	68,707.88	71,771.17
Total (with LULUCF)	62,208.46	62,208.46	64,092.63	63,651.41	61,166.46	61,620.34	66,597.41	60,285.71	62,372.83
Total (without LULUCF, with indirect)	60,723.71	60,723.71	62,587.02	66,991.11	65,661.94	66,816.73	71,415.50	69,012.93	72,089.90
Total (with LULUCF, with indirect)	62,506.55	62,506.55	64,387.62	63,948.92	61,455.53	61,918.89	66,891.21	60,590.76	62,691.55

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	<i>kt CO₂ eq</i>								
1. Energy	41,388.39	41,388.39	42,926.62	47,467.92	46,212.82	46,870.67	50,408.78	47,752.61	50,381.30
2. Industrial processes and product use	5,246.32	5,246.32	5,310.04	5,008.51	4,911.85	4,906.49	5,615.82	5,737.37	6,009.40
3. Agriculture	7,573.37	7,573.37	7,652.31	7,579.82	7,442.38	7,605.66	7,733.85	7,888.35	7,800.77
4. Land Use, Land-Use Change and Forestry ^b	1,782.84	1,782.84	1,800.60	-3,042.19	-4,206.41	-4,897.84	-4,524.29	-8,422.17	-9,398.34
5. Waste	6,217.55	6,217.55	6,403.07	6,637.35	6,805.82	7,135.36	7,363.24	7,329.55	7,579.70
6. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (including LULUCF)	62,208.46	62,208.46	64,092.63	63,651.41	61,166.46	61,620.34	66,597.41	60,285.71	62,372.83

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

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

Table 1

PRT_BR2_v1.0

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

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<i>GREENHOUSE GAS EMISSIONS</i>										
CO ₂ emissions without net CO ₂ from LULUCF	58,833.38	66,530.60	65,355.02	65,061.56	68,805.94	63,647.02	66,291.22	68,816.33	64,250.55	61,565.95
CO ₂ emissions with net CO ₂ from LULUCF	51,113.57	57,772.06	58,741.25	55,092.08	59,254.32	63,980.73	57,625.09	68,123.89	54,645.75	48,472.39
CH ₄ emissions without CH ₄ from LULUCF	13,210.37	13,425.70	13,290.73	13,561.55	13,811.33	14,021.90	13,991.63	13,997.14	13,517.76	13,342.75
CH ₄ emissions with CH ₄ from LULUCF	13,415.42	13,532.32	13,475.69	13,672.42	13,983.21	14,739.22	14,130.31	14,555.01	13,620.54	13,384.39
N ₂ O emissions without N ₂ O from LULUCF	4,581.71	4,673.11	4,649.02	4,486.76	4,532.16	4,195.88	4,356.67	4,207.85	4,066.67	4,255.27
N ₂ O emissions with N ₂ O from LULUCF	5,041.91	5,113.22	5,098.03	4,919.67	4,971.13	4,720.31	4,782.33	4,690.06	4,462.14	4,619.93
HFCs	100.63	185.93	288.45	374.38	484.32	618.25	733.36	841.36	954.98	1,105.22
PFCs	NO	NO	NO	NO	NO	NO	NO	0.00	0.13	0.01
Unspecified mix of HFCs and PFCs	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
SF ₆	17.38	18.39	18.43	20.29	19.84	26.18	35.21	35.50	37.09	45.75
NF ₃	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (without LULUCF)	76,743.46	84,833.72	83,601.66	83,504.54	87,653.59	82,509.23	85,408.08	87,898.18	82,827.19	80,314.94
Total (with LULUCF)	69,688.91	76,621.92	77,621.85	74,078.86	78,712.82	84,084.69	77,306.30	88,245.81	73,720.64	67,627.68
Total (without LULUCF, with indirect)	77,063.15	85,159.22	83,931.81	83,801.47	87,936.94	82,785.94	85,683.65	88,167.23	83,097.00	80,588.05
Total (with LULUCF, with indirect)	70,008.60	76,947.42	77,952.00	74,375.78	78,996.18	84,361.41	77,581.86	88,514.87	73,990.45	67,900.80
<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>										
1. Energy	54,872.51	62,325.61	60,770.16	61,193.87	64,875.35	59,825.67	61,808.24	64,396.11	59,765.01	56,677.89
2. Industrial processes and product use	6,175.59	6,582.60	6,861.40	6,544.49	6,856.97	6,889.53	7,506.62	7,526.80	7,332.13	7,929.42
3. Agriculture	7,831.32	7,993.02	8,143.63	7,893.97	7,746.19	7,256.51	7,436.92	7,335.53	7,232.15	7,325.25
4. Land Use, Land-Use Change and Forestry ^b	-7,054.55	-8,211.80	-5,979.80	-9,425.69	-8,940.76	1,575.47	-8,101.78	347.63	-9,106.55	-12,687.26
5. Waste	7,864.05	7,932.49	7,826.46	7,872.21	8,175.08	8,537.52	8,656.31	8,639.73	8,497.90	8,382.38
6. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (including LULUCF)	69,688.91	76,621.92	77,621.85	74,078.86	78,712.82	84,084.69	77,306.30	88,245.81	73,720.64	67,627.68

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

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	59,486.09	56,724.15	52,204.49	50,918.55	49,146.43	47,408.47	5.60
CO ₂ emissions with net CO ₂ from LULUCF	44,988.89	42,340.50	40,297.89	36,819.54	38,448.79	37,499.68	-18.36
CH ₄ emissions without CH ₄ from LULUCF	13,129.70	13,077.00	12,770.64	12,823.40	12,476.64	12,212.58	7.70
CH ₄ emissions with CH ₄ from LULUCF	13,150.86	13,134.07	12,922.34	12,884.25	12,650.92	12,366.12	7.12
N ₂ O emissions without N ₂ O from LULUCF	4,133.69	3,803.64	3,803.55	3,541.60	3,542.77	3,667.32	-12.47
N ₂ O emissions with N ₂ O from LULUCF	4,474.20	4,150.85	4,167.08	3,890.86	3,911.24	4,033.01	-14.75
HFCs	1,266.58	1,380.44	1,508.23	1,612.00	1,737.40	1,727.82	
PFCs	0.01	0.01	0.01	0.01	0.01	0.01	
Unspecified mix of HFCs and PFCs	NO	NO	NO	NO	NO	NO	
SF ₆	44.52	49.57	52.08	48.58	52.68	55.25	
NF ₃	NO	NO	NO	NO	NO	NO	
Total (without LULUCF)	78,060.58	75,034.82	70,338.99	68,944.15	66,955.92	65,071.46	7.69
Total (with LULUCF)	63,925.06	61,055.44	58,947.63	55,255.25	56,801.04	55,681.89	-10.49
Total (without LULUCF, with indirect)	78,323.51	75,275.70	70,588.68	69,182.53	67,188.85	65,307.62	7.55
Total (with LULUCF, with indirect)	64,187.99	61,296.33	59,197.31	55,493.63	57,033.97	55,918.05	-10.54

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
	(%)						
1. Energy	55,040.97	53,987.86	48,936.23	48,075.74	46,426.27	44,473.76	7.45
2. Industrial processes and product use	7,869.03	6,222.34	6,466.69	5,712.97	5,656.36	5,862.26	11.74
3. Agriculture	7,303.42	7,139.72	7,058.06	7,017.07	7,081.92	7,132.85	-5.82
4. Land Use, Land-Use Change and Forestry ^b	-14,135.53	-13,979.37	-11,391.37	-13,688.90	-10,154.88	-9,389.57	-626.66
5. Waste	7,847.16	7,684.90	7,878.01	8,138.36	7,791.37	7,602.59	22.28
6. Other	NO	NO	NO	NO	NO	NO	
Total (including LULUCF)	63,925.06	61,055.44	58,947.63	55,255.25	56,801.04	55,681.89	-10.49

Notes:

(1) Further detailed information could be found in the common reporting format tables of the Party's greenhouse gas inventory, namely "Emission trends (CO₂)", "Emission trends (CH₄)", "Emission trends (N₂O)" and "Emission trends (HFCs, PFCs and SF₆)", which is included in an annex to this biennial report.

(2) 2011 is the latest reported inventory year.

(3) 1 kt CO₂ eq equals 1 Gg CO₂ 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 CO₂, CH₄ and N₂O from LULUCF.

Custom Footnotes

Emission trends (CO₂)
(Sheet 1 of 3)

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	<i>Base year^a</i> <i>kt</i>	1990	1991	1992	1993	1994	1995	1996	1997
1. Energy	40,210.77	40,210.77	41,747.61	46,273.47	44,936.13	45,534.61	49,042.14	46,313.16	48,925.33
A. Fuel combustion (sectoral approach)	39,946.37	39,946.37	41,481.89	45,995.95	44,641.29	44,996.94	48,334.44	45,672.74	48,151.48
1. Energy industries	16,297.31	16,297.31	16,920.35	19,990.43	18,049.12	17,233.72	19,867.23	15,910.65	16,634.12
2. Manufacturing industries and construction	9,655.92	9,655.92	9,764.09	10,201.78	10,229.15	10,544.93	10,762.28	11,021.27	12,004.94
3. Transport	9,827.58	9,827.58	10,398.02	11,260.96	11,669.21	12,267.76	12,897.15	13,542.82	14,324.81
4. Other sectors	4,061.86	4,061.86	4,286.81	4,457.19	4,615.35	4,865.97	4,726.49	5,093.86	5,087.57
5. Other	103.69	103.69	112.61	85.60	78.46	84.57	81.30	104.14	100.05
B. Fugitive emissions from fuels	264.40	264.40	265.72	277.51	294.84	537.66	707.69	640.42	773.85
1. Solid fuels	10.20	10.20	9.47	8.53	8.67	6.65	1.83	1.72	1.63
2. Oil and natural gas and other emissions from energy production	254.19	254.19	256.26	268.98	286.18	531.01	705.86	638.70	772.22
C. CO ₂ transport and storage	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Industrial processes	4,644.91	4,644.91	4,748.38	4,452.90	4,455.13	4,515.14	5,031.97	5,122.59	5,346.29
A. Mineral industry	3,585.65	3,585.65	3,714.35	3,613.52	3,690.00	3,831.04	4,047.42	3,975.57	4,199.21
B. Chemical industry	658.41	658.41	657.95	423.48	375.42	281.34	586.25	726.52	716.05
C. Metal industry	122.13	122.13	102.41	149.36	143.27	147.19	144.82	147.90	153.36
D. Non-energy products from fuels and solvent use	250.51	250.51	247.12	239.49	220.69	230.42	229.78	248.17	251.61
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use									
H. Other	28.21	28.21	26.55	27.04	25.75	25.15	23.69	24.43	26.06
3. Agriculture	33.87	33.87	33.87	33.87	33.87	33.87	23.84	35.03	36.92
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	12.59	12.59	12.59	12.59	12.59	12.59	12.59	12.59	12.59
H. Urea application	21.28	21.28	21.28	21.28	21.28	21.28	11.25	22.43	24.33
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	1,036.95	1,036.95	990.53	-3,614.09	-4,744.47	-5,476.17	-5,258.11	-8,967.54	-9,873.47
A. Forest land	-5,784.67	-5,784.67	-5,428.63	-9,658.72	-10,417.89	-10,561.80	-8,592.54	-11,953.58	-13,020.98
B. Cropland	4,335.51	4,335.51	3,994.98	3,654.50	3,313.91	3,046.95	2,817.53	2,563.59	2,309.65
C. Grassland	3,335.72	3,335.72	3,412.29	3,488.87	3,565.44	3,644.91	2,606.11	2,618.06	2,630.01
D. Wetlands	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	114.77	143.08	171.39
E. Settlements	30.49	30.49	38.01	40.55	43.02	45.57	536.42	665.00	793.78
F. Other land	865.23	865.23	513.88	162.38	-189.28	-540.80	-1,750.39	-1,815.68	-1,880.97
G. Harvested wood products	-1,745.33	-1,745.33	-1,540.00	-1,301.67	-1,059.67	-1,111.00	-990.00	-1,188.00	-876.33
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	6.86	6.86	6.91	6.96	7.01	7.07	7.12	7.69	8.56
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	6.86	6.86	6.91	6.96	7.01	7.07	7.12	7.69	8.56
D. Waste water treatment and discharge									
E. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO
Memo items:									
International bunkers	2,850.79	2,850.79	2,912.16	2,998.10	2,697.58	2,601.86	2,721.75	2,767.36	2,788.57
Aviation	1,464.82	1,464.82	1,537.05	1,626.17	1,540.79	1,549.34	1,614.17	1,598.90	1,649.55
Navigation	1,385.97	1,385.97	1,375.11	1,371.93	1,156.79	1,052.52	1,107.58	1,168.46	1,139.02
Multilateral operations	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO₂ emissions from biomass	11,400.71	11,400.71	11,432.74	11,384.80	11,140.30	10,912.67	11,042.56	11,117.89	11,309.97
CO₂ captured	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
Long-term storage of C in waste disposal sites	NE	NE	NE	NE	NE	NE	NE	NE	NE
Indirect N₂O									
Indirect CO₂ (3)	298.09	298.09	294.99	297.52	289.07	298.55	293.80	305.05	318.72
Total CO₂ equivalent emissions without land use, land-use change and forestry	60,425.62	60,425.62	62,292.03	66,693.60	65,372.87	66,518.18	71,121.70	68,707.88	71,771.17
Total CO₂ equivalent emissions with land use, land-use change and forestry	62,208.46	62,208.46	64,092.63	63,651.41	61,166.46	61,620.34	66,597.41	60,285.71	62,372.83
Total CO₂ equivalent emissions, including indirect CO₂, without land use, land-use change and forestry	45,194.51	45,194.51	46,831.76	51,064.71	49,721.22	50,389.23	54,398.86	51,783.51	54,635.82
Total CO₂ equivalent emissions, including indirect CO₂, with land use, land-use change and forestry	46,231.46	46,231.46	47,822.29	47,450.62	44,976.75	44,913.06	49,140.76	42,815.97	44,762.36

