

## BR CTF submission workbook

Submission Year	2014	Party	PORTUGAL
Submission Version	v2.0	Submission Level	Submitted
Submission Key	PRT_2014_V2.0	Submission Status	Closed
Submitted By	Jose Paulino	Workbook Created	25.04.2014 02:42:52
Submitted Date	25.04.2014 02:42:38		

### Contents

<a href="#">Table 1s1</a>	
<a href="#">Table 1s2</a>	
<a href="#">Table 1s3</a>	
<a href="#">Table 1(a)s1</a>	
<a href="#">Table 1(a)s2</a>	
<a href="#">Table 1(a)s3</a>	
<a href="#">Table 1(b)s1</a>	
<a href="#">Table 1(b)s2</a>	
<a href="#">Table 1(b)s3</a>	
<a href="#">Table 1(c)s1</a>	
<a href="#">Table 1(c)s2</a>	
<a href="#">Table 1(c)s3</a>	
<a href="#">Table 1(d)s1</a>	
<a href="#">Table 1(d)s2</a>	
<a href="#">Table 1(d)s3</a>	
<a href="#">Table 2(a)</a>	
<a href="#">Table 2(b)</a>	
<a href="#">Table 2(c)</a>	
<a href="#">Table 2(d)</a>	
<a href="#">Table 2(e)I</a>	
<a href="#">Table 2(e)II</a>	
<a href="#">Table 2(f)</a>	
<a href="#">Table 3</a>	
<a href="#">Table 4</a>	
<a href="#">Table 4(a)I_2011</a>	
<a href="#">Table 4(a)I_2012</a>	
<a href="#">Table 4(a)II</a>	
<a href="#">Table 4(b)</a>	
<a href="#">Table 5</a>	
<a href="#">Table 6(a)</a>	
Table 6(b)	Greenhouse gas projections: Scenario 'without measures' was not included.
Table 6(c)	Greenhouse gas projections: Scenario 'with additional measures' was not included.
<a href="#">Table 7_2011</a>	
<a href="#">Table 7_2012</a>	
<a href="#">Table 7(a)_2011</a>	
<a href="#">Table 7(a)_2012</a>	
<a href="#">Table 7(b)_2011</a>	
<a href="#">Table 7(b)_2012</a>	
<a href="#">Table 8</a>	
<a href="#">Table 9</a>	

Table 1

PRT\_BR1\_v2.0

**Emission trends: summary** <sup>(1)</sup>  
 (Sheet 1 of 3)

CRF: PRT\_CRF\_\_v1.3

<i>GREENHOUSE GAS EMISSIONS</i>	Base year <sup>a</sup>	1991	1992	1993	1994	1995	1996	1997	1998
	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>
CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF	52,880.61	54,455.00	54,847.09	52,127.28	50,654.51	58,076.55	52,482.56	56,487.63	61,926.92
CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF	45,149.36	46,834.79	51,094.41	49,777.00	50,466.15	54,485.70	51,858.11	54,702.61	59,227.01
CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF	10,481.38	10,861.96	10,758.98	10,713.24	11,147.54	11,620.74	11,514.16	11,658.09	12,231.17
CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF	10,260.49	10,530.11	10,650.16	10,642.17	11,099.94	11,372.17	11,418.95	11,624.02	12,054.69
N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF	6,086.58	6,041.48	5,957.78	5,854.98	5,877.16	6,037.58	6,299.67	6,263.15	6,138.01
N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF	5,542.54	5,518.77	5,524.20	5,472.93	5,534.66	5,673.08	5,985.08	5,979.76	5,844.50
HFCs	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	66.27	88.30	122.87	166.10
PFCs	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NO	NA, NO	0.01	0.03
SF <sub>6</sub>	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	6.83	7.05	8.64	9.19
<b>Total (including LULUCF)</b>	69,448.57	71,358.44	71,563.85	68,695.51	67,679.20	75,807.97	70,391.73	74,540.39	80,471.42
<b>Total (excluding LULUCF)</b>	60,952.39	62,883.66	67,268.76	65,892.09	67,100.76	71,604.05	69,357.49	72,437.90	77,301.51

  

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	Base year <sup>a</sup>	1991	1992	1993	1994	1995	1996	1997	1998
	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>
1. Energy	41,634.94	43,207.99	47,779.95	46,531.01	47,227.86	50,766.38	48,119.57	50,742.91	55,227.71
2. Industrial Processes	4,833.70	4,907.69	4,623.31	4,546.76	4,532.10	5,281.95	5,390.83	5,668.17	5,838.58
3. Solvent and Other Product Use	329.62	313.75	324.23	284.24	313.28	310.08	331.43	355.00	289.41
4. Agriculture	8,159.50	8,261.21	8,132.85	7,962.36	8,169.97	8,180.97	8,449.53	8,353.22	8,325.51
5. Land Use, Land-Use Change and Forestry <sup>b</sup>	8,496.18	8,474.77	4,295.09	2,803.42	578.44	4,203.92	1,034.25	2,102.49	3,169.90
6. Waste	5,994.63	6,193.03	6,408.42	6,567.72	6,857.56	7,064.67	7,066.13	7,318.60	7,620.31
7. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total (including LULUCF)</b>	69,448.57	71,358.44	71,563.85	68,695.51	67,679.20	75,807.97	70,391.73	74,540.39	80,471.42

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

<sup>1</sup> 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\_BR1\_v2.0

**Emission trends: summary <sup>(1)</sup>**  
**(Sheet 2 of 3)**

CRF: PRT\_CRF\_\_ v1.3

<i>GREENHOUSE GAS EMISSIONS</i>	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>
CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF	68,784.17	67,640.76	64,135.21	67,792.43	68,473.47	66,876.75	72,898.10	61,712.62	57,400.68	53,452.21
CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF	66,990.82	65,863.22	65,573.92	69,331.39	64,441.12	66,807.47	69,265.18	64,655.27	61,979.21	59,984.44
CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF	12,368.62	12,302.17	12,496.37	12,815.63	13,344.35	12,795.25	13,173.93	12,462.91	12,149.05	12,207.95
CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF	12,276.73	12,113.03	12,372.81	12,648.94	12,649.53	12,639.29	12,644.17	12,354.99	12,115.52	12,189.53
N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF	6,211.97	6,292.40	6,037.91	6,088.87	5,617.25	5,757.37	5,612.84	5,281.64	5,534.74	5,276.31
N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF	5,936.59	5,998.24	5,758.02	5,801.18	5,223.33	5,473.78	5,254.08	5,009.22	5,278.13	5,023.48
HFCs	223.54	319.04	410.86	524.98	644.86	734.13	848.05	961.94	1,100.48	1,248.56
PFCs	0.06	0.03	0.06	0.05	0.05	0.05	0.05	0.03	0.03	0.04
SF <sub>6</sub>	10.04	9.70	11.24	10.00	16.33	25.69	25.70	26.24	36.97	35.63
<b>Total (including LULUCF)</b>	<b>87,598.40</b>	<b>86,564.11</b>	<b>83,091.66</b>	<b>87,231.96</b>	<b>88,096.31</b>	<b>86,189.24</b>	<b>92,558.67</b>	<b>80,445.39</b>	<b>76,221.95</b>	<b>72,220.71</b>
<b>Total (excluding LULUCF)</b>	<b>85,437.77</b>	<b>84,303.27</b>	<b>84,126.91</b>	<b>88,316.54</b>	<b>82,975.22</b>	<b>85,680.41</b>	<b>88,037.23</b>	<b>83,007.70</b>	<b>80,510.35</b>	<b>78,481.69</b>

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>
1. Energy	62,713.12	61,245.85	61,668.32	65,328.15	60,616.80	62,262.71	64,777.92	60,166.33	57,100.03	55,563.27
2. Industrial Processes	6,240.81	6,494.44	6,132.42	6,456.22	6,482.12	7,094.09	7,135.38	6,943.34	7,516.81	7,390.58
3. Solvent and Other Product Use	290.77	297.78	299.48	289.31	287.91	313.14	319.95	284.10	300.48	263.85
4. Agriculture	8,481.23	8,693.36	8,419.20	8,354.79	7,676.87	7,963.96	7,742.76	7,598.76	7,758.40	7,617.09
5. Land Use, Land-Use Change and Forestry <sup>b</sup>	2,160.62	2,260.84	-1,035.25	-1,084.58	5,121.09	508.83	4,521.43	-2,562.31	-4,288.39	-6,260.98
6. Waste	7,711.84	7,571.83	7,607.49	7,888.07	7,911.52	8,046.51	8,061.23	8,015.17	7,834.63	7,646.89
7. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total (including LULUCF)</b>	<b>87,598.40</b>	<b>86,564.11</b>	<b>83,091.66</b>	<b>87,231.96</b>	<b>88,096.31</b>	<b>86,189.24</b>	<b>92,558.67</b>	<b>80,445.39</b>	<b>76,221.95</b>	<b>72,220.71</b>

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

**Emission trends: summary <sup>(1)</sup>**  
**(Sheet 3 of 3)**

CRF: PRT\_CRF\_\_ v1.3

<i>GREENHOUSE GAS EMISSIONS</i>	2009	2010	2011	Change from base to latest reported year
	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	(%)
CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF	50,463.43	48,641.36	45,801.00	-13.39
CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF	57,049.85	52,640.56	51,526.54	14.12
CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF	12,106.75	12,678.76	12,538.28	19.62
CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF	12,027.54	12,484.31	12,446.61	21.31
N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF	4,999.19	5,018.45	4,793.03	-21.25
N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF	4,718.55	4,698.95	4,478.92	-19.19
HFCs	1,378.86	1,515.03	1,491.49	100.00
PFCs	0.00	0.00	0.00	100.00
SF <sub>6</sub>	40.89	43.57	42.89	100.00
<b>Total (including LULUCF)</b>	<b>68,989.13</b>	<b>67,897.16</b>	<b>64,666.69</b>	<b>-6.89</b>
<b>Total (excluding LULUCF)</b>	<b>75,215.70</b>	<b>71,382.42</b>	<b>69,986.45</b>	<b>14.82</b>

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	2009	2010	2011	Change from base to latest reported year
	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	<i>kt CO<sub>2</sub> eq</i>	(%)
1. Energy	54,324.47	49,667.35	48,610.50	16.75
2. Industrial Processes	5,767.05	6,064.82	5,323.95	10.14
3. Solvent and Other Product Use	269.93	225.76	266.69	-19.09
4. Agriculture	7,513.15	7,517.39	7,504.88	-8.02
5. Land Use, Land-Use Change and Forestry <sup>b</sup>	-6,226.57	-3,485.26	-5,319.75	-162.61
6. Waste	7,341.10	7,907.10	8,280.43	38.13
7. Other	NA	NA	NA	0.00
<b>Total (including LULUCF)</b>	<b>68,989.13</b>	<b>67,897.16</b>	<b>64,666.69</b>	<b>-6.89</b>

*Notes :*

(1) Further detailed information could be found in the common reporting format tables of the Party's greenhouse gas inventory, namely "Emission trends (CO<sub>2</sub>)", "Emission trends (CH<sub>4</sub>)", "Emission trends (N<sub>2</sub>O)" and "Emission trends (HFCs, PFCs and SF<sub>6</sub>)", which is included in an annex to this biennial report.

(2) 2011 is the latest reported inventory year.

(3) 1 kt CO<sub>2</sub> eq equals 1 Gg CO<sub>2</sub> eq.

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

<sup>a</sup> 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.

<sup>b</sup> Includes net CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from LULUCF.

