

## BR CTF submission workbook

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Table 1

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

<i>GREENHOUSE GAS EMISSIONS</i>	Base year <sup>a</sup>	1990	1991	1992	1993	1994	1995	1996	1997
	<i>kt CO<sub>2</sub> eq</i>								
CO <sub>2</sub> emissions without net CO <sub>2</sub> from LULUCF	36,758.65	36,758.65	33,745.05	24,225.63	18,815.12	19,674.44	18,001.97	18,710.86	18,255.12
CO <sub>2</sub> emissions with net CO <sub>2</sub> from LULUCF	29,119.97	29,119.97	26,076.61	16,741.01	9,954.24	11,007.70	8,787.44	9,710.40	9,782.02
CH <sub>4</sub> emissions without CH <sub>4</sub> from LULUCF	1,870.78	1,870.78	1,788.07	1,560.76	1,331.28	1,267.62	1,227.29	1,251.60	1,304.69
CH <sub>4</sub> emissions with CH <sub>4</sub> from LULUCF	1,871.13	1,871.13	1,788.22	1,563.47	1,332.32	1,268.38	1,227.64	1,252.58	1,306.60
N <sub>2</sub> O emissions without N <sub>2</sub> O from LULUCF	1,400.14	1,400.14	1,318.28	1,093.01	791.86	768.92	699.65	664.07	677.41
N <sub>2</sub> O emissions with N <sub>2</sub> O from LULUCF	1,401.57	1,401.57	1,319.69	1,094.75	793.39	770.43	701.11	665.62	679.08
HFCs	NO	NO	NO	17.51	20.02	22.91	28.45	34.56	41.31
PFCs	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of HFCs and PFCs	NO	NO	NO	NO	NO	NO	NO	NO	NO
SF <sub>6</sub>	NO	NO	0.05	0.09	1.39	2.97	3.07	3.33	2.85
NF <sub>3</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total (without LULUCF)</b>	40,029.57	40,029.57	36,851.46	26,897.00	20,959.66	21,736.87	19,960.44	20,664.42	20,281.38
<b>Total (with LULUCF)</b>	32,392.66	32,392.66	29,184.57	19,416.83	12,101.35	13,072.40	10,747.72	11,666.50	11,811.87
<b>Total (without LULUCF, with indirect)</b>	40,050.42	40,050.42	36,873.62	26,914.10	20,975.76	21,754.74	19,981.01	20,686.28	20,303.69
<b>Total (with LULUCF, with indirect)</b>	32,413.51	32,413.51	29,206.73	19,433.93	12,117.46	13,090.27	10,768.29	11,688.36	11,834.18

  

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	Base year <sup>a</sup>	1990	1991	1992	1993	1994	1995	1996	1997
	<i>kt CO<sub>2</sub> eq</i>								
1. Energy	35,947.08	35,947.08	32,949.42	23,813.11	18,631.17	19,230.25	17,594.40	18,342.05	17,850.44
2. Industrial processes and product use	1,056.14	1,056.14	1,034.62	613.49	360.01	648.34	688.33	697.53	734.94
3. Agriculture	2,657.26	2,657.26	2,485.43	2,077.14	1,557.16	1,448.18	1,281.13	1,190.59	1,204.19
4. Land Use, Land-Use Change and Forestry <sup>b</sup>	-7,636.91	-7,636.91	-7,666.88	-7,480.17	-8,858.31	-8,664.47	-9,212.72	-8,997.92	-8,469.51
5. Waste	369.10	369.10	381.98	393.26	411.31	410.09	396.59	434.26	491.81
6. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total (including LULUCF)</b>	32,392.66	32,392.66	29,184.57	19,416.83	12,101.35	13,072.40	10,747.72	11,666.50	11,811.87

**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

EST\_BR2\_v1.0

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

<i>GREENHOUSE GAS EMISSIONS</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	CO <sub>2</sub> emissions without net CO <sub>2</sub> from LULUCF	16,700.40	15,547.31	15,170.15	15,526.64	15,032.00	16,858.23	17,101.81	16,433.84	15,850.52
CO <sub>2</sub> emissions with net CO <sub>2</sub> from LULUCF	9,284.00	11,582.23	16,098.11	19,596.04	18,308.77	17,032.00	14,311.77	11,536.84	9,516.92	11,460.94
CH <sub>4</sub> emissions without CH <sub>4</sub> from LULUCF	1,265.81	1,184.00	1,223.16	1,263.02	1,214.05	1,217.82	1,232.52	1,194.41	1,177.65	1,206.22
CH <sub>4</sub> emissions with CH <sub>4</sub> from LULUCF	1,265.96	1,185.07	1,224.55	1,263.23	1,216.97	1,218.23	1,233.38	1,194.68	1,184.39	1,206.48
N <sub>2</sub> O emissions without N <sub>2</sub> O from LULUCF	686.48	579.53	604.17	605.64	582.32	614.91	638.19	628.06	626.59	676.74
N <sub>2</sub> O emissions with N <sub>2</sub> O from LULUCF	687.93	581.12	605.79	607.13	584.29	616.79	640.67	631.26	631.60	681.94
HFCs	52.25	63.39	79.15	97.19	98.83	104.87	119.33	134.96	154.57	170.37
PFCs	NO	NO	NO	NO	NO	NA, NO	NA, NO	NA, NO	0.09	0.08
Unspecified mix of HFCs and PFCs	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
SF <sub>6</sub>	2.85	2.88	2.60	1.66	1.37	1.27	1.03	1.03	1.10	0.92
NF <sub>3</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total (without LULUCF)</b>	18,707.78	17,377.11	17,079.23	17,494.15	16,928.58	18,797.08	19,092.89	18,392.29	17,810.52	20,936.50
<b>Total (with LULUCF)</b>	11,292.98	13,414.69	18,010.20	21,565.26	20,210.22	18,973.15	16,306.17	13,498.77	11,488.66	13,520.72
<b>Total (without LULUCF, with indirect)</b>	18,731.74	17,400.16	17,098.44	17,511.94	16,947.33	18,815.44	19,111.17	18,411.39	17,830.53	20,955.15
<b>Total (with LULUCF, with indirect)</b>	11,316.94	13,437.74	18,029.42	21,583.05	20,228.98	18,991.51	16,324.46	13,517.87	11,508.68	13,539.37

  

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1. Energy	16,195.72	15,093.02	14,741.90	15,091.01	14,803.40	16,563.37	16,675.40	15,967.99	15,329.55
2. Industrial processes and product use	772.46	725.25	728.46	767.94	568.21	628.63	788.66	831.61	897.34	1,086.64
3. Agriculture	1,231.34	1,044.76	1,046.92	1,064.94	1,000.22	1,058.29	1,084.21	1,074.56	1,079.56	1,117.46
4. Land Use, Land-Use Change and Forestry <sup>b</sup>	-7,414.80	-3,962.42	930.97	4,071.11	3,281.65	176.07	-2,786.71	-4,893.52	-6,321.86	-7,415.78
5. Waste	508.26	514.08	561.95	570.26	556.75	546.79	544.61	518.12	504.07	515.39
6. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total (including LULUCF)</b>	11,292.98	13,414.69	18,010.20	21,565.26	20,210.22	18,973.15	16,306.17	13,498.77	11,488.66	13,520.72

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

Table 1

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

GREENHOUSE GAS EMISSIONS	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
	(%)						
CO <sub>2</sub> emissions without net CO <sub>2</sub> from LULUCF	17,373.90	14,153.59	17,819.61	18,434.55	17,296.27	19,640.84	-46.57
CO <sub>2</sub> emissions with net CO <sub>2</sub> from LULUCF	9,917.99	7,987.95	12,892.91	15,285.25	15,825.73	19,303.72	-33.71
CH <sub>4</sub> emissions without CH <sub>4</sub> from LULUCF	1,197.67	1,152.78	1,167.10	1,118.54	1,127.15	1,115.71	-40.36
CH <sub>4</sub> emissions with CH <sub>4</sub> from LULUCF	1,198.80	1,152.96	1,167.23	1,118.66	1,127.23	1,115.79	-40.37
N <sub>2</sub> O emissions without N <sub>2</sub> O from LULUCF	750.14	708.53	726.50	726.67	789.80	778.94	-44.37
N <sub>2</sub> O emissions with N <sub>2</sub> O from LULUCF	756.38	715.12	733.38	733.68	796.86	786.00	-43.92
HFCs	150.39	157.53	175.43	183.00	193.03	203.60	
PFCs	0.05	NO	NO	NO	NO	NO	
Unspecified mix of HFCs and PFCs	NO	NO	NO	NO	NO	NO	
SF <sub>6</sub>	1.29	1.38	1.73	1.77	1.88	2.00	
NF <sub>3</sub>	NO	NO	NO	NO	NO	NO	
<b>Total (without LULUCF)</b>	19,473.45	16,173.80	19,890.38	20,464.53	19,408.14	21,741.09	-45.69
<b>Total (with LULUCF)</b>	12,024.91	10,014.93	14,970.68	17,322.36	17,944.74	21,411.12	-33.90
<b>Total (without LULUCF, with indirect)</b>	19,489.97	16,187.26	19,903.22	20,478.52	19,422.69	21,754.86	-45.68
<b>Total (with LULUCF, with indirect)</b>	12,041.42	10,028.39	14,983.53	17,336.35	17,959.29	21,424.89	-33.90

  

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
	(%)						
1. Energy	16,700.37	14,102.96	17,745.61	18,232.23	16,856.11	19,054.27	-46.99
2. Industrial processes and product use	1,076.38	477.35	524.11	645.57	897.25	1,061.84	0.54
3. Agriculture	1,186.03	1,118.08	1,154.51	1,159.11	1,245.72	1,254.05	-52.81
4. Land Use, Land-Use Change and Forestry <sup>b</sup>	-7,448.55	-6,158.87	-4,919.70	-3,142.17	-1,463.40	-329.97	-95.68
5. Waste	510.67	475.41	466.15	427.62	409.05	370.93	0.50
6. Other	NO	NO	NO	NO	NO	NO	
<b>Total (including LULUCF)</b>	12,024.91	10,014.93	14,970.68	17,322.36	17,944.74	21,411.12	-33.90

