

**Table B.11. CH<sub>4</sub> fugitive fuel emissions, 1990-1996 (Gigagrams and percentage)**

	Percentage relative to 1990, 1990=100						
	1990	1991	1992	1993	1994	1995	1996
	(Gg)	%	%	%	%	%	%
Australia	1 108	98	102	98	99	102	103
Austria	4	105	102	109	112	121	130
Belgium	53	93	83	82	84	63	63
Canada	1 200	100	108	117	125	133	142
Czech Republic <sup>a</sup>							
Denmark <sup>a</sup>							
Finland <sup>b</sup>	1					100	125
France	311	98	99	101	100	100	85
Germany	1 560	94	94	86	78	75	74
Greece	44	102	106	105	109	111	115
Hungary <sup>a</sup>							
Ireland <sup>a</sup>							
Japan <sup>c</sup>	166	103	105	104	102	101	
Latvia <sup>a</sup>							
Monaco <sup>d</sup>							
Netherlands	179	105	91	88	94	97	107
New Zealand	25	89	89	88	93	110	126
Norway	20	105	125	135	145	145	135
Poland <sup>a</sup>							
Romania <sup>e</sup>	1 416	69	65	63	60		
Slovakia <sup>a</sup>							
Spain <sup>f</sup>	687	94	97	95	90	92	
Sweden <sup>g</sup>							
Switzerland <sup>a</sup>							
United Kingdom	1 319	100	97	75	60	62	61
United States of America	10 172	99	98	94	94	96	93

<sup>a</sup> As estimates for 1990 (or base year other than 1990 for some EIT Parties) were not provided in the annual inventory submissions, and no indication as to the methodological consistency with estimates provided in second national communications was made, no trends are shown in this table.

<sup>b</sup> The Party only provided estimates for the years 1990, 1995 and 1996.

<sup>c</sup> CH<sub>4</sub> estimates were only provided for 1990-1995.

<sup>d</sup> The Party did not provide estimates but indicated that emissions were negligible.

<sup>e</sup> In accordance with decision 9/CP.2, Romania uses the year 1989 as its base year. Estimates were only provided for 1989 to 1994. The trend shown here may not be fully consistent, as the Party noted that estimates provided for the period 1992-1994 need to be updated according to the IPCC methodology, as had been done for estimates for the 1989-1991 period.

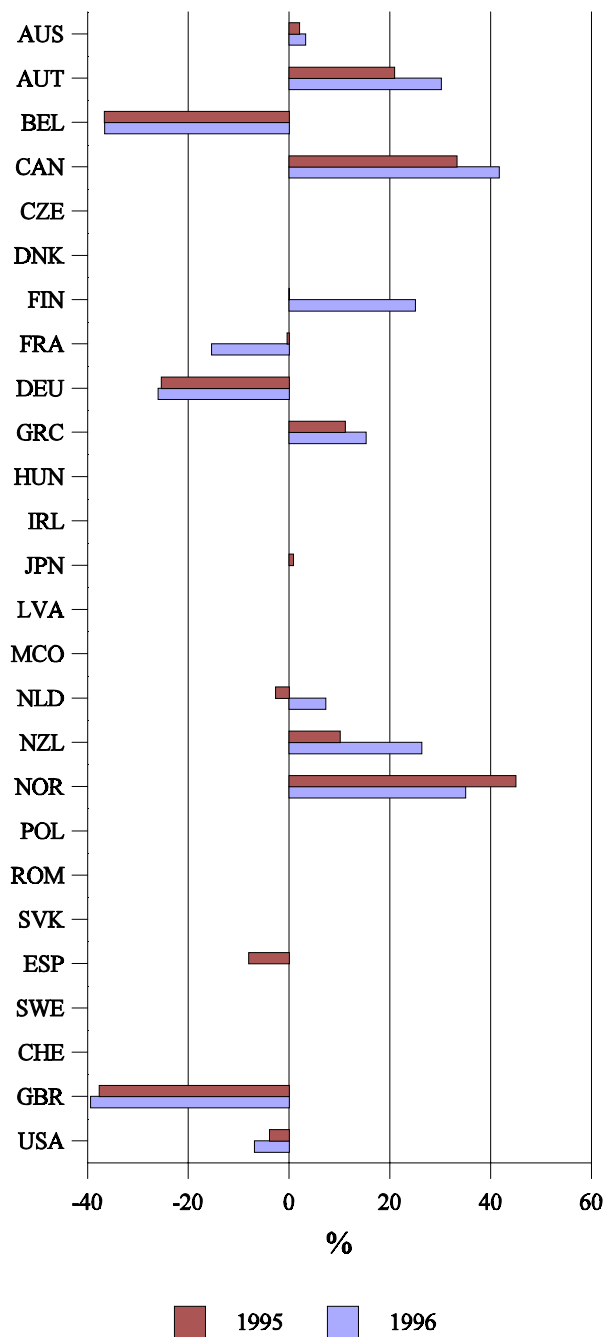
<sup>f</sup> The Party did not provide 1996 estimates.