**Emission trends (CO<sub>2</sub>)**  
(Sheet 1 of 3)

CRF: PRT\_CRF\_\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>a</sup>	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
<b>1. Energy</b>	40,609.21	42,179.95	46,732.79	45,405.79	46,039.08	49,543.85	46,825.61	49,440.50	53,896.25
A. Fuel Combustion (Sectoral Approach)	40,333.54	41,901.50	46,440.85	45,100.58	45,472.20	48,804.55	46,151.00	48,630.43	53,110.10
1. Energy Industries	16,260.71	16,881.78	19,947.15	18,008.93	17,189.57	19,808.31	15,851.88	16,574.00	19,190.37
2. Manufacturing Industries and Construction	9,759.04	9,872.65	10,303.29	10,322.51	10,643.27	10,854.38	11,106.01	12,081.61	11,977.89
3. Transport	10,139.78	10,738.74	11,638.80	12,066.07	12,677.87	13,322.41	13,982.13	14,769.03	16,540.99
4. Other Sectors	4,070.32	4,295.72	4,466.01	4,624.62	4,876.92	4,738.14	5,106.85	5,105.74	5,296.54
5. Other	103.69	112.61	85.60	78.46	84.57	81.30	104.14	100.05	104.30
B. Fugitive Emissions from Fuels	275.67	278.45	291.94	305.21	566.89	739.31	674.60	810.06	786.15
1. Solid Fuels	8.65	8.37	7.80	7.25	5.41	IE, NO	IE, NO	IE, NO	IE, NO
2. Oil and Natural Gas	267.02	270.08	284.14	297.96	561.48	739.31	674.60	810.06	786.15
<b>2. Industrial Processes</b>	4,296.59	4,407.56	4,128.00	4,152.41	4,201.82	4,721.30	4,794.00	5,013.02	5,076.66
A. Mineral Products	3,493.38	3,627.01	3,523.50	3,602.99	3,738.14	3,949.09	3,878.63	4,098.54	4,119.45
B. Chemical Industry	632.69	629.52	397.21	348.33	254.10	559.28	699.51	689.37	743.01
C. Metal Production	170.08	150.60	206.88	200.70	209.20	212.57	215.51	224.78	213.88
D. Other Production	0.44	0.42	0.41	0.39	0.38	0.36	0.35	0.33	0.32
E. Production of Halocarbons and SF6									
F. Consumption of Halocarbons and SF6									
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Solvent and Other Product Use</b>	231.04	234.70	221.00	206.12	212.53	207.78	224.48	233.17	241.36
<b>4. Agriculture</b>									
A. Enteric Fermentation									
B. Manure Management									
C. Rice Cultivation									
D. Agricultural Soils									
E. Prescribed Burning of Savannas									
F. Field Burning of Agricultural Residues									
G. Other									
<b>5. Land Use, Land-Use Change and Forestry</b>	7,731.25	7,620.21	3,752.68	2,350.28	188.35	3,590.85	624.45	1,785.02	2,699.91
A. Forest Land	-619.38	-162.55	-3,806.94	-4,764.35	-6,353.58	-5,494.92	-7,777.72	-6,540.47	-5,696.32
B. Cropland	5,835.14	5,405.45	4,975.76	4,546.07	4,143.50	5,041.48	4,781.26	4,521.05	4,260.83
C. Grassland	3,814.29	3,859.12	3,904.00	3,948.88	3,994.84	3,427.66	3,431.60	3,435.54	3,439.47
D. Wetlands	0.65	0.64	0.64	0.64	0.63	112.16	141.18	170.19	199.20
E. Settlements	31.32	38.50	40.62	42.79	44.99	450.54	555.04	659.59	764.18
F. Other Land	574.36	259.62	-55.27	-370.15	-685.01	863.04	622.33	381.64	140.95
G. Other	-1,905.13	-1,780.57	-1,306.13	-1,053.59	-957.03	-809.12	-1,129.24	-842.50	-408.41
<b>6. Waste</b>	12.52	12.57	12.62	12.67	12.72	12.78	14.01	15.91	12.73
A. Solid Waste Disposal on Land	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Waste-water Handling									
C. Waste Incineration	12.52	12.57	12.62	12.67	12.72	12.78	14.01	15.91	12.73
D. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>7. Other (as specified in the summary table in CRF)</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total CO<sub>2</sub> emissions including net CO<sub>2</sub> from LULUCF</b>	52,880.61	54,455.00	54,847.09	52,127.28	50,654.51	58,076.55	52,482.56	56,487.63	61,926.92
<b>Total CO<sub>2</sub> emissions excluding net CO<sub>2</sub> from LULUCF</b>	45,149.36	46,834.79	51,094.41	49,777.00	50,466.15	54,485.70	51,858.11	54,702.61	59,227.01
<b>Memo Items:</b>									
<b>International Bunkers</b>	2,847.05	2,908.24	2,993.95	2,693.64	2,597.90	2,717.63	2,763.28	2,784.36	2,887.83
Aviation	1,461.08	1,533.12	1,622.02	1,536.85	1,545.38	1,610.05	1,594.81	1,645.34	1,740.43
Marine	1,385.97	1,375.11	1,371.93	1,156.79	1,052.52	1,107.58	1,168.46	1,139.02	1,147.40
<b>Multilateral Operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO<sub>2</sub> Emissions from Biomass</b>	10,673.94	10,645.94	10,594.43	10,383.47	10,181.55	10,297.46	10,373.94	10,503.25	10,341.66

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

Table 1 (a)  
Emission trends (CO<sub>2</sub>)  
(Sheet 2 of 3)

PRT\_BR1\_v2.0

CRF: PRT\_CRF\_\_v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
<b>1. Energy</b>	61,279.03	60,037.48	60,164.86	63,715.10	58,956.03	60,871.86	63,360.66	59,043.63	55,972.89	54,203.64
A. Fuel Combustion (Sectoral Approach)	60,507.97	59,337.81	59,308.83	62,865.22	58,034.84	59,979.95	62,354.34	58,084.53	55,031.27	53,215.57
1. Energy Industries	25,263.01	21,490.46	21,962.12	25,370.75	20,872.02	22,332.63	25,330.66	22,382.79	19,743.12	19,172.36
2. Manufacturing Industries and Construction	12,064.00	12,646.58	11,493.33	10,948.65	10,531.15	10,810.87	10,555.23	10,344.99	10,473.31	9,878.71
3. Transport	17,388.01	19,157.18	19,461.51	19,958.50	19,849.89	19,809.36	19,586.09	19,636.09	19,241.62	18,956.77
4. Other Sectors	5,713.18	5,948.86	6,297.14	6,520.82	6,728.78	6,986.76	6,809.80	5,645.32	5,500.59	5,122.79
5. Other	79.77	94.73	94.73	66.50	53.00	40.33	72.56	75.34	72.62	84.93
B. Fugitive Emissions from Fuels	771.06	699.67	856.03	849.88	921.18	891.91	1,006.32	959.10	941.62	988.07
1. Solid Fuels	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
2. Oil and Natural Gas	771.06	699.67	856.03	849.88	921.18	891.91	1,006.32	959.10	941.62	988.07
<b>2. Industrial Processes</b>	5,459.61	5,571.85	5,158.45	5,367.45	5,242.18	5,692.28	5,665.41	5,369.98	5,768.76	5,544.04
A. Mineral Products	4,433.00	4,460.68	4,325.07	4,595.67	4,282.61	4,698.89	4,753.85	4,660.96	4,883.56	4,757.49
B. Chemical Industry	799.54	873.01	734.07	698.50	878.55	880.63	789.11	572.74	759.16	683.86
C. Metal Production	226.77	237.87	99.03	73.02	80.77	112.40	122.06	135.88	125.73	102.39
D. Other Production	0.30	0.29	0.27	0.27	0.25	0.36	0.39	0.40	0.32	0.30
E. Production of Halocarbons and SF6										
F. Consumption of Halocarbons and SF6										
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Solvent and Other Product Use</b>	240.55	244.46	247.71	246.22	235.36	229.25	222.23	225.21	223.62	212.04
<b>4. Agriculture</b>										
A. Enteric Fermentation										
B. Manure Management										
C. Rice Cultivation										
D. Agricultural Soils										
E. Prescribed Burning of Savannas										
F. Field Burning of Agricultural Residues										
G. Other										
<b>5. Land Use, Land-Use Change and Forestry</b>	1,793.36	1,777.54	-1,438.71	-1,538.96	4,032.34	69.28	3,632.92	-2,942.65	-4,578.54	-6,532.23
A. Forest Land	-5,871.49	-5,312.37	-8,267.92	-7,852.16	-1,694.93	-5,511.93	-769.04	-6,469.03	-7,605.00	-8,828.65
B. Cropland	4,199.37	4,142.02	4,080.14	4,018.28	3,956.42	3,894.22	3,545.87	3,408.82	3,273.73	3,137.95
C. Grassland	3,236.49	3,033.53	2,830.25	2,626.96	2,423.67	2,220.37	2,054.73	1,832.40	1,610.07	1,292.95
D. Wetlands	228.21	257.22	286.23	315.24	344.25	373.26	328.24	340.66	353.09	365.52
E. Settlements	868.81	973.50	1,078.23	1,183.02	1,287.85	1,392.73	1,372.47	1,445.86	1,510.40	1,581.31
F. Other Land	-99.71	-340.36	-580.99	-821.60	-1,062.19	-1,302.77	-2,069.17	-2,597.85	-3,126.47	-3,655.09
G. Other	-768.32	-976.00	-864.66	-1,008.70	-1,222.72	-996.61	-830.18	-903.53	-594.36	-426.22
<b>6. Waste</b>	11.63	9.43	2.91	2.62	7.56	14.09	16.89	16.45	13.94	24.71
A. Solid Waste Disposal on Land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Waste-water Handling										
C. Waste Incineration	11.63	9.43	2.91	2.62	7.56	14.09	16.89	16.45	13.94	24.71
D. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>7. Other (as specified in the summary table in CRF)</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total CO2 emissions including net CO2 from LULUCF</b>	68,784.17	67,640.76	64,135.21	67,792.43	68,473.47	66,876.75	72,898.10	61,712.62	57,400.68	53,452.21
<b>Total CO2 emissions excluding net CO2 from LULUCF</b>	66,990.82	65,863.22	65,573.92	69,331.39	64,441.12	66,807.47	69,265.18	64,655.27	61,979.21	59,984.44
<b>Memo Items:</b>										
<b>International Bunkers</b>	3,419.03	3,627.56	3,076.25	3,048.69	3,515.58	3,922.75	3,788.63	4,058.97	4,277.38	4,557.01
Aviation	1,919.66	1,977.23	1,926.93	1,831.63	2,012.46	2,167.71	2,251.04	2,381.67	2,513.45	2,602.49
Marine	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	1,954.52
<b>Multilateral Operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO2 Emissions from Biomass</b>	10,647.85	10,959.01	10,621.28	10,485.34	10,235.93	10,589.71	10,479.17	10,791.22	10,963.96	10,831.67

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

Table 1(a)

PRT\_BR1\_v2.0

**Emission trends (CO<sub>2</sub>)**  
**(Sheet 3 of 3)**

CRF: PRT\_CRF\_\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2009	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
<b>1. Energy</b>	52,820.61	48,248.00	47,609.98	17.24
A. Fuel Combustion (Sectoral Approach)	51,807.65	47,229.11	46,622.20	15.59
1. Energy Industries	19,345.27	14,421.99	16,385.06	0.76
2. Manufacturing Industries and Construction	8,487.43	9,137.66	8,476.75	-13.14
3. Transport	18,933.04	18,711.58	17,350.73	71.12
4. Other Sectors	4,956.64	4,872.35	4,332.76	6.45
5. Other	85.28	85.52	76.90	-25.84
B. Fugitive Emissions from Fuels	1,012.95	1,018.89	987.77	258.32
1. Solid Fuels	IE, NO	IE, NO	IE, NO	-100.00
2. Oil and Natural Gas	1,012.95	1,018.89	987.77	269.92
<b>2. Industrial Processes</b>	4,018.16	4,171.24	3,684.38	-14.25
A. Mineral Products	3,861.86	3,999.67	3,503.39	0.29
B. Chemical Industry	91.44	107.65	109.05	-82.76
C. Metal Production	64.58	63.68	71.70	-57.85
D. Other Production	0.27	0.25	0.24	-44.13
E. Production of Halocarbons and SF6				
F. Consumption of Halocarbons and SF6				
G. Other	NO	NO	NO	0.00
<b>3. Solvent and Other Product Use</b>	195.34	203.18	218.34	-5.49
<b>4. Agriculture</b>				
A. Enteric Fermentation				
B. Manure Management				
C. Rice Cultivation				
D. Agricultural Soils				
E. Prescribed Burning of Savannas				
F. Field Burning of Agricultural Residues				
G. Other				
<b>5. Land Use, Land-Use Change and Forestry</b>	-6,586.42	-3,999.20	-5,725.53	-174.06
A. Forest Land	-8,803.04	-6,058.73	-7,707.15	1,144.33
B. Cropland	3,242.21	3,339.32	3,443.18	-40.99
C. Grassland	1,233.05	1,160.38	1,081.22	-71.65
D. Wetlands	377.95	390.38	402.81	62,051.20
E. Settlements	1,652.22	1,723.14	1,792.10	5,622.43
F. Other Land	-3,868.84	-4,082.58	-4,296.34	-848.02
G. Other	-419.97	-471.11	-441.35	-76.83
<b>6. Waste</b>	15.74	18.14	13.83	10.48
A. Solid Waste Disposal on Land	NA	NA	NA	0.00
B. Waste-water Handling				
C. Waste Incineration	15.74	18.14	13.83	10.48
D. Other	NO	NO	NO	0.00
<b>7. Other (as specified in the summary table in CRF)</b>	NA	NA	NA	0.00
<b>Total CO<sub>2</sub> emissions including net CO<sub>2</sub> from LULUCF</b>	50,463.43	48,641.36	45,801.00	-13.39
<b>Total CO<sub>2</sub> emissions excluding net CO<sub>2</sub> from LULUCF</b>	57,049.85	52,640.56	51,526.54	14.12
<b>Memo Items:</b>				
<b>International Bunkers</b>	4,147.45	4,222.25	4,641.63	63.03
Aviation	2,366.54	2,604.05	2,709.16	85.42
Marine	1,780.90	1,618.20	1,932.47	39.43
<b>Multilateral Operations</b>	NO	NO	NO	0.00
<b>CO<sub>2</sub> Emissions from Biomass</b>	11,162.23	11,940.76	12,125.73	13.60

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

<sup>a</sup> 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.