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

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

PRT_BR2_v1.0

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	53,377.37	60,705.23	59,385.92	59,461.57	63,019.51	57,987.04	60,202.73	62,766.07	58,479.27	55,378.91
A. Fuel combustion (sectoral approach)	52,629.37	60,004.30	58,742.81	58,674.83	62,238.16	57,135.85	59,370.87	61,811.71	57,576.27	54,522.55
1. Energy industries	19,253.27	25,311.46	21,517.08	21,937.14	25,332.75	20,831.96	22,295.09	25,293.78	22,354.89	19,709.11
2. Manufacturing industries and construction	11,926.87	12,016.14	12,545.20	11,386.33	10,879.58	10,252.66	10,734.54	10,521.75	10,314.69	10,426.49
3. Transport	16,070.09	16,905.64	18,652.62	18,973.83	19,450.88	19,353.22	19,326.24	19,121.16	19,190.68	18,817.35
4. Other sectors	5,274.83	5,691.28	5,933.18	6,282.79	6,508.46	6,645.00	6,974.68	6,802.47	5,640.67	5,496.97
5. Other	104.30	79.77	94.73	94.73	66.50	53.00	40.33	72.56	75.34	72.62
B. Fugitive emissions from fuels	748.00	700.93	643.11	786.74	781.35	851.19	831.86	954.36	903.00	856.36
1. Solid fuels	1.55	1.48	1.42	1.37	1.32	1.27	1.23	1.20	1.16	1.13
2. Oil and natural gas and other emissions from energy production	746.46	699.45	641.69	785.37	780.03	849.91	830.62	953.16	901.84	855.23
C. CO2 transport and storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Industrial processes	5,423.87	5,782.90	5,917.69	5,558.06	5,756.51	5,626.21	6,061.51	6,018.49	5,725.62	6,135.82
A. Mineral industry	4,220.31	4,533.18	4,574.45	4,431.64	4,702.57	4,385.84	4,808.94	4,861.04	4,777.78	5,000.99
B. Chemical industry	770.31	826.70	900.28	759.87	724.59	905.16	908.09	816.18	598.88	786.45
C. Metal industry	142.08	153.09	160.75	77.13	47.80	61.40	72.31	80.44	95.25	92.23
D. Non-energy products from fuels and solvent use	264.38	243.51	254.52	260.23	251.35	245.06	241.03	230.99	226.23	227.42
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use										
H. Other	26.79	26.42	27.69	29.19	30.21	28.75	31.14	29.85	27.49	28.73
3. Agriculture	24.95	35.73	45.31	40.53	28.64	27.31	25.32	29.81	43.39	47.66
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	12.59	12.59	12.59	12.59	12.59	12.59	12.24	10.92	10.80	12.62
H. Urea application	12.36	23.14	32.72	27.94	16.05	14.72	13.08	18.89	32.60	35.03
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	-7,719.80	-8,758.53	-6,613.77	-9,969.47	-9,551.62	333.72	-8,666.13	-692.45	-9,604.80	-13,093.56
A. Forest land	-11,025.25	-11,741.83	-9,118.42	-12,371.94	-11,760.15	-1,549.13	-10,395.55	-2,460.61	-11,216.55	-14,009.13
B. Cropland	2,055.76	1,945.56	1,839.92	1,729.78	1,619.53	1,509.29	1,399.00	1,270.64	1,141.52	822.34
C. Grassland	2,641.96	2,495.53	2,349.38	2,202.96	2,056.55	1,910.08	1,763.65	1,596.11	1,428.97	1,145.92
D. Wetlands	199.70	228.01	256.32	284.63	312.93	341.24	369.55	397.86	426.36	366.27
E. Settlements	922.55	1,051.54	1,180.55	1,309.42	1,438.41	1,567.53	1,696.58	1,825.93	1,955.02	1,941.32
F. Other land	-1,946.18	-2,011.35	-2,076.51	-2,141.65	-2,206.90	-2,271.96	-2,337.04	-2,402.04	-2,467.46	-2,777.28
G. Harvested wood products	-568.33	-726.00	-1,045.00	-982.67	-1,012.00	-1,173.33	-1,162.33	-920.33	-872.67	-583.00
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	7.19	6.74	6.10	1.39	1.28	6.46	1.66	1.96	2.26	3.56
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	7.19	6.74	6.10	1.39	1.28	6.46	1.66	1.96	2.26	3.56
D. Waste water treatment and discharge										
E. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Memo items:										
International bunkers	2,892.29	3,423.94	3,632.62	3,081.18	3,053.38	3,520.74	3,928.30	3,794.39	4,065.07	4,283.82
Aviation	1,744.89	1,924.58	1,982.28	1,931.86	1,836.31	2,017.61	2,173.26	2,256.80	2,387.77	2,519.88
Navigation	1,147.40	1,499.36	1,650.34	1,149.32	1,217.06	1,503.12	1,755.04	1,537.59	1,677.30	1,763.94
Multilateral operations	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO2 emissions from biomass	11,140.37	11,408.70	11,677.26	11,303.94	11,152.21	10,833.46	11,280.86	11,191.94	11,568.50	11,738.27
CO2 captured	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
Long-term storage of C in waste disposal sites	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Indirect N2O										
Indirect CO2 (3)	319.69	325.50	330.15	296.93	283.35	276.71	275.56	269.06	269.81	273.11
Total CO2 equivalent emissions without land use, land-use change and forestry	76,743.46	84,833.72	83,601.66	83,504.54	87,653.59	82,509.23	85,408.08	87,898.18	82,827.19	80,314.94
Total CO2 equivalent emissions with land use, land-use change and forestry	69,688.91	76,621.92	77,621.85	74,078.86	78,712.82	84,084.69	77,306.30	88,245.81	73,720.64	67,627.68
Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry	59,153.06	66,856.10	65,685.17	65,358.48	69,089.29	63,923.73	66,566.79	69,085.39	64,520.36	61,839.06
Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry	51,433.26	58,097.56	59,071.40	55,389.01	59,537.68	64,257.45	57,900.66	68,392.94	54,915.56	48,745.50

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

Table 1(a)

PRT_BR2_v1.0

Emission trends (CO₂)
(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	53,458.87	52,233.72	47,617.91	46,956.98	45,355.26	43,428.80	8.00
A. Fuel combustion (sectoral approach)	52,551.91	51,296.10	46,717.23	46,056.29	44,404.37	41,857.75	4.78
1. Energy industries	19,108.30	19,254.16	14,368.43	16,349.36	17,318.60	15,109.70	-7.29
2. Manufacturing industries and construction	9,697.39	8,482.28	9,036.63	8,297.97	7,358.93	7,321.46	-24.18
3. Transport	18,538.46	18,529.72	18,319.77	17,006.51	15,530.73	15,290.41	55.59
4. Other sectors	5,122.83	4,944.65	4,906.89	4,325.54	4,147.80	4,078.02	0.40
5. Other	84.93	85.28	85.52	76.90	48.32	58.16	-43.91
B. Fugitive emissions from fuels	906.96	937.62	900.68	900.69	950.88	1,571.05	494.20
1. Solid fuels	1.10	1.08	1.05	1.03	1.01	0.99	-90.33
2. Oil and natural gas and other emissions from energy production	905.85	936.54	899.63	899.66	949.87	1,570.06	517.66
C. CO ₂ transport and storage	NO	NO	NO	NO	NO	NO	
2. Industrial processes	5,967.74	4,428.56	4,542.00	3,905.59	3,734.26	3,914.81	-15.72
A. Mineral industry	4,900.43	4,012.35	4,126.02	3,497.85	3,363.30	3,549.80	-1.00
B. Chemical industry	709.42	116.30	133.53	130.92	98.03	89.61	-86.39
C. Metal industry	111.76	72.23	48.63	53.66	61.74	65.69	-46.21
D. Non-energy products from fuels and solvent use	216.44	196.51	202.48	194.11	181.64	179.14	-28.49
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use							
H. Other	29.68	31.17	31.34	29.06	29.56	30.56	8.33
3. Agriculture	55.21	52.92	34.57	47.97	45.72	50.84	50.11
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	13.75	14.56	12.49	12.59	12.59	12.59	0.00
H. Urea application	41.46	38.36	22.09	35.38	33.13	38.25	79.76
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	-14,497.20	-14,383.65	-11,906.60	-14,099.00	-10,697.63	-9,908.79	-1,055.57
A. Forest land	-14,995.80	-15,127.12	-13,290.08	-15,219.95	-12,222.65	-12,609.66	117.98
B. Cropland	669.48	650.39	610.54	604.73	600.84	598.57	-86.19
C. Grassland	872.25	753.14	620.91	482.06	380.98	302.12	-90.94
D. Wetlands	373.60	380.92	388.24	395.57	402.89	410.22	
E. Settlements	2,023.59	2,105.84	2,188.11	2,268.09	2,348.00	2,427.88	7,862.82
F. Other land	-2,816.98	-2,505.15	-2,193.32	-1,881.51	-1,569.70	-1,257.92	-245.39
G. Harvested wood products	-623.33	-641.67	-231.00	-748.00	-638.00	220.00	-112.61
H. Other	NO	NO	NO	NO	NO	NO	
5. Waste	4.28	8.95	10.00	8.01	11.19	14.02	104.22
A. Solid waste disposal	NO	NO	NO	NO	NO	NO	
B. Biological treatment of solid waste							
C. Incineration and open burning of waste	4.28	8.95	10.00	8.01	11.19	14.02	104.22
D. Waste water treatment and discharge							
E. Other	NA	NA	NA	NA	NA	NA	
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	
Memo items:							
International bunkers	4,563.67	4,153.50	4,228.91	4,638.22	4,803.34	4,986.03	74.90
Aviation	2,609.15	2,372.60	2,610.71	2,705.75	2,726.96	2,797.92	91.01
Navigation	1,954.52	1,780.90	1,618.20	1,932.47	2,076.37	2,188.11	57.88
Multilateral operations	NO	NO	NO	NO	NO	NO	
CO₂ emissions from biomass	11,616.62	11,979.12	12,894.39	11,294.61	10,999.81	11,052.31	-3.06
CO₂ captured	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	
Long-term storage of C in waste disposal sites	NE	NE	NE	NE	NE	NE	
Indirect N₂O							
Indirect CO₂ (3)	262.93	240.89	249.69	238.39	232.93	236.16	-20.78
Total CO₂ equivalent emissions without land use, land-use change and forestry	78,060.58	75,034.82	70,338.99	68,944.15	66,955.92	65,071.46	7.69
Total CO₂ equivalent emissions with land use, land-use change and forestry	63,925.06	61,055.44	58,947.63	55,255.25	56,801.04	55,681.89	-10.49
Total CO₂ equivalent emissions, including indirect CO₂, without land use, land-use change and forestry	59,749.02	56,965.03	52,454.18	51,156.93	49,379.35	47,644.63	5.42
Total CO₂ equivalent emissions, including indirect CO₂, with land use, land-use change and forestry	45,251.82	42,581.38	40,547.58	37,057.93	38,681.72	37,735.84	-18.38