<sup>g</sup> The Party did not report estimates from this source category.

Table B.11. (continued)

Last reported values		1996 to 1995 percentage 1995=100	
1995	1996		
(Gg)	(Gg)	(%)	
1 130	1 143	101	AUS
5	6	108	AUT
34	34	100	BEL
1 600	1 700	106	CAN
	301		CZE
	17		DNK
1	2	125	FIN
310	263	85	FRA
1 163	1 155	99	DEU
49	51	104	GRC
398	425	107	HUN
11	12	110	IRL
167			JPN
	19		LVA
			MCO
174	192	110	NLD
27	31	115	NZL
29	27	93	NOR
	943		POL
			ROM
114	119	104	SVK
629			ESP
			SWE
	13		CHE
822	800	97	GBR
9 771	9 471	97	USA

Figure B.11.



Percentage change in CH<sub>4</sub> fugitive fuel emissions in 1995 and 1996, relative to 1990

**Table B.12. CH<sub>4</sub> emissions from agriculture, 1990-1996 (Gigagrams and percentage)**

	Percentage relative to 1990, 1990=100						
	1990	1991	1992	1993	1994	1995	1996
	(Gg)	%	%	%	%	%	%
Australia	3 200	100	98	98	97	97	97
Austria	208	96	97	98	100	100	99
Belgium	388	99	99	100	100	92	91
Canada	950	101	100	103	105	116	116
Czech Republic <sup>a</sup>							
Denmark <sup>a</sup>							
Finland <sup>b</sup>	94					88	88
France	1 630	98	96	95	95	96	96
Germany	1 887	88	84	83	83	82	82
Greece	271	100	99	100	102	103	103
Hungary <sup>a</sup>							
Ireland <sup>a</sup>							
Japan <sup>c</sup>	842	100	101	102	101	99	
Latvia <sup>a</sup>							
Monaco <sup>d</sup>							
Netherlands	505	102	100	98	96	94	94
New Zealand	1 492	98	96	96	96	96	96
Norway	102	102	104	102	106	107	107
Poland <sup>a</sup>							
Romania <sup>e</sup>	635	77	68	58	56		
Slovakia <sup>a</sup>							
Spain <sup>f</sup>	926	100	102	102	103	103	
Sweden <sup>a</sup>							
Switzerland <sup>a</sup>							
United Kingdom	1 090	98	98	97	98	97	98
United States of America	8 700	101	105	105	108	109	107

<sup>a</sup> As estimates for 1990 (or base year other than 1990 for some EIT Parties) were not provided in the annual inventory submissions, and no indication as to the methodological consistency with estimates provided in second national communications was made, no trends are shown in this table.

<sup>b</sup> The Party only provided estimates for the years 1990, 1995 and 1996.

<sup>c</sup> CH<sub>4</sub> estimates were only provided for 1990-1995.