## 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.

## Custom Footnotes

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

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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>a</sup>	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
<b>1. Energy</b>	35,646.09	35,646.09	32,659.14	23,619.84	18,468.16	19,044.69	17,337.72	18,047.58	17,558.74
A. Fuel combustion (sectoral approach)	35,646.01	35,646.01	32,659.06	23,619.79	18,468.13	19,044.66	17,337.68	18,047.54	17,558.70
1. Energy industries	28,824.70	28,824.70	26,308.60	19,887.99	15,660.38	15,916.58	14,390.01	14,910.43	14,486.93
2. Manufacturing industries and construction	2,478.92	2,478.92	2,338.87	1,577.04	743.49	1,046.52	880.98	958.94	878.79
3. Transport	2,417.64	2,417.64	2,200.11	1,136.48	1,256.63	1,573.67	1,537.41	1,599.23	1,706.19
4. Other sectors	1,881.31	1,881.31	1,758.25	984.13	796.86	496.93	500.48	562.66	473.10
5. Other	43.44	43.44	53.23	34.15	10.78	10.96	28.79	16.28	13.69
B. Fugitive emissions from fuels	0.09	0.09	0.09	0.05	0.03	0.04	0.04	0.05	0.04
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	0.09	0.09	0.09	0.05	0.03	0.04	0.04	0.05	0.04
C. CO <sub>2</sub> transport and storage	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>2. Industrial processes</b>	1,050.69	1,050.69	1,028.77	591.42	333.99	617.39	651.44	653.97	684.81
A. Mineral industry	614.26	614.26	622.20	380.13	246.17	347.22	364.62	377.50	414.49
B. Chemical industry	419.03	419.03	389.77	199.78	78.68	258.67	279.31	268.41	263.54
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	17.40	17.40	16.81	11.50	9.14	11.50	7.50	8.06	6.79
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	NO	NO	NO	NO	NO	NO	NO	NO	NO
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Agriculture</b>	60.84	60.84	56.10	13.33	11.95	11.30	11.55	8.91	11.11
A. Enteric fermentation									
B. Manure management									
C. Rice cultivation									
D. Agricultural soils									
E. Prescribed burning of savannas									
F. Field burning of agricultural residues									
G. Liming	59.84	59.84	55.18	12.85	11.75	10.65	10.91	8.32	10.63
H. Urea application	1.00	1.00	0.93	0.49	0.20	0.66	0.64	0.59	0.48
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	NO	NO	NO
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Land Use, Land-Use Change and Forestry</b>	-7,638.68	-7,638.68	-7,668.44	-7,484.62	-8,860.88	-8,666.74	-9,214.54	-9,000.46	-8,473.10
A. Forest land	-8,763.52	-8,763.52	-8,708.42	-9,036.60	-9,544.54	-10,010.92	-10,230.85	-10,002.03	-9,094.81
B. Cropland	83.83	83.83	69.18	54.88	35.42	17.22	4.29	-5.14	-3.01
C. Grassland	-27.38	-27.38	-36.31	-33.24	-40.52	-19.79	-24.35	-44.69	-71.13
D. Wetlands	1,068.10	1,068.10	1,006.57	1,417.37	620.62	1,318.89	1,092.08	1,201.63	1,153.13
E. Settlements	0.30	0.30	0.54	0.73	4.35	4.72	5.28	7.20	8.56
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products	NE	NE	NE	112.23	63.79	23.14	-60.99	-157.43	-465.84
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Waste</b>	1.03	1.03	1.03	1.04	1.03	1.05	1.27	0.40	0.46
A. Solid waste disposal	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Biological treatment of solid waste									
C. Incineration and open burning of waste	1.03	1.03	1.03	1.04	1.03	1.05	1.27	0.40	0.46
D. Waste water treatment and discharge									
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Other (as specified in the summary table in CRF)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Memo items:</b>									
<b>International bunkers</b>	660.53	660.53	682.29	415.46	517.47	436.25	325.04	330.92	370.56
Aviation	107.73	107.73	107.73	35.91	53.87	44.89	53.87	47.88	67.43
Navigation	552.80	552.80	574.56	379.55	463.60	391.36	271.17	283.04	303.13
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO<sub>2</sub> emissions from biomass</b>	962.15	962.15	944.34	903.24	861.24	1,398.59	2,269.46	2,699.30	2,764.45
<b>CO<sub>2</sub> captured</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Long-term storage of C in waste disposal sites</b>	1,751.39	1,751.39	1,761.60	1,843.41	1,870.95	1,518.18	2,258.84	2,284.36	2,383.15
<b>Indirect N<sub>2</sub>O</b>									
<b>Indirect CO<sub>2</sub> (3)</b>	20.85	20.85	22.16	17.10	16.10	17.87	20.57	21.86	22.31
<b>Total CO<sub>2</sub> equivalent emissions without land use, land-use change and forestry</b>	40,029.57	40,029.57	36,851.46	26,897.00	20,959.66	21,736.87	19,960.44	20,664.42	20,281.38
<b>Total CO<sub>2</sub> equivalent emissions with land use, land-use change and forestry</b>	32,392.66	32,392.66	29,184.57	19,416.83	12,101.35	13,072.40	10,747.72	11,666.50	11,811.87
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, without land use, land-use change and forestry</b>	36,779.50	36,779.50	33,767.21	24,242.73	18,831.22	19,692.31	18,022.54	18,732.72	18,277.43
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, with land use, land-use change and forestry</b>	29,140.82	29,140.82	26,098.77	16,758.10	9,970.34	11,025.57	8,808.00	9,732.26	9,804.33

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

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

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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>1. Energy</b>	15,950.91	14,854.91	14,500.08	14,830.44	14,538.41	16,311.12	16,411.45	15,717.42	15,090.14	17,948.36
A. Fuel combustion (sectoral approach)	15,950.86	14,854.87	14,500.03	14,830.39	14,538.37	16,311.07	16,411.39	15,717.36	15,090.08	17,948.31
1. Energy industries	12,912.55	12,339.20	11,898.93	11,711.52	11,433.03	13,231.11	13,149.65	12,364.75	11,632.52	13,879.38
2. Manufacturing industries and construction	823.87	475.22	572.50	696.92	483.16	552.15	660.28	715.08	709.74	1,174.24
3. Transport	1,765.18	1,642.73	1,627.53	1,936.69	2,067.42	1,986.05	2,033.13	2,104.51	2,268.80	2,394.16
4. Other sectors	432.05	380.53	384.19	466.77	540.09	522.79	540.64	498.28	447.45	469.96
5. Other	17.21	17.20	16.88	18.49	14.66	18.97	27.70	34.75	31.57	30.57
B. Fugitive emissions from fuels	0.04	0.04	0.05	0.05	0.04	0.05	0.06	0.06	0.06	0.06
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	0.04	0.04	0.05	0.05	0.04	0.05	0.06	0.06	0.06	0.06
C. CO2 transport and storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>2. Industrial processes</b>	711.11	652.13	639.26	662.58	462.19	516.66	662.36	689.70	736.44	910.79
A. Mineral industry	437.03	388.36	400.99	408.45	391.94	373.24	405.94	413.96	461.34	646.27
B. Chemical industry	266.46	257.44	230.88	248.02	63.25	136.18	250.05	270.69	270.83	258.47
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	7.62	6.32	7.38	6.11	7.00	7.23	6.37	5.06	4.28	6.06
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Agriculture</b>	37.68	39.44	30.08	32.83	30.49	29.25	27.37	25.98	23.73	22.92
A. Enteric fermentation										
B. Manure management										
C. Rice cultivation										
D. Agricultural soils										
E. Prescribed burning of savannas										
F. Field burning of agricultural residues										
G. Liming	37.32	38.98	29.64	32.38	30.21	28.86	26.72	24.57	22.97	21.37
H. Urea application	0.36	0.46	0.43	0.45	0.28	0.39	0.65	1.41	0.76	1.55
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Land Use, Land-Use Change and Forestry</b>	-7,416.40	-3,965.08	927.97	4,069.41	3,276.76	173.78	-2,790.04	-4,897.00	-6,333.60	-7,421.24
A. Forest land	-7,290.05	-4,396.56	1,076.72	4,308.33	3,195.16	732.26	-2,175.50	-4,865.53	-6,938.46	-8,042.68
B. Cropland	5.54	19.65	43.82	56.55	69.60	85.96	106.70	139.99	169.59	182.72
C. Grassland	-86.92	-148.64	-109.00	-241.88	-641.88	-1,040.57	-1,316.52	-1,318.24	-1,108.95	-748.05
D. Wetlands	428.89	1,340.77	845.62	927.75	1,577.49	1,091.92	860.60	1,179.01	1,359.41	1,012.60
E. Settlements	5.90	8.20	41.77	75.10	144.00	187.14	224.99	288.66	328.49	319.46
F. Other land	NO	NO	NO	NO	NO	10.83	33.44	91.51	107.89	122.09
G. Harvested wood products	-479.77	-788.50	-970.95	-1,056.45	-1,067.61	-893.76	-523.74	-412.39	-251.56	-267.38
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Waste</b>	0.70	0.83	0.73	0.78	0.92	1.20	0.63	0.74	0.20	0.10
A. Solid waste disposal	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Biological treatment of solid waste										
C. Incineration and open burning of waste	0.70	0.83	0.73	0.78	0.92	1.20	0.63	0.74	0.20	0.10
D. Waste water treatment and discharge										
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Other (as specified in the summary table in CRF)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Memo items:</b>										
<b>International bunkers</b>	369.47	407.14	387.10	355.27	418.63	400.44	546.26	512.60	742.93	899.68
Aviation	47.17	66.79	64.82	48.61	55.86	55.50	89.12	146.65	97.52	153.58
Navigation	322.31	340.35	322.28	306.66	362.77	344.94	457.15	365.96	645.41	746.09
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO2 emissions from biomass</b>	2,355.60	2,365.03	2,383.56	2,509.35	2,538.14	2,673.03	2,788.72	2,718.86	2,448.17	2,769.71
<b>CO2 captured</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Long-term storage of C in waste disposal sites</b>	2,158.77	1,849.64	2,006.00	2,053.49	2,130.24	2,635.81	2,535.68	2,533.36	2,422.53	2,634.95
<b>Indirect N2O</b>										
<b>Indirect CO2 (3)</b>	23.96	23.05	19.21	17.79	18.76	18.36	18.29	19.11	20.01	18.64
<b>Total CO2 equivalent emissions without land use, land-use change and forestry</b>	18,707.78	17,377.11	17,079.23	17,494.15	16,928.58	18,797.08	19,092.89	18,392.29	17,810.52	20,936.50
<b>Total CO2 equivalent emissions with land use, land-use change and forestry</b>	11,292.98	13,414.69	18,010.20	21,565.26	20,210.22	18,973.15	16,306.17	13,498.77	11,488.66	13,520.72
<b>Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry</b>	16,724.35	15,570.36	15,189.36	15,544.43	15,050.76	16,876.59	17,120.10	16,452.94	15,870.53	18,900.81
<b>Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry</b>	9,307.95	11,605.28	16,117.32	19,613.84	18,327.53	17,050.36	14,330.06	11,555.95	9,536.93	11,479.58

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

Table 1(a)