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)

PRT_BR2_v1.0

Emission trends (CH₄)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	27.62	27.62	26.96	26.78	26.43	25.70	23.99	23.62	25.37
A. Fuel combustion (sectoral approach)	22.25	22.25	21.91	21.88	21.38	21.10	21.12	21.06	20.62
1. Energy industries	0.22	0.22	0.22	0.26	0.24	0.25	0.27	0.23	0.24
2. Manufacturing industries and construction	1.32	1.32	1.41	1.48	1.46	1.48	1.57	1.59	1.72
3. Transport	4.14	4.14	4.43	4.80	4.68	4.52	4.43	4.34	4.17
4. Other sectors	16.57	16.57	15.85	15.32	14.99	14.85	14.84	14.90	14.49
5. Other	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
B. Fugitive emissions from fuels	5.37	5.37	5.05	4.90	5.04	4.60	2.86	2.56	4.74
1. Solid fuels	3.54	3.54	3.29	2.96	3.02	2.32	0.67	0.63	0.59
2. Oil and natural gas and other emissions from energy production	1.83	1.83	1.76	1.94	2.02	2.27	2.20	1.94	4.15
C. CO ₂ transport and storage									
2. Industrial processes	0.83	0.83	0.71	0.84	0.84	0.87	0.89	0.84	1.00
A. Mineral industry									
B. Chemical industry	0.57	0.57	0.46	0.50	0.51	0.54	0.55	0.50	0.60
C. Metal industry	0.22	0.22	0.20	0.27	0.28	0.27	0.27	0.28	0.32
D. Non-energy products from fuels and solvent use	0.04	0.04	0.05	0.06	0.06	0.06	0.07	0.06	0.08
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use									
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
3. Agriculture	197.13	197.13	200.99	199.71	194.77	200.66	207.60	207.68	204.46
A. Enteric fermentation	133.71	133.71	135.99	135.76	131.12	137.55	144.21	146.01	142.77
B. Manure management	56.58	56.58	58.78	58.87	59.11	58.53	57.87	55.88	55.58
C. Rice cultivation	5.36	5.36	4.76	3.69	3.20	3.27	4.16	4.43	4.74
D. Agricultural soils	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	1.49	1.49	1.45	1.39	1.34	1.32	1.36	1.36	1.37
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	8.20	8.20	11.06	3.52	3.01	4.81	10.26	3.88	1.57
A. Forest land	7.15	7.15	9.57	3.06	2.60	4.18	8.87	3.25	1.41
B. Cropland	0.65	0.65	0.86	0.27	0.24	0.37	0.81	0.21	0.05
C. Grassland	0.24	0.24	0.32	0.10	0.09	0.13	0.29	0.18	0.04
D. Wetlands	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other land	0.16	0.16	0.30	0.09	0.08	0.13	0.28	0.24	0.07
G. Harvested wood products									
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	227.99	227.99	235.12	244.06	250.47	262.71	271.62	270.55	279.69
A. Solid waste disposal	109.14	109.14	114.31	120.21	126.24	132.41	138.83	145.40	152.36
B. Biological treatment of solid waste	0.45	0.45	0.18	0.23	0.29	0.62	0.82	0.82	0.84
C. Incineration and open burning of waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
D. Waste water treatment and discharge	118.39	118.39	120.61	123.61	123.92	129.66	131.96	124.32	126.48
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total CH₄ emissions without CH₄ from LULUCF	453.57	453.57	463.78	471.39	472.51	489.94	504.09	502.70	510.53
Total CH₄ emissions with CH₄ from LULUCF	461.77	461.77	474.83	474.92	475.52	494.75	514.35	506.58	512.09
Memo items:									
International bunkers	0.25	0.25	0.25	0.26	0.23	0.22	0.23	0.23	0.23
Aviation	0.12	0.12	0.13	0.13	0.12	0.12	0.13	0.12	0.12
Navigation	0.13	0.13	0.13	0.13	0.11	0.10	0.10	0.11	0.11
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.

Emission trends (CH₄)
(Sheet 2 of 3)

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	28.12	30.21	29.13	43.00	46.76	47.68	37.15	36.59	23.58	24.58
A. Fuel combustion (sectoral approach)	20.24	19.94	19.46	18.56	18.20	17.39	16.84	16.26	15.58	15.01
1. Energy industries	0.28	0.45	0.52	0.50	0.55	0.51	0.54	0.58	0.55	0.51
2. Manufacturing industries and construction	1.74	1.83	1.85	1.83	1.88	1.86	1.93	1.95	1.95	2.03
3. Transport	4.16	4.01	3.84	3.37	3.33	3.01	2.78	2.54	2.31	2.12
4. Other sectors	14.06	13.65	13.25	12.85	12.44	12.01	11.60	11.20	10.77	10.35
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Fugitive emissions from fuels	7.88	10.27	9.66	24.44	28.56	30.29	20.31	20.32	8.00	9.57
1. Solid fuels	0.56	0.54	0.52	0.50	0.48	0.46	0.45	0.43	0.42	0.41
2. Oil and natural gas and other emissions from energy production	7.32	9.73	9.15	23.95	28.09	29.83	19.87	19.89	7.58	9.16
C. CO ₂ transport and storage										
2. Industrial processes	1.08	1.09	1.16	1.04	1.04	1.13	1.33	1.36	1.31	1.42
A. Mineral industry										
B. Chemical industry	0.67	0.66	0.68	0.57	0.61	0.68	0.77	0.75	0.67	0.75
C. Metal industry	0.32	0.36	0.40	0.36	0.34	0.37	0.47	0.50	0.56	0.60
D. Non-energy products from fuels and solvent use	0.09	0.07	0.08	0.11	0.09	0.07	0.09	0.11	0.08	0.08
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use										
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
3. Agriculture	209.16	213.27	213.41	207.74	202.07	196.76	201.08	202.38	201.46	199.17
A. Enteric fermentation	147.50	151.35	152.67	149.29	146.46	143.01	147.27	148.48	147.56	145.53
B. Manure management	55.74	56.27	54.76	52.49	49.58	47.35	46.89	46.75	46.87	46.75
C. Rice cultivation	4.57	4.32	4.70	4.70	4.79	5.18	5.80	6.08	5.97	5.79
D. Agricultural soils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	1.35	1.33	1.27	1.26	1.25	1.22	1.12	1.07	1.07	1.10
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	8.20	4.26	7.40	4.43	6.88	28.69	5.55	22.31	4.11	1.67
A. Forest land	7.17	3.79	6.04	3.98	5.97	24.51	4.36	20.81	3.58	1.15
B. Cropland	0.38	0.21	0.67	0.17	0.60	3.26	0.73	0.92	0.34	0.39
C. Grassland	0.30	0.12	0.35	0.12	0.17	0.61	0.29	0.24	0.10	0.06
D. Wetlands	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other land	0.35	0.14	0.35	0.16	0.14	0.32	0.17	0.34	0.09	0.06
G. Harvested wood products										
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	290.06	292.45	287.94	290.68	302.58	315.30	320.09	319.56	314.37	308.53
A. Solid waste disposal	159.89	168.93	178.02	183.84	188.72	192.75	192.64	187.06	185.83	184.49
B. Biological treatment of solid waste	0.86	0.90	1.10	1.07	0.46	1.66	1.00	0.99	0.58	0.61
C. Incineration and open burning of waste	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.05	0.06
D. Waste water treatment and discharge	129.30	122.61	108.81	105.77	113.39	120.88	126.43	131.47	127.90	123.38
E. Other	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total CH₄ emissions without CH₄ from LULUCF	528.41	537.03	531.63	542.46	552.45	560.88	559.67	559.89	540.71	533.71
Total CH₄ emissions with CH₄ from LULUCF	536.62	541.29	539.03	546.90	559.33	589.57	565.21	582.20	544.82	535.38
Memo items:										
International bunkers	0.24	0.29	0.25	0.20	0.20	0.23	0.24	0.22	0.22	0.24
Aviation	0.14	0.15	0.10	0.09	0.09	0.09	0.08	0.07	0.07	0.07
Navigation	0.11	0.14	0.15	0.11	0.11	0.14	0.16	0.14	0.15	0.16
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.

Emission trends (CH₄)

(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	36.36	44.92	28.08	21.81	21.39	21.64	-21.66
A. Fuel combustion (sectoral approach)	14.29	13.86	13.30	13.68	13.42	13.56	-39.07
1. Energy industries	0.54	0.57	0.55	0.57	0.53	0.51	136.20
2. Manufacturing industries and construction	1.98	2.03	2.01	1.97	1.94	1.93	46.89
3. Transport	1.85	1.76	1.63	1.43	1.25	1.19	-71.11
4. Other sectors	9.92	9.50	9.10	9.71	9.70	9.91	-40.17
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	-95.02
B. Fugitive emissions from fuels	22.07	31.05	14.79	8.12	7.97	8.08	50.44
1. Solid fuels	0.40	0.39	0.38	0.37	0.37	0.36	-89.86
2. Oil and natural gas and other emissions from energy production	21.66	30.66	14.40	7.75	7.60	7.72	321.93
C. CO ₂ transport and storage							
2. Industrial processes	1.37	1.11	1.25	1.35	1.11	1.18	43.10
A. Mineral industry							
B. Chemical industry	0.64	0.51	0.69	0.67	0.43	0.50	-12.29
C. Metal industry	0.65	0.52	0.50	0.63	0.63	0.65	190.73
D. Non-energy products from fuels and solvent use	0.08	0.08	0.06	0.06	0.05	0.04	7.33
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use							
H. Other	NO	NO	NO	NO	NO	NO	
3. Agriculture	199.65	194.87	192.73	190.55	189.73	187.35	-4.96
A. Enteric fermentation	145.68	141.16	139.12	136.71	135.84	133.50	-0.15
B. Manure management	46.97	47.20	46.93	46.69	46.74	46.90	-17.11
C. Rice cultivation	5.92	5.37	5.53	5.99	5.97	5.77	7.74
D. Agricultural soils	NO	NO	NO	NO	NO	NO	
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	
F. Field burning of agricultural residues	1.09	1.14	1.15	1.17	1.18	1.18	-20.90
G. Liming							
H. Urea application							
I. Other carbon-containing fertilizers							
J. Other	NO	NO	NO	NO	NO	NO	
4. Land use, land-use change and forestry	0.85	2.28	6.07	2.43	6.97	6.14	-25.13
A. Forest land	0.64	1.71	5.19	1.88	6.17	4.87	-31.84
B. Cropland	0.14	0.18	0.24	0.25	0.58	0.84	30.53
C. Grassland	0.04	0.23	0.26	0.17	0.14	0.25	2.70
D. Wetlands	NO	NO	NO	NO	NO	NO	
E. Settlements	NO	NO	NO	NO	NO	NO	
F. Other land	0.03	0.16	0.38	0.13	0.08	0.17	6.36
G. Harvested wood products							
H. Other	NO	NO	NO	NO	NO	NO	
5. Waste	287.81	282.19	288.76	299.22	286.84	278.33	22.08
A. Solid waste disposal	182.05	183.02	178.69	177.75	169.79	160.17	46.76
B. Biological treatment of solid waste	0.73	0.93	1.02	0.80	0.90	0.87	95.68
C. Incineration and open burning of waste	0.07	0.06	0.02	0.06	0.02	0.04	254.59
D. Waste water treatment and discharge	104.95	98.16	109.04	120.62	116.13	117.25	-0.97
E. Other	0.00	0.00	0.00	0.00	NO	NO	
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	
Total CH₄ emissions without CH₄ from LULUCF	525.19	523.08	510.83	512.94	499.07	488.50	7.70
Total CH₄ emissions with CH₄ from LULUCF	526.03	525.36	516.89	515.37	506.04	494.64	7.12
Memo items:							
International bunkers	0.26	0.23	0.22	0.25	0.27	0.28	9.07
Aviation	0.08	0.07	0.08	0.08	0.08	0.07	-40.18
Navigation	0.18	0.16	0.15	0.18	0.19	0.20	56.98
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 f