<sup>b</sup> 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 (+).

Emission trends (CH<sub>4</sub>)

(Sheet 1 of 3)

CRF: PRT\_CRF\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>a</sup>	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
<b>1. Energy</b>	27.20	26.65	26.59	25.99	25.23	23.23	22.88	24.69	27.43
A. Fuel Combustion (Sectoral Approach)	22.23	21.84	21.82	21.33	20.99	21.03	20.94	20.53	20.12
1. Energy Industries	0.21	0.21	0.24	0.22	0.23	0.25	0.21	0.22	0.25
2. Manufacturing Industries and Construction	1.30	1.34	1.42	1.41	1.37	1.47	1.46	1.61	1.60
3. Transport	4.12	4.41	4.79	4.67	4.51	4.42	4.33	4.16	4.15
4. Other Sectors	16.59	15.87	15.36	15.03	14.89	14.88	14.94	14.54	14.13
5. Other	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
B. Fugitive Emissions from Fuels	4.97	4.81	4.78	4.66	4.24	2.20	1.94	4.15	7.32
1. Solid Fuels	3.14	3.04	2.84	2.64	1.97	IE, NO	IE, NO	IE, NO	IE, NO
2. Oil and Natural Gas	1.83	1.76	1.94	2.02	2.27	2.20	1.94	4.15	7.32
<b>2. Industrial Processes</b>	0.91	0.89	1.03	1.04	1.08	1.12	1.15	1.25	1.34
A. Mineral Products	0.27	0.33	0.36	0.36	0.40	0.43	0.45	0.49	0.50
B. Chemical Industry	0.40	0.34	0.37	0.38	0.38	0.39	0.38	0.41	0.48
C. Metal Production	0.25	0.22	0.30	0.30	0.30	0.31	0.32	0.35	0.35
D. Other Production									
E. Production of Halocarbons and SF6									
F. Consumption of Halocarbons and SF6									
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Solvent and Other Product Use</b>									
<b>4. Agriculture</b>	197.68	202.23	198.04	190.95	200.43	205.54	207.71	204.62	208.90
A. Enteric Fermentation	129.01	131.06	130.76	125.87	132.02	138.43	140.24	137.18	141.63
B. Manure Management	56.42	59.00	59.30	59.80	59.42	58.90	57.01	56.88	57.25
C. Rice Cultivation	10.80	10.68	6.74	4.21	7.68	6.94	9.03	9.11	8.63
D. Agricultural Soils	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
E. Prescribed Burning of Savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues	1.45	1.49	1.24	1.06	1.32	1.27	1.43	1.44	1.40
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land Use, Land-Use Change and Forestry</b>	10.52	15.80	5.18	3.38	2.27	11.84	4.53	1.62	8.40
A. Forest Land	9.94	15.04	4.95	3.18	1.96	11.18	4.19	1.50	7.78
B. Cropland	0.57	0.74	0.23	0.19	0.29	0.63	0.33	0.11	0.60
C. Grassland	0.01	0.02	0.01	0.01	0.01	0.03	0.01	0.01	0.03
D. Wetlands	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
<b>6. Waste</b>	262.80	271.67	281.49	288.80	301.82	311.64	312.02	322.96	336.36
A. Solid Waste Disposal on Land	144.41	151.05	157.87	164.87	172.17	179.68	187.70	196.41	206.99
B. Waste-water Handling	118.39	120.61	123.61	123.92	129.66	131.96	124.32	126.55	129.38
C. Waste Incineration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>7. Other (as specified in the summary table in CRF)</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total CH4 emissions including CH4 from LULUCF</b>	499.11	517.24	512.33	510.15	530.84	553.37	548.29	555.15	582.44
<b>Total CH4 emissions excluding CH4 from LULUCF</b>	488.59	501.43	507.15	506.77	528.57	541.53	543.76	553.52	574.03
<b>Memo Items:</b>									
<b>International Bunkers</b>	0.15	0.15	0.15	0.14	0.14	0.15	0.14	0.14	0.16
Aviation	0.12	0.13	0.13	0.12	0.12	0.13	0.12	0.12	0.14
Marine	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
<b>Multilateral Operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO2 Emissions from Biomass</b>									

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



**Emission trends (CH<sub>4</sub>)**

(Sheet 2 of 3)

CRF: PRT\_CRF\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
<b>1. Energy</b>	29.45	28.25	42.19	45.98	49.87	36.49	35.89	22.82	23.76	35.51
A. Fuel Combustion (Sectoral Approach)	19.72	19.10	18.25	17.89	17.10	16.63	16.00	15.24	14.61	13.85
1. Energy Industries	0.30	0.30	0.31	0.34	0.31	0.35	0.38	0.37	0.34	0.37
2. Manufacturing Industries and Construction	1.68	1.64	1.61	1.67	1.63	1.74	1.74	1.70	1.71	1.62
3. Transport	4.00	3.83	3.37	3.32	3.00	2.77	2.53	2.30	2.11	1.84
4. Other Sectors	13.73	13.33	12.96	12.56	12.15	11.76	11.35	10.86	10.44	10.01
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	9.73	9.15	23.95	28.09	32.77	19.87	19.89	7.58	9.15	21.66
1. Solid Fuels	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
2. Oil and Natural Gas	9.73	9.15	23.95	28.09	32.77	19.87	19.89	7.58	9.15	21.66
<b>2. Industrial Processes</b>	1.40	1.47	1.46	1.44	1.50	1.64	1.69	1.75	1.83	1.92
A. Mineral Products	0.53	0.56	0.62	0.62	0.61	0.64	0.67	0.69	0.75	0.76
B. Chemical Industry	0.47	0.48	0.48	0.48	0.51	0.52	0.52	0.50	0.48	0.50
C. Metal Production	0.39	0.44	0.37	0.34	0.37	0.47	0.50	0.56	0.60	0.65
D. Other Production										
E. Production of Halocarbons and SF6										
F. Consumption of Halocarbons and SF6										
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Solvent and Other Product Use</b>										
<b>4. Agriculture</b>	213.33	213.33	208.91	206.10	201.90	209.55	209.60	210.71	207.79	207.76
A. Enteric Fermentation	146.00	147.79	145.12	142.08	138.38	142.22	143.67	142.99	140.85	141.32
B. Manure Management	57.89	56.61	54.49	51.89	49.91	49.81	49.68	50.32	50.50	50.74
C. Rice Cultivation	8.08	7.62	7.96	10.89	12.44	16.52	15.38	16.48	15.41	14.67
D. Agricultural Soils	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
E. Prescribed Burning of Savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues	1.36	1.32	1.33	1.23	1.17	0.99	0.88	0.92	1.04	1.03
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land Use, Land-Use Change and Forestry</b>	4.38	9.01	5.88	7.94	33.09	7.43	25.23	5.14	1.60	0.88
A. Forest Land	4.09	8.37	5.61	7.60	30.61	6.27	24.81	4.74	1.37	0.74
B. Cropland	0.27	0.61	0.26	0.32	2.34	1.09	0.39	0.37	0.21	0.13
C. Grassland	0.01	0.03	0.01	0.02	0.14	0.07	0.03	0.02	0.01	0.01
D. Wetlands	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
<b>6. Waste</b>	340.43	333.76	336.62	348.82	349.09	354.20	354.92	353.06	343.54	335.26
A. Solid Waste Disposal on Land	217.74	224.89	230.79	235.51	228.04	227.44	222.71	224.37	226.48	229.78
B. Waste-water Handling	122.68	108.86	105.83	113.30	121.04	126.74	132.19	128.67	117.05	105.46
C. Waste Incineration	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.01	0.02
D. Other	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00
<b>7. Other (as specified in the summary table in CRF)</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total CH4 emissions including CH4 from LULUCF</b>	588.98	585.82	595.07	610.27	635.45	609.30	627.33	593.47	578.53	581.33
<b>Total CH4 emissions excluding CH4 from LULUCF</b>	584.61	576.81	589.18	602.33	602.36	601.87	602.10	588.33	576.93	580.45
<b>Memo Items:</b>										
<b>International Bunkers</b>	0.17	0.12	0.11	0.11	0.12	0.11	0.10	0.10	0.10	0.11
Aviation	0.15	0.10	0.09	0.09	0.09	0.08	0.07	0.07	0.07	0.08
Marine	0.02	0.03	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
<b>Multilateral Operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO2 Emissions from Biomass</b>										

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

**Emission trends (CH<sub>4</sub>)**

(Sheet 3 of 3)

CRF: PRT\_CRF\_\_ v1.3

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	2009	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
<b>1. Energy</b>	44.07	40.60	20.81	-23.49
A. Fuel Combustion (Sectoral Approach)	13.40	12.75	13.04	-41.34
1. Energy Industries	0.39	0.37	0.39	90.31
2. Manufacturing Industries and Construction	1.67	1.58	1.61	23.27
3. Transport	1.76	1.62	1.42	-65.63
4. Other Sectors	9.59	9.17	9.62	-41.99
5. Other	0.00	0.00	0.00	-93.42
B. Fugitive Emissions from Fuels	30.67	27.85	7.78	56.33
1. Solid Fuels	IE, NO	IE, NO	IE, NO	-100.00
2. Oil and Natural Gas	30.67	27.85	7.78	324.88
<b>2. Industrial Processes</b>	1.74	1.78	1.92	110.41
A. Mineral Products	0.78	0.79	0.80	191.66
B. Chemical Industry	0.44	0.50	0.50	26.18
C. Metal Production	0.52	0.50	0.63	156.13
D. Other Production				
E. Production of Halocarbons and SF <sub>6</sub>				
F. Consumption of Halocarbons and SF <sub>6</sub>				
G. Other	NO	NO	NO	0.00
<b>3. Solvent and Other Product Use</b>				
<b>4. Agriculture</b>	204.42	204.72	204.94	3.68
A. Enteric Fermentation	137.07	134.97	132.58	2.77
B. Manure Management	50.79	50.36	49.74	-11.85
C. Rice Cultivation	15.49	18.44	21.73	101.24
D. Agricultural Soils	NE, NO	NE, NO	NE, NO	0.00
E. Prescribed Burning of Savannas	NO	NO	NO	0.00
F. Field Burning of Agricultural Residues	1.07	0.95	0.89	-38.45
G. Other	NO	NO	NO	0.00
<b>5. Land Use, Land-Use Change and Forestry</b>	3.77	9.26	4.37	-58.50
A. Forest Land	3.46	8.74	4.08	-58.96
B. Cropland	0.29	0.49	0.27	-52.47
C. Grassland	0.02	0.03	0.02	23.63
D. Wetlands	NO	NO	NO	0.00
E. Settlements	NO	NO	NO	0.00
F. Other Land	NO	NO	NO	0.00
G. Other	IE, NO	IE, NO	IE, NO	0.00
<b>6. Waste</b>	322.50	347.39	365.02	38.89
A. Solid Waste Disposal on Land	223.78	237.68	243.89	68.89
B. Waste-water Handling	98.71	109.69	121.11	2.29
C. Waste Incineration	0.01	0.02	0.02	788.87
D. Other	0.00	0.00	0.00	100.00
<b>7. Other (as specified in the summary table in CRF)</b>	NA	NA	NA	0.00
<b>Total CH<sub>4</sub> emissions including CH<sub>4</sub> from LULUCF</b>	576.51	603.75	597.06	19.62
<b>Total CH<sub>4</sub> emissions excluding CH<sub>4</sub> from LULUCF</b>	572.74	594.49	592.70	21.31
<b>Memo Items:</b>				
<b>International Bunkers</b>	0.10	0.10	0.11	-28.37
Aviation	0.07	0.08	0.07	-40.69
Marine	0.03	0.03	0.03	39.72
<b>Multilateral Operations</b>	NO	NO	NO	0.00
<b>CO<sub>2</sub> Emissions from Biomass</b>				

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

<sup>a</sup> 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.