<sup>d</sup> The Party did not provide estimates but indicated that emissions were negligible.

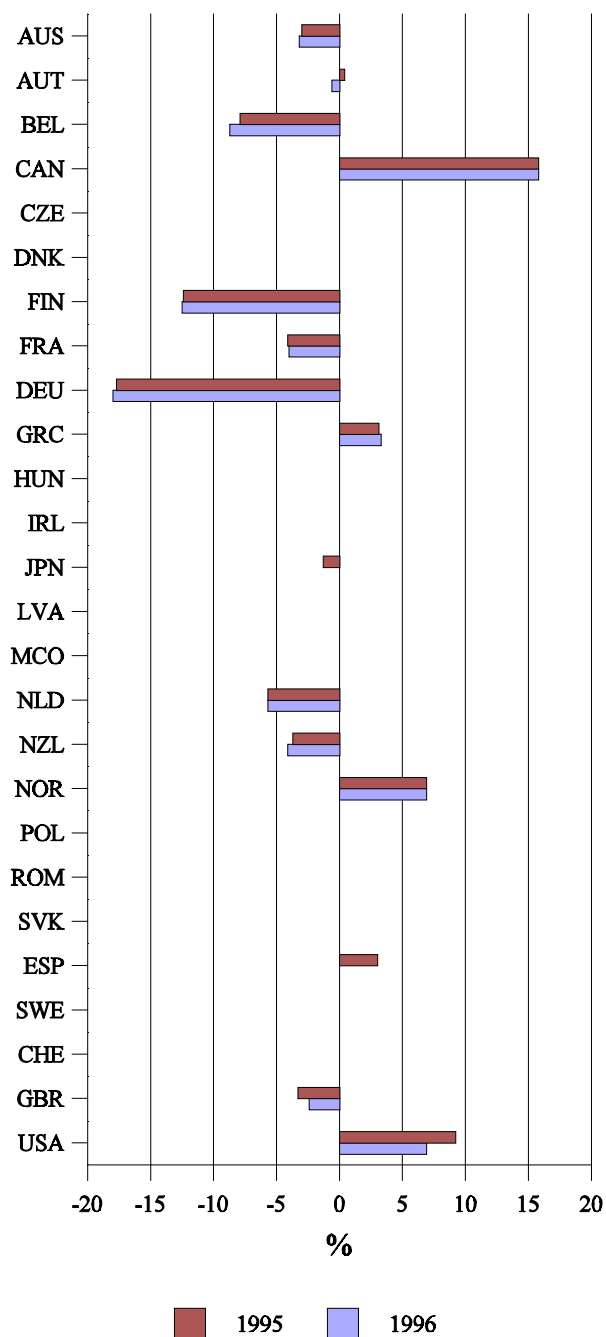
<sup>e</sup> In accordance with decision 9/CP.2, Romania uses the year 1989 as its base year. Estimates were only provided for 1989 to 1994. The trend shown here may not be fully consistent, as the Party noted that estimates provided for the period 1992-1994 need to be updated according to the IPCC methodology, as had been done for estimates for the 1989-1991 period.

<sup>f</sup> The Party did not provide 1996 estimates.

Table B.12. (continued)

Last reported values		1996 to 1995 percentage 1995=100	
1995	1996		
(Gg)	(Gg)	(%)	
3 105	3 096	100	AUS
209	207	99	AUT
357	354	99	BEL
1 100	1 100	100	CAN
	134		CZE
	321		DNK
82	82	100	FIN
1 564	1 565	100	FRA
1 553	1 547	100	DEU
279	280	100	GRC
115	113	99	HUN
637	655	103	IRL
831			JPN
	42		LVA
			MCO
476	476	100	NLD
1 438	1 431	100	NZL
109	109	100	NOR
	591		POL
			ROM
115	109	95	SVK
949			ESP
	198		SWE
	142		CHE
1 054	1 064	101	GBR
9 500	9 300	98	USA

Figure B.12.