^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

Emission trends (N₂O)
(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	1.63	1.63	1.69	1.76	2.07	2.33	2.57	2.85	2.76
A. Fuel combustion (sectoral approach)	1.63	1.63	1.69	1.75	2.06	2.32	2.56	2.84	2.75
1. Energy industries	0.15	0.15	0.16	0.18	0.18	0.18	0.21	0.18	0.19
2. Manufacturing industries and construction	0.36	0.36	0.37	0.38	0.38	0.38	0.40	0.40	0.43
3. Transport	0.30	0.30	0.32	0.35	0.63	0.88	1.10	1.33	1.33
4. Other sectors	0.81	0.81	0.84	0.84	0.87	0.87	0.85	0.92	0.80
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Fugitive emissions from fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
C. CO ₂ transport and storage									
2. Industrial processes	1.95	1.95	1.83	1.79	1.46	1.24	1.73	1.78	1.84
A. Mineral industry									
B. Chemical industry	1.67	1.67	1.55	1.53	1.20	0.99	1.50	1.54	1.60
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	0.28	0.28	0.27	0.27	0.26	0.25	0.24	0.24	0.24
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
3. Agriculture	8.76	8.76	8.70	8.57	8.52	8.57	8.46	8.93	8.90
A. Enteric fermentation									
B. Manure management	0.84	0.84	0.83	0.82	0.82	0.82	0.81	0.81	0.80
C. Rice cultivation									
D. Agricultural soils	7.85	7.85	7.80	7.67	7.64	7.69	7.58	8.06	8.03
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
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	1.81	1.81	1.79	1.62	1.55	1.54	1.60	1.50	1.46
A. Forest land	0.18	0.18	0.22	0.13	0.13	0.15	0.22	0.15	0.13
B. Cropland	1.08	1.08	1.00	0.90	0.81	0.75	0.69	0.61	0.55
C. Grassland	0.54	0.54	0.57	0.58	0.60	0.63	0.63	0.63	0.63
D. Wetlands	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	0.01	0.02	0.02
E. Settlements	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.08	0.12
F. Other land	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
G. Harvested wood products									
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	1.71	1.71	1.74	1.77	1.80	1.88	1.90	1.87	1.94
A. Solid waste disposal									
B. Biological treatment of solid waste	0.03	0.03	0.01	0.02	0.02	0.05	0.06	0.06	0.06
C. Incineration and open burning of waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Waste water treatment and discharge	1.68	1.68	1.72	1.75	1.78	1.83	1.83	1.81	1.88
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total direct N₂O emissions without N₂O from LULUCF	14.06	14.06	13.96	13.90	13.85	14.02	14.66	15.43	15.44
Total direct N₂O emissions with N₂O from LULUCF	15.88	15.88	15.75	15.52	15.41	15.56	16.26	16.93	16.91
Memo items:									
International bunkers	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.08	0.08
Aviation	0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.05	0.05
Navigation	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03
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	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Indirect CO₂ (3)									

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

Emission trends (N₂O)
(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	2.66	2.90	2.20	2.21	2.30	2.17	2.27	2.40	2.34	2.30
A. Fuel combustion (sectoral approach)	2.65	2.89	2.19	2.20	2.30	2.16	2.26	2.39	2.33	2.29
1. Energy industries	0.22	0.43	0.37	0.38	0.44	0.40	0.48	0.53	0.49	0.47
2. Manufacturing industries and construction	0.42	0.42	0.43	0.41	0.41	0.40	0.43	0.43	0.45	0.46
3. Transport	1.39	1.41	0.74	0.73	0.76	0.75	0.75	0.73	0.71	0.70
4. Other sectors	0.62	0.63	0.66	0.67	0.69	0.61	0.59	0.70	0.67	0.66
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Fugitive emissions from fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
C. CO ₂ transport and storage										
2. Industrial processes	2.04	1.91	2.04	1.90	1.91	1.98	2.16	2.00	1.95	2.04
A. Mineral industry										
B. Chemical industry	1.80	1.67	1.82	1.68	1.69	1.77	1.96	1.81	1.77	1.85
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	0.23	0.23	0.22	0.22	0.22	0.22	0.20	0.20	0.18	0.19
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
3. Agriculture	8.65	8.81	9.27	8.93	8.95	7.75	8.00	7.54	7.22	7.71
A. Enteric fermentation										
B. Manure management	0.81	0.85	0.87	0.85	0.82	0.78	0.76	0.75	0.73	0.71
C. Rice cultivation										
D. Agricultural soils	7.77	7.89	8.34	8.02	8.06	6.91	7.18	6.74	6.44	6.95
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.06
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	1.54	1.48	1.51	1.45	1.47	1.76	1.43	1.62	1.33	1.22
A. Forest land	0.21	0.17	0.21	0.18	0.22	0.48	0.20	0.42	0.17	0.12
B. Cropland	0.48	0.45	0.43	0.40	0.38	0.39	0.32	0.29	0.25	0.22
C. Grassland	0.64	0.60	0.57	0.52	0.49	0.46	0.41	0.37	0.32	0.27
D. Wetlands	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.10	0.10
E. Settlements	0.15	0.19	0.23	0.26	0.30	0.33	0.37	0.41	0.44	0.47
F. Other land	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.05
G. Harvested wood products										
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	2.03	2.06	2.09	2.03	2.04	2.18	2.19	2.18	2.14	2.23
A. Solid waste disposal										
B. Biological treatment of solid waste	0.06	0.07	0.08	0.08	0.03	0.12	0.08	0.07	0.04	0.04
C. Incineration and open burning of waste	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02
D. Waste water treatment and discharge	1.96	1.99	2.00	1.94	2.01	2.05	2.10	2.09	2.07	2.16
E. Other	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total direct N₂O emissions without N₂O from LULUCF	15.37	15.68	15.60	15.06	15.21	14.08	14.62	14.12	13.65	14.28
Total direct N₂O emissions with N₂O from LULUCF	16.92	17.16	17.11	16.51	16.68	15.84	16.05	15.74	14.97	15.50
Memo items:										
International bunkers	0.08	0.09	0.10	0.08	0.08	0.10	0.11	0.10	0.11	0.12
Aviation	0.05	0.05	0.06	0.05	0.05	0.06	0.06	0.06	0.07	0.07
Navigation	0.03	0.04	0.04	0.03	0.03	0.04	0.05	0.04	0.04	0.05
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	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Indirect CO₂ (3)										

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

Emission trends (N₂O)

(Sheet 3 of 3)

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
	%						
1. Energy	2.26	2.12	2.07	1.92	1.80	1.69	3.47
A. Fuel combustion (sectoral approach)	2.25	2.11	2.06	1.92	1.79	1.68	3.42
1. Energy industries	0.50	0.51	0.45	0.48	0.42	0.33	114.05
2. Manufacturing industries and construction	0.45	0.42	0.44	0.30	0.29	0.29	-19.28
3. Transport	0.67	0.59	0.60	0.55	0.51	0.48	62.80
4. Other sectors	0.62	0.58	0.57	0.58	0.57	0.58	-29.05
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	-40.25
B. Fugitive emissions from fuels	0.01	0.01	0.01	0.01	0.01	0.01	14.00
1. Solid fuels	NO	NO	NO	NO	NO	NO	
2. Oil and natural gas and other emissions from energy production	0.01	0.01	0.01	0.01	0.01	0.01	14.00
C. CO ₂ transport and storage							
2. Industrial processes	1.87	1.13	1.12	0.38	0.35	0.45	-76.79
A. Mineral industry							
B. Chemical industry	1.68	0.94	0.96	0.22	0.21	0.19	-88.50
C. Metal industry	NO	NO	NO	NO	NO	NO	
D. Non-energy products from fuels and solvent use	NO	NO	NO	NO	NO	NO	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	0.18	0.18	0.16	0.16	0.14	0.26	-6.47
H. Other	NO	NO	NO	NO	NO	NO	
3. Agriculture	7.57	7.43	7.40	7.40	7.69	8.05	-8.16
A. Enteric fermentation							
B. Manure management	0.71	0.72	0.72	0.71	0.70	0.70	-16.70
C. Rice cultivation							
D. Agricultural soils	6.81	6.66	6.63	6.63	6.93	7.30	-7.12
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	
F. Field burning of agricultural residues	0.05	0.05	0.05	0.06	0.06	0.06	-21.82
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	1.14	1.17	1.22	1.17	1.24	1.23	-32.38
A. Forest land	0.10	0.12	0.16	0.11	0.17	0.15	-16.19
B. Cropland	0.17	0.17	0.18	0.17	0.18	0.18	-83.18
C. Grassland	0.23	0.21	0.19	0.17	0.14	0.12	-77.29
D. Wetlands	0.10	0.10	0.10	0.11	0.11	0.11	
E. Settlements	0.49	0.51	0.53	0.56	0.58	0.60	7,659.46
F. Other land	0.05	0.05	0.06	0.06	0.06	0.06	2,310.60
G. Harvested wood products							
H. Other	NO	NO	NO	NO	NO	NO	
5. Waste	2.17	2.08	2.18	2.18	2.04	2.12	23.34
A. Solid waste disposal							
B. Biological treatment of solid waste	0.05	0.07	0.07	0.05	0.05	0.05	58.29
C. Incineration and open burning of waste	0.03	0.03	0.01	0.02	0.01	0.02	429.13
D. Waste water treatment and discharge	2.09	1.99	2.10	2.10	1.99	2.05	21.92
E. Other	0.00	0.00	0.00	0.00	NO	NO	
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	
Total direct N₂O emissions without N₂O from LULUCF	13.87	12.76	12.76	11.88	11.89	12.31	-12.47
Total direct N₂O emissions with N₂O from LULUCF	15.01	13.93	13.98	13.06	13.12	13.53	-14.75
Memo items:							
International bunkers	0.13	0.11	0.12	0.13	0.13	0.14	75.04
Aviation	0.07	0.07	0.07	0.08	0.08	0.08	91.00
Navigation	0.05	0.05	0.04	0.05	0.05	0.06	56.98
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	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	
Indirect CO₂ (3)							

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

^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)
Emission trends (HFCs, PFCs and SF₆)
(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)	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	30.65	48.91	71.47
Emissions of HFCs - (kt CO₂ equivalent)	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	30.65	48.91	71.47
HFC-23	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO	NO	NO
HFC-32	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	IE, NO	IE, NO	IE, NO
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	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	IE, NO	0.00	0.00
HFC-134	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-134a	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	0.02	0.03	0.04
HFC-143	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-143a	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	IE, NO	0.00	0.00
HFC-152	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-152a	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	0.01	0.01	0.02
HFC-161	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-227ea	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	0.00	0.00	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)	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO	NO	NO
CF ₄	NO	NO	NO	NO	NO	NO	NO	NO	NO
C ₂ F ₆	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO	NO	NO
C ₃ F ₈	NO	NO	NO	NO	NO	NO	NO	NO	NO
C ₄ F ₁₀	NO	NO	NO	NO	NO	NO	NO	NO	NO
c-C ₄ F ₈	NO	NO	NO	NO	NO	NO	NO	NO	NO
C ₅ F ₁₂	NO	NO	NO	NO	NO	NO	NO	NO	NO
C ₆ F ₁₄	NO	NO	NO	NO	NO	NO	NO	NO	NO
C10F18	NO	NO	NO	NO	NO	NO	NO	NO	NO
c-C3F6	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of PFCs(4) - (kt CO ₂ equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	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)	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	14.62	15.12	16.87
SF ₆	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	0.00	0.00	0.00
Emissions of NF₃ - (kt CO₂ equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO
NF ₃	NO	NO	NO	NO	NO	NO	NO	NO	NO