EST\_BR2\_v1.0

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

	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>							
	%						
<b>1. Energy</b>	16,433.87	13,836.41	17,456.08	17,965.69	16,582.59	18,778.82	-47.32
A. Fuel combustion (sectoral approach)	16,433.82	13,836.37	17,456.04	17,965.66	16,582.55	18,778.78	-47.32
1. Energy industries	12,579.91	10,661.39	14,200.61	14,496.97	13,046.18	15,300.73	-46.92
2. Manufacturing industries and construction	1,076.24	585.86	505.65	715.39	761.64	732.02	-70.47
3. Transport	2,277.49	2,099.93	2,221.76	2,236.69	2,263.10	2,209.81	-8.60
4. Other sectors	489.42	460.11	487.18	496.82	490.15	503.98	-73.21
5. Other	10.76	29.07	40.84	19.78	21.48	32.25	-25.75
B. Fugitive emissions from fuels	0.06	0.04	0.04	0.04	0.04	0.04	-55.54
1. Solid fuels	NO	NO	NO	NO	NO	NO	
2. Oil and natural gas and other emissions from energy production	0.06	0.04	0.04	0.04	0.04	0.04	-55.54
C. CO <sub>2</sub> transport and storage	NO	NO	NO	NO	NO	NO	
<b>2. Industrial processes</b>	919.95	314.17	342.33	456.08	698.15	852.31	-18.88
A. Mineral industry	644.40	281.27	338.65	452.71	669.35	694.51	13.07
B. Chemical industry	270.51	29.44	NO	NO	24.88	154.05	-63.24
C. Metal industry	NO	NO	NO	NO	NO	NO	
D. Non-energy products from fuels and solvent use	5.04	3.45	3.68	3.37	3.92	3.75	-78.46
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	NO	NO	NO	NO	NO	NO	
H. Other	NO	NO	NO	NO	NO	NO	
<b>3. Agriculture</b>	19.95	2.89	21.10	12.66	15.32	9.39	-84.57
A. Enteric fermentation							
B. Manure management							
C. Rice cultivation							
D. Agricultural soils							
E. Prescribed burning of savannas							
F. Field burning of agricultural residues							
G. Liming	19.76	2.67	21.10	12.66	15.32	9.02	-84.93
H. Urea application	0.18	0.22	0.01	NO	NO	0.37	-63.32
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	
J. Other	NO	NO	NO	NO	NO	NO	
<b>4. Land Use, Land-Use Change and Forestry</b>	-7,455.92	-6,165.64	-4,926.71	-3,149.30	-1,470.54	-337.11	-95.59
A. Forest land	-8,196.23	-7,400.45	-5,890.49	-4,494.35	-2,698.02	-1,638.35	-81.30
B. Cropland	199.56	193.70	173.12	167.71	165.33	145.78	73.89
C. Grassland	-332.06	74.12	381.97	507.80	573.29	403.76	-1,574.46
D. Wetlands	849.81	979.07	1,045.13	974.74	762.60	1,099.39	2.93
E. Settlements	336.14	346.06	299.49	332.18	341.99	352.66	118,245.50
F. Other land	117.35	97.68	44.54	34.06	26.12	26.12	
G. Harvested wood products	-430.48	-455.82	-980.46	-671.43	-641.86	-726.47	
H. Other	NO	NO	NO	NO	NO	NO	
<b>5. Waste</b>	0.13	0.11	0.11	0.11	0.22	0.32	-68.62
A. Solid waste disposal	NO	NO	NO	NO	NO	NO	
B. Biological treatment of solid waste							
C. Incineration and open burning of waste	0.13	0.11	0.11	0.11	0.22	0.32	-68.62
D. Waste water treatment and discharge							
E. Other	NO	NO	NO	NO	NO	NO	
<b>6. Other (as specified in the summary table in CRF)</b>	NO	NO	NO	NO	NO	NO	
<b>Memo items:</b>							
<b>International bunkers</b>	845.09	780.09	781.36	677.03	1,334.35	1,366.72	106.91
Aviation	85.36	100.91	113.50	103.49	114.23	88.28	-18.05
Navigation	759.73	679.18	667.86	573.54	1,220.12	1,278.44	131.26
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	
<b>CO<sub>2</sub> emissions from biomass</b>	2,982.14	3,274.48	3,899.29	3,750.41	3,811.29	3,765.77	291.39
<b>CO<sub>2</sub> captured</b>	NO	NO	NO	NO	NO	NO	
<b>Long-term storage of C in waste disposal sites</b>	2,627.09	2,338.61	3,197.60	2,546.49	2,234.96	2,937.54	67.73
<b>Indirect N<sub>2</sub>O</b>							
<b>Indirect CO<sub>2</sub> (3)</b>	16.52	13.46	12.84	13.98	14.55	13.77	-33.96
<b>Total CO<sub>2</sub> equivalent emissions without land use, land-use change and forestry</b>	19,473.45	16,173.80	19,890.38	20,464.53	19,408.14	21,741.09	-45.69
<b>Total CO<sub>2</sub> equivalent emissions with land use, land-use change and forestry</b>	12,024.91	10,014.93	14,970.68	17,322.36	17,944.74	21,411.12	-33.90
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, without land use, land-use change and forestry</b>	17,390.42	14,167.05	17,832.46	18,448.53	17,310.83	19,654.61	-46.56
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, with land use, land-use change and forestry</b>	9,934.50	8,001.41	12,905.75	15,299.23	15,840.29	19,317.49	-33.71

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 (+).

Custom Footnotes

Table 1(b)

EST\_BR2\_v1.0

**Emission trends (CH<sub>4</sub>)**  
**(Sheet 1 of 3)**

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>a</sup>	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
<b>1. Energy</b>	7.38	7.38	7.16	4.69	3.66	4.56	7.02	8.06	8.09
A. Fuel combustion (sectoral approach)	5.49	5.49	5.26	3.58	3.11	3.77	6.12	7.07	7.12
1. Energy industries	0.30	0.30	0.29	0.19	0.18	0.22	0.23	0.25	0.26
2. Manufacturing industries and construction	0.13	0.13	0.12	0.09	0.04	0.06	0.05	0.06	0.04
3. Transport	0.92	0.92	0.86	0.40	0.44	0.53	0.50	0.50	0.57
4. Other sectors	4.14	4.14	3.99	2.89	2.46	2.96	5.35	6.26	6.25
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	1.89	1.89	1.90	1.11	0.55	0.79	0.90	0.99	0.97
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	1.89	1.89	1.90	1.11	0.55	0.79	0.90	0.99	0.97
C. CO <sub>2</sub> transport and storage									
<b>2. Industrial processes</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
A. Mineral industry									
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	NO	NO	NO	NO	NO	NO	NO	NO	NO
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Agriculture</b>	54.30	54.30	50.70	43.62	34.61	31.22	27.65	26.01	25.78
A. Enteric fermentation	50.02	50.02	46.78	40.62	32.24	28.87	25.48	24.30	24.03
B. Manure management	4.29	4.29	3.92	3.00	2.37	2.35	2.17	1.71	1.75
C. Rice cultivation	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural soils	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Liming									
H. Urea application									
I. Other carbon-containing fertilizers									
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Land use, land-use change and forestry</b>	0.01	0.01	0.01	0.11	0.04	0.03	0.01	0.04	0.08
A. Forest land	0.01	0.01	0.00	0.10	0.04	0.03	0.01	0.04	0.07
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Wetlands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E. Settlements	NE	NE	NE	NE	NE	NE	NE	NE	NE
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products									
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Waste</b>	13.14	13.14	13.66	14.12	14.97	14.93	14.42	16.00	18.32
A. Solid waste disposal	8.56	8.56	9.15	9.69	10.61	10.62	10.16	11.90	14.26
B. Biological treatment of solid waste	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.02	0.04
C. Incineration and open burning of waste	0.05	0.05	0.05	0.06	0.05	0.06	0.07	0.07	0.08
D. Waste water treatment and discharge	4.51	4.51	4.43	4.35	4.29	4.21	4.15	4.00	3.94
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Other (as specified in the summary table in CRF)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total CH<sub>4</sub> emissions without CH<sub>4</sub> from LULUCF</b>	74.83	74.83	71.52	62.43	53.25	50.70	49.09	50.06	52.19
<b>Total CH<sub>4</sub> emissions with CH<sub>4</sub> from LULUCF</b>	74.85	74.85	71.53	62.54	53.29	50.74	49.11	50.10	52.26
<b>Memo items:</b>									
<b>International bunkers</b>	0.05	0.05	0.06	0.04	0.04	0.04	0.03	0.03	0.03
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Navigation	0.05	0.05	0.06	0.04	0.04	0.04	0.03	0.03	0.03
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO<sub>2</sub> emissions from biomass</b>									
<b>CO<sub>2</sub> captured</b>									
<b>Long-term storage of C in waste disposal sites</b>									
<b>Indirect N<sub>2</sub>O</b>									
<b>Indirect CO<sub>2</sub> (3)</b>									

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



Table 1(b)

EST\_BR2\_v1.0

**Emission trends (CH<sub>4</sub>)**  
**(Sheet 2 of 3)**

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>I. Energy</b>	6.46	6.40	6.44	6.50	6.28	6.48	6.80	6.21	6.00	7.00
A. Fuel combustion (sectoral approach)	5.54	5.51	5.41	5.40	5.35	5.46	5.60	4.97	4.75	5.75
1. Energy industries	0.27	0.27	0.25	0.29	0.29	0.29	0.32	0.36	0.28	0.25
2. Manufacturing industries and construction	0.05	0.03	0.04	0.06	0.04	0.05	0.07	0.07	0.07	0.13
3. Transport	0.43	0.51	0.46	0.53	0.47	0.41	0.38	0.37	0.37	0.35
4. Other sectors	4.79	4.70	4.65	4.52	4.55	4.70	4.83	4.17	4.03	5.02
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	0.92	0.89	1.03	1.10	0.92	1.02	1.20	1.24	1.25	1.25
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	0.92	0.89	1.03	1.10	0.92	1.02	1.20	1.24	1.25	1.25
C. CO <sub>2</sub> transport and storage										
<b>2. Industrial processes</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
A. Mineral industry										
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Agriculture</b>	25.12	21.65	21.32	22.50	21.31	21.84	22.19	22.41	22.51	22.50
A. Enteric fermentation	23.35	20.05	19.72	20.77	19.60	19.82	20.11	20.22	20.29	20.10
B. Manure management	1.78	1.59	1.60	1.73	1.71	2.02	2.08	2.18	2.23	2.41
C. Rice cultivation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural soils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Liming										
H. Urea application										
I. Other carbon-containing fertilizers										
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Land use, land-use change and forestry</b>	0.01	0.04	0.06	0.01	0.12	0.02	0.03	0.01	0.27	0.01
A. Forest land	0.00	0.04	0.05	0.01	0.11	0.01	0.03	0.01	0.26	0.01
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Wetlands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E. Settlements	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products										
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Waste</b>	19.05	19.31	21.17	21.52	20.98	20.39	20.32	19.16	18.59	18.75
A. Solid waste disposal	15.56	15.82	17.53	17.93	17.63	16.84	16.92	15.58	14.84	14.78
B. Biological treatment of solid waste	0.01	0.03	0.08	0.07	0.07	0.27	0.30	0.42	0.46	0.74
C. Incineration and open burning of waste	0.07	0.10	0.08	0.06	0.06	0.06	0.03	0.03	0.03	0.03
D. Waste water treatment and discharge	3.41	3.37	3.48	3.46	3.22	3.22	3.06	3.13	3.26	3.20
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Other (as specified in the summary table in CRF)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total CH<sub>4</sub> emissions without CH<sub>4</sub> from LULUCF</b>	50.63	47.36	48.93	50.52	48.56	48.71	49.30	47.78	47.11	48.25
<b>Total CH<sub>4</sub> emissions with CH<sub>4</sub> from LULUCF</b>	50.64	47.40	48.98	50.53	48.68	48.73	49.34	47.79	47.38	48.26
<b>Memo items:</b>										
<b>International bunkers</b>	0.03	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.06	0.07
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Navigation	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.06	0.07
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO<sub>2</sub> emissions from biomass</b>										
<b>CO<sub>2</sub> captured</b>										
<b>Long-term storage of C in waste disposal sites</b>										
<b>Indirect N<sub>2</sub>O</b>										
<b>Indirect CO<sub>2</sub> (3)</b>										

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

Table 1(b)