Percentage change in CH<sub>4</sub> emissions from agriculture in 1995 and 1996, relative to 1990

**Table B.13. CH<sub>4</sub> emissions from waste, 1990-1996 (Gigagrams and percentage)**

	Percentage relative to 1990, 1990=100						
	1990	1991	1992	1993	1994	1995	1996
	(Gg)	%	%	%	%	%	%
Australia	704	102	104	107	109	110	113
Austria	227	99	99	98	97	97	96
Belgium	174	102	104	105	106	107	107
Canada	850	104	106	108	109	109	111
Czech Republic <sup>a</sup>							
Denmark <sup>a</sup>							
Finland <sup>b</sup>	240					67	67
France	815	98	94	86	84	80	74
Germany	1 870	97	101	101	102	102	102
Greece	109	101	102	102	103	103	103
Hungary <sup>a</sup>							
Ireland <sup>a</sup>							
Japan <sup>c</sup>	394	97	95	94	94	95	
Latvia <sup>a</sup>							
Monaco <sup>d</sup>	0						
Netherlands	568	99	96	93	90	85	82
New Zealand	141	101	98	96	91	85	81
Norway	302	100	102	100	105	111	108
Poland <sup>a</sup>							
Romania <sup>e</sup>	241	95	94	94	95		
Slovakia <sup>a</sup>							
Spain <sup>f</sup>	491	103	116	129	139	146	
Sweden <sup>a</sup>							
Switzerland <sup>a</sup>							
United Kingdom	1 923	98	98	96	95	93	91
United States of America	10 000	102	103	106	110	113	116

<sup>a</sup> As estimates for 1990 (or base year other than 1990 for some EIT Parties) were not provided in the annual inventory submissions, and no indication as to the methodological consistency with estimates provided in second national communications was made, no trends are shown in this table.

<sup>b</sup> The Party only provided estimates for the years 1990, 1995 and 1996.

<sup>c</sup> CH<sub>4</sub> estimates were only provided for 1990-1995.

<sup>d</sup> The trend in emissions is not shown here as estimates reported were approximately zero (~0.02 Gg, 1990 to 1996)

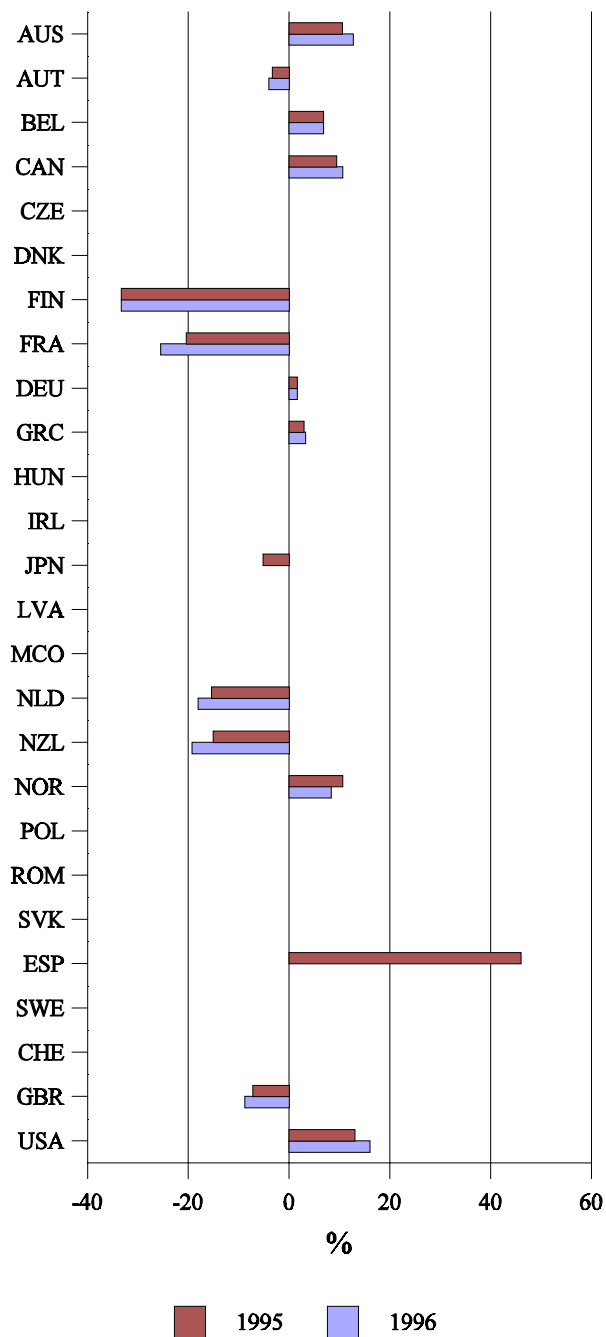
<sup>e</sup> In accordance with decision 9/CP.2, Romania uses the year 1989 as its base year. Estimates were only provided for 1989 to 1994. The trend shown here may not be fully consistent, as the Party noted that estimates provided for the period 1992-1994 need to be updated according to the IPCC methodology, as had been done for estimates for the 1989-1991 period.