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

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

PRT_BR2_v1.0

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Emissions of HFCs and PFCs - (kt CO₂ equivalent)	100.63	185.93	288.45	374.38	484.32	618.25	733.36	841.36	955.12	1,105.22
Emissions of HFCs - (kt CO₂ equivalent)	100.63	185.93	288.45	374.38	484.32	618.25	733.36	841.36	954.98	1,105.22
HFC-23	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-32	IE, NO	0.00	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.06
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	0.01	0.02	0.03	0.04	0.05	0.07	0.08	0.09	0.10
HFC-134	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-134a	0.06	0.08	0.10	0.12	0.15	0.19	0.22	0.26	0.29	0.33
HFC-143	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-143a	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.04
HFC-152	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-152a	0.04	0.06	0.09	0.12	0.14	0.28	0.30	0.30	0.30	0.30
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	0.00	0.00	0.00	0.00
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)	NO	NO	NO	NO	NO	NO	NO	0.00	0.13	0.01
CF ₄	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C ₂ F ₆	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00
C ₃ F ₈	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C ₄ F ₁₀	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
c-C ₄ F ₈	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C ₅ F ₁₂	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C ₆ F ₁₄	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C10F18	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
c-C3F6	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of PFCs(4) - (kt CO ₂ equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO	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)	17.38	18.39	18.43	20.29	19.84	26.18	35.21	35.50	37.09	45.75
SF ₆	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions of NF₃ - (kt CO₂ equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NF ₃	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

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

Emission trends (HFCs, PFCs and SF₆)

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
	%						
Emissions of HFCs and PFCs - (kt CO₂ equivalent)	1,266.58	1,380.45	1,508.24	1,612.01	1,737.41	1,727.83	
Emissions of HFCs - (kt CO₂ equivalent)	1,266.58	1,380.44	1,508.23	1,612.00	1,737.40	1,727.82	
HFC-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-32	0.07	0.08	0.08	0.09	0.11	0.10	
HFC-41	NO	NO	NO	NO	NO	NO	
HFC-43-10mee	NO	NO	NO	NO	NO	NO	
HFC-125	0.12	0.13	0.14	0.15	0.17	0.16	
HFC-134	NO	NO	NO	NO	NO	NO	
HFC-134a	0.36	0.39	0.44	0.48	0.51	0.51	
HFC-143	NO	NO	NO	NO	NO	NO	
HFC-143a	0.05	0.06	0.07	0.07	0.07	0.07	
HFC-152	NO	NO	NO	NO	NO	NO	
HFC-152a	0.29	0.28	0.29	0.28	0.27	0.27	
HFC-161	NO	NO	NO	NO	NO	NO	
HFC-227ea	0.00	0.00	0.00	0.00	0.00	0.00	
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)	0.01	0.01	0.01	0.01	0.01	0.01	
CF ₄	NO	NO	NO	NO	NO	NO	
C ₂ F ₆	0.00	0.00	0.00	0.00	0.00	0.00	
C ₃ F ₈	NO	NO	NO	NO	NO	NO	
C ₄ F ₁₀	NO	NO	NO	NO	NO	NO	
c-C ₄ F ₈	NO	NO	NO	NO	NO	NO	
C ₅ F ₁₂	NO	NO	NO	NO	NO	NO	
C ₆ F ₁₄	NO	NO	NO	NO	NO	NO	
C10F18	NO	NO	NO	NO	NO	NO	
c-C3F6	NO	NO	NO	NO	NO	NO	
Unspecified mix of PFCs(4) - (kt CO ₂ equivalent)	NO	NO	NO	NO	NO	NO	
Unspecified mix of HFCs and PFCs - (kt CO₂ equivalent)	NO	NO	NO	NO	NO	NO	
Emissions of SF₆ - (kt CO₂ equivalent)	44.52	49.57	52.08	48.58	52.68	55.25	
SF ₆	0.00	0.00	0.00	0.00	0.00	0.00	
Emissions of NF₃ - (kt CO₂ equivalent)	NO	NO	NO	NO	NO	NO	
NF ₃	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.

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

^dIn accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories", HFC and PFC emissions should be reported for each relevant chemical. However, if it is not possible to report values for each chemical (i.e. mixtures, confidential data, lack of disaggregation), this row could be used for reporting aggregate figures for HFCs and PFCs, respectively. Note that the unit used for this row is kt of CO₂ equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.)

Custom Footnotes

Documentation Box:

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Table 2(a)

PRT_BR2_v1.0

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

<i>Party</i>	<i>Portugal</i>	
Base year /base period	1990	
Emission reduction target	% of base year/base period	% of 1990 ^b
	20.00	
Period for reaching target	BY-2020	

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice 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.

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

<i>Gases covered</i>		<i>Base year for each gas (year):</i>	
CO ₂		1990	
CH ₄		1990	
N ₂ O		1990	
HFCs		1990	
PFCs		1990	
SF ₆		1990	
NF ₃			
Other Gases (specify)			
Sectors covered ^b	Energy	Yes	
	Transport ^f	Yes	
	Industrial processes ^g	Yes	
	Agriculture	Yes	
	LULUCF	No	
	Waste	Yes	
	Other Sectors (specify)		
	Aviation in the scope of the EU-ETS	Yes	

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

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice 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.

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

<i>Gases</i>	<i>GWP values^b</i>
CO ₂	4th AR
CH ₄	4th AR
N ₂ O	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.

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	

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 prejudice 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: market-based mechanisms under the Convention^a

<i>Market-based mechanisms under the Convention</i>	<i>Possible scale of contributions (estimated kt CO₂ eq)</i>
CERs	
ERUs	
AAUs ⁱ	
Carry-over units ^j	
Other mechanism units under the Convention (specify) ^d	

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

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice 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.

Description of quantified economy-wide emission reduction target: other market-based mechanisms^a

<i>Other market-based mechanisms</i>	<i>Possible scale of contributions</i>
<i>(Specify)</i>	<i>(estimated kt CO₂ eq)</i>

^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}

In December 2009, the European Council reiterated the conditional offer of the EU to move to a 30% reduction by 2020 compared to 1990 levels as part of a global and comprehensive agreement for the period beyond 2012, provided that other developed countries commit themselves to comparable emissions reductions and that developing countries contribute adequately according to their responsibilities and respective capabilities.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice 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

The 2020 Climate and Energy Package allows Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs) to be used for compliance purposes, subject to a number of restrictions in terms of origin and type of project and up to an established limit. In addition, the legislation foresees the possible recognition of units from new market mechanisms. Under the EU ETS the limit does not exceed 50% of the required reduction below 2005 levels. In the sectors not covered by the ETS, annual use shall not exceed to 3 % of each Member States' non-ETS greenhouse gas emissions in 2005. Portugal is eligible to use an additional 1%, from projects in LDCs or SIDS subject to conditions.

The use of these units under the ETS Directive and the Effort Sharing Decision is subject to the limits specified above which do not separate between CERs and ERUs, but include additional criteria for the use of CERs.

The use of these units under the ETS Directive and the Effort Sharing Decision is subject to the limits specified above which do not separate between CERs and ERUs, but include additional criteria for the use of CERs.

AAUs for the period 2013-2020 have not yet been determined. The EU expects to achieve its 20% target for the period 2013-2020 with the implementation of the ETS Directive and the ESD Decision in the non-ETS sectors which do not allow the use of AAUs from non-EU Parties.

The time-period of the Convention target is from 1990-2020, no carry-over units will be used to achieve the 2020 target.

There are general provisions in place in the EU legislation that allow for the use of such units provided that the necessary legal arrangements for the creation of such units have been put in place in the EU which is not the case at the point in time of the provision of this report.

Table 3

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

Name of mitigation action ^a	Sector(s) affected ^b	GHG(s) affected	Objective and/or activity affected	Type of instrument ^c	Status of implementation ^d	Brief description ^e	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO ₂ eq)	
Reducing GHG Emissions in the Waste Sector*	Waste management/waste	CH ₄ , CO ₂	Waste incineration with energy use; Improved landfill management; Improved treatment technologies; Improved wastewater management systems.	Economic Regulatory Other (Planning)	Implemented	Reducing the emissions of the waste sector through a variety of actions including: - Recycling; - Reducing organic waste landfill deposition; - Definition of a GHG emission reduction target for 2020 and corresponding intermediate targets; - Green taxation reform including changes in the waste management tax and introduction of a fee on lightweight plastic bags; - Promoting the substitution of fossil fuels by Fuel Derived from Waste (CDR) produced from municipal waste; - Promoting the use of compost produced by the treatment of municipal waste; - Increased recovery and use of biogas in municipal waste treatment facilities; - Promoting the use of biofuels from used cooking oils; - Limit waste production through an absolute decrease of the amount of waste produced in relation to a reference level (waste prevention actions targeted to industry,	2014	Portuguese Environment Agency (APA)		6,900.00
Phasing Out Fuel Oil Co-generation*	Energy	CO ₂	Efficiency improvement in industrial end-use sectors.	Other (Regulatory)	Adopted	Improved wastewater management systems.	2010	General-Diretorate for Economic Activities (Portuguese Ministry of Economy)		
Management of Livestock Effluents and Waste*	Waste management/waste	CH ₄ , CO ₂	Improved animal waste management systems.	Regulatory	Planned	The main purpose is to reduce the carbon intensity of management practices of livestock effluents and waste.	2007	Portuguese Environment Agency		
Emission Reduction from the Nitrogen Fertilizers*	Agriculture	CH ₄ , N ₂ O	Reduction of fertilizer/manure use on cropland.	Other (Regulatory)	Planned	The main purpose is to promote the reduction of N ₂ O emissions from fertilization practices of agricultural land.	2014	Portuguese Cabinet for Planning and Policies (GPP)		
Energy Efficiency in the Public Administration Sector*	Energy, Transport	CO ₂	Efficiency improvement in services/ tertiary sector; Efficiency improvements of buildings; Demand management/reduction; Efficiency improvements of vehicles.	Regulatory	Implemented	Promoting energy efficiency measures targeting the Public Administration: - Energy certification of State buildings and energy efficiency management contracts; - Action Plan for Energy Efficiency in Public Administration (ECO.AP); - More efficient public administration transport; - Efficient public lighting.	2013			
Energy Efficiency in Commercial and Residential Buildings*	Energy	CO ₂	Efficiency improvement of appliances; Efficiency improvements of buildings; Efficiency improvement in services/ tertiary sector; Demand management/ reduction.	Other (Regulatory)	Implemented	Promoting energy efficiency in comercial and residencial buildings: - Promoting more efficient equipment Efficient lighting; - Efficient Windows; - Insulation; - Green heat; - Energy certification system for comercial and residencial buildings; - Promotion of termal solar energy in comercial and residencial buildings.	2013	Diretorate-General for Energy and Geology		1.098.072,00
Renewables: Heating and Cooling*	Energy	CO ₂	Increase in renewable energy; Enhanced non-renewable low carbon generation (nuclear).	Other (Regulatory)	Implemented	Measures promoting of renewables: - Thermal solar energy - Green heat - Registration of installers of small renewable systems.	2013	Directorate-General for Energy and Geology		

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)	
Renewables: Electricity*	Energy	CO ₂	Increase in renewable energy; Switch to less carbon-intensive fuels; Efficiency improvement in the energy and transformation sector.	Regulatory Economic Information Other (Planning)	Implemented	Promoting renewables in the electricity sector: - Introduction of a general remuneration regime - Operationalisation of the market facilitator role - Operationalisation of Origin Guarantees - Biomass power plants (decentralised network) - Minigeneration and own consumption regime - One stop shop electricity National Dam Plan including reinforcement of capacity and installation of pumping systems - Offshore energy pilot zone - Over-equipment for wind farms.	2013	Directorate-General for Energy and Geology		
Biofuels*	Energy, Transport	CO ₂	Increase in renewable energy; Switch to less carbon-intensive fuels; Low carbon fuels/electric cars.	Regulatory	Implemented	Promotion of the use of biofuels.	2013	Directorate-General for Energy and Geology		
Energy Efficiency in the Transport Sector*	Transport	CO ₂		Regulatory Fiscal Economic Voluntary Agreement	Implemented	Promoting energy efficiency measures in the transport sector: - Revision of the taxation regime for private vehicles; - Green tire; - Promotion of sustainable mobility and good practices; - Use of more energy efficient transports and mobility solutions; - Promoting rail passenger transport; - Regulation for management of energy consumptions in transport; - Promoting nitrogen tire filling stations; - Fleet management system and promoting eco-driving.	2013			
Energy Efficiency in Industry*	Energy, Industry/industrial processes	CO ₂	Efficiency improvement in industrial end-use sectors.	Regulatory	Implemented	Promoting energy efficiency measures in industry through the energy consumption management system for intensive energy users (SGCIE).	2013	Directorate-General for Energy and Geology		521.309.00
Reducing Energy Intensity of the Agriculture Sector*	Energy, Agriculture	CO ₂	Demand management/reduction; Efficiency improvement in industrial end-use sectors.	Other (Regulatory)	Adopted	Promotion of energy efficiency and renewables in the agriculture sector.	2013	Ministry of Agriculture and Sea		
Carbon Tax*	Cross-cutting, Transport, Energy	CO ₂	Multi-sectoral policy; Demand management/reduction.	Fiscal	Implemented	Carbon tax on non-ETS sectors linked to ETS allowances average price in the previous year.	2015	Ministry of Environment, Spatial Planning and Energy; Ministry of Finance.		
Vehicle Scrappage Scheme *	Transport	CO ₂	Efficiency improvements of vehicles; Low carbon fuels/electric cars.	Fiscal	Implemented	Fiscal incentives for purchase of new cars (plug-in hybrids or electric) and scrap an old one.	2015			
CO ₂ Component on Motor Vehicles Taxes*	Transport	CO ₂	Efficiency improvements of vehicles; Low carbon fuels/electric cars.	Fiscal	Implemented	Positive discrimination on motor vehicles taxes: - CO ₂ component on registration tax - CO ₂ component on the annual circulation tax - exemption of registration and annual circulation taxes for electric vehicles.	2007			
Forest Fires Prevention*	Forestry/LULUCF	CO ₂	Enhanced forest management; Strengthening protection against natural disturbances; Conservation of carbon in existing forests.	Other (Other (Planning))	Implemented	Reducing the number of fires, the burnt area and the emissions from fires through implementation of fire prevention actions.	2014	Ministry of Agriculture and Sea		