**Emission trends (N<sub>2</sub>O)**  
(Sheet 1 of 3)

CRF: PRT\_CRF\_\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>a</sup>	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
<b>1. Energy</b>	1.47	1.51	1.58	1.87	2.13	2.37	2.62	2.53	2.44
A. Fuel Combustion (Sectoral Approach)	1.46	1.50	1.57	1.86	2.12	2.36	2.62	2.52	2.43
1. Energy Industries	0.20	0.20	0.23	0.22	0.22	0.25	0.21	0.22	0.25
2. Manufacturing Industries and Construction	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.26	0.26
3. Transport	0.27	0.29	0.31	0.60	0.85	1.07	1.30	1.31	1.37
4. Other Sectors	0.77	0.79	0.79	0.81	0.82	0.80	0.86	0.73	0.55
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<b>2. Industrial Processes</b>	1.67	1.55	1.53	1.20	0.99	1.50	1.54	1.60	1.80
A. Mineral Products	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Chemical Industry	1.67	1.55	1.53	1.20	0.99	1.50	1.54	1.60	1.80
C. Metal Production	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Other Production									
E. Production of Halocarbons and SF6									
F. Consumption of Halocarbons and SF6									
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Solvent and Other Product Use</b>	0.32	0.26	0.33	0.25	0.33	0.33	0.35	0.39	0.16
<b>4. Agriculture</b>	12.93	12.95	12.82	12.75	12.78	12.47	13.19	13.08	12.71
A. Enteric Fermentation									
B. Manure Management	1.70	1.68	1.65	1.61	1.58	1.55	1.52	1.48	1.48
C. Rice Cultivation									
D. Agricultural Soils	11.16	11.20	11.11	11.08	11.13	10.85	11.60	11.53	11.16
E. Prescribed Burning of Savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues	0.07	0.07	0.06	0.06	0.07	0.06	0.07	0.07	0.07
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land Use, Land-Use Change and Forestry</b>	1.75	1.69	1.40	1.23	1.10	1.18	1.01	0.91	0.95
A. Forest Land	0.14	0.21	0.07	0.04	0.03	0.15	0.06	0.02	0.11
B. Cropland	1.62	1.48	1.33	1.19	1.08	1.02	0.96	0.89	0.84
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Wetlands	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO
<b>6. Waste</b>	1.49	1.53	1.56	1.58	1.63	1.64	1.61	1.68	1.75
A. Solid Waste Disposal on Land	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Waste-water Handling	1.49	1.53	1.56	1.58	1.63	1.63	1.61	1.67	1.75
C. Waste Incineration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>7. Other (as specified in the summary table in CRF)</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total N2O emissions including N2O from LULUCF</b>	19.63	19.49	19.22	18.89	18.96	19.48	20.32	20.20	19.80
<b>Total N2O emissions excluding N2O from LULUCF</b>	17.88	17.80	17.82	17.65	17.85	18.30	19.31	19.29	18.85
<b>Memo Items:</b>									
<b>International Bunkers</b>	0.08	0.08	0.08	0.07	0.07	0.07	0.08	0.08	0.08
Aviation	0.04	0.04	0.05	0.04	0.04	0.05	0.05	0.05	0.05
Marine	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03
<b>Multilateral Operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO2 Emissions from Biomass</b>									

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

**Emission trends (N<sub>2</sub>O)**  
(Sheet 2 of 3)

CRF: PRT\_CRF\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
<b>1. Energy</b>	2.63	1.98	1.99	2.09	1.98	2.01	2.14	2.08	2.03	1.98
A. Fuel Combustion (Sectoral Approach)	2.62	1.98	1.98	2.08	1.97	2.00	2.13	2.07	2.02	1.97
1. Energy Industries	0.40	0.40	0.40	0.45	0.41	0.44	0.48	0.45	0.41	0.42
2. Manufacturing Industries and Construction	0.27	0.28	0.27	0.27	0.28	0.29	0.29	0.30	0.31	0.30
3. Transport	1.39	0.72	0.71	0.74	0.74	0.74	0.71	0.71	0.69	0.67
4. Other Sectors	0.55	0.58	0.60	0.62	0.54	0.53	0.64	0.61	0.60	0.57
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<b>2. Industrial Processes</b>	1.67	1.82	1.68	1.69	1.77	1.96	1.81	1.77	1.85	1.68
A. Mineral Products	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Chemical Industry	1.67	1.82	1.68	1.69	1.77	1.96	1.81	1.77	1.85	1.68
C. Metal Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Other Production										
E. Production of Halocarbons and SF6										
F. Consumption of Halocarbons and SF6										
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Solvent and Other Product Use</b>	0.16	0.17	0.17	0.14	0.17	0.27	0.32	0.19	0.25	0.17
<b>4. Agriculture</b>	12.91	13.59	13.01	12.99	11.09	11.50	10.78	10.24	10.95	10.50
A. Enteric Fermentation										
B. Manure Management	1.53	1.53	1.47	1.40	1.29	1.23	1.18	1.12	1.06	1.01
C. Rice Cultivation										
D. Agricultural Soils	11.31	11.99	11.47	11.53	9.73	10.21	9.54	9.06	9.84	9.43
E. Prescribed Burning of Savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land Use, Land-Use Change and Forestry</b>	0.89	0.95	0.90	0.93	1.27	0.91	1.16	0.88	0.83	0.82
A. Forest Land	0.06	0.12	0.08	0.10	0.42	0.09	0.34	0.07	0.02	0.01
B. Cropland	0.83	0.83	0.83	0.82	0.85	0.83	0.82	0.81	0.81	0.81
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Wetlands	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other Land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO
<b>6. Waste</b>	1.78	1.79	1.73	1.81	1.85	1.92	1.91	1.89	1.96	1.88
A. Solid Waste Disposal on Land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Waste-water Handling	1.77	1.78	1.72	1.80	1.84	1.89	1.88	1.85	1.93	1.84
C. Waste Incineration	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.03	0.02	0.04
D. Other	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00
<b>7. Other (as specified in the summary table in CRF)</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total N2O emissions including N2O from LULUCF</b>	20.04	20.30	19.48	19.64	18.12	18.57	18.11	17.04	17.85	17.02
<b>Total N2O emissions excluding N2O from LULUCF</b>	19.15	19.35	18.57	18.71	16.85	17.66	16.95	16.16	17.03	16.20
<b>Memo Items:</b>										
<b>International Bunkers</b>	0.09	0.10	0.08	0.08	0.10	0.11	0.10	0.11	0.12	0.12
Aviation	0.05	0.06	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.07
Marine	0.04	0.04	0.03	0.03	0.04	0.05	0.04	0.04	0.05	0.05
<b>Multilateral Operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO2 Emissions from Biomass</b>										

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

**Emission trends (N<sub>2</sub>O)**

(Sheet 3 of 3)

CRF: PRT\_CRF\_\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2009	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
<b>1. Energy</b>	1.87	1.83	1.82	23.98
A. Fuel Combustion (Sectoral Approach)	1.86	1.82	1.81	24.11
1. Energy Industries	0.45	0.39	0.43	116.02
2. Manufacturing Industries and Construction	0.28	0.31	0.31	42.50
3. Transport	0.59	0.59	0.55	105.71
4. Other Sectors	0.54	0.53	0.52	-32.41
5. Other	0.00	0.00	0.00	-20.99
B. Fugitive Emissions from Fuels	0.01	0.01	0.01	-0.51
1. Solid Fuels	NO	NO	NO	0.00
2. Oil and Natural Gas	0.01	0.01	0.01	-0.51
<b>2. Industrial Processes</b>	0.94	0.96	0.21	-87.49
A. Mineral Products	NO	NO	NO	0.00
B. Chemical Industry	0.94	0.96	0.21	-87.49
C. Metal Production	NO	NO	NO	0.00
D. Other Production				
E. Production of Halocarbons and SF <sub>6</sub>				
F. Consumption of Halocarbons and SF <sub>6</sub>				
G. Other	NO	NO	NO	0.00
<b>3. Solvent and Other Product Use</b>	0.24	0.07	0.16	-50.96
<b>4. Agriculture</b>	10.39	10.38	10.33	-20.14
A. Enteric Fermentation				
B. Manure Management	0.99	0.96	0.96	-43.67
C. Rice Cultivation				
D. Agricultural Soils	9.34	9.37	9.32	-16.50
E. Prescribed Burning of Savannas	NO	NO	NO	0.00
F. Field Burning of Agricultural Residues	0.05	0.05	0.05	-30.65
G. Other	NO	NO	NO	0.00
<b>5. Land Use, Land-Use Change and Forestry</b>	0.91	1.03	1.01	-42.26
A. Forest Land	0.05	0.12	0.06	-58.96
B. Cropland	0.86	0.91	0.96	-40.86
C. Grassland	0.00	0.00	0.00	23.63
D. Wetlands	NO	NO	NO	0.00
E. Settlements	NO	NO	NO	0.00
F. Other Land	NO	NO	NO	0.00
G. Other	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	0.00
<b>6. Waste</b>	1.78	1.92	1.94	29.78
A. Solid Waste Disposal on Land	NO	NO	NO	0.00
B. Waste-water Handling	1.75	1.87	1.91	27.94
C. Waste Incineration	0.03	0.04	0.03	788.87
D. Other	0.00	0.00	0.00	100.00
<b>7. Other (as specified in the summary table in CRF)</b>	NA	NA	NA	0.00
<b>Total N<sub>2</sub>O emissions including N<sub>2</sub>O from LULUCF</b>	16.13	16.19	15.46	-21.25
<b>Total N<sub>2</sub>O emissions excluding N<sub>2</sub>O from LULUCF</b>	15.22	15.16	14.45	-19.19
<b>Memo Items:</b>				
<b>International Bunkers</b>	0.11	0.12	0.13	64.15
Aviation	0.07	0.07	0.08	85.42
Marine	0.05	0.04	0.05	39.72
<b>Multilateral Operations</b>	NO	NO	NO	0.00
<b>CO<sub>2</sub> Emissions from Biomass</b>				

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

<sup>a</sup> The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

Table 1(d)

PRT\_BR1\_v2.0

**Emission trends (HFCs, PFCs and SF<sub>6</sub>)**

(Sheet 1 of 3)

CRF: PRT\_CRF\_\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>a</sup>	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
<b>Emissions of HFCsc - (kt CO<sub>2</sub> eq)</b>	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	66.27	88.30	122.87	166.10
HFC-23	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO	NO	NO	NO
HFC-32	NE	NE	NE	NE	NE	NO	0.00	0.00	0.00
HFC-41	NE	NE	NE	NE	NE	NO	NO	NO	NO
HFC-43-10mee	NE	NE	NE	NE	NE	NO	NO	NO	NO
HFC-125	NE	NE	NE	NE	NE	NO	0.00	0.00	0.00
HFC-134	NE	NE	NE	NE	NE	NO	NO	NO	NO
HFC-134a	NE	NE	NE	NE	NE	0.05	0.06	0.08	0.11
HFC-152a	NE	NE	NE	NE	NE	0.01	0.01	0.02	0.04
HFC-143	NE	NE	NE	NE	NE	NO	NO	NO	NO
HFC-143a	NE	NE	NE	NE	NE	NO	0.00	0.00	0.00
HFC-227ea	NE	NE	NE	NE	NE	0.00	0.00	0.00	0.00
HFC-236fa	NE	NE	NE	NE	NE	NO	NO	NO	NO
HFC-245ca	NE	NE	NE	NE	NE	NO	NO	NO	NO
Unspecified mix of listed HFCsd - (kt CO <sub>2</sub> eq)	NE	NE	NE	NE	NE	NO	NO	NO	NO
<b>Emissions of PFCsc - (kt CO<sub>2</sub> eq)</b>	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NO	NA, NO	0.01	0.03
CF <sub>4</sub>	NE	NE	NE	NE	NE	NO	NO	NO	NO
C <sub>2</sub> F <sub>6</sub>	NE	NE	NE	NE	NE	NO	NO	NO	NO
C <sub>3</sub> F <sub>8</sub>	NE	NE	NE	NE	NE	NO	NO	0.00	0.00
C <sub>4</sub> F <sub>10</sub>	NE	NE	NE	NE	NE	NO	NO	NO	NO
c-C <sub>4</sub> F <sub>8</sub>	NE	NE	NE	NE	NE	NO	NO	NO	NO
C <sub>5</sub> F <sub>12</sub>	NE	NE	NE	NE	NE	NO	NO	NO	NO
C <sub>6</sub> F <sub>14</sub>	NE	NE	NE	NE	NE	NO	NO	NO	NO
Unspecified mix of listed PFCs(4) - (Gg CO <sub>2</sub> equivalent)	NE	NE	NE	NE	NE	NO	NO	NO	NO
<b>Emissions of SF<sub>6</sub>(3) - (Gg CO<sub>2</sub> equivalent)</b>	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	6.83	7.05	8.64	9.19
SF <sub>6</sub>	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	0.00	0.00	0.00	0.00