<sup>f</sup> The Party did not provide 1996 estimates.

Table B.13. (continued)

Last reported values		1996 to 1995 percentage 1995=100	
1995	1996		
(Gg)	(Gg)	(%)	
778	794	102	AUS
220	218	99	AUT
186	186	100	BEL
930	940	101	CAN
	97		CZE
	73		DNK
160	160	100	FIN
649	607	94	FRA
1 900	1 900	100	DEU
112	113	100	GRC
255	254	100	HUN
136	102	75	IRL
374			JPN
	26		LVA
0	0	100	MCO
481	466	97	NLD
120	114	95	NZL
334	327	98	NOR
	652		POL
			ROM
63	69	110	SVK
719			ESP
	61		SWE
	66		CHE
1 784	1 754	98	GBR
11 300	11 600	103	USA

Figure B.13.



Percentage change in CH<sub>4</sub> emissions from waste in 1995 and 1996, relative to 1990

**Table B.14. Total anthropogenic N<sub>2</sub>O emissions, 1990 - 1996 (Gigagrams and percentage)**

	Percentage relative to 1990, 1990=100						
	1990	1991	1992	1993	1994	1995	1996
	(Gg)	%	%	%	%	%	%
Australia	74.9	101	101	103	103	106	105
Austria	9.2	103	103	105	108	109	109
Belgium	30.8	100	97	99	105	113	114
Canada	190.0	100	100	105	116	116	121
Czech Republic <sup>a</sup>							
Denmark <sup>a</sup>							
Finland <sup>b</sup>	18.6					98	99
France	308.7	99	95	91	93	95	96
Germany	226.0	97	100	96	97	98	101
Greece	29.9	100	96	96	97	94	98
Hungary <sup>a</sup>							
Ireland <sup>a</sup>							
Japan <sup>c</sup>	61.0	96	96	99	100	103	
Latvia <sup>a</sup>							
Monaco <sup>d</sup>	0.0						
Netherlands	63.9	103	106	106	110	113	113
New Zealand	37.1	99	99	100	101	101	101
Norway	18.0	100	83	94	94	94	100
Poland <sup>a</sup>							
Romania <sup>e</sup>	66.3	37	41	40	38		
Slovakia <sup>a</sup>							
Spain <sup>f</sup>	94.2	98	97	92	93	96	
Sweden <sup>a</sup>							
Switzerland <sup>a</sup>							
United Kingdom	215.0	97	86	81	88	85	88
United States of America	1 136.0	101	103	102	110	106	108

<sup>a</sup> As estimates for 1990 (or base year other than 1990 for some EIT Parties) were not provided in the annual inventory submissions, and no indication as to the methodological consistency with estimates provided in second national communications was made, no trends are shown in this table.