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)	
Promoting Carbon Sequestration in Forest Land*	Forestry/LULUCF	CO ₂	Afforestation and reforestation; Conservation of carbon in existing forests; Enhancing production in existing forests; Enhanced forest management; Restoration of degraded lands.	Other (Regulatory)	Implemented	Increase forest area by planting agricultural land, non-agricultural land and areas prone to desertification. It also aims at improving the conservation and condition of forest habitats, riparian corridors and other NATURA 2000 areas and to improve the management standards of existing forests.	2014	Ministry of Agriculture and Sea		
Reducing Emissions or Increasing Sequestration in Soils*	Forestry/LULUCF	CO ₂	Restoration of degraded lands.	Other (Voluntary Agreement)	Implemented	Promote climate friendly soil management practices and their use by the farmer's community.	2014	Ministry of Agriculture and Sea		
Promoting the Substitution Effect of Forest Products*	Energy, Forestry/LULUCF	CO ₂ , CH ₄ , N ₂ O	Increase in renewable energy; Substitution of GHG-intensive feedstocks and materials with harvested wood products; Increasing the harvested wood products pool.	Other (Other (Planning))	Implemented	Promote the use of biomass for energy through the establishment of short rotation biomass production and to promote the substitution of fossil based raw materials with forest products.	2014	Ministry of Agriculture and Sea		
Tax Incentives for Efficiency and Low Carbon Options*	Transport, Energy	CO ₂	Switch to less carbon-intensive fuels; Efficiency improvements of vehicles; Low carbon fuels/electric cars.	Fiscal	Implemented	Tax incentives for: - Plug-in hybrid and LPG/NGV; - Renewables in urban buildings; - Car-sharing/bike-sharing systems; - Velocipede fleets.	2015	Ministry of Finance		
Emissions Trading Scheme*	Industry/industrial processes, Transport, Other (Energy Supply), Other (Energy Consumption)	CO ₂ , N ₂ O	Switch to less carbon-intensive fuels; Efficiency improvement in the energy and transformation sector; Installation of abatement technologies; Increase in renewable energy; Efficiency improvement in industrial end-use sectors; Demand management/reduction; Other industrial processes.	Other (Economic)	Implemented	Implementation of the EU ETS - Industrial installations and aviation.	2005	Portuguese Environment Agency and National Authority for Civil Aviation		
F-Gas Regulation*	Industry/industrial processes	HFCs, PFCs, SF ₆	Reduction of emissions of fluorinated gases; Replacement of fluorinated gases by other substances.	Regulatory	Implemented	Implementation of the F-gas Regulation 517/2014.	2014	Portuguese Environment Agency		
Regulation on CO ₂ for Cars and Vans*	Transport	CO ₂	Efficiency improvements of vehicles.	Regulatory	Implemented	Implementation of the Regulation 2009/443/EC of the European Parliament and the Council of 23 April; Implementation of the Regulation 2011/510/EC of the European Parliament and the Council of 11 May.	2009			
Promotion of Electric Mobility*	Transport	CO ₂	Low carbon fuels/electric cars; Efficiency improvements of vehicles.	Regulatory Economic Other (Planning)	Implemented	Mobi.E (charging infrastructure) Electric mobility management structure.	2009	Ministry for Environment, Spatial Planning and Energy		
Taxation of Energy Products*	Energy	CH ₄ , CO ₂	Efficiency improvements of buildings; Efficiency improvements in services/tertiary sector.	Fiscal	Adopted	Changes in the Portuguese tax burden on heating oil.	2007	Directorate-general for Economic Activities; Directorate-general for Energy and Geology; Ministry of Finance.		
Regulation for Intensive Energy Users*	Energy	CO ₂	Efficiency improvement in industrial end-use sectors.	Regulatory	Adopted	Implementation of a new regulation for intensive energy users regulation (RGCE) to promote energy efficiency in the industrial sector through voluntary agreements.	2008	Directorate-general for Energy and Geology.		

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

Name of mitigation action ^a	Sector(s) affected ^b	GHG(s) affected	Objective and/or activity affected	Type of instrument ^c	Status of implementation ^d	Brief description ^e	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO ₂ eq)	
Green Fiscal Reform*	Energy, Cross-cutting, Transport		Multi-sectoral policy; Demand management/ reduction; Efficiency improvements of vehicles; Low carbon fuels/ electric cars; Switch to less carbon-intensive fuels.	Fiscal	Implemented	Green Fiscal Reform measures adopted in 2014 and entering into force in 2015 including a carbon tax and incentives for electric mobility.	2015	Ministry of Environment, Spatial Planning and Energy; Ministry of Finance; Portuguese Carbon Fund/ Portuguese Environment agency; Institute for Mobility and Transport.		
Energy Efficiency Action Plan*	Energy, Transport, Agriculture	CO ₂	Efficiency improvements in services/ tertiary sector; Efficiency improvements of buildings; Demand management/ reduction; Efficiency improvements of vehicles; Efficiency improvements of appliances; Low carbon fuels/ electric cars; Improved behaviour; Demand management/ reduction; Improved transport infrastructure; Efficiency improvement in industrial end-use sectors.	Regulatory Economic Fiscal Voluntary Agreement	Implemented	Measures included in the national energy efficiency action plan.	2013	Directorate-general for Energy and Geology; Ministry for Agriculture and Sea.		
Renewable Energy Action Plan*	Energy, Transport	CO ₂	Increase in renewable energy; Enhanced non-renewable low carbon generation (nuclear); Switch to less carbon-intensive fuels; Efficiency improvement in the energy and transformation sector; Low carbon fuels/ electric cars.	Economic Regulatory Information	Implemented	Measures included in the national renewable energy action plan.	2013	Directorate-general for Energy and Geology.		

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

Reporting on progress^{a, b}

<i>Year^c</i>	<i>Total emissions excluding LULUCF</i>	<i>Contribution from LULUCF^d</i>	<i>Quantity of units from market based mechanisms under the Convention</i>		<i>Quantity of units from other market based mechanisms</i>	
	<i>(kt CO₂ eq)</i>	<i>(kt CO₂ eq)</i>	<i>(number of units)</i>	<i>(kt CO₂ eq)</i>	<i>(number of units)</i>	<i>(kt CO₂ eq)</i>
(1990)	60,425.62					
2010	70,338.99					
2011	68,944.15					
2012	66,955.92					
2013	65,071.46					
2014						

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

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice 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

Numbers for LULUCF are not reported because this sector is not included under the Convention target of the EU.

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}

	<i>Net GHG emissions/removals from LULUCF categories ^c</i>	<i>Base year/period or reference level value ^d</i>	<i>Contribution from LULUCF for reported year</i>	<i>Cumulative contribution from LULUCF ^e</i>	<i>Accounting approach ^f</i>
	<i>(kt CO₂ eq)</i>				
Total LULUCF	-9,389.57				
A. Forest land	-12,442.94				
1. Forest land remaining forest land	-8,742.96				
2. Land converted to forest land	-3,699.98				
3. Other ^g					
B. Cropland	673.84				
1. Cropland remaining cropland	-191.71				
2. Land converted to cropland	865.55				
3. Other ^g					
C. Grassland	345.21				
1. Grassland remaining grassland	-267.59				
2. Land converted to grassland	612.80				
3. Other ^g					
D. Wetlands	442.93				
1. Wetland remaining wetland					
2. Land converted to wetland	442.93				
3. Other ^g					
E. Settlements	2,607.05				
1. Settlements remaining settlements					
2. Land converted to settlements	2,607.05				
3. Other ^g					
F. Other land	-1,235.66				
1. Other land remaining other land					
2. Land converted to other land	-1,235.66				
3. Other ^g					
Harvested wood products	220.00				

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 prejudice 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

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}

	<i>Net GHG emissions/removals from LULUCF categories^c</i>	<i>Base year/period or reference level value^d</i>	<i>Contribution from LULUCF for reported year</i>	<i>Cumulative contribution from LULUCF^e</i>	<i>Accounting approach^f</i>
	<i>(kt CO₂ eq)</i>				
Total LULUCF					
A. Forest land					
1. Forest land remaining forest land					
2. Land converted to forest land					
3. Other ^g					
B. Cropland					
1. Cropland remaining cropland					
2. Land converted to cropland					
3. Other ^g					
C. Grassland					
1. Grassland remaining grassland					
2. Land converted to grassland					
3. Other ^g					
D. Wetlands					
1. Wetland remaining wetland					
2. Land converted to wetland					
3. Other ^g					
E. Settlements					
1. Settlements remaining settlements					
2. Land converted to settlements					
3. Other ^g					
F. Other land					
1. Other land remaining other land					
2. Land converted to other land					
3. Other ^g					
Harvested wood products					

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

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice 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

Reporting on progress^{a, b, c}

<i>Units of market based mechanisms</i>			<i>Year</i>	
			<i>2013</i>	<i>2014</i>
<i>Kyoto Protocol units^d</i>	<i>Kyoto Protocol units</i>	<i>(number of units)</i>		
		<i>(kt CO₂ eq)</i>		
	<i>AAUs</i>	<i>(number of units)</i>		
		<i>(kt CO₂ eq)</i>		
	<i>ERUs</i>	<i>(number of units)</i>		
		<i>(kt CO₂ eq)</i>		
	<i>CERs</i>	<i>(number of units)</i>		
<i>(kt CO₂ eq)</i>				
<i>tCERs</i>	<i>(number of units)</i>			
	<i>(kt CO₂ eq)</i>			
<i>ICERs</i>	<i>(number of units)</i>			
	<i>(kt CO₂ eq)</i>			
<i>Other units^{d,e}</i>	<i>Units from market-based mechanisms under the Convention</i>	<i>(number of units)</i>		
		<i>(kt CO₂ eq)</i>		
	<i>Units from other market-based mechanisms</i>	<i>(number of units)</i>		
		<i>(kt CO₂ eq)</i>		
<i>Total</i>		<i>(number of units)</i>		
		<i>(kt CO₂ eq)</i>		

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

Note: 2011 is the latest reporting year.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice 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

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

<i>Key underlying assumptions</i>		<i>Historical^b</i>							<i>Projected</i>		
<i>Assumption</i>	<i>Unit</i>	<i>1990</i>	<i>1995</i>	<i>2000</i>	<i>2005</i>	<i>2010</i>	<i>2011</i>	<i>2015</i>	<i>2020</i>	<i>2025</i>	<i>2030</i>
<i>Population</i>	<i>thousands</i>	9,983.20	10,026.20	10,289.90	10,503.30	10,573.10	10,557.60	10,551.75	10,565.71	10,579.36	10,677.17
GDP growth rate	%		1.95	4.20	0.80	0.60		1.50	3.00	3.00	3.00
International oil price	USD / boe					60.00		72.42	89.00	85.71	93.00
International coal price	USD / boe					16.00		19.00	23.00	22.62	24.00
International gas price	USD / boe					38.00		48.25	62.00	55.71	65.00
Population growth	%		0.43	2.63	2.07	0.66	-0.15	-0.20	-0.07	0.05	0.98
<i>GDP growth rate</i>	<i>thousands</i>	115,329.39	125,220.57	154,140.27	160,626.88	165,103.40	163,014.11	154,783.86	171,600.47	198,931.98	230,616.69

^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

The unit of this key variable is the *euro(2010)/boe*.