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

Table 1(d)

PRT\_BR1\_v2.0

**Emission trends (HFCs, PFCs and SF<sub>6</sub>)**

(Sheet 2 of 3)

CRF: PRT\_CRF\_\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
<b>Emissions of HFCsc - (kt CO<sub>2</sub> eq)</b>	223.54	319.04	410.86	524.98	644.86	734.13	848.05	961.94	1,100.48	1,248.56
HFC-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-32	0.00	0.01	0.02	0.03	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	0.01	0.01	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.09
HFC-134	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-134a	0.14	0.17	0.21	0.26	0.31	0.35	0.42	0.48	0.55	0.62
HFC-152a	0.06	0.09	0.12	0.14	0.28	0.30	0.30	0.30	0.30	0.29
HFC-143	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-143a	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03
HFC-227ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-236fa	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-245ca	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of listed HFCsd - (kt CO <sub>2</sub> eq)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Emissions of PFCsc - (kt CO<sub>2</sub> eq)</b>	0.06	0.03	0.06	0.05	0.05	0.05	0.05	0.03	0.03	0.04
CF <sub>4</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C <sub>2</sub> F <sub>6</sub>	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00
C 3F8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C <sub>4</sub> F <sub>10</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
c-C <sub>4</sub> F <sub>8</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C <sub>3</sub> F <sub>12</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C <sub>6</sub> F <sub>14</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of listed PFCs(4) - (Gg CO <sub>2</sub> equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Emissions of SF<sub>6</sub>(3) - (Gg CO<sub>2</sub> equivalent)</b>	10.04	9.70	11.24	10.00	16.33	25.69	25.70	26.24	36.97	35.63
SF <sub>6</sub>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

**Emission trends (HFCs, PFCs and SF<sub>6</sub>)**  
(Sheet 3 of 3)

CRF: PRT\_CRF\_\_ v1.3

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2009	2010	2011	Change from base to latest reported year
	kt	kt	kt	%
<b>Emissions of HFCsc - (kt CO<sub>2</sub> eq)</b>	1,378.86	1,515.03	1,491.49	100.00
HFC-23	0.00	0.00	0.00	100.00
HFC-32	0.07	0.07	0.07	100.00
HFC-41	NO	NO	NO	0.00
HFC-43-10mee	NO	NO	NO	0.00
HFC-125	0.10	0.11	0.11	100.00
HFC-134	NO	NO	NO	0.00
HFC-134a	0.69	0.77	0.76	100.00
HFC-152a	0.28	0.29	0.28	100.00
HFC-143	NO	NO	NO	0.00
HFC-143a	0.03	0.03	0.03	100.00
HFC-227ea	0.00	0.00	0.00	100.00
HFC-236fa	NO	NO	NO	0.00
HFC-245ca	NO	NO	NO	0.00
Unspecified mix of listed HFCsd - (kt CO <sub>2</sub> eq)	NO	NO	NO	0.00
<b>Emissions of PFCsc - (kt CO<sub>2</sub> eq)</b>	0.00	0.00	0.00	100.00
CF <sub>4</sub>	NO	NO	NO	0.00
C <sub>2</sub> F <sub>6</sub>	0.00	NO	NO	0.00
C <sub>3</sub> F <sub>8</sub>	0.00	0.00	0.00	100.00
C <sub>4</sub> F <sub>10</sub>	NO	NO	NO	0.00
c-C <sub>4</sub> F <sub>8</sub>	NO	NO	NO	0.00
C <sub>5</sub> F <sub>12</sub>	NO	NO	NO	0.00
C <sub>6</sub> F <sub>14</sub>	NO	NO	NO	0.00
Unspecified mix of listed PFCs(4) - (Gg CO <sub>2</sub> equivalent)	NO	NO	NO	0.00
<b>Emissions of SF<sub>6</sub>(3) - (Gg CO<sub>2</sub> equivalent)</b>	40.89	43.57	42.89	100.00
SF <sub>6</sub>	0.00	0.00	0.00	100.00

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

<sup>a</sup> 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.

<sup>c</sup>Enter actual emissions estimates. If only potential emissions estimates are available, these should be reported in this table and an indication for this be provided in the documentation box. Only in these rows are the emissions expressed as CO<sub>2</sub> equivalent emissions.

<sup>d</sup>In accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories", HFC and PFC emissions should be reported for each relevant chemical. However, if it is not possible to report values for each chemical (i.e. mixtures, confidential data, lack of disaggregation), this row could be used for reporting aggregate figures for HFCs and PFCs, respectively. Note that the unit used for this row is kt of CO<sub>2</sub> equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.)



Table 2(a)

PRT\_BR1\_v2.0

**Description of quantified economy-wide emission reduction target: base year<sup>a</sup>**

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

<sup>a</sup> 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.

<sup>b</sup> Optional.

**Description of quantified economy-wide emission reduction target: gases and sectors covered<sup>a</sup>**

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

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

<sup>a</sup> 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.

<sup>b</sup> 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.

<sup>f</sup> Transport is reported as a subsector of the energy sector.

<sup>g</sup> 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)<sup>a</sup>**

<i>Gases</i>	<i>GWP values<sup>b</sup></i>
CO <sub>2</sub>	2nd AR
CH <sub>4</sub>	2nd AR
N <sub>2</sub> O	2nd AR
HFCs	2nd AR
PFCs	2nd AR
SF <sub>6</sub>	2nd AR
NF <sub>3</sub>	2nd AR
Other Gases (specify)	

*Abbreviations* : GWP = global warming potential

<sup>a</sup> 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.

<sup>b</sup> 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<sup>a</sup>**

<b>Role of LULUCF</b>	LULUCF in base year level and target	Included
	Contribution of LULUCF is calculated using	

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

<sup>a</sup> 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: market-based mechanisms under the Convention<sup>a</sup>**

<i>Market-based mechanisms under the Convention</i>	<i>Possible scale of contributions (estimated kt CO<sub>2</sub> eq)</i>
CERs	
ERUs	
AAUs <sup>i</sup>	
Carry-over units <sup>j</sup>	
Other mechanism units under the Convention (specify) <sup>d</sup>	

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

<sup>a</sup> 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.

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

<sup>i</sup> AAUs issued to or purchased by a Party.

<sup>j</sup> 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<sup>a</sup>**

<i>Other market-based mechanisms</i>	<i>Possible scale of contributions</i>
<i>(Specify)</i>	<i>(estimated kt CO<sub>2</sub> eq)</i>

<sup>a</sup> 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<sup>a,b</sup>**

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 emission reductions and that developing countries contribute adequately according to their responsibilities and respective capabilities.

<sup>a</sup> 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.

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

Table 3

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

Name of mitigation action <sup>a</sup>	Sector(s) affected <sup>b</sup>	GHG(s) affected	Objective and/or activity affected	Type of instrument <sup>c</sup>	Status of implementation <sup>d</sup>	Brief description <sup>e</sup>	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO <sub>2</sub> eq)	
MRe1. "E4, ERES" Programme (replaced by MA2007e1)	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Reduction of GHG emissions from electricity production through the increase in generation from renewable energy sources (meeting a 39% target of gross electricity consumption by 2010 with RES).	Economic	Implemented		2007	MEID		893.00
MRe2 – (New) Expansion Plan of the electricity production system (replaced by MA2007e2)	Energy	CO <sub>2</sub> , CH <sub>4</sub>	Operational start of new natural gas combined cycle power plants (NGCCP) (2160 MW in 2006 will now be 5360 MW in 2010).	Regulatory	Planned		2007	MEID		
MRe3. Energy Efficiency in Buildings	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Increase energy efficiency in buildings by about 40% through the adoption of new regulation(s) on acclimatisation and thermal behaviour of buildings, in substitution of present regulations.	Regulatory	Implemented			MEID		331.00
MRe4. Solar Hot Water for Portugal Programme (AQSpP)	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promotion of domestic water heating by solar energy. Initial target of 1 million m <sup>2</sup> of solar panels installed by 2010 (around 150 000 m <sup>2</sup> per year) altered to sustaining in 2005 and 2006 the growth rate of past few years. An installation rate of 100 000 m <sup>2</sup> /year is considered for the following years (2007-2020), with the entry into force in 2006 of new legislation.	Economic	Implemented			MEID		312.00
MRe5. IPPC Directive (Integrated Prevention and Pollution Control)		CH <sub>4</sub> , CO <sub>2</sub>	The IPPC Directive was transposed to internal legislation by Decree-Law 194/2000, of 21 August.	Regulatory	Implemented			MAOT		



Table 3

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

Name of mitigation action <sup>a</sup>	Sector(s) affected <sup>b</sup>	GHG(s) affected	Objective and/or activity affected	Type of instrument <sup>c</sup>	Status of implementation <sup>d</sup>	Brief description <sup>e</sup>	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO <sub>2</sub> eq)	
MAe1. Energy efficiency improvement in the electricity generation sector	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Reduction of the rate of loss in the energy transport and distribution network to 8.6% by 2010.	Regulatory	Implemented			MEID		103.00
MAe3. Improvement in energy efficiency from the electricity demand-side	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Reduction of electricity consumption by about 1000 GWh by 2010.	Regulatory	Implemented			MEID		340.00
MAe4. Promotion of electricity produced from renewable energy sources	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Increase installed capacity of units of electricity generation from RES to yield up to 5100 MW of wind power.	Economic	Implemented			MEID		
MAe5. Introduction of natural gas in the Autonomous Region of Madeira	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Substitution of the most polluting fuels and diversification of energy sources in the Autonomous Region of Madeira.	Regulatory	Planned			Regional Government Autonomous Region of Madeira		
MAR1. Realignment of the tax burden on diesel fuel for heating (residential sub-sector)	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Tax harmonization between diesel fuel for heating and for transport by 2014.	Other (Fiscal)	Implemented			MEID		53.00
MAs1 Realignment of the tax burden on diesel fuel for heating (services sub-sector)	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Tax harmonization between diesel fuel or heating and for transport by 2014.	Other (Fiscal)	Implemented			MEID		323.00
MAi1. Increase in tax on industrial fuels	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Changing the fuel tax (ISP) on industrial fuels, so as to create an incentive structure for GHG emissions reduction.	Other (Fiscal)	Implemented			MEID		93.00
MAi2. Review of the Regulation on the Management of Energy Consumption (RGCE)	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Defining of a new RGCE that promotes energy efficiency in the industrial sector through voluntary agreements.	Other (Regulatory)	Implemented			MEID		54.00

Table 3

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

Name of mitigation action <sup>a</sup>	Sector(s) affected <sup>b</sup>	GHG(s) affected	Objective and/or activity affected	Type of instrument <sup>c</sup>	Status of implementation <sup>d</sup>	Brief description <sup>e</sup>	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO <sub>2</sub> eq)	
MAi3. Incentives to the substitution of fuel oil cogeneration by natural gas generation	Energy	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Reduction or phasing-out of the tariff for cogeneration using fuel oil.	Economic	Implemented			MEID		196.00
MA2007e1 – replacing MRe1	Energy	CO <sub>2</sub>	Renewable energy: increase to 45% the goal of electricity generation in 2010 by renewable sources (previously of 39%).	Economic	Planned			MEID		
MA2007e2 – replacing MRe2	Energy	CO <sub>2</sub>	Operational start of new natural gas combined cycle power plants (NGCCP) (2160 MW in 2006 will now be 5360 MW in 2010) 70 MA2007e2/scenario 1 – use rate of an average 37% in the 2008-2012 period for all (existing and new) NGCCP plants. MA2007e 2/scenario 2 - use rate of an average 40% in 2008-2012 period for all (existing and new) NGCCP plants.	Regulatory	Planned			MEID		
MA2007e3 – (new)	Energy	CO <sub>2</sub>	Co-combustion of biomass: 5% to 10% substitution of the coal in Sines and Pego thermic power plants by biomass or Waste Derived Fuel. MA2007e3/scenario 5% MA2007e3/scenario 10%	Regulatory	Planned					
MRt1. Auto-Oil Program: Monitoring of the Agreement with Automobile Manufacturers Associations	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Reduction of the carbon intensity of light passenger vehicles transport, with increasingly restrictive consumption (and CO <sub>2</sub> emissions) standards, to reach the 120 g CO <sub>2</sub> e/km target by 2010.	Voluntary Agreement	Implemented			MFAP; MAI		