<sup>b</sup> The Party only provided estimates for the years 1990, 1995 and 1996.

<sup>c</sup> N<sub>2</sub>O estimates were only provided for 1990-1995.

<sup>d</sup> The trend in emissions is not shown here as estimates reported were approximately zero (0.005-0.009 Gg, 1990 to 1996).

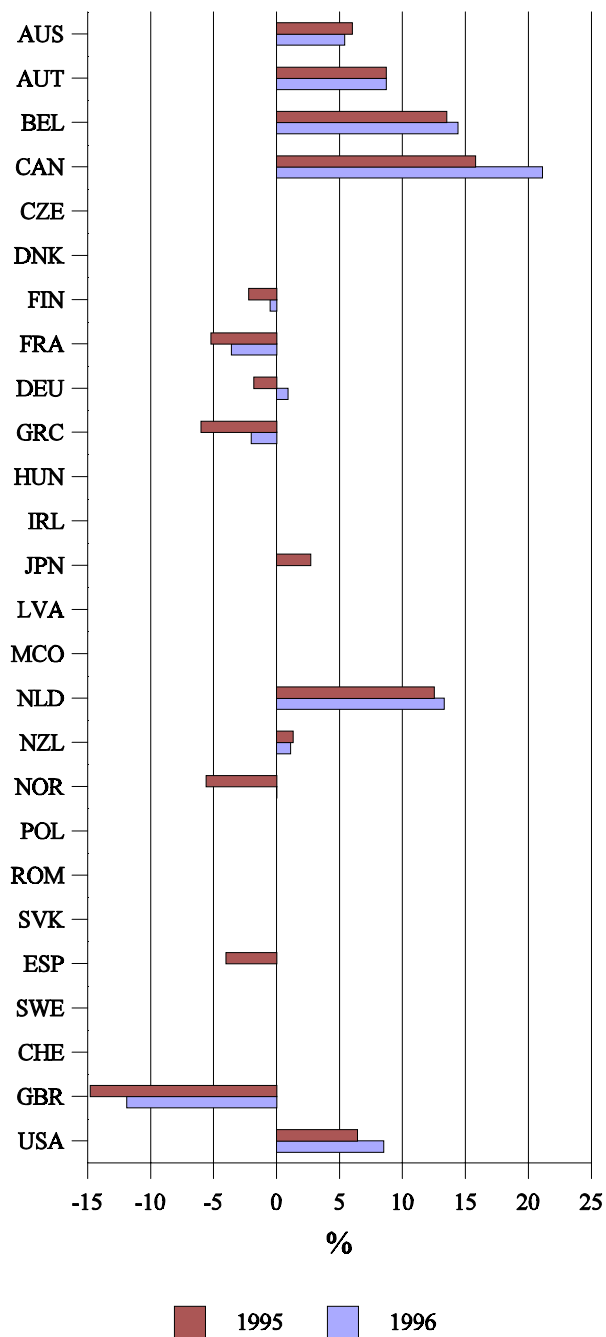
<sup>e</sup> In accordance with decision 9/CP.2, Romania uses the year 1989 as its base year. Estimates were only provided for 1989 to 1994. The trend shown here may not be fully consistent, as the Party noted that estimates provided for the period 1992-1994 need to be updated according to the IPCC methodology, as had been done for estimates for the 1989-1991 period.

<sup>f</sup> The Party did not provide 1996 estimates.

Table B.14. (continued)

Last reported values		1996 to 1995 percentage 1995=100	
1995	1996		
(Gg)	(Gg)	(%)	
79.4	78.9	99	AUS
10.0	10.0	100	AUT
34.9	35.2	101	BEL
220.0	230.0	105	CAN
	29.1		CZE
	33.9		DNK
18.2	18.5	102	FIN
292.7	297.4	102	FRA
222.0	228.0	103	DEU
28.1	29.3	104	GRC
4.9	5.1	103	HUN
26.2	26.2	100	IRL
62.7			JPN
	16.3		LVA
0.0	0.0	113	MCO
71.9	72.4	101	NLD
37.6	37.5	100	NZL
17.0	18.0	106	NOR
	53.9		POL
			ROM
7.6	7.9	104	SVK
90.5			ESP
	10.1		SWE
	11.8		CHE
183.3	189.3	103	GBR
1 209.0	1 232.0	102	USA

Figure B.14.