EST\_BR2\_v1.0

**Emission trends (CH<sub>4</sub>)**  
(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
	%						
<b>1. Energy</b>	7.03	6.87	7.21	6.46	6.72	6.69	-9.38
A. Fuel combustion (sectoral approach)	5.84	6.05	6.34	5.68	5.90	5.85	6.54
1. Energy industries	0.31	0.37	0.51	0.56	0.55	0.56	84.88
2. Manufacturing industries and construction	0.11	0.07	0.08	0.09	0.10	0.13	5.55
3. Transport	0.31	0.26	0.23	0.21	0.19	0.17	-81.96
4. Other sectors	5.11	5.36	5.52	4.82	5.07	4.99	20.49
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	-25.74
B. Fugitive emissions from fuels	1.19	0.81	0.87	0.78	0.82	0.84	-55.54
1. Solid fuels	NO	NO	NO	NO	NO	NO	
2. Oil and natural gas and other emissions from energy production	1.19	0.81	0.87	0.78	0.82	0.84	-55.54
C. CO <sub>2</sub> transport and storage							
<b>2. Industrial processes</b>	NO	NO	NO	NO	NO	NO	
A. Mineral industry							
B. Chemical industry	NO	NO	NO	NO	NO	NO	
C. Metal industry	NO	NO	NO	NO	NO	NO	
D. Non-energy products from fuels and solvent use	NO	NO	NO	NO	NO	NO	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	NO	NO	NO	NO	NO	NO	
H. Other	NO	NO	NO	NO	NO	NO	
<b>3. Agriculture</b>	22.39	22.27	22.82	22.95	23.76	24.97	-54.01
A. Enteric fermentation	20.00	19.81	20.22	20.35	21.07	22.20	-55.61
B. Manure management	2.39	2.46	2.60	2.60	2.69	2.77	-35.42
C. Rice cultivation	NO	NO	NO	NO	NO	NO	
D. Agricultural soils	NO	NO	NO	NO	NO	NO	
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	
G. Liming							
H. Urea application							
I. Other carbon-containing fertilizers							
J. Other	NO	NO	NO	NO	NO	NO	
<b>4. Land use, land-use change and forestry</b>	0.05	0.01	0.01	0.00	0.00	0.00	-77.81
A. Forest land	0.04	0.00	0.00	0.00	0.00	0.00	-99.31
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	
C. Grassland	0.01	0.00	0.00	0.00	0.00	0.00	-93.77
D. Wetlands	0.00	0.00	0.00	0.00	0.00	0.00	17.21
E. Settlements	NE	NE	NE	NE	NE	NE	
F. Other land	NO	NO	NO	NO	NO	NO	
G. Harvested wood products							
H. Other	NO	NO	NO	NO	NO	NO	
<b>5. Waste</b>	18.48	16.97	16.66	15.33	14.60	12.96	-1.36
A. Solid waste disposal	14.77	13.19	13.06	12.13	11.23	9.70	13.38
B. Biological treatment of solid waste	0.83	0.92	0.87	0.63	0.59	0.72	2,554.82
C. Incineration and open burning of waste	0.02	0.02	0.02	0.02	0.02	0.02	-62.35
D. Waste water treatment and discharge	2.86	2.84	2.70	2.55	2.76	2.52	-44.00
E. Other	NO	NO	NO	NO	NO	NO	
<b>6. Other (as specified in the summary table in CRF)</b>	NO	NO	NO	NO	NO	NO	
<b>Total CH<sub>4</sub> emissions without CH<sub>4</sub> from LULUCF</b>	47.91	46.11	46.68	44.74	45.09	44.63	-40.36
<b>Total CH<sub>4</sub> emissions with CH<sub>4</sub> from LULUCF</b>	47.95	46.12	46.69	44.75	45.09	44.63	-40.37
<b>Memo items:</b>							
<b>International bunkers</b>	0.07	0.07	0.06	0.06	0.12	0.12	129.74
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	31.76
Navigation	0.07	0.06	0.06	0.05	0.12	0.12	131.23
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	
<b>CO<sub>2</sub> emissions from biomass</b>							
<b>CO<sub>2</sub> captured</b>							
<b>Long-term storage of C in waste disposal sites</b>							
<b>Indirect N<sub>2</sub>O</b>							
<b>Indirect CO<sub>2</sub> (3)</b>							

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.

Custom Footnotes

Table 1(c)

EST\_BR2\_v1.0

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

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>a</sup> kt	1990	1991	1992	1993	1994	1995	1996	1997
<b>1. Energy</b>	0.39	0.39	0.37	0.26	0.24	0.24	0.27	0.31	0.30
A. Fuel combustion (sectoral approach)	0.39	0.39	0.37	0.26	0.24	0.24	0.27	0.31	0.30
1. Energy industries	0.06	0.06	0.05	0.04	0.04	0.04	0.04	0.04	0.04
2. Manufacturing industries and construction	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
3. Transport	0.13	0.13	0.12	0.07	0.08	0.11	0.12	0.14	0.13
4. Other sectors	0.18	0.18	0.18	0.13	0.12	0.08	0.10	0.12	0.12
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	NO	NO	NO	NO	NO	NO	NO	NO	NO
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. CO <sub>2</sub> transport and storage									
<b>2. Industrial processes</b>	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
A. Mineral industry									
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Agriculture</b>	4.16	4.16	3.90	3.27	2.28	2.20	1.94	1.78	1.84
A. Enteric fermentation									
B. Manure management	0.53	0.53	0.49	0.41	0.32	0.29	0.27	0.23	0.23
C. Rice cultivation									
D. Agricultural soils	3.63	3.63	3.40	2.86	1.96	1.91	1.67	1.55	1.61
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Liming									
H. Urea application									
I. Other carbon containing fertilizers									
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Land use, land-use change and forestry</b>	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.01
A. Forest land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Cropland	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Wetlands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E. Settlements	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products									
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Waste</b>	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.11	0.11
A. Solid waste disposal									
B. Biological treatment of solid waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C. Incineration and open burning of waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Waste water treatment and discharge	0.13	0.13	0.13	0.13	0.12	0.12	0.11	0.11	0.11
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Other (as specified in the summary table in CRF)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total direct N<sub>2</sub>O emissions without N<sub>2</sub>O from LULUCF</b>	4.70	4.70	4.42	3.67	2.66	2.58	2.35	2.23	2.27
<b>Total direct N<sub>2</sub>O emissions with N<sub>2</sub>O from LULUCF</b>	4.70	4.70	4.43	3.67	2.66	2.59	2.35	2.23	2.28
<b>Memo items:</b>									
<b>International bunkers</b>	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Navigation	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO<sub>2</sub> emissions from biomass</b>									
<b>CO<sub>2</sub> captured</b>									
<b>Long-term storage of C in waste disposal sites</b>									
<b>Indirect N<sub>2</sub>O</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indirect CO<sub>2</sub> (3)</b>									

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

Table 1(c)

EST\_BR2\_v1.0

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

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>1. Energy</b>	0.28	0.26	0.27	0.33	0.36	0.30	0.32	0.32	0.30	0.31
A. Fuel combustion (sectoral approach)	0.28	0.26	0.27	0.33	0.36	0.30	0.32	0.32	0.30	0.31
1. Energy industries	0.04	0.04	0.04	0.04	0.04	0.04	0.06	0.07	0.06	0.06
2. Manufacturing industries and construction	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
3. Transport	0.13	0.14	0.15	0.20	0.22	0.13	0.13	0.13	0.12	0.11
4. Other sectors	0.10	0.08	0.08	0.07	0.09	0.12	0.12	0.11	0.11	0.12
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	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. CO <sub>2</sub> transport and storage										
<b>2. Industrial processes</b>	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
A. Mineral industry										
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Agriculture</b>	1.90	1.56	1.62	1.58	1.47	1.62	1.69	1.64	1.65	1.79
A. Enteric fermentation										
B. Manure management	0.23	0.20	0.20	0.22	0.21	0.22	0.22	0.22	0.22	0.22
C. Rice cultivation										
D. Agricultural soils	1.67	1.36	1.43	1.36	1.26	1.40	1.47	1.42	1.44	1.56
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Liming										
H. Urea application										
I. Other carbon containing fertilizers										
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Land use, land-use change and forestry</b>	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
A. Forest land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Cropland	NA, NO	NA, NO	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Wetlands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
E. Settlements	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products										
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Waste</b>	0.11	0.10	0.11	0.11	0.11	0.12	0.12	0.13	0.13	0.16
A. Solid waste disposal										
B. Biological treatment of solid waste	0.00	0.00	0.01	0.01	0.00	0.02	0.02	0.03	0.03	0.06
C. Incineration and open burning of waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Waste water treatment and discharge	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Other (as specified in the summary table in CRF)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total direct N<sub>2</sub>O emissions without N<sub>2</sub>O from LULUCF</b>	2.30	1.94	2.03	2.03	1.95	2.06	2.14	2.11	2.10	2.27
<b>Total direct N<sub>2</sub>O emissions with N<sub>2</sub>O from LULUCF</b>	2.31	1.95	2.03	2.04	1.96	2.07	2.15	2.12	2.12	2.29
<b>Memo items:</b>										
<b>International bunkers</b>	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.03
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Navigation	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO<sub>2</sub> emissions from biomass</b>										
<b>CO<sub>2</sub> captured</b>										
<b>Long-term storage of C in waste disposal sites</b>										
<b>Indirect N<sub>2</sub>O</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indirect CO<sub>2</sub> (3)</b>										

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

Table 1(c)

EST\_BR2\_v1.0

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

(Sheet 3 of 3)

	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>							
	%						
<b>1. Energy</b>	0.30	0.32	0.37	0.35	0.35	0.36	-7.06
A. Fuel combustion (sectoral approach)	0.30	0.32	0.37	0.35	0.35	0.36	-7.06
1. Energy industries	0.07	0.07	0.09	0.10	0.09	0.10	73.26
2. Manufacturing industries and construction	0.02	0.01	0.01	0.01	0.01	0.02	-5.88
3. Transport	0.10	0.10	0.12	0.10	0.10	0.09	-27.30
4. Other sectors	0.12	0.14	0.14	0.14	0.15	0.15	-19.04
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	-30.29
B. Fugitive emissions from fuels	NO	NO	NO	NO	NO	NO	
1. Solid fuels	NO	NO	NO	NO	NO	NO	
2. Oil and natural gas and other emissions from energy production	NO	NO	NO	NO	NO	NO	
C. CO <sub>2</sub> transport and storage							
<b>2. Industrial processes</b>	0.02	0.01	0.02	0.02	0.01	0.01	-27.96
A. Mineral industry							
B. Chemical industry	NO	NO	NO	NO	NO	NO	
C. Metal industry	NO	NO	NO	NO	NO	NO	
D. Non-energy products from fuels and solvent use	NO	NO	NO	NO	NO	NO	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	0.02	0.01	0.02	0.02	0.01	0.01	-27.96
H. Other	NO	NO	NO	NO	NO	NO	
<b>3. Agriculture</b>	2.03	1.87	1.89	1.92	2.14	2.08	-49.92
A. Enteric fermentation							
B. Manure management	0.22	0.22	0.23	0.23	0.24	0.24	-53.82
C. Rice cultivation							
D. Agricultural soils	1.81	1.65	1.66	1.69	1.90	1.84	-49.36
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	
G. Liming							
H. Urea application							
I. Other carbon containing fertilizers							
J. Other	NO	NO	NO	NO	NO	NO	
<b>4. Land use, land-use change and forestry</b>	0.02	0.02	0.02	0.02	0.02	0.02	394.07
A. Forest land	0.00	0.00	0.00	0.00	0.00	0.00	-99.31
B. Cropland	0.01	0.02	0.02	0.02	0.02	0.02	
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	-93.77
D. Wetlands	0.01	0.01	0.01	0.01	0.01	0.01	17.21
E. Settlements	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	
F. Other land	NO	NO	NO	NO	NO	NO	
G. Harvested wood products							
H. Other	NO	NO	NO	NO	NO	NO	
<b>5. Waste</b>	0.16	0.17	0.17	0.15	0.15	0.16	17.74
A. Solid waste disposal							
B. Biological treatment of solid waste	0.06	0.07	0.07	0.05	0.04	0.05	2,554.82
C. Incineration and open burning of waste	0.00	0.00	0.00	0.00	0.00	0.00	-59.64
D. Waste water treatment and discharge	0.10	0.10	0.10	0.10	0.10	0.10	-21.54
E. Other	NO	NO	NO	NO	NO	NO	
<b>6. Other (as specified in the summary table in CRF)</b>	NO	NO	NO	NO	NO	NO	
<b>Total direct N<sub>2</sub>O emissions without N<sub>2</sub>O from LULUCF</b>	2.52	2.38	2.44	2.44	2.65	2.61	-44.37
<b>Total direct N<sub>2</sub>O emissions with N<sub>2</sub>O from LULUCF</b>	2.54	2.40	2.46	2.46	2.67	2.64	-43.92
<b>Memo items:</b>							
<b>International bunkers</b>	0.02	0.02	0.02	0.02	0.04	0.04	103.69
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	-18.05
Navigation	0.02	0.02	0.02	0.02	0.03	0.03	131.23
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	
<b>CO<sub>2</sub> emissions from biomass</b>							
<b>CO<sub>2</sub> captured</b>							
<b>Long-term storage of C in waste disposal sites</b>							
<b>Indirect N<sub>2</sub>O</b>	NO	NO	NO	NO	NO	NO	
<b>Indirect CO<sub>2</sub> (3)</b>							

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

<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.