Table 3

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

Name of mitigation action <sup>a</sup>	Sector(s) affected <sup>b</sup>	GHG(s) affected	Objective and/or activity affected	Type of instrument <sup>c</sup>	Status of implementation <sup>d</sup>	Brief description <sup>e</sup>	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO <sub>2</sub> eq)	
MRt2. Expansion of the Lisbon Metro (ML)-extension of the Blue Line; extension of the Yellow Line; Red Line	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promotion of modal transfer, and consequent reduction in carbon intensity of the entire transport sector, through the expansion of the Lisbon Metro network.	Economic	Implemented			MOPTC		
MRt3. Construction of the Metro Sul do Tejo	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promotion of modal transfer, and consequent reduction in carbon intensity of the entire transport sector, by the construction of a new light metro network.	Economic	Implemented			MOPTC		
MRt4. Construction of the Oporto Metro (MP)	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promotion of modal transfer, and consequent reduction in carbon intensity of the entire transport sector, through the construction of the Oporto Metro network.	Economic	Implemented			MOPTC		
MRt5. Construction of the Metro Ligeiro do Mondego (MLM)	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promotion of modal transfer, and consequent reduction in carbon intensity of the global transport activity through the construction of a light metro network.	Economic	Planned			MOPTC		
MRt6. Improve services provided by CP (reduction in travel time) between LisbonOporto; LisbonCastelo Branco; Lisbon-Algarve	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promotion of modal transfer, and consequent reduction in carbon intensity of the global transport activity through supply changes (reduction in travel time) between LisbonOporto; Lisbon-Castelo Branco and Lisbon-Algarve, and consequent increase in the competitiveness of the railway system.	Economic	Planned			MOPTC		

Table 3

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

Name of mitigation action <sup>a</sup>	Sector(s) affected <sup>b</sup>	GHG(s) affected	Objective and/or activity affected	Type of instrument <sup>c</sup>	Status of implementation <sup>d</sup>	Brief description <sup>e</sup>	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO <sub>2</sub> eq)	
MRt7. Enlargement of the fleet of vehicles powered by natural gas of CARRIS and of the STCP	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Reduction of carbon intensity of heavy passenger vehicle transport, through the enlargement of the fleet of public vehicles powered by natural gas (of CARRIS and of the STCP), and the substitution of dieselpowered vehicles.	Economic	Implemented			MOPTC		
MRt8. Incentive Programme for the dismantling of End-of-Life Vehicles	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promotion of the renovation of the car stock, in order to reduce carbon intensity of light passenger vehicles, through the provision of monetary incentives for the substitution of end-of-life vehicles. 4200 vehicles over 10 years old are expected to be decommissioned annually from 2005.	Economic	Implemented			MAI		
MRt9. Reduction of interurban motorway speeds	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promotion of the reduction of speeds and consequent reduction of the carbon intensity of road transport by lowering the average motorway speed by about 6 km/h, comparatively to year 2000 in the frame of an accident prevention programme.	Other (Information)	Implemented			MAI		
MRt10. Biofuels Directive (Replaced by MA2007t1)	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Reduction in the consumption of fuels responsible for the emission of GHG through the promotion of the use of biofuels in the transport subsector (2%-2005; 5.75%-2010).	Other (Economic)	Adopted			MEID		
MAt1. Reduction of Taxis' service days	Transport	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	Reducing the number of service days to a maximum of 6 days per week.		Planned			MOPTC		

Table 3

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

Name of mitigation action <sup>a</sup>	Sector(s) affected <sup>b</sup>	GHG(s) affected	Objective and/or activity affected	Type of instrument <sup>c</sup>	Status of implementation <sup>d</sup>	Brief description <sup>e</sup>	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO <sub>2</sub> eq)	
MA2. Enlargement of the fleet of taxi vehicles powered by natural gas	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promotes the shift to natural gas in 200 vehicles.	Economic	Planned			MOPTC		
MA3. Review of the current tax regime on private vehicles	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Energy efficiency improvements of the car stock through the revision of the present taxation regime on private vehicles, so that CO <sub>2</sub> emissions are factored in the calculation of the tax (representing at least 60% of the total value of the tax from 2008).	Other (Fiscal)	Implemented			MFAP		
MA4. Metropolitan Authority of Lisbon Transports	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Modal transfer of 5% (pkm/pkm) by 2010.	Other (Regulatory)	Planned			MOPTC		
MA5. Metropolitan Authority of Oporto Transports	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Modal transfer of 5% (pkm/pkm) by 2010.	Other (Economic)	Implemented			MOPTC		
MA6. Incentive Programme for the dismantling of End-of-Life Vehicles (further objectives)	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Extra 500 vehicles decommissioned annually relative to the 4200 considered in measure MRt8.	Economic	Implemented			MAI		
MA7. Regulation on Energy Management in the Transport Sector	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	5% reduction of the consumption factor of freight transport.	Regulatory	Planned			MOPTC		
MA8. Railway connection to Aveiro Sea Port	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Transfer of 1553 kt of freight to maritime transport, yearly, from 2007.	Economic	Implemented			MOPTC		
MA9. Motorways of the Sea	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Transfer of 20% of international road freight traffic to maritime transport.	Economic	Implemented			MOPTC		
MA10. Logistical Platforms	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Development of the National Logistics System.	Economic	Planned			MOPTC		

Table 3

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

Name of mitigation action <sup>a</sup>	Sector(s) affected <sup>b</sup>	GHG(s) affected	Objective and/or activity affected	Type of instrument <sup>c</sup>	Status of implementation <sup>d</sup>	Brief description <sup>e</sup>	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO <sub>2</sub> eq)	
MA11. Restructuring of supply of CP (national railway) service	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Renovation of trains and changes at the supply level (schedules and frequency of services, new connections/services, etc.) so as to capture 261x10 <sup>6</sup> tkm of the road transport mode.	Economic	Implemented			MOPTC		
MA2007t1 replacing MRt10. Biofuels Directive	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Biofuels Directive – increase of the 5.75% goal to 10% in 2010 regarding biofuels incorporation tax in the road fuels.	Economic	Adopted			MEID		
MRg1. IPPC Directive (Integrated Prevention and Pollution Control)			Implementation of the IPPC Directive.	Regulatory	Implemented					
MAg1. Evaluation and promotion of carbon sequestration in agricultural soil	Agriculture	CO <sub>2</sub>	Adoption of cropland management and grazing land management activities, under the Art. 3(4) of the Kyoto Protocol.	Economic	Implemented			MADRP		
MAg2. Treatment and energy recovery of livestock waste	Agriculture	CH <sub>4</sub> , N <sub>2</sub> O	Reduction in methane emissions resulting from manure management through the conversion of medium and large manure management systems (headcount over 1000) to anaerobic biodigestors with energy recovery 945 000 heads associated to the Liz, Oeste, Algarve, Setubal e Rio Maior systems.	Economic	Planned			MADRP, MAOT		
MRf1. Programme for the Sustainable Development of Portuguese Forests (in the context of IIIFSP)	Forestry/LULUC F	CO <sub>2</sub>	Promote the sustained increase in forested area, through financial support and incentives to new tree plantations.	Economic	Implemented			MADRP		

Table 3

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

Name of mitigation action <sup>a</sup>	Sector(s) affected <sup>b</sup>	GHG(s) affected	Objective and/or activity affected	Type of instrument <sup>c</sup>	Status of implementation <sup>d</sup>	Brief description <sup>e</sup>	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO <sub>2</sub> eq)	
MAf1. Promotion of carbon sink capacity of forests	Forestry/LULUCF	CO <sub>2</sub>	Increase in the carbon sink capacity of Portuguese forests, through the improvement of forestry management (forest stands in place on the 1st of January 1990).	Economic	Adopted			MADRP		
MRr1. Directive on Packaging and Packaging Waste	Waste management/waste	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Decree-Law 366-A/97, of 20 December, transposed the EC Directives that manage the flow of packaging and related waste (Directive 94/62/CE of the European Parliament and Council, of 20 December, altered by Directive 2004/12/CE of the European Parliament and Council, of 11 February) imposing recovery and recycling objectives for packaging waste. The following targets, to be met by the 31st December 2011, were defined: - recovery: of at least 60% of waste - Recycling: Overall: 55-80% Glass: 60% Paper: 60% Metals: 50% Plastics: 22,5% Wood: 15%	Economic	Implemented			MAOT		





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

<i>Name of mitigation action<sup>a</sup></i>	<i>Sector(s) affected<sup>b</sup></i>	<i>GHG(s) affected</i>	<i>Objective and/or activity affected</i>	<i>Type of instrument<sup>c</sup></i>	<i>Status of implementation<sup>d</sup></i>	<i>Brief description<sup>e</sup></i>	<i>Start year of implementation</i>	<i>Implementing entity or entities</i>	<i>Estimate of mitigation impact (not cumulative, in kt CO<sub>2</sub> eq)</i>	

*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.

<sup>a</sup> Parties should use an asterisk (\*) to indicate that a mitigation action is included in the 'with measures' projection.

<sup>b</sup> 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.

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

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

<sup>e</sup> Additional information may be provided on the cost of the mitigation actions and the relevant timescale.

<sup>f</sup> Optional year or years deemed relevant by the Party.

**Reporting on progress<sup>a, b</sup>**

<i>Year<sup>c</sup></i>	<i>Total emissions excluding LULUCF</i>	<i>Contribution from LULUCF<sup>d</sup></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 CO<sub>2</sub> eq)</i>	<i>(kt CO<sub>2</sub> eq)</i>	<i>(number of units)</i>	<i>(kt CO<sub>2</sub> eq)</i>	<i>(number of units)</i>	<i>(kt CO<sub>2</sub> eq)</i>
(1990)	60,952.39					
2010	71,382.42	-9,990.28				
2011	69,986.45	-9,990.28				
2012		-9,990.28				

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

<sup>a</sup> 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.

<sup>b</sup> 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.

<sup>c</sup> Parties may add additional rows for years other than those specified below.

<sup>d</sup> 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**

**Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2011<sup>a,b</sup>**

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

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

<sup>a</sup> 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.

<sup>b</sup> 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.

<sup>c</sup> 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.

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

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

<sup>f</sup> 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).

<sup>g</sup> 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.

**Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2012<sup>a, b</sup>**

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

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

<sup>a</sup> 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.

<sup>b</sup> 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.

<sup>c</sup> 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.

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

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

<sup>f</sup> 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).

<sup>g</sup> 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.

Table 4(a)II

PRT\_BR1\_v2.0  
Source: PRT\_CRF\_\_ v1.3

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

GREENHOUSE GAS SOURCE AND SINK ACTIVITIES	Base year <sup>d</sup>	Net emissions/removals <sup>e</sup>					Accounting parameters <sup>h</sup>	Accounting quantity <sup>i</sup>
		2008	2009	2010	2011	Total <sup>g</sup>		
		(kt CO <sub>2</sub> eq)						
<b>A. Article 3.3 activities</b>								
A.1. Afforestation and Reforestation							-35'030.13	
A.1.1. Units of land not harvested since the beginning of the commitment period <sup>j</sup>		-8,787.19	-8,870.51	-8,566.14	-8,806.28	-35,030.13	-35'030.13	
A.1.2. Units of land harvested since the beginning of the commitment period <sup>j</sup>							0.00	
A.2. Deforestation		5,724.34	6,290.93	6,516.75	6,194.30	24,726.32	24726.32396	
<b>B. Article 3.4 activities</b>								
B.1. Forest Management (if elected)		-1,937.16	-1,892.74	780.30	-647.80	-3,697.41	-3697.40989	
3.3 offset <sup>k</sup>							0	
FM cap <sup>l</sup>						4033.33333	-3697.40989	
B.2. Cropland Management (if elected)	5257.93778	1,510.44	1,340.58	1,157.72	908.83	4,917.58	21031.75112	
B.3. Grazing Land Management (if elected)	2034.96628	-226.06	-344.42	-470.73	-664.67	-1,705.88	8139.86513	
B.4. Revegetation (if elected)	NA	NA	NA	NA	NA	NA	NA	

Note: 1 kt CO<sub>2</sub> eq equals 1 Gg CO<sub>2</sub> eq.