Percentage change in total N<sub>2</sub>O emissions in 1995 and 1996, relative to 1990



**Table B.15. N<sub>2</sub>O emissions from fuel combustion, 1990 - 1996 (Gigagrams and percentage)**

	Percentage relative to 1990, 1990=100						
	1990	1991	1992	1993	1994	1995	1996
	(Gg)	%	%	%	%	%	%
Australia	7.7	110	125	138	150	163	173
Austria	1.9	116	116	126	137	147	147
Belgium	7.7	105	106	106	109	103	102
Canada	37.0	105	116	130	143	151	159
Czech Republic <sup>a</sup>							
Denmark <sup>a</sup>							
Finland <sup>b</sup>	5.5					115	125
France	14.8	108	107	107	113	121	130
Germany	37.0	108	108	116	114	122	124
Greece	6.7	107	106	106	106	110	116
Hungary <sup>a</sup>							
Ireland <sup>a</sup>							
Japan <sup>c</sup>	22.1	100	100	109	98	108	
Latvia <sup>a</sup>							
Monaco <sup>d</sup>	0.0						
Netherlands	5.3	106	117	126	130	149	160
New Zealand	0.6	100	105	108	112	116	118
Norway	2.0	100	100	100	100	150	150
Poland <sup>a</sup>							
Romania <sup>e</sup>	16.6	70	80	78	76		
Slovakia <sup>a</sup>							
Spain <sup>f</sup>	20.2	100	106	100	108	115	
Sweden <sup>a</sup>							
Switzerland <sup>a</sup>							
United Kingdom	15.5	102	102	106	114	122	132
United States of America	244.0	100	100	100	100	101	102

<sup>a</sup> As estimates for 1990 (or base year other than 1990 for some EIT Parties) were not provided in the annual inventory submissions, and no indication as to the methodological consistency with estimates provided in second national communications was made, no trends are shown in this table.

<sup>b</sup> The Party only provided estimates for the years 1990, 1995 and 1996.

<sup>c</sup> N<sub>2</sub>O estimates were only provided for 1990-1995.

<sup>d</sup> The trend in emissions is not shown here as estimates reported were approximately zero (0.003-0.006 Gg, 1990 to 1996).