Custom Footnotes

Table 1(d)

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

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>a</sup>	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
<b>Emissions of HFCs and PFCs - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	17.51	20.02	22.91	28.45	34.56	41.31
<b>Emissions of HFCs - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	17.51	20.02	22.91	28.45	34.56	41.31
HFC-23	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-32	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00
HFC-41	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-43-10mee	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-125	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00
HFC-134	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-134a	NO	NO	NO	0.01	0.01	0.01	0.02	0.02	0.02
HFC-143	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-143a	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00
HFC-152	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-152a	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-161	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-227ea	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-236cb	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-236ea	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-236fa	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-245ca	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-245fa	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-365mfc	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of HFCs(4) - (kt CO <sub>2</sub> equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Emissions of PFCs - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
CF <sub>4</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO
C <sub>2</sub> F <sub>6</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO
C <sub>3</sub> F <sub>8</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO
C <sub>4</sub> F <sub>10</sub>	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
C <sub>5</sub> F <sub>12</sub>	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
C10F18	NO	NO	NO	NO	NO	NO	NO	NO	NO
c-C3F6	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of PFCs(4) - (kt CO <sub>2</sub> equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Unspecified mix of HFCs and PFCs - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Emissions of SF<sub>6</sub> - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	0.05	0.09	1.39	2.97	3.07	3.33	2.85
SF <sub>6</sub>	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Emissions of NF<sub>3</sub> - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
NF <sub>3</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO

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

Table 1(d)

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

(Sheet 2 of 3)

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Emissions of HFCs and PFCs - (kt CO<sub>2</sub> equivalent)</b>	52.25	63.39	79.15	97.19	98.83	104.87	119.33	134.96	154.66	170.44
<b>Emissions of HFCs - (kt CO<sub>2</sub> equivalent)</b>	52.25	63.39	79.15	97.19	98.83	104.87	119.33	134.96	154.57	170.37
HFC-23	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00
HFC-32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-41	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-43-10mee	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-125	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
HFC-134	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-134a	0.02	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.06
HFC-143	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-143a	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
HFC-152	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-152a	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
HFC-161	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-227ea	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-236cb	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-236ea	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-236fa	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-245ca	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-245fa	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
HFC-365mfc	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00
Unspecified mix of HFCs(4) - (kt CO <sub>2</sub> equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Emissions of PFCs - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	NO	NO	NA, NO	NA, NO	NA, NO	0.09	0.08
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	NO	NO	NO	NO
C <sub>3</sub> F <sub>8</sub>	NO	NO	NO	NO	NO	NA, NO	NA, NO	NA, NO	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>5</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
C10F18	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
c-C3F6	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Unspecified mix of PFCs(4) - (kt CO <sub>2</sub> equivalent)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Unspecified mix of HFCs and PFCs - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Emissions of SF<sub>6</sub> - (kt CO<sub>2</sub> equivalent)</b>	2.85	2.88	2.60	1.66	1.37	1.27	1.03	1.03	1.10	0.92
SF <sub>6</sub>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Emissions of NF<sub>3</sub> - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NF <sub>3</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

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

Table 1(d)

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

(Sheet 3 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
							%
<b>Emissions of HFCs and PFCs - (kt CO<sub>2</sub> equivalent)</b>	150.44	157.53	175.43	183.00	193.03	203.60	
<b>Emissions of HFCs - (kt CO<sub>2</sub> equivalent)</b>	150.39	157.53	175.43	183.00	193.03	203.60	
HFC-23	0.00	0.00	0.00	0.00	0.00	0.00	
HFC-32	0.00	0.00	0.00	0.00	0.00	0.00	
HFC-41	NO	NO	NO	NO	NO	NO	
HFC-43-10mee	NO	NO	NO	NO	NO	NO	
HFC-125	0.01	0.01	0.02	0.02	0.02	0.02	
HFC-134	NO	NO	NO	NO	NO	NO	
HFC-134a	0.04	0.04	0.04	0.04	0.04	0.04	
HFC-143	NO	NO	NO	NO	NO	NO	
HFC-143a	0.01	0.01	0.01	0.01	0.02	0.02	
HFC-152	NO	NO	NO	NO	NO	NO	
HFC-152a	0.02	0.02	0.02	0.02	0.02	0.02	
HFC-161	NO	NO	NO	NO	NO	NO	
HFC-227ea	0.00	0.00	0.00	0.00	0.00	0.00	
HFC-236cb	NO	NO	NO	NO	NO	NO	
HFC-236ea	NO	NO	NO	NO	NO	NO	
HFC-236fa	NO	NO	NO	NO	NO	NO	
HFC-245ca	NO	NO	NO	NO	NO	NO	
HFC-245fa	NO	NO	NO	NO	NO	NO	
HFC-365mfc	0.00	0.00	0.00	0.00	0.00	0.00	
Unspecified mix of HFCs(4) - (kt CO <sub>2</sub> equivalent)	NO	NO	NO	NO	NO	NO	
<b>Emissions of PFCs - (kt CO<sub>2</sub> equivalent)</b>	0.05	NO	NO	NO	NO	NO	
CF <sub>4</sub>	NO	NO	NO	NO	NO	NO	
C <sub>2</sub> F <sub>6</sub>	NO	NO	NO	NO	NO	NO	
C <sub>3</sub> F <sub>8</sub>	0.00	NO	NO	NO	NO	NO	
C <sub>4</sub> F <sub>10</sub>	NO	NO	NO	NO	NO	NO	
c-C <sub>4</sub> F <sub>8</sub>	NO	NO	NO	NO	NO	NO	
C <sub>5</sub> F <sub>12</sub>	NO	NO	NO	NO	NO	NO	
C <sub>6</sub> F <sub>14</sub>	NO	NO	NO	NO	NO	NO	
C <sub>10</sub> F <sub>18</sub>	NO	NO	NO	NO	NO	NO	
c-C <sub>3</sub> F <sub>6</sub>	NO	NO	NO	NO	NO	NO	
Unspecified mix of PFCs(4) - (kt CO <sub>2</sub> equivalent)	NO	NO	NO	NO	NO	NO	
<b>Unspecified mix of HFCs and PFCs - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	NO	NO	NO	
<b>Emissions of SF<sub>6</sub> - (kt CO<sub>2</sub> equivalent)</b>	1.29	1.38	1.73	1.77	1.88	2.00	
SF <sub>6</sub>	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Emissions of NF<sub>3</sub> - (kt CO<sub>2</sub> equivalent)</b>	NO	NO	NO	NO	NO	NO	
NF <sub>3</sub>	NO	NO	NO	NO	NO	NO	

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> 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.)

**Custom Footnotes****Documentation Box:**



Table 2(a)

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

<i>Party</i>	<i>Estonia</i>		
Base year /base period	1990		
Emission reduction target	% of base year/base period	% of 1990 <sup>b</sup>	
	20.00	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		1990	
PFCs		1990	
SF <sub>6</sub>		1990	
NF <sub>3</sub>			
Other Gases (specify)			
Sectors covered <sup>b</sup>	Energy	Yes	
	Transport <sup>f</sup>	Yes	
	Industrial processes <sup>g</sup>	Yes	
	Agriculture	Yes	
	LULUCF	No	
	Waste	Yes	
	Other Sectors (specify)		
	aviation in the scope of the EU Emissions Trading System (EU ETS)	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>	4th AR
CH <sub>4</sub>	4th AR
N <sub>2</sub> O	4th AR
HFCs	4th AR
PFCs	4th AR
SF <sub>6</sub>	4th AR
NF <sub>3</sub>	4th 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	Excluded
	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 (Specify)</i>	<i>Possible scale of contributions (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 prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

**Description of quantified economy-wide emission reduction target: 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.

**Custom Footnotes**

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

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

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

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

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

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

Table 3

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## 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)			
									2015	2020	2025	2030
Improvement of the efficiency of the use of oil shale (2x215MW)*	Energy	CO <sub>2</sub> , N <sub>2</sub> O	Efficiency improvement in the energy and transformation sector.	Regulatory	Implemented	Reconstruction of two units in Narva Elekrijaamad AS (Narva Power Plants). Replacing of oil shale boilers of conventional pulverized combustion technology with the ones utilizing the circulating fluidized bed combustion. Capacity of 2x215 MW.	2004	Company Eesti Energia AS	619.7	632.7	552.4	9.8
Improvement of the efficiency of the use of oil shale (300 MW)*	Energy	CO <sub>2</sub> , N <sub>2</sub> O	Efficiency improvement in the energy and transformation sector.	Regulatory	Implemented	Reconstruction of one unit in Narva Elekrijaamad AS (Narva Power Plants). Replacing of oil shale boiler of conventional pulverized combustion technology with the one utilizing circulating fluidized bed combustion. Capacity of 300 MW.	2012	Company Eesti Energia AS	236.7	631.2	733.6	565.6
Support for renewable and efficient CHP based electricity production*	Energy	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	Increase in renewable energy.	Economic	Implemented	Support for renewable electricity production is regulated by the Electricity Market Act. 53.7 €/MWh is paid for electricity produced from renewable energy sources, except biomass; 53.7 €/MWh for electricity produced from biomass in CHP mode; 32 €/MWh for electricity produced in efficient CHP mode from waste, peat or oil shale retort gas; 32 €/MWh for electricity produced in efficient CHP mode using generating equipment with a capacity of not more than 10 MW.	2007	Company Elering AS	885.9	1010.1	1124.9	1154.1
Investment support for wind parks*	Energy	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	Increase in renewable energy.	Fiscal/Economic/Regulatory	Implemented	Investment support is provided under different schemes (including IJ projects and GIS).	2010	Environmental Investment Centre	66	66	66	66
Renovation of boilerhouses*	Energy	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	Increase in renewable energy, switch to less carbon-intensive fuels and efficiency improvement in the energy and transformation sector.	Economic	Implemented	The measure includes fuel switch from oil fuels to renewable and/or local energy sources like biomass, peat, etc.	2015	Ministry of Economic Affairs and Communication	3.6	71.2	82.7	143.5
Renovation of heat networks*	Energy	CO <sub>2</sub>	Reduction of losses.	Economic	Implemented	The aim of the measure is to reduce the losses in district heating networks. Investments will be made to renovate heat networks and reduce losses.	2015	Ministry of Economic Affairs and Communication	2.7	52.6	61.3	106.3
Transition of consumers to local and place heating*	Energy	CO <sub>2</sub>	Efficiency improvement in the energy and transformation sector.	Economic	Implemented	District heating networks that operate inefficiently (the amount of MWh sold per meter of heat pipes is less than 1.2) will be restructured to local and place heating.	2015	Ministry of Economic Affairs and Communication	1.1	21.6	25.2	43.8
Investments through Green Investment Scheme for reconstruction of boilerhouses and heat networks*	Energy	CO <sub>2</sub>	Reduction of losses and efficiency improvement in the energy and transformation sector.	Economic	Implemented	Investment support through Green Investment Scheme for reconstruction of boilerhouses and heat networks.	2010	Environmental Investment Centre	96.5	96.5	96.5	96.5
Investments through the European Regional Development Fund for reconstruction of boilerhouses and heat networks*	Energy	CO <sub>2</sub>	Reduction of losses and efficiency improvement in the energy and transformation sector.	Economic	Implemented	Investments through the European Regional Development Fund for reconstruction of boilerhouses and heat networks. A total of 21 project were financed.	2010	Environmental Investment Centre	60	60	60	60