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

<sup>a</sup> 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.

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

<sup>c</sup> Parties can include references to the relevant parts of the national inventory report, where accounting methodologies regarding LULUCF are further described in the documentation box or in the biennial reports.

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

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

<sup>f</sup> Additional columns for relevant years should be added, if applicable.

<sup>g</sup> Cumulative net emissions and removals for all years of the commitment period reported in the current submission.

<sup>h</sup> The values in the cells "3.3 offset" and "Forest management cap" are absolute values.

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

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

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

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

**Reporting on progress<sup>a, b, c</sup>**

<i>Units of market based mechanisms</i>			<i>Year</i>	
			<i>2011</i>	<i>2012</i>
<i>Kyoto Protocol units<sup>d</sup></i>	<i>Kyoto Protocol units</i>	<i>(number of units)</i>		
		<i>(kt CO<sub>2</sub> eq)</i>		
	<i>AAUs</i>	<i>(number of units)</i>		
		<i>(kt CO<sub>2</sub> eq)</i>		
	<i>ERUs</i>	<i>(number of units)</i>		
		<i>(kt CO<sub>2</sub> eq)</i>		
	<i>CERs</i>	<i>(number of units)</i>		
<i>(kt CO<sub>2</sub> eq)</i>				
<i>tCERs</i>	<i>(number of units)</i>			
	<i>(kt CO<sub>2</sub> eq)</i>			
<i>ICERs</i>	<i>(number of units)</i>			
	<i>(kt CO<sub>2</sub> eq)</i>			
<i>Other units<sup>d,e</sup></i>	<i>Units from market-based mechanisms under the Convention</i>	<i>(number of units)</i>		
		<i>(kt CO<sub>2</sub> eq)</i>		
	<i>Units from other market-based mechanisms</i>	<i>(number of units)</i>		
		<i>(kt CO<sub>2</sub> eq)</i>		
<i>Total</i>		<i>(number of units)</i>		
		<i>(kt CO<sub>2</sub> 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.

<sup>a</sup> 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.

<sup>b</sup> 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.

<sup>c</sup> Parties may include this information, as appropriate and if relevant to their target.

<sup>d</sup> Units surrendered by that Party for that year that have not been previously surrendered by that or any other Party.

<sup>e</sup> Additional rows for each market-based mechanism should be added, if applicable.

Table 5

**Summary of key variables and assumptions used in the projections analysis<sup>a</sup>**

<i>Key underlying assumptions</i>		<i>Historical<sup>b</sup></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>GDP growth rate</i>	%		1.90	4.20	0.80	0.60		-1.00	1.80	3.00	3.00
<i>Population</i>	thousands	9,877,000.00	10,043,000.00	10,257,000.00	10,503,000.00	10,573,000.00		10,565,692.48	10,565,712.90	10,579,363.46	10,677,172.25
<i>Population growth</i>	%		3.85	6.34	3.28	7.05		6.83	6.97	7.11	8.10
<i>International coal price</i>	USD / boe	1.32	1.17	1.14	2.14	2.51		2.60	2.69	2.74	2.77
<i>International oil price</i>	USD / boe	2.92	2.38	5.34	8.51	8.28		9.79	11.57	12.10	12.41
<i>International gas price</i>	USD / boe			5.54	6.50	4.31		5.15	6.16	6.77	7.39
<i>Number of households</i>	thousands		45,033.29	50,071.00	54,738.49	57,425.04					

<sup>a</sup> Parties should include key underlying assumptions as appropriate.

<sup>b</sup> Parties should include historical data used to develop the greenhouse gas projections reported.

**Custom Footnotes**

The International Gas, Oil and Coal Prices are in € 2000/ GJ.

Table 6(a)

PRT\_BR1\_v2.0

Information on updated greenhouse gas projections under a 'with measures' scenario<sup>a</sup>

	GHG emissions and removals <sup>b</sup>							GHG emission projections	
	(kt CO <sub>2</sub> eq)							(kt CO <sub>2</sub> eq)	
	Base year (1990)	1990	1995	2000	2005	2010	2011	2020	2030
<b>Sector<sup>d,e</sup></b>									
Energy	41,634.94	41,634.94	50,766.38	61,245.85	64,777.92	49,667.35	45,801.00	40,006.31	35,601.24
Transport	10,139.78	10,139.78	13,322.41	19,157.18	19,586.09	18,936.13	17,350.73	15,056.33	14,759.75
Industry/industrial processes	4,833.70	4,833.70	5,281.95	6,494.44	7,135.38	6,064.81	5,323.95	3,593.43	4,222.42
Agriculture	8,159.50	8,159.50	8,180.97	8,693.36	7,742.78	7,517.39	7,504.88	7,016.12	6,707.59
Forestry/LULUCF	8,496.18	8,496.18	4,203.92	2,260.84	4,521.43	-3,485.26	-5,319.75	-7,574.10	-8,323.60
Waste management/waste	5,994.63	5,994.63	7,064.67	7,571.83	8,061.23	7,907.10	8,280.43	7,070.07	6,011.49
Other (specify)	1,476.53	1,476.53	1,626.92	1,996.63	2,272.35	2,268.51	2,734.50	508.25	628.63
Aviation	1,476.53	1,476.53	1,626.92	1,996.63	2,272.35	2,268.51	2,734.50	508.25	628.63
<b>Gas</b>									
CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF	52,880.61	52,880.61	58,076.55	67,640.76	72,898.10	48,641.36	45,801.00		
CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF	45,149.36	45,149.36	54,485.70	65,863.22	69,265.18	52,640.56	51,526.54	42,242.87	38,332.36
CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF	10,481.38	10,481.38	11,620.74	12,302.17	13,173.93	12,678.76	12,538.28		
CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF	10,260.49	10,260.49	11,372.17	12,113.03	12,644.17	602.74	12,446.61	10,807.02	9,499.14
N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF	6,086.58	6,086.58	6,037.58	6,292.40		5,018.45	4,793.03		
N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF	5,542.54	5,542.54	5,673.08	5,998.24	5,254.08	4,698.95	4,478.92	3,992.80	4,712.00
HFCs			66.27	319.04	848.05	1,515.03	1,491.49	2,471.51	549.73
PFCs				0.03	0.05				
SF <sub>6</sub>			6.83	9.70	257.00	43.57	42.89	117.49	234.12
Other (specify)									
<b>Total with LULUCF<sup>f</sup></b>	69,448.57	69,448.57	75,807.97	86,564.10	87,177.13	67,897.17	64,666.69	2,589.00	783.85
<b>Total without LULUCF</b>	60,952.39	60,952.39	71,604.05	84,303.26	88,268.53	59,500.85	69,986.45	59,631.69	53,327.35

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

<sup>a</sup> 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<sup>a</sup>**

	<i>GHG emissions and removals<sup>b</sup></i>							GHG emission projections	
	<i>(kt CO<sub>2</sub> eq)</i>							<i>(kt CO<sub>2</sub> eq)</i>	
	<i>Base year (1990)</i>	1990	1995	2000	2005	2010	2011	2020	2030

<sup>b</sup> 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.

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

<sup>d</sup> 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.

<sup>e</sup> 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.

<sup>f</sup> Parties may choose to report total emissions with or without LULUCF, as appropriate.

Table 7

**Provision of public financial support: summary information in 2011<sup>a</sup>**

Allocation channels	Year									
	European euro - EUR				USD <sup>b</sup>					
	Core/ general <sup>c</sup>	Climate-specific <sup>d</sup>			Core/ general <sup>c</sup>	Climate-specific <sup>d</sup>				
Mitigation		Adaptation	Cross-cutting <sup>e</sup>	Other <sup>f</sup>		Mitigation	Adaptation	Cross-cutting <sup>e</sup>	Other <sup>f</sup>	
<b>Total contributions through multilateral channels:</b>	26,189,259.00				0.00	36,414,452.00				0.00
Multilateral climate change funds <sup>g</sup>	0.00				0.00	0.00				0.00
Other multilateral climate change funds <sup>h</sup>										
Multilateral financial institutions, including regional development banks	25,468,091.00					35,411,716.00				
Specialized United Nations bodies	721,168.00					1,002,736.00				
<b>Total contributions through bilateral, regional and other channels</b>		15,370,369.00	190,143.00				21,371,480.81	264,381.26		
<b>Total</b>	26,189,259.00	15,370,369.00	190,143.00		0.00	36,414,452.00	21,371,480.81	264,381.26		0.00

Abbreviation: USD = United States dollars.

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

<sup>b</sup> 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.

<sup>c</sup> This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

<sup>d</sup> Parties should explain in their biennial reports how they define funds as being climate-specific.

<sup>e</sup> This refers to funding for activities which are cross-cutting across mitigation and adaptation.

<sup>f</sup> Please specify.

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

<sup>h</sup> 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).

Table 7

Provision of public financial support: summary information in 2012<sup>a</sup>

Allocation channels	Year									
	European euro - EUR					USD <sup>b</sup>				
	Core/ general <sup>c</sup>	Climate-specific <sup>d</sup>				Core/ general <sup>c</sup>	Climate-specific <sup>d</sup>			
Mitigation		Adaptation	Cross-cutting <sup>e</sup>	Other <sup>f</sup>	Mitigation		Adaptation	Cross-cutting <sup>e</sup>	Other <sup>f</sup>	
<b>Total contributions through multilateral channels:</b>	12,868,731.00					16,540,785.00				96,865.00
Multilateral climate change funds <sup>g</sup>										96,865.00
Other multilateral climate change funds <sup>h</sup>										
Multilateral financial institutions, including regional development banks	12,349,033.00					15,872,793.00				
Specialized United Nations bodies	519,698.00					667,992.00				
<b>Total contributions through bilateral, regional and other channels</b>		14,415,609.00	89,097.00				18,529,060.41	114,520.56		
<b>Total</b>	12,868,731.00	14,415,609.00	89,097.00			16,540,785.00	18,529,060.41	114,520.56		96,865.00

Abbreviation: USD = United States dollars.

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

<sup>b</sup> 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.

<sup>c</sup> This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

<sup>d</sup> Parties should explain in their biennial reports how they define funds as being climate-specific.

<sup>e</sup> This refers to funding for activities which are cross-cutting across mitigation and adaptation.

<sup>f</sup> Please specify.

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

<sup>h</sup> 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).

Table 7(a)

PRT\_BR1\_v2.0

**Provision of public financial support: contribution through multilateral channels in 2011<sup>a</sup>**

Donor funding	Total amount				Status <sup>b</sup>	Funding source <sup>f</sup>	Financial instrument <sup>f</sup>	Type of support <sup>f,8</sup>	Sector <sup>c</sup>
	Core/general <sup>d</sup>		Climate-specific <sup>e</sup>						
	European euro - EUR	USD	European euro - EUR	USD					
Total contributions through multilateral channels	26,189,259.00	36,414,452.00	0.00	0.00					
Multilateral climate change funds <sup>g</sup>	0.00	0.00	0.00	0.00					
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	0.00	0.00	0.00	0.00	Provided				
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks	25,468,091.00	35,411,716.00							
1. World Bank	15,073,333.00	20,958,472.00			Provided	ODA	Grant		
2. International Finance Corporation									
3. African Development Bank	1,462,608.00	2,033,660.00			Provided	ODA	Grant		
4. Asian Development Bank	4,766,800.00	6,627,940.00			Provided	ODA	Grant		
5. European Bank for Reconstruction and Development									
6. Inter-American Development Bank	397,350.00	552,489.00			Provided	ODA	Grant		
7. Other	3,768,000.00	5,239,155.00							
CAF - Andean Development Corporation	3,768,000.00	5,239,155.00			Provided				
Specialized United Nations bodies	721,168.00	1,002,736.00							
1. United Nations Development Programme	645,298.00	897,244.00							
United Nations Development Programme	645,298.00	897,244.00			Provided	ODA	Grant		
2. United Nations Environment Programme	36,674.00	50,993.00							
United Nations Environment Programme	36,674.00	50,993.00			Provided	ODA	Grant		
3. Other	39,196.00	54,499.00							
UNFCCC core contribution - 61% eligible as ODA	39,196.00	54,499.00			Provided	ODA	Grant		

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

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

<sup>b</sup> 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.