The unit of this key variable is the *euro(2010)/boe*.

Table 6(a)

PRT_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	41,388.39	41,388.39	50,408.78	60,770.16	64,396.12	48,936.23	44,473.76	40,051.23	35,648.65
Transport	10,019.67	10,019.67	13,336.96	18,968.45	19,400.62	18,538.48	15,464.65	15,044.49	14,746.65
Industry/industrial processes	5,246.32	5,246.32	5,615.82	6,861.40	7,526.80	6,466.69	5,862.26	6,588.42	5,969.82
Agriculture	7,573.37	7,573.37	7,733.85	8,143.63	7,335.53	7,058.06	7,132.85	8,142.39	7,241.39
Forestry/LULUCF	1,782.84	1,782.84	-4,524.29	-5,979.80	347.64	-11,391.37	-9,389.57	-7,567.04	-8,316.48
Waste management/waste	6,217.55	6,217.55	7,363.24	7,826.46	8,639.73	7,878.01	7,602.59	8,266.53	6,987.25
Other (specify)									
Gas									
CO ₂ emissions including net CO ₂ from LULUCF	45,933.37	45,933.37	48,846.96	58,741.25	68,123.89	40,297.89	37,499.68	34,530.87	29,870.92
CO ₂ emissions excluding net CO ₂ from LULUCF	44,896.42	44,896.42	54,105.06	65,355.02	68,816.33	52,204.49	47,408.47	42,242.87	38,332.36
CH ₄ emissions including CH ₄ from LULUCF	11,544.25	11,544.25	12,858.73	13,475.69	14,555.01	12,922.34	12,366.12	13,267.04	11,196.99
CH ₄ emissions excluding CH ₄ from LULUCF	11,339.18	11,339.18	12,602.33	13,290.73	13,997.14	12,770.64	12,212.58	13,202.54	11,132.49
N ₂ O emissions including N ₂ O from LULUCF	4,730.84	4,730.84	4,846.46	5,098.03	4,690.06	4,167.08	4,033.01	4,693.76	4,720.48
N ₂ O emissions excluding N ₂ O from LULUCF	4,190.03	4,190.03	4,369.04	4,649.02	4,207.85	3,803.55	3,667.32	4,613.30	4,640.02
HFCs	0.00	0.00	30.65	288.45	841.36	1,508.23	1,727.82	2,875.82	1,514.98
PFCs	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
SF ₆	0.00	0.00	14.62	18.43	35.50	52.08	55.25	114.05	227.26
Other (specify)									
Total with LULUCF^f	62,208.46	62,208.46	66,597.42	77,621.85	88,245.82	58,947.63	55,681.89	55,481.54	47,530.63
Total without LULUCF	60,425.63	60,425.63	71,121.70	83,601.65	87,898.18	70,339.00	65,071.45	63,048.58	55,847.11

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.

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

	<i>GHG emissions and removals^b</i>							GHG emission projections	
	<i>(kt CO₂ eq)</i>							<i>(kt CO₂ eq)</i>	
	<i>Base year (1990)</i>	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.

Custom Footnotes

Table 6(c)

PRT_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	41,388.39	41,388.39	50,408.78	60,770.16	64,396.12	48,936.23	44,473.76	40,051.16	33,008.42
Transport	10,019.67	10,019.67	13,336.96	18,968.45	19,400.62	18,538.48	15,464.65	15,044.49	14,736.93
Industry/industrial processes	5,246.32	5,246.32	5,615.82	6,861.40	7,526.80	6,466.69	5,862.26	6,449.66	4,978.92
Agriculture	7,573.37	7,573.37	7,733.85	8,143.63	7,335.53	7,058.06	7,132.85	8,142.39	7,241.39
Forestry/LULUCF	1,782.84	1,782.84	-4,524.29	-5,979.80	347.64	-11,391.37	-9,389.57	-7,567.04	-8,316.48
Waste management/waste	6,217.55	6,217.55	7,363.24	7,826.46	8,639.73	7,878.01	7,602.59	8,267.47	6,827.43
Other (specify)									
Gas									
CO ₂ emissions including net CO ₂ from LULUCF	45,933.37	45,933.37	48,846.96	58,741.25	68,123.89	40,297.89	37,499.68	34,430.45	27,232.68
CO ₂ emissions excluding net CO ₂ from LULUCF	44,896.42	44,896.42	54,105.06	65,355.02	68,816.33	52,204.49	47,408.47	42,142.45	35,694.12
CH ₄ emissions including CH ₄ from LULUCF	11,544.25	11,544.25	12,858.73	13,475.69	14,555.01	12,922.34	12,366.12	13,266.96	10,985.29
CH ₄ emissions excluding CH ₄ from LULUCF	11,339.18	11,339.18	12,602.33	13,290.73	13,997.14	12,770.64	12,212.58	13,202.46	10,920.79
N ₂ O emissions including N ₂ O from LULUCF	4,730.84	4,730.84	4,846.46	5,098.03	4,690.06	4,167.08	4,033.01	4,694.74	4,663.32
N ₂ O emissions excluding N ₂ O from LULUCF	4,190.03	4,190.03	4,369.04	4,649.02	4,207.85	3,803.55	3,667.32	4,614.28	4,582.86
HFCs	0.00	0.00	30.65	288.45	841.36	1,508.23	1,727.82	2,837.43	631.12
PFCs	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
SF ₆	0.00	0.00	14.62	18.43	35.50	52.08	55.25	114.05	227.26
Other (specify)									
Total with LULUCF^f	62,208.46	62,208.46	66,597.42	77,621.85	88,245.82	58,947.63	55,681.89	55,343.63	43,739.67
Total without LULUCF	60,425.63	60,425.63	71,121.70	83,601.65	87,898.18	70,339.00	65,071.45	62,910.67	52,056.15

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.

Information on updated greenhouse gas projections under a ‘with additional measures’ scenario^a

	<i>GHG emissions and removals^b</i>							GHG emission projections	
	<i>(kt CO₂ eq)</i>							<i>(kt CO₂ eq)</i>	
	<i>Base year (1990)</i>	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 7

Provision of public financial support: summary information in 2013^a

Allocation channels	Year									
	European euro - EUR					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:	7,248,472.00					9,623,568.70				
Multilateral climate change funds ^g										
Other multilateral climate change funds ^h										
Multilateral financial institutions, including regional development banks	7,174,210.00					9,524,973.40				
Specialized United Nations bodies	74,262.00					98,595.30				
Total contributions through bilateral, regional and other channels		15,605,329.00	370,431.00				20,718,705.48	491,809.60		
Total	7,248,472.00	15,605,329.00	370,431.00			9,623,568.70	20,718,705.48	491,809.60		

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

PRT_BR2_v1.0

Provision of public financial support: summary information in 2014^a

Allocation channels	Year									
	European euro - EUR					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:	3,469,923.00					4,606,907.65				
Multilateral climate change funds ^g										
Other multilateral climate change funds ^h										
Multilateral financial institutions, including regional development banks	3,387,387.00					4,497,327.20				
Specialized United Nations bodies	82,536.00					109,580.45				
Total contributions through bilateral, regional and other channels		8,359,311.00	855,005.00				11,091,032.10	1,134,410.30		
Total	3,469,923.00	8,359,311.00	855,005.00			4,606,907.65	11,091,032.10	1,134,410.30		

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:

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						
	European euro - EUR	USD	European euro - EUR	USD					
Total contributions through multilateral channels	7,248,472.00	9,623,568.70							
Multilateral climate change funds ^g									
1. Global Environment Facility									
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund									
6. UNFCCC Trust Fund for Supplementary Activities									
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks	7,174,210.00	9,524,973.40							
1. World Bank	1,420,000.00	1,885,289.40			Provided	ODA	Grant	Other (Not Applicable)	Not applicable
2. International Finance Corporation									
3. African Development Bank	2,004,210.00	2,660,926.70			Provided	ODA	Grant	Other (Not Applicable)	Not applicable
4. Asian Development Bank									
5. European Bank for Reconstruction and Development									
6. Inter-American Development Bank									
7. Other	3,750,000.00	4,978,757.30							
Andean Development Corporation (CAF)	3,750,000.00	4,978,757.30			Provided	ODA	Grant	Other (Not applicable)	Not applicable
Specialized United Nations bodies	74,262.00	98,595.30							
1. United Nations Development Programme	37,288.00	49,506.10							
UNDP	37,288.00	49,506.10			Provided	ODA	Grant	Other (Not Applicable)	Not applicable
2. United Nations Environment Programme	36,974.00	49,089.20							
UNEP	36,974.00	49,089.20			Provided	ODA	Grant	Other (Not Applicable)	Not applicable
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

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,8}	Sector ^c
	Core/general ^d		Climate-specific ^e						
	European euro - EUR	USD	European euro - EUR	USD					
Total contributions through multilateral channels	3,469,923.00	4,606,907.65							
Multilateral climate change funds ⁸									
1. Global Environment Facility									
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund									
6. UNFCCC Trust Fund for Supplementary Activities									
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks	3,387,387.00	4,497,327.20							
1. World Bank	1,490,000.00	1,978,226.24			Provided	ODA	Grant	Other (Not Applicable)	Not applicable
2. International Finance Corporation									
3. African Development Bank	1,478,108.00	1,962,437.61			Provided	ODA	Grant	Other (Not Applicable)	Not applicable
4. Asian Development Bank	250,000.00	331,917.15			Provided	ODA	Grant	Other (Not applicable)	Not applicable
5. European Bank for Reconstruction and Development									
6. Inter-American Development Bank	169,279.00	224,746.20			Provided	ODA	Grant	Other (Not Applicable)	Not applicable
7. Other									
Specialized United Nations bodies	82,536.00	109,580.45							
1. United Nations Development Programme	39,872.00	52,936.80							
UNDP	39,872.00	52,936.80			Provided	ODA	Grant	Other (Not Applicable)	Not applicable
2. United Nations Environment Programme									
3. Other	42,664.00	56,643.65							
UNFCCC core contribution - 61% eligible as ODA	42,664.00	56,643.65			Provided	ODA	Grant	Other (Not Applicable)	Not applicable

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.