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## 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)			
									2015	2020	2025	2030
Additional renovation of boilerhouses*	Energy	CO <sub>2</sub>	Efficiency improvement in the energy and transformation sector and switch to less carbon-intensive fuels and increase in renewable energy.	Economic	Planned	This measure includes additional implementation of the measure "Renovation of boilerhouses". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	3.5	67.7	79	136.8
Additional renovation of heat networks*	Energy	CO <sub>2</sub>	Reduction of losses.	Economic	Planned	This measure includes additional implementation of the measure "renovation of heat networks". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	9.5	184.4	214.5	372.4
Increasing the share of biofuels in transport*	Transport	CO <sub>2</sub>	Low carbon fuels/electric cars.	Economic	Implemented	The main target of this measure is to achieve the 10% share of biofuels in transport sector by 2020.	2010	Ministry of Economic Affairs and Communication	122.2	244	372.8	501.6
Increase of fuel economy in transport*	Transport	CO <sub>2</sub>	Efficiency improvements of vehicles.	Economic	Implemented	Includes developing support system for energy efficient cars and also support the use of hybrid buses, hybrid trolleys, electrical buses etc.	2015	Ministry of Economic Affairs and Communication	11.6	40.8	69.9	99
Promotion of economical driving*	Transport	CO <sub>2</sub>	Modal shift to public transport or non-motorized transport, demand management/reduction and improved behavior.	Other (Information)	Implemented	This measure includes promotion of the eco-driving and also developing light traffic. E.g. Development of pathways and bicycle paths.	2015	Ministry of Economic Affairs and Communication	10.4	36.3	62.5	88.3
Reduction of forced movements with personal vehicles in transport*	Transport	CO <sub>2</sub>	Demand management/reduction	Other (Other Planning))	Implemented	This measure includes developing telecommunication and also developing short-term rental cars systems. The measure aims to mitigate the transport load in rush hours.	2015	Ministry of Economic Affairs and Communication	4.4	15.4	26.4	37.4
Improvement of the traffic system*	Transport	CO <sub>2</sub>	Modal shift to public transport or non-motorized transport, demand management/reduction and improved transport infrastructure.	Economic/Information/Regulatory/Other (Planning)	Implemented	This measure includes updating the parking policies in cities, planning the land use to reduce the use of private cars, restructuring the streets in cities, etc.	2015	Ministry of Economic Affairs and Communication	11.3	39.5	67.6	95.9
Development of convenient and modern public transport*	Transport	CO <sub>2</sub>	Improved behavior and improved transport infrastructure.	Other (Information)	Implemented	This measure includes improvement of the availability of public transport, development of ticket systems and new services.	2015	Ministry of Economic Affairs and Communication	6.3	22.2	38	53.8
Additional increase of fuel economy in transport*	Transport	CO <sub>2</sub>	Efficiency improvements of vehicles.	Economic	Planned	This measure includes additional implementation of the measure "Increase of fuel economy in transport". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	20.6	21.9	42.1	62.2
Additional promotion of economical driving*	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Modal shift to public transport or non-motorized transport, demand management/reduction and improved behaviour.	Other (Information)	Planned	This measure includes additional implementation of the measure "Promotion of economical driving". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	24.0	31.3	60.2	88.9

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## 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)				
									2015	2020	2025	2030	
Additional reduction of forced movements with private vehicles in transport*	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Demand management/reduction	Other (Other (Planning))	Planned	This measure includes additional implementation of the measure "Reduction of forced movements with private vehicles in transport". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	17.2	18.5	35.7	52.7	
Additional improvement of the traffic system*	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Modal shift to public transport or non-motorized transport, demand management/reduction and improved transport infrastructure.	Economic/Regulatory/Information/Other (Planning)	Planned	This measure includes additional implementation of the measure "Improvement of the traffic system". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	80.7	92.5	178	262.8	
Additional development of convenient and modern public transport*	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Improved behavior and improved transport infrastructure.	Other (Information)	Planned	This measure includes additional implementation of the measure "Development of convenient and modern public transport". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	29.2	37.4	71.9	106.2	
Road usage fees for cars and heavy duty vehicles*	Transport	CO <sub>2</sub>	Demand management/reduction improved behaviour.	Fiscal	Planned	This measure includes a system of road usage fees for cars and heavy duty vehicles. The system should be based on the mileage, location, environmental aspects, etc.	2020	Ministry of Economic Affairs and Communication	0	94.6	181.7	268.3	
Congestion charge*	Transport	CO <sub>2</sub>	Demand management/reduction, improved transport infrastructure and improved behaviour.	Fiscal	Planned	This measure includes development and implementation of congestion charge system in Tallinn (the capital of Estonia)	2020	Ministry of Economic Affairs and Communication	0	23.1	44.6	65.8	
Development of the railroad infrastructure*	Transport	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Modal shift to public transport or non-motorized transport and demand management/reduction	Economic	Planned	This measure includes building Rail Baltic and also raising the speed limit to 160 km/h in Tallinn-Narva and Tapa-Tartu directions.	2020	Ministry of Economic Affairs and Communication	0	11	21.2	31.4	
Reconstruction of public and commercial buildings*	Energy	CO <sub>2</sub>	Efficiency improvements of buildings, efficiency improvement in services/ tertiary sector and demand management/reduction	Economic	Implemented	This measure includes reconstruction of 10% of the existing buildings in the 20 year period (energy efficiency class D)	2015	KredEx	0.3	0.9	1.4	1.8	
Reconstruction of private houses and apartment buildings*	Energy	CO <sub>2</sub>	Efficiency improvements of buildings and demand management/reduction	Economic	Implemented	This measure includes reconstruction of 10% of existing private houses (energy efficiency class E) and 15% of existing apartment buildings in the 20 year period (energy efficiency class E).	2015	Ministry of Economic Affairs and Communication	0.5	1.7	2.5	3.3	
Implementation of the minimum requirements for nearly zero buildings*	Energy	CO <sub>2</sub>	Efficiency improvements of buildings and demand management/reduction	Regulatory	Implemented	The requirements will be implemented as required by the Energy Efficiency Directive and in the Government regulation "Minimum energy efficiency requirements".	2015	Ministry of Economic Affairs and Communication	1.5	5.3	7.9	10.5	

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## 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)			
									2015	2020	2025	2030
Promotion of the use of energy efficient electrical appliances in residential sector*	Energy	CO <sub>2</sub>	Efficiency improvement of appliances.	Other (Regulatory)	Implemented	The increased use of energy efficient electrical appliances in households is expected to lead to an annual saving of 0.5PJ of electricity.	2010	Government	47.7	44.9	38.7	30.8
Energy efficiency improvement in public buildings*	Energy	CO <sub>2</sub>	Efficiency improvements of buildings and demand management/reduction .	Economic	Implemented	This measure includes investments through Green Investment Scheme to the improvement of energy efficiency in public buildings. Between 2010 and 2013, total of 540 public buildings were renovated.	2010	State Real Estate Ltd.	27.8	27.8	27.8	27.8
Energy efficiency improvement in residential buildings*	Energy	CO <sub>2</sub>	Efficiency improvements of buildings demand management/reduction .	Economic	Implemented	This measure includes investments through Green Investment Scheme to the improvement of energy efficiency in residential buildings. Grants of 15% to 35% of the total cost of renovation was supported through this measure.	2010	KredEx	28	28	28	28
Street lighting reconstruction programme*	Energy	CO <sub>2</sub>	Demand management/reduction .	Economic	Implemented	This measure includes investments through Green Investment Scheme to the reconstruction of street lighting. According to the programme 7 Estonian cities (with population between 8000 and 15000 inhabitants) will get energy efficient street lighting.	2012	Environmental Investment Centre	1.6	1.5	1.3	1
Additional reconstruction of public and commercial buildings*	Energy	CO <sub>2</sub>	Efficiency improvements of buildings, efficiency improvement in services/ tertiary sector and demand management/reduction .	Economic	Planned	This measure includes additional implementation of the measure "Reconstruction of public and commercial buildings". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	0.8	2.8	4.3	5.7
Additional reconstruction of private houses and apartment buildings*	Energy	CO <sub>2</sub>	Efficiency improvements of buildings and demand management/reduction .	Economic	Planned	This measure includes additional implementation of the measure "Reconstruction of private houses and apartment buildings". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	10.5	36.9	55.3	73.7
Accelerated implementation of the minimum requirements for nearly zero buildings*	Energy	CO <sub>2</sub>	Efficiency improvements of buildings and demand management/reduction .	Regulatory	Planned	The requirements will be implemented faster than required by the Energy Efficiency Directive. Since this is a planned measure then it is not clear yet when the requirements will be implemented.	2015	Ministry of Economic Affairs and Communication	2.3	7.9	11.9	15.8
Additional transition of consumers to local and place heating*	Energy	CO <sub>2</sub>	Efficiency improvement in the energy and transformation sector.	Economic	Planned	This measure includes additional implementation of the measure "Transition of consumers to local and place heating". This means that additional investments are planned to achieve additional energy efficiency and additional GHG savings.	2015	Ministry of Economic Affairs and Communication	2.5	49.6	57.5	100.1
Bans and duties from the Regulation (EU) No 517/2014 on fluorinated greenhouse gases*	Industry/industrial processes	HFCs	Reduction of emissions of fluorinated gases and replacement of fluorinated gases by other substances.	Regulatory	Implemented	Bans and duties (that have effect on projected emissions) include: • bans of bringing certain new equipment on the market; • the service ban for F-gases with GWP 2500 and more; • duty of collecting the gases from decommissioned equipment; • certification duties for entrepreneurs who are handling the F-gases.	2015	Ministry of the Environment	+2.6	1.6	44.52	77.22

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## 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)			
									2015	2020	2025	2030
Duty of implementing best available techniques*	Industry/industrial processes	CO <sub>2</sub>	Minimising CO <sub>2</sub> emissions from industrial processes by implementing best available techniques.	Regulatory	Implemented	The purpose of the duty is to enforce certain manufacturing companies to use best available techniques in order to minimise emissions into air (including GHG emissions), water and soil.	2001	Ministry of the Environment	NE	NE	NE	NE
Facilitating the supply and use of renewable sources of energy, by-products, wastes, residues and other non-food raw material for purposes of the bio-economy *	Agriculture, Energy	CH <sub>4</sub> , N <sub>2</sub> O	Increase in renewable energy.	Economic/Information/Research	Implemented	The main requirement underlined within this measure is to support the production of heat and electricity from biogas. The objectives are furthered by activities of article 17 in the development plan which include activity type "Investments to improve the productivity of agricultural enterprises" within the framework of which investments are endorsed to produce electricity, heat, liquid fuels or gas out of biomass.	2014	Ministry of Rural Affairs	0.6	4.5	7.7	11.3
Organic farming*	Agriculture	N <sub>2</sub> O, CO <sub>2</sub>	Reduction of fertilizer/manure use on cropland, improved livestock management and activities improving grazing land or grassland management.	Regulatory	Implemented	The objectives of the support for organic farming are: to support and improve the competitiveness of organic farming; to increase biological and landscape diversity and to maintain and improve soil fertility and water quality.	2014	Ministry of Rural Affairs	NE	NE	NE	NE
Support for environmentally friendly management*	Agriculture	CH <sub>4</sub> , CO <sub>2</sub> , N <sub>2</sub> O	Promote the introduction and continual use of environmentally friendly management methods in agriculture.	Other (Regulatory)	Implemented	The objectives are to promote the introduction and continual use of environmentally friendly management methods in agriculture in order to protect and increase biological and landscape diversity and to protect the status of water and soil; to expand environmentally friendly planning in agriculture and to increase the awareness of agricultural producers of the environment.	2014	Ministry of Rural Affairs	NE	NE	NE	NE
EU CAP Greening measure*	Agriculture, Forestry/LULUCF	CO <sub>2</sub> , N <sub>2</sub> O	Improving cropland management and carbon sequestration on croplands.	Regulatory	Implemented	Under the EU CAP the Greening measure aims to limit and reduce GHG emissions and to enhance carbon sequestration on croplands. The objective of the measure is to make farms with monocultures more environmentally friendly and sustainable.	2015	Ministry of Rural Affairs	NE	NE	NE	NE
Prohibition concerning percentage of biodegradable waste deposited*	Waste management/waste	CH <sub>4</sub>	Reduced landfilling and enhanced recycling.	Regulatory	Implemented	The percentage of biodegradable waste in the total amount by weight of municipal waste deposited in landfills in Estonia shall not exceed: 45% by 16 July 2010; 30% by 16 July 2013 and 20% by July 2020.	2004	Ministry of the Environment	1.9	2.5	2.8	1.1
Increasing reusing and recycling of waste materials*	Waste management/waste	CH <sub>4</sub>	Reduced landfilling, enhanced recycling and improved landfill management.	Regulatory	Implemented	Re-use and the recycling of waste materials such as paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households, shall be increased at least to the extent of 50% of the total weight of such waste per calendar year.	2014	Ministry of the Environment	IE	IE	IE	IE
Reducing landfilling waste*	Waste management/waste	CH <sub>4</sub>	Enhanced recycling, improved landfill management and reduced landfilling.	Other (Planning)	Implemented	By 2030, landfilling waste is reduced by 30% and the hazard of waste is reduced significantly.	2014	Ministry of the Environment	NE	NE	NE	NE