<sup>c</sup> Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under "Other".

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

<sup>e</sup> Parties should explain in their biennial reports how they define funds as being climate-specific.

<sup>f</sup> Please specify.

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

Table 7(a)

PRT\_BR1\_v2.0

**Provision of public financial support: contribution through multilateral channels in 2012<sup>a</sup>**

Donor funding	Total amount				Status <sup>b</sup>	Funding source <sup>f</sup>	Financial instrument <sup>f</sup>	Type of support <sup>f, g</sup>	Sector <sup>c</sup>
	Core/general <sup>d</sup>		Climate-specific <sup>e</sup>						
	European euro - EUR	USD	European euro - EUR	USD					
Total contributions through multilateral channels	12,868,731.00	16,540,785.00		96,865.00					
Multilateral climate change funds <sup>g</sup>				96,865.00					
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				96,865.00	Provided				
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks	12,349,033.00	15,872,793.00							
1. World Bank	1,350,000.00	1,735,219.00			Provided	ODA	Grant		
2. International Finance Corporation									
3. African Development Bank	1,857,664.00	2,387,743.00			Provided	ODA	Grant		
4. Asian Development Bank	4,750,000.00	6,105,398.00			Provided	ODA	Grant		
5. European Bank for Reconstruction and Development									
6. Inter-American Development Bank	641,369.00	824,382.00			Provided	ODA	Grant		
7. Other	3,750,000.00	4,820,051.00							
CAF - Andean Development Corporation	3,750,000.00	4,820,051.00			Provided	ODA	Grant		
Specialized United Nations bodies	519,698.00	667,992.00							
1. United Nations Development Programme	444,337.00	571,127.00							
United Nations Development Programme	444,337.00	571,127.00			Provided	ODA	Grant		
2. United Nations Environment Programme	0.00	0.00							
United Nations Environment Programme	0.00	0.00			Provided	ODA	Grant		
3. Other	75,361.00	96,865.00							
UNFCCC core contribution - 61% eligible as ODA	75,361.00	96,865.00			Provided	ODA	Grant		

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

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

<sup>b</sup> 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.

<sup>c</sup> Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under "Other".

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

<sup>e</sup> Parties should explain in their biennial reports how they define funds as being climate-specific.

<sup>f</sup> Please specify.

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

Table 7(b)

PRT\_BR1\_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2011<sup>a</sup>**

<i>Recipient country/ region/project/programme<sup>b</sup></i>	<i>Total amount</i>		<i>Status<sup>c</sup></i>	<i>Funding source<sup>g</sup></i>	<i>Financial instrument<sup>g</sup></i>	<i>Type of support<sup>g,h</sup></i>	<i>Sector<sup>d</sup></i>	<i>Additional information<sup>e</sup></i>
	<i>Climate-specific<sup>f</sup></i>							
	<i>European euro - EUR</i>	<i>USD</i>						
Total contributions through bilateral, regional and other channels	15,560,512.00	21,635,862.07						
Mozambique / Atlas of Renewable energy	1,664,648.00	2,314,582.87	Provided	ODA	Grant	Mitigation	Energy	
Angola / Supply and access to energy through solar equipment	19,880.00	27,641.82	Provided	ODA	Grant	Mitigation	Energy	
Cape Verde / Line of Credit of 100M€ for imports (renewable energies, environment and water)	11,416,177.00	15,873,438.54	Provided	ODA	Concessional Loan	Mitigation	Energy	
Mozambique / installation of photovoltaic systems	2,002,000.00	2,783,648.50	Provided	ODA	Grant	Mitigation	Energy	
Sao Tome and Principe / TESE ONGD - Provide electricity (with resource to renewable energies) to schools	56,804.00	78,982.20	Provided	ODA	Grant	Mitigation	Energy	
Cape Verde / Research Center for Alternative Energy	3,500.00	4,866.52	Provided	ODA	Grant	Mitigation	Not applicable	
Guinea-Bissau / Community Access Program to Renewable Energy - Bambadinca	145,938.00	202,917.13	Provided	ODA	Grant	Mitigation	Energy	
Cuba / NGO OIKOS - Agro-energy	55,922.00	77,755.84	Provided	ODA	Grant	Mitigation	Energy	
El Salvador / Integration of a watershed approach and response system to natural disasters in the Department Ahuachapáns	49,412.00	68,704.12	Provided	ODA	Grant	Adaptation	Not applicable	
Africa, Latin America and the Caribbean / NGO APRH - Technical capacity building in planning and coastal zone managementn	5,500.00	7,647.39	Provided	ODA	Grant	Mitigation	Not applicable	
Cape Verde / Workshop on environment and climate	2,674.00	3,718.02	Provided	ODA	Grant	Adaptation	Not applicable	sector: general environment
Guinea-Bissau / NGO VIDA - Mumelamu - Local capacity building in water sector	138,057.00	191,959.12	Provided	ODA	Grant	Adaptation	Water and sanitation	

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

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

<sup>b</sup> Parties should report, to the extent possible, on details contained in this table.

**Provision of public financial support: contribution through bilateral, regional and other channels in 2011<sup>a</sup>**

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

<sup>c</sup> 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.

<sup>d</sup> Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under “Other”.

<sup>e</sup> Parties should report, as appropriate, on project details and the implementing agency.

<sup>f</sup> Parties should explain in their biennial reports how they define funds as being climate-specific.

<sup>g</sup> Please specify.

<sup>h</sup> Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

Table 7(b)

PRT\_BR1\_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2012<sup>a</sup>**

Recipient country/ region/project/programme <sup>b</sup>	Total amount		Status <sup>c</sup>	Funding source <sup>g</sup>	Financial instrument <sup>g</sup>	Type of support <sup>g, h</sup>	Sector <sup>d</sup>	Additional information <sup>e</sup>
	Climate-specific <sup>f</sup>							
	European euro - EUR	USD						
Total contributions through bilateral, regional and other channels	14,504,706.00	18,643,580.97						
Guinea-Bissau / Community Access Program to Renewable Energy - Bambadinca	83,327.00	107,104.11	Provided	ODA	Grant	Mitigation	Energy	
Mozambique / TESE-NGO - A Sinha i Utómi (tree is life) - Sustainable Management of Forest Resources	17,191.00	22,096.40	Provided	ODA	Grant	Mitigation	Forestry	
Cape Verde / Line of Credit of 100M€ for imports (renewable energies, environment and water)	13,178,586.00	16,939,056.56	Provided	ODA	Concessional Loan	Mitigation	Energy	
Mozambique / Atlas of renewable energy	1,109,766.00	1,426,434.45	Provided	ODA	Grant	Mitigation	Energy	
Sao Tome and Principe / TESE ONGD - Provide electricity (with resource to renewable energies) to schools	16,286.00	20,933.16	Provided	ODA	Grant	Mitigation	Energy	
Mozambique / NGO OIKOS - The Model community: natural disaster prevention and preparedness	47,659.00	61,258.35	Provided	ODA	Grant	Adaptation	Not applicable	
El Salvador / Integration of a watershed approach and response system to natural disasters in the Department of Ahuachapáns	12,353.00	15,877.89	Provided	ODA	Grant	Adaptation	Not applicable	
LDCs / OIKOS - Energy for Life	10,453.00	13,435.73	Provided	ODA	Grant	Mitigation	Not applicable	Sector: development awareness
Guinea-Bissau / NGO VIDA - Mumelamu - Local capacity building in water sector	29,085.00	37,384.32	Provided	ODA	Grant	Adaptation	Water and sanitation	

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

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

<sup>b</sup> Parties should report, to the extent possible, on details contained in this table.

<sup>c</sup> 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.



**Provision of public financial support: contribution through bilateral, regional and other channels in 2012<sup>a</sup>**

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

<sup>d</sup> Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under “Other”.

<sup>e</sup> Parties should report, as appropriate, on project details and the implementing agency.

<sup>f</sup> Parties should explain in their biennial reports how they define funds as being climate-specific.

<sup>g</sup> Please specify.

<sup>h</sup> Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

Table 8

PRT\_BR1\_v2.0

**Provision of technology development and transfer support<sup>a,b</sup>**

<i>Recipient country and/or region</i>	<i>Targeted area</i>	<i>Measures and activities related to technology transfer</i>	<i>Sector<sup>c</sup></i>	<i>Source of the funding for technology transfer</i>	<i>Activities undertaken by</i>	<i>Status</i>	<i>Additional information<sup>d</sup></i>
Mozambique	Adaptation	Provide 50 remote villages in all provinces with solar PV systems in schools and health centers and associated accommodation that will allow basic access to electricity to allow not only lighting but also refrigerators for vaccines and water pumping systems, allowing access to health and education of populations without these resources. Installation of two solar systems heat water in two health centers pilot for future replication.	Energy	Public	Public	Implemented	An extension of the contract is foreseen for 2014 to conclude the work in the remaining villages.
Mozambique	Adaptation	Mapping and assessment of the renewable resources of Mozambique: wind, solar, hydro, geothermal, biomass and waves.	Energy	Public	Public	Implemented	FUNAE (Energy Fund of Mozambique).

<sup>a</sup> To be reported to the extent possible.

<sup>b</sup> The tables should include measures and activities since the last national communication or biennial report.

<sup>c</sup> Parties may report sectoral disaggregation, as appropriate.

<sup>d</sup> 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.

**Provision of capacity-building support<sup>a</sup>**

<i>Recipient country/region</i>	<i>Targeted area</i>	<i>Programme or project title</i>	<i>Description of programme or project<sup>b,c</sup></i>
Mozambique	Mitigation	Atlas of the renewables energies in Mozambique	Based on the objectives identified in the " New and Renewable Energy Development Policy", identification, location, characterization and evaluation of the potential of renewable resources have become a priority in Mozambique. To achieve this goal, this project conducted a mapping of the following potential sources of renewable energy: Solar, wind, water , hydro, geothermal, biomass / MSW and wave energy. This mapping is intended to be a basis for consultation and work for all renewable energy projects that will be developed in Mozambique.
Mozambique	Adaptation	Implementation of Pilot Projects Local Adaptation Program of Action in Mozambique	Increase resilience to the adverse impacts of climate change in 9 villages in Mozambique through implementation of adaptation measures and catalysing local activities.
Mozambique	Mitigation	Installation of photovoltaic systems in 50 villages	The project is to provide 50 remote villages, covering all provinces of Mozambique, with solar PV systems in schools and health centers and associated housing (teachers and nurses) that will allow basic access to electricity in a way to allow not only illumination but also refrigerators for vaccines and water pumping systems, thus given access to health and education to the population that does not have these resources. The project also provides training for local technicians to maintain the systems.
Cape Verde, Mozambique, Sao Tome and Principe	Mitigation	Capacity Building for the Low Carbon Resilient Development Strategies	Develop the necessary skills to elaborate, implement and Measure, Report and Verify (MRV) Low Emissions Development Strategies (LEDS) Resilient to a Changing Climate and coherent with the the National Development Plans and, broadly, the Millennium Development Goals (MDG)
Africa	Multiple Areas	Several initiatives	
Cape Verde, Mozambique, Sao Tome and Principe	Adaptation	Integrating Adaptation to Climate Change into Development planning	Contribute to reducing vulnerability to the impacts of climate change in Cape Verde, Mozambique and Sao Tome and Principe, creating capabilities to integrate the response to climate change vulnerability in the process of designing policies and projects - Enhance the skills for the design of policies and projects that are resilient to the impacts of climate change and simultaneously consistent with the Sustainability Development Goals, particularly poverty reduction and environmental sustainability.
Mozambique	Multiple Areas	Support Plan for Urban Drainage from the perspective of Emission Reduction and Adaptation to Climate Change	The Project "Support Plan for Urban Drainage from the perspective of Emission Reduction and Adaptation to Climate Change" aims to contribute to the development of policies and strategies fro development of urban sanitation, particularly regarding mitigation of GHG emissions concerns, adaptation of infrastructure to changes climate and training of institutions as well as the development and transfer of knowledge to the relevant sector institutions in Mozambique in the field of sustainable development of the urban sanitation sector vis a vis the impacts of Climate Change.

<sup>a</sup> To be reported to the extent possible.

<sup>b</sup> 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.

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