⁸ Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

Custom Footnotes

Table 7(b)

PRT_BR2_v1.0

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

<i>Recipient country/ region/project/programme^b</i>	<i>Total amount</i>		<i>Status^c</i>	<i>Funding source^g</i>	<i>Financial instrument^g</i>	<i>Type of support^{g,h}</i>	<i>Sector^d</i>	<i>Additional information^e</i>
	<i>Climate-specific^f</i>							
	<i>European euro - EUR</i>	<i>USD</i>						
Total contributions through bilateral, regional and other channels	15,975,760.00	21,210,515.08						
Cape Verde / Line of Credit of 100 Million Euro for imports (renewable energies, environment and water) - Cabo Verde	8,386,816.00	11,134,912.37	Provided	ODA	Concessional Loan	Mitigation	Energy	Technology Transfer
Cape Verde / ODA Loan of 4.5M€ for imports (renewable energies, environment and water) - Cabo Verde	4,449,175.00	5,907,030.10	Provided	ODA	Concessional Loan	Mitigation	Energy	Technology Transfer
Cape Verde / Capacity Building for Developing Strategies on Low Carbon Resilient - Cabo Verde	90,190.00	119,742.30	Provided	ODA	Grant	Mitigation	Other (General Environment Protection)	Capacity Building
Guinea-Bissau / Community Access Program to Renewable Energy - Bambadinca - Guinea-Bissau	145,938.00	193,757.30	Provided	ODA	Grant	Mitigation	Energy	Technology Transfer
Sao Tome and Principe / Capacity Building for Developing Strategies on Low Carbon Resilient - São Tomé and Príncipe	90,190.00	119,742.43	Provided	ODA	Grant	Mitigation	Other (General environment Protection)	Capacity Building
Mozambique / Atlas of renewable energy - Mozambique	924,805.00	1,227,834.57	Provided	ODA	Grant	Mitigation	Energy	Technology Transfer
Mozambique / Capacity Building for Developing Strategies on Low Carbon Resilient - Mozambique	90,190.00	119,742.43	Provided	ODA	Grant	Mitigation	Other (General Environment Protection)	Capacity Building
Mozambique / Installation of photovoltaic systems - Mozambique	1,409,395.00	1,871,209.51	Provided	ODA	Grant	Mitigation	Energy	Technology Transfer and Capacity Building
Cape Verde / IAMCD - Mainstreaming Adaptation to Climate Change in Development - Cabo Verde	47,571.00	63,158.52	Provided	ODA	Grant	Adaptation	Other (General Environment Protection)	Capacity Building

Table 7(b)

PRT_BR2_v1.0

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

<i>Recipient country/ region/project/programme^b</i>	<i>Total amount</i>		<i>Status^c</i>	<i>Funding source^g</i>	<i>Financial instrument^g</i>	<i>Type of support^{g,h}</i>	<i>Sector^d</i>	<i>Additional information^e</i>
	<i>Climate-specific^f</i>							
	<i>European euro - EUR</i>	<i>USD</i>						
Sao Tome and Principe / TESE - NGO support to Provide electricity (with resource to renewable energies) to schools - São Tomé e Príncipe	18,630.00	24,734.47	Provided	ODA	Grant	Mitigation	Energy	Technology Transfer
Sao Tome and Principe / IAMCD - Mainstreaming Adaptation to Climate Change in Development - São Tomé and Príncipe	47,571.00	63,158.52	Provided	ODA	Grant	Adaptation	Other (General Environment Protection)	Capacity Building
Mozambique / IAMCD - Mainstreaming Adaptation to Climate Change in Development - Mozambique	47,571.00	63,158.52	Provided	ODA	Grant	Adaptation	Other (General Environment Protection)	Capacity Building
Mozambique / Pilot-projects' implementation of Local Action Programmes in Climate Change Adaptation in Mozambique - IPPALAM - Mozambique	227,718.00	302,334.04	Provided	ODA	Grant	Adaptation	Other (Other Multisector)	Capacity Building

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)

PRT_BR2_v1.0

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

<i>Recipient country/ region/project/programme^b</i>	<i>Total amount</i>		<i>Status^c</i>	<i>Funding source^g</i>	<i>Financial instrument^g</i>	<i>Type of support^h</i>	<i>Sector^d</i>	<i>Additional information^e</i>
	<i>Climate-specific^f</i>							
	<i>European euro - EUR</i>	<i>USD</i>						
Total contributions through bilateral, regional and other channels	9,214,316.00	12,225,442.40						
Cape Verde / Line of Credit of 100 Million Euro for imports (renewable energies, environment and water) - Cabo Verde	5,840,869.00	7,749,594.00	Provided	ODA	Concessional Loan	Mitigation	Energy	Technology Transfer
Cape Verde / ODA Loan of 4.5M€ for imports (renewable energies, environment and water) - Cabo Verde	20,014.00	26,554.30	Provided	ODA	Concessional Loan	Mitigation	Energy	Technology Transfer
Cape Verde / Capacity Building for Developing Strategies on Low Carbon Resilient - Cabo Verde	180,381.00	239,327.30	Provided	ODA	Grant	Mitigation	Other (General Environment Protection)	Capacity Building
Cape Verde / Roadmap of waste - Cabo Verde	150,000.00	199,018.20	Provided	ODA	Grant	Mitigation	Water and sanitation	Capacity Building and Technology Transfer
Cape Verde / Cooperation between Águas de Portugal and Cabo Verde in the water and sanitation sector - Cabo Verde	1,058.00	1,403.70	Provided	ODA	Grant	Mitigation	Water and sanitation	Capacity Building
Guinea-Bissau / Community Access Program to Renewable Energy - Bambadinca - Guinea-Bissau	159,978.00	212,256.90	Provided	ODA	Grant	Mitigation	Energy	Technology Transfer
Sao Tome and Principe / Capacity Building for Developing Strategies on Low Carbon Resilient - São Tomé and Príncipe	180,381.00	239,327.30	Provided	ODA	Grant	Mitigation	Other (General environment Protection)	Capacity Building
Sao Tome and Principe / Energy generation from biogas - São Tomé and Príncipe	98,814.00	131,105.20	Provided	ODA	Grant	Mitigation	Energy	Technology Transfer
Mozambique / Atlas of renewable energy - Mozambique	554,882.00	736,210.70	Provided	ODA	Grant	Mitigation	Energy	Technology Transfer

Table 7(b)

PRT_BR2_v1.0

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

<i>Recipient country/ region/project/programme^b</i>	<i>Total amount</i>		<i>Status^c</i>	<i>Funding source^g</i>	<i>Financial instrument^g</i>	<i>Type of support^h</i>	<i>Sector^d</i>	<i>Additional information^e</i>
	<i>Climate-specific^f</i>							
	<i>European euro - EUR</i>	<i>USD</i>						
Mozambique / Capacity Building for Developing Strategies on Low Carbon Resilient - Mozambique	180,381.00	239,327.30	Provided	ODA	Grant	Mitigation	Other (General Environment Protection)	Capacity Building
Mozambique / Installation of photovoltaic systems - Mozambique	227,149.00	301,378.50	Provided	ODA	Grant	Mitigation	Energy	Technology Transfer and Capacity Building
Mozambique / National Plan for Support of Urban Sanitation in the perspective of Reducing Emissions and Climate Change Adaption (PLASU-AC) - Mozambique	765,404.00	1,015,528.70	Provided	ODA	Grant	Mitigation	Water and sanitation	Capacity Building
Cape Verde / IAMCD - Mainstreaming Adaptation to Climate Change in Development - Cabo Verde	76,113.00	100,985.80	Provided	ODA	Grant	Adaptation	Other (General Environment Protection)	Capacity Building
Cape Verde / NGO ADPM - A Sustainable Development for Chã de Norte - Cabo Verde	8,280.00	10,985.80	Provided	ODA	Grant	Adaptation	Cross-cutting	Technology Transfer
Guinea-Bissau / NGO TESE - Program of Institutional Strengthening and Quality of Water Supply Service in the cities of Bafatá, Bambadinca and Mansoa - Guinea Bissau	75,000.00	99,509.10	Provided	ODA	Grant	Adaptation	Water and sanitation	Capacity Building and Technology Transfer
Guinea-Bissau / Cooperation between Águas de Portugal and Guinea-Bissau in the water and sanitation sector - Guinea - Bissau	731.00	969.90	Provided	ODA	Grant	Adaptation	Water and sanitation	Capacity Building

Table 7(b)

PRT_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 ^h	Sector ^d	Additional information ^e
	Climate-specific ^f							
	European euro - EUR	USD						
Sao Tome and Principe / IAMCD - Mainstreaming Adaptation to Climate Change in Development - São Tomé and Príncipe	76,113.00	100,985.80	Provided	ODA	Grant	Adaptation	Other (General Environment Protection)	Capacity Building
Sao Tome and Principe / Cooperation between Águas de Portugal and Sao Tomé & Príncipe in the water and sanitation sector - São Tomé and Príncipe.	2,238.00	2,969.40	Provided	ODA	Grant	Adaptation	Water and sanitation	Capacity Building
Mozambique / IAMCD - Mainstreaming Adaptation to Climate Change in Development - Mozambique	76,113.00	100,985.80	Provided	ODA	Grant	Adaptation	Other (General Environment Protection)	Capacity Building
Mozambique / Pilot-projects' implementation of Local Action Programmes in Climate Change Adaptation in Mozambique - IPPALAM - Mozambique	455,436.00	604,266.90	Provided	ODA	Grant	Adaptation	Other (Other Multisector)	Capacity Building
Mozambique / NGO OIKOS - A "comunidade-modelo" - Mozambique	11,832.00	15,698.60	Provided	ODA	Grant	Adaptation	Other (Humanitarian Aid)	Technology Transfer and Capacity Building
Mozambique / NGO OIKOS - Improved Resistance to Natural Disasters - Mozambique	11,880.00	15,762.20	Provided	ODA	Grant	Adaptation	Other (Humanitarian Aid)	Technology Transfer and Capacity Building
Timor-Leste / Cooperation between Águas de Portugal and Timor Leste in the water and sanitation sector - Timor Leste	61,269.00	81,291.00	Provided	ODA	Grant	Adaptation	Water and sanitation	Capacity Building

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.

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

<i>Recipient country/ region/project/programme^b</i>	<i>Total amount</i>		<i>Status^c</i>	<i>Funding source^g</i>	<i>Financial instrument^g</i>	<i>Type of support^{g, h}</i>	<i>Sector^d</i>	<i>Additional information^e</i>
	<i>Climate-specific^f</i>							
	<i>European euro - EUR</i>	<i>USD</i>						

^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

PRT_BR2_v1.0

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

<i>Recipient country and/or region</i>	<i>Targeted area</i>	<i>Measures and activities related to technology transfer</i>	<i>Sector^c</i>	<i>Source of the funding for technology transfer</i>	<i>Activities undertaken by</i>	<i>Status</i>	<i>Additional information^d</i>
Cape Verde	Mitigation	Line of Credit of 100Million € for imports (renewable energies, environment and water)	Energy	Public	Public	Implemented	
Cape Verde	Mitigation	ODA Loan of 4.5Million € for imports (renewable energies, environment and water)	Energy	Public	Public	Implemented	
Guinea-Bissau	Mitigation	Community Access Program to Renewable Energy - Bambadinca	Energy	Public	Public	Implemented	
Mozambique	Mitigation	Atlas of Renewable Energy	Energy	Public	Public	Implemented	
Mozambique	Mitigation	Installation of Photovoltaic Systems	Energy	Public	Public	Implemented	
Sao Tome and Principe	Adaptation	IAMCD - Mainstreaming Adaptation to Climate Change in Development	Other (General Environment Protection)	Public	Public	Implemented	
Sao Tome and Principe	Mitigation	TESE - NGO support to Provide electricity (with resource to renewable energies)	Energy	Public	Public	Implemented	
Cape Verde	Adaptation	NGO ADPM - A Sustainable Development for Chã de Norte	Other (Cross-cutting)	Public	Public	Implemented	
Guinea-Bissau	Adaptation	NGO TESE - Program of Institutional Strengthening and Quality of Water Supply Service in the Cities of Bafatá, Bambadinca and Mansoa	Water and sanitation	Public	Public	Implemented	
Mozambique	Adaptation	NGO OIKOS - A "Comunidade-Modelo"	Other (Humanitarian Aid)	Public	Public	Implemented	
Mozambique	Adaptation	NGO OIKOS - Improved Resistance to Natural Disasters	Other (Humanitarian Aid)	Public	Public	Implemented	

^a To be reported to the extent possible.^b The tables should include measures and activities since the last national communication or biennial report.^c Parties may report sectoral disaggregation, as appropriate.^d Additional information may include, for example, funding for technology development and transfer provided, a short description of the measure or activity and co-financing arrangements.**Custom Footnotes**

Provision of capacity-building support^a

<i>Recipient country/region</i>	<i>Targeted area</i>	<i>Programme or project title</i>	<i>Description of programme or project^{b,c}</i>
Mozambique, Sao Tome and Principe, Cape Verde	Adaptation	IAMCD - Mainstreaming Adaptation to Climate Change in Development	
Cape Verde	Mitigation	Cooperation between Águas de Portugal and Cabo Verde in the Water Sanitation Sector	
Mozambique	Adaptation	Pilot-projects Implementation of Local Action Programmes in Climate Change Adaptation in Mozambique - IPPALAM	
Sao Tome and Principe, Cape Verde, Mozambique	Mitigation	Capacity Building for Developing Strategies on Low Carbon Resilient	
Sao Tome and Principe	Mitigation	Energy Generation from Biogas	
Sao Tome and Principe	Adaptation	Cooperation between Águas de Portugal and São Tomé e Príncipe in the Water Sanitation Sector	
Timor-Leste	Adaptation	Cooperation between Águas de Portugal and Timor-Leste in the Water Sanitation Sector	
Cape Verde	Technology Development and Transfer	Roadmap of Waste	
Mozambique	Mitigation	National Plan for Support of Urban Sanitation in the Perspective of Reducing Emissions and Climate Change Adaptation (PLASU-AC)	

^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