Table 3

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## 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)			
									2015	2020	2025	2030
Promoting the prevention and reduction of waste generated, including reducing the hazard of waste*	Waste management/waste	CH <sub>4</sub> , N <sub>2</sub> O	Enhanced recycling, improved landfill management and reduced landfilling.	Regulatory	Implemented	The overall objective of the measure is to improve the resource efficiency of Estonia's economy and promoting waste prevention to reduce the negative impact on environment and human health.	2014	Ministry of the Environment	NE	NE	NE	NE
Recycling or reusing waste at the maximum level*	Waste management/waste	CH <sub>4</sub> , N <sub>2</sub> O	Enhanced recycling and reduced landfilling.	Other (Planning)	Implemented	This strategic objective is set to increase recycling of municipal waste and biodegradable waste in the total amount of municipal solid waste and developing a nationwide waste collection network with intensified waste reporting system.	2014	Ministry of the Environment	1.1	3.2	1.8	14.9
Reducing environmental risks arising from waste, improvement of monitoring and supervision*	Waste management/waste	CH <sub>4</sub>	Improved landfill management and improved treatment technologies-improvement of monitoring and supervision.	Other (Planning)	Implemented	The overall objective of the measure is to improve hazardous waste treatment options and reducing environmental risks arising from waste disposal.	2014	Ministry of the Environment	NE	NE	NE	NE
Increasing forest increment and ability to sequester carbon through timely regeneration of forests for climate change mitigation*	Forestry/LULUCF	CO <sub>2</sub>	Conservation of carbon in existing forests and enhancing production in existing forests.	Economic	Implemented	The overall objective of the measure is to support activities related to timely regeneration of forests in order to mitigate climate change. The measure helps to increase GHG removals and decrease emissions by/from forest land.	2011	Ministry of the Environment	NE	NE	NE	NE
Improving forest health condition and preventing the spreading of dangerous forest detractors*	Forestry/LULUCF	CO <sub>2</sub>	Strengthening protection against natural disturbances and conservation of carbon in existing forests.	Economic	Implemented	The measure is aimed to increase removals of GHGs by Estonian forests due to their better health condition. The measure provides support for monitoring and restoration of forests in order to improve forest health condition and prevent damage caused by fire, pests and storms.	2011	Ministry of the Environment	NE	NE	NE	NE
Reducing the environmental impact related to the use of fossil fuels and non-renewable natural resources by increasing timber production and use in Estonia *	Forestry/LULUCF	CO <sub>2</sub>	Increasing the harvested wood products pool and substitution of GHG-intensive feedstocks and materials with harvested wood products.	Other (Regulatory)	Implemented	The objective of the measure is to encourage timber production and use in Estonia through supported activities. The measure helps to reduce GHG emissions of fossil fuels and deposit carbon in harvested wood products.	2011	Ministry of the Environment	NE	NE	NE	NE
Natura 2000 support for private forest land*	Forestry/LULUCF	CO <sub>2</sub>	Conservation of carbon in existing forests.	Economic	Implemented	The measure aims to maintain biological and landscape diversity in Natura 2000 areas covered with forests. Protected areas, special conservation areas and species protection sites on forest land will help to preserve forest carbon stock from those areas.	2014	Ministry of Rural Affairs	NE	NE	NE	NE
Improvement of forest economic and ecological vitality*	Forestry/LULUCF	CO <sub>2</sub>	Conservation of carbon in existing forests.	Economic	Implemented	The overall objective of supporting forestry as integral part of rural life, is sustainable and effective forest management which promotes raising vitality of forests by improving its species composition or implementing other silvicultural techniques, maintaining and renewing forest biological diversity, integral ecosystem and protection function by helping to preserve forest multifunctional role and its spiritual and cultural heritage.	2014	Ministry of Rural Affairs	NE	NE	NE	NE

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**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)			
									2015	2020	2025	2030
Support for growing plants of local varieties <sup>g</sup>	Forestry/LULUCF	CO <sub>2</sub> , N <sub>2</sub> O	Carbon sequestration and GHG emissions reduction.	Economic	Implemented	The objective of this measure is to ensure the preservation of the local crop varieties and domestic animal breeds valuable for cultural heritage and genetic diversity. The measure helps to preserve crop varieties more suitable for local conditions (more resistant to locally spread diseases and climate conditions) and therefore gives a good basis for developing new breeds and supports organic farming.	2014	Ministry of Rural Affairs	NE	NE	NE	NE



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**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)			
									2015	2020	2025	2030

*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.

**Custom Footnotes**

GHG reduction from this measure is reported under 'Prohibition concerning percentage of biodegradable waste deposited' for calculating GHG reduction from biodegradable waste and under 'Recycling or reusing waste at the maximum level' for calculating GHG reduction from solid waste disposal.

GHG emission in 2015 is projected to rise because of the use of F-gases that have been stocked up before quota system came into force in January 2015.



Table 4

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

Year <sup>c</sup>	Total emissions excluding LULUCF	Contribution from LULUCF <sup>d</sup>	Quantity of units from market based mechanisms under the Convention		Quantity of units from other market based mechanisms	
	(kt CO <sub>2</sub> eq)	(kt CO <sub>2</sub> eq)	(number of units)	(kt CO <sub>2</sub> eq)	(number of units)	(kt CO <sub>2</sub> eq)
(1990)	40,050.52	NA				
2010	19,903.22	NA	NA	NA	NA	NA
2011	20,478.52	NA	NA	NA	NA	NA
2012	19,422.69	NA	NA	NA	NA	NA
2013	21,754.86	NA	NA	NA	NA	NA
2014	NA	NA	NA	NA	NA	NA

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**

Not applicable: Numbers for LULUCF are not reported because this sector is not included under the Convention target.

**Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2013<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.

**Custom Footnotes**

**Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2014** <sup>a, b</sup>

	<i>Net GHG emissions/removals from LULUCF categories</i> <sup>c</sup>	<i>Base year/period or reference level value</i> <sup>d</sup>	<i>Contribution from LULUCF for reported year</i>	<i>Cumulative contribution from LULUCF</i> <sup>e</sup>	<i>Accounting approach</i> <sup>f</sup>
	<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.

**Custom Footnotes**

Table 4(b)

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

<i>Units of market based mechanisms</i>			<i>Year</i>		
			<i>2013</i>	<i>2014</i>	
<i>Kyoto Protocol units<sup>d</sup></i>	<i>Kyoto Protocol units</i>	<i>(number of units)</i>	NA	NA	
		<i>(kt CO<sub>2</sub> eq)</i>	NA	NA	
	<i>AAUs</i>	<i>(number of units)</i>	NA	NA	
		<i>(kt CO<sub>2</sub> eq)</i>	NA	NA	
	<i>ERUs</i>	<i>(number of units)</i>	NA	NA	
		<i>(kt CO<sub>2</sub> eq)</i>	NA	NA	
	<i>CERs</i>	<i>(number of units)</i>	NA	NA	
		<i>(kt CO<sub>2</sub> eq)</i>	NA	NA	
	<i>tCERs</i>	<i>(number of units)</i>	NA	NA	
		<i>(kt CO<sub>2</sub> eq)</i>	NA	NA	
	<i>ICERs</i>	<i>(number of units)</i>	NA	NA	
		<i>(kt CO<sub>2</sub> eq)</i>	NA	NA	
	<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>	NA	NA		
	<i>(kt CO<sub>2</sub> eq)</i>	NA	NA		

*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.

**Custom Footnotes**

Use of CER and ERU cannot be quantified at the time of reporting.

Use of CER and ERU cannot be quantified at the time of reporting.

Table 5

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**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>
Population	thousands	1,570.59	1,448.07	1,401.25	1,358.85	1,333.29	1,329.66	1,311.50	1,284.45	1,247.21	1,208.24
Gross domestic product (GDP), real growth rate	%							3.30	3.00	2.50	2.50
Gross domestic product (GDP), constant prices	constant EUR million (2010=t-10)							17,495.80	20,400.80	23,307.60	26,370.40
EU ETS carbon price	EUR/EUA							10.13	15.00	19.88	24.75
International (wholesale) fuel import prices: Electricity Coal	EUR/GJ							NA	3.31	3.40	3.44
International (wholesale) fuel import prices:-Crude Oil	EUR/GJ							NA	14.60	15.10	15.40
International (wholesale) fuel import prices:-Natural gas	EUR/GJ							NA	10.21	10.38	10.56
Final energy consumption:-Industry	TJ	88,828.00	31,415.00	22,470.03	27,499.78	22,465.51	23,858.91	26,431.71	28,336.00	29,633.00	30,934.00
Final energy consumption:-Transport	TJ	36,585.47	22,953.98	23,153.93	29,736.30	31,148.20	31,164.85	32,744.00	35,556.00	37,396.00	39,241.00
Final energy consumption:-Residential	TJ	45,409.60	45,550.14	38,952.68	37,379.02	43,155.76	43,155.76	40,400.29	43,376.00	43,502.00	43,628.00
Final energy consumption:-Agriculture/Forestry	TJ							4,730.00	4,945.00	5,212.00	5,480.00
Final energy consumption:-Services	TJ	8,441.92	5,317.86	9,764.00	14,314.00	17,316.00	17,316.00	16,551.29	17,137.00	17,190.00	17,244.00
Final energy consumption:-Other	TJ	596.00	393.00	230.39	475.36	557.30	270.45	189.00	188.00	190.00	192.00
Final energy demand for road transport	TJ	32,574.00	20,629.00	20,827.00	27,499.00	28,320.00	29,874.00	28,695.00	29,542.00	27,717.00	25,722.00
Livestock: Total cattle	thousands	755.80	369.70	252.80	249.50	236.30	238.30	261.40	268.90	270.30	273.70
Livestock: Sheep	thousands	158.49	55.36	33.31	55.45	95.76	93.96	94.10	94.20	95.30	96.50
Livestock: Swine	thousands	859.90	448.80	300.20	346.50	371.70	365.70	379.00	379.00	379.00	379.00
Livestock: Poultry	thousands	5,923.88	2,486.37	1,791.05	2,281.26	2,362.55	2,597.14	2,139.20	2,139.20	2,139.20	2,139.20
Nitrogen input from application of synthetic fertilizers	kt nitrogen	72.04	18.91	22.40	20.08	28.63	29.80	33.66	33.66	35.10	35.75
Municipal solid waste (MSW) generation	kt MSW	382.15	522.10	570.58	465.44	289.42	292.71	308.43	345.57	394.69	429.58

<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**

Table 6(a)

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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	2013	2020	2030
<b>Sector<sup>d,e</sup></b>									
Energy	33,467.98	33,467.98	16,008.63	13,058.51	13,815.55	15,482.94	16,812.35	16,605.84	12,570.70
Transport	2,479.10	2,479.10	1,585.77	1,683.38	2,152.44	2,262.68	2,241.93	2,365.30	2,376.26
Industry/industrial processes	1,056.14	1,056.14	688.33	728.46	831.61	524.11	1,061.84	1,333.15	1,223.31
Agriculture	2,657.26	2,657.26	1,281.13	1,046.92	1,074.56	1,154.51	1,254.05	1,335.87	1,371.28
Forestry/LULUCF	-7,636.91	-7,636.91	-9,212.72	930.97	-4,893.52	-4,919.70	-329.97	-2,213.13	-1,655.79
Waste management/waste	369.10	369.10	396.59	561.95	518.12	466.15	370.93	263.29	173.46
Other (specify)									
<b>Gas</b>									
CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF	29,119.97	29,119.97	8,787.44	16,098.11	11,536.84	12,892.91	19,303.72	17,478.30	13,948.18
CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF	36,758.65	36,758.65	18,001.97	15,170.15	16,433.84	17,819.61	19,640.84	19,697.76	15,610.86
CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF	1,871.13	1,871.13	1,227.64	1,224.55	1,194.68	1,167.23	1,115.79	1,181.62	1,102.01
CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF	1,870.78	1,870.78	1,227.29	1,223.16	1,194.41	1,167.10	1,115.71	1,181.38	1,101.80
N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF	1,401.57	1,401.57	701.11	605.79	640.67	733.38	786.00	821.37	874.88
N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF	1,400.14	1,400.14	699.65	604.17	628.06	726.50	778.94	815.27	868.20
HFCs	NO	NO	28.45	79.15	134.96	175.43	203.60	206.33	130.75
PFCs	NO	NO	NO	NO	NA, NO	NO	NO	NO	NO
SF <sub>6</sub>	NO	NO	3.07	2.60	1.03	1.73	2.00	2.71	3.40
Other (specify)									
<b>Total with LULUCF<sup>f</sup></b>	32,392.67	32,392.67	10,747.71	18,010.20	13,508.18	14,970.68	21,411.11	19,690.33	16,059.22
<b>Total without LULUCF</b>	40,029.57	40,029.57	19,960.43	17,079.23	18,392.30	19,890.37	21,741.09	21,903.45	17,715.01

**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	2013	2020	2030

*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.

<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.

**Custom Footnotes**

Table 6(c)

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Information on updated greenhouse gas projections under a 'with additional 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	2013	2020	2030
<b>Sector<sup>d,e</sup></b>									
Energy	33,467.98	33,467.98	16,008.63	13,058.51	13,815.55	15,482.94	16,812.35	16,242.56	11,842.25
Transport	2,479.10	2,479.10	1,585.77	1,683.38	2,152.44	2,262.68	2,241.93	2,034.91	1,437.93
Industry/industrial processes	1,056.14	1,056.14	688.33	728.46	831.61	524.11	1,061.84	1,333.15	1,223.31
Agriculture	2,657.26	2,657.26	1,281.13	1,046.92	1,074.56	1,154.51	1,254.05	1,335.87	1,371.28
Forestry/LULUCF	-7,636.91	-7,636.91	-9,212.72	930.97	-4,893.52	-4,919.70	-329.97	-2,213.13	-1,655.79
Waste management/waste	369.10	369.10	396.59	561.95	518.12	466.15	370.93	263.29	173.46
Other (specify)									
<b>Gas</b>									
CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF	29,119.97	29,119.97	8,787.44	16,098.11	11,536.84	12,892.91	19,303.72	16,825.35	12,367.58
CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF	36,758.65	36,758.65	18,001.97	15,170.15	16,433.84	17,819.61	19,640.84	19,044.81	14,030.25
CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF	1,871.13	1,871.13	1,227.64	1,224.55	1,194.68	1,167.23	1,115.79	1,150.90	1,039.01
CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF	1,870.78	1,870.78	1,227.29	1,223.16	1,194.41	1,167.10	1,115.71	1,150.66	1,038.81
N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF	1,401.57	1,401.57	701.11	605.79	640.67	733.38	786.00	811.36	851.68
N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF	1,400.14	1,400.14	699.65	604.17	628.06	726.50	778.94	805.26	845.01
HFCs	NO	NO	28.45	79.15	134.96	175.43	203.60	206.33	130.75
PFCs	NO	NO	NO	NO	NA, NO	NO	NO	NO	NO
SF <sub>6</sub>	NO	NO	3.07	2.60	1.03	1.73	2.00	2.71	3.40
Other (specify)									
<b>Total with LULUCF<sup>f</sup></b>	32,392.67	32,392.67	10,747.71	18,010.20	13,508.18	14,970.68	21,411.11	18,996.65	14,392.42
<b>Total without LULUCF</b>	40,029.57	40,029.57	19,960.43	17,079.23	18,392.30	19,890.37	21,741.09	21,209.77	16,048.22



**Information on updated greenhouse gas projections under a ‘with additional 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	2013	2020	2030

*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.

<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

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**Provision of public financial support: summary information in 2013<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>	105,798.69			59,392.21						
Multilateral climate change funds <sup>g</sup>				49,007.21						
Other multilateral climate change funds <sup>h</sup>				49,007.21						
Multilateral financial institutions, including regional development banks										
Specialized United Nations bodies	105,798.69			10,385.00						
<b>Total contributions through bilateral, regional and other channels</b>		108,166.00		114,755.00						
<b>Total</b>	105,798.69	108,166.00		174,147.21						

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).

**Documentation Box:**

Table 7

EST\_BR2\_v1.0

**Provision of public financial support: summary information in 2014<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>	108,883.73			60,806.21						
Multilateral climate change funds <sup>g</sup>				49,007.21						
Other multilateral climate change funds <sup>h</sup>				49,007.21						
Multilateral financial institutions, including regional development banks										
Specialized United Nations bodies	108,883.73			11,799.00						
<b>Total contributions through bilateral, regional and other channels</b>		74,134.00		535,204.00						
<b>Total</b>	108,883.73	74,134.00		596,010.21						

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).

**Documentation Box:**

Table 7(a)

EST\_BR2\_v1.0

**Provision of public financial support: contribution through multilateral channels in 2013<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	105,798.69		59,392.21						
Multilateral climate change funds <sup>g</sup>			49,007.21						
1. Global Environment Facility									
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund									
6. UNFCCC Trust Fund for Supplementary Activities									
7. Other multilateral climate change funds			49,007.21						
Multilateral Fund for the Implementation of the Montreal Protocol			49,007.21	Provided	ODA	Grant	Cross-cutting	Not applicable	
Multilateral financial institutions, including regional development banks									
1. World Bank									
2. International Finance Corporation									
3. African Development Bank									
4. Asian Development Bank									
5. European Bank for Reconstruction and Development									
6. Inter-American Development Bank									
7. Other									
Specialized United Nations bodies	105,798.69		10,385.00						
1. United Nations Development Programme	55,000.00								
United Nations Development Programme	55,000.00			Provided	ODA	Grant	Cross-cutting	Not applicable	
2. United Nations Environment Programme	14,000.00								
United Nations Environment Programme	14,000.00			Provided	ODA	Grant	Cross-cutting	Not applicable	
3. Other	36,798.69		10,385.00						
UNCCD	3,025.00			Provided	ODA	Grant	Cross-cutting	Not applicable	
UNFCCC			10,385.00	Provided	Other (Partially ODA (61%), partially OOF)	Grant	Cross-cutting	Not applicable	
WMO	21,349.69			Provided	Other (Partially ODA (4%), partially OOF)	Grant	Cross-cutting	Not applicable	
IAEA-TCF	12,424.00			Provided	ODA	Grant	Cross-cutting	Not applicable	

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.

**Custom Footnotes**

Table 7(a)

EST\_BR2\_v1.0

**Provision of public financial support: contribution through multilateral channels in 2014<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	108,883.73		60,806.21						
Multilateral climate change funds <sup>g</sup>			49,007.21						
1. Global Environment Facility									
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund									
6. UNFCCC Trust Fund for Supplementary Activities									
7. Other multilateral climate change funds			49,007.21						
Multilateral Fund for the Implementation of the Montreal Protocol			49,007.21	Provided	ODA	Grant	Cross-cutting	Not applicable	
Multilateral financial institutions, including regional development banks									
1. World Bank									
2. International Finance Corporation									
3. African Development Bank									
4. Asian Development Bank									
5. European Bank for Reconstruction and Development									
6. Inter-American Development Bank									
7. Other									
Specialized United Nations bodies	108,883.73		11,799.00						
1. United Nations Development Programme	50,000.00								
United Nations Development Programme	50,000.00			Provided	ODA	Grant	Cross-cutting	Not applicable	
2. United Nations Environment Programme	5,000.00								
United Nations Environment Programme	5,000.00			Provided	ODA	Grant	Cross-cutting	Not applicable	
3. Other	53,883.73		11,799.00						
UNCCD	2,877.00			Provided	ODA	Grant	Cross-cutting	Not applicable	
UNFCCC			11,799.00	Provided	Other (Partially ODA (61%), partially OOF)	Grant	Cross-cutting	Not applicable	
WMO	21,335.73			Provided	Other (Partially ODA (4%), partially OOF)	Grant	Cross-cutting	Not applicable	
IAEA-TCF	29,671.00			Provided	ODA	Grant	Cross-cutting	Not applicable	

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.

**Custom Footnotes**

Table 7(b)

EST\_BR2\_v1.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2013<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>s, 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	222,921.00							
Ukraine /	32,000.00		Provided	ODA	Grant	Cross-cutting	Cross-cutting	EBRD ESP fund (Eastern Europe Energy Efficiency and Environment Partnership)
Moldova /	40,000.00		Provided	ODA	Grant	Cross-cutting	Cross-cutting	EBRD ESP fund (Eastern Europe Energy Efficiency and Environment Partnership)
Georgia /	30,000.00		Provided	ODA	Grant	Cross-cutting	Cross-cutting	EBRD ESP fund (Eastern Europe Energy Efficiency and Environment Partnership)
Developing countries, unspecified / World Cleanup 2014	108,166.00		Provided	ODA	Grant	Mitigation	Other (Waste)	
Philippines / Liter of Light Bohol	12,755.00		Provided	ODA	Grant	Cross-cutting	Other (Other)	"Liter of light - Bohol" is a grassroots sustainable technology project to install 2000 solar light bottles in underprivileged "dark" homes, schools and kindergartens in various towns and villages in Bohol, The Philippines.

*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.

<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.

**Custom Footnotes**

Table 7(b)

EST\_BR2\_v1.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2014<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	609,338.00							
Ukraine /	32,000.00		Provided	ODA	Grant	Cross-cutting	Cross-cutting	EBRD E5P fund (Eastern Europe Energy Efficiency and Environment Partnership)
Moldova /	40,000.00		Provided	ODA	Grant	Cross-cutting	Cross-cutting	EBRD E5P fund (Eastern Europe Energy Efficiency and Environment Partnership)
Georgia /	30,000.00		Provided	ODA	Grant	Cross-cutting	Cross-cutting	EBRD E5P fund (Eastern Europe Energy Efficiency and Environment Partnership)
Afghanistan / Strengthening Climate Change Adaptation in Rural Communities, for Agriculture and Environmental Management in Afghanistan	323,000.00		Provided	ODA	Grant	Cross-cutting	Cross-cutting	Contribution for UNEP project "Building Environmental Resilience in Afghanistan"
/ Implementing the Climate Change Adaptation Component of the Satellite Communications Capacity, and Emergency Communications Solutions Project for the Small Island Developing States of the Pacific	100,000.00		Provided	ODA	Grant	Cross-cutting	Energy	Contribution for International Telecommunication Union project "Implementing the Climate Change Adaptation Component of the Satellite Communications, Capacity, and Emergency Communications Solutions Project for the Small Island Developing States of the Pacific"
Developing countries, unspecified / World Cleanup	74,134.00		Provided	ODA	Grant	Mitigation	Other (Waste)	
Philippines / Liter of Light Bohol	10,204.00		Provided	ODA	Grant	Cross-cutting	Other (Other)	"Liter of light - Bohol" is a grassroots sustainable technology project to install 2000 solar light bottles in underprivileged "dark" homes, schools and kindergartens in various towns and villages in Bohol, The Philippines.

Table 7(b)

EST\_BR2\_v1.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2014<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>						

*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.

<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.

**Custom Footnotes**



Table 8

EST\_BR2\_v1.0

**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>

<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.

**Custom Footnotes**

**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>

<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.

**Custom Footnotes**