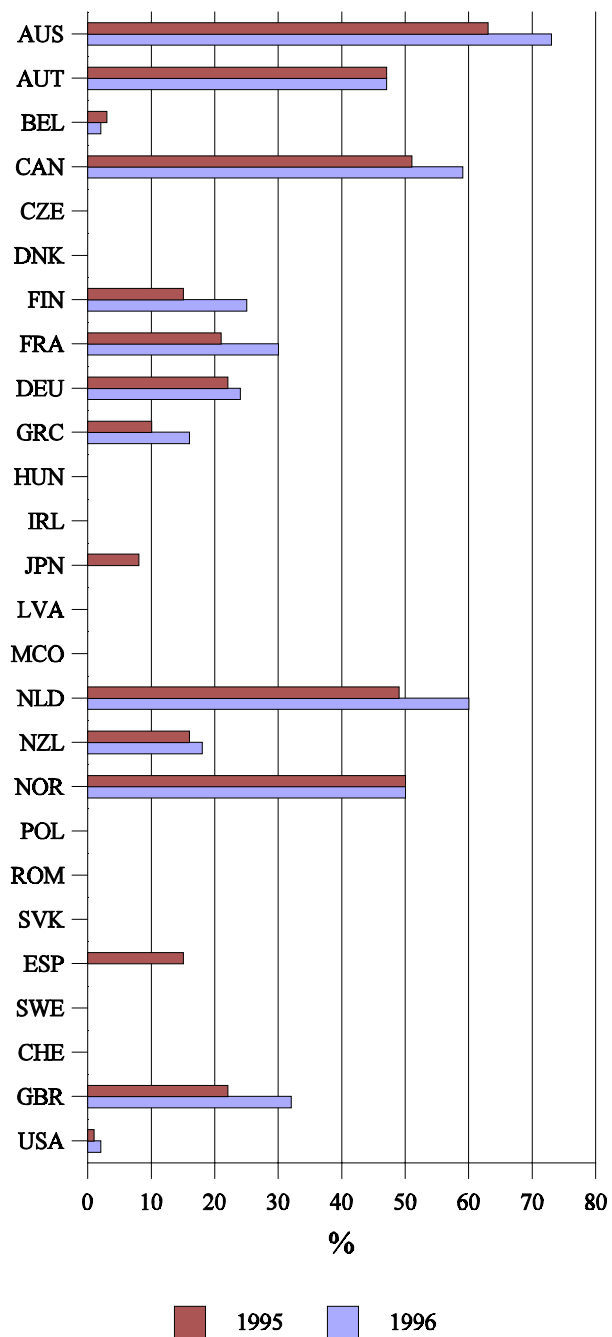
<sup>e</sup> In accordance with decision 9/CP.2, Romania uses the year 1989 as its base year. Estimates were only provided for 1989 to 1994. The trend shown here may not be fully consistent, as the Party noted that estimates provided for the period 1992-1994 need to be updated according to the IPCC methodology, as had been done for estimates for the 1989-1991 period.

<sup>f</sup> The Party did not provide 1996 estimates.

Table B.15. (continued)

Last reported values		1996 to 1995 percentage 1995=100	
1995	1996		
(Gg)	(Gg)	(%)	
12.6	13.4	106	AUS
2.8	2.8	100	AUT
8.0	7.9	99	BEL
56.0	59.0	105	CAN
	4.2		CZE
	3.1		DNK
6.3	6.9	110	FIN
17.8	19.2	108	FRA
45.0	46.0	102	DEU
7.4	7.8	105	GRC
3.3	3.4	103	HUN
3.6	3.7	103	IRL
23.8			JPN
	0.4		LVA
0.0	0.0	100	MCO
7.9	8.5	108	NLD
0.7	0.7	102	NZL
3.0	3.0	100	NOR
	7.2		POL
			ROM
0.7	0.9	129	SVK
23.3			ESP
	7.1		SWE
	2.1		CHE
18.9	20.5	109	GBR
246.0	248.0	101	USA

Figure B.15.



Percentage change in N<sub>2</sub>O emissions from fuel combustion in 1995 and 1996, relative to 1990

**Table B.16. N<sub>2</sub>O emissions from transport, 1990 - 1996 (Gigagrams and percentage)**

	Percentage relative to 1990, 1990=100						
	1990	1991	1992	1993	1994	1995	1996
	(Gg)	%	%	%	%	%	%
Australia	5.2	113	138	155	173	190	204
Austria	1.0	130	150	160	180	180	180
Belgium	0.9	97	108	118	129	122	122
Canada	29.0	110	121	138	155	166	176
Czech Republic <sup>a</sup>							
Denmark <sup>a</sup>							
Finland <sup>b</sup>	1.7					106	106
France	4.0	106	113	127	153	178	202
Germany	11.0	127	136	155	164	191	200
Greece	0.6	117	150	150	167	167	183
Hungary <sup>a</sup>							
Ireland <sup>a</sup>							
Japan <sup>c</sup>	12.9	104	106	106	107	111	
Latvia <sup>a</sup>							
Monaco <sup>d</sup>	0.0						
Netherlands	4.6	107	120	133	143	157	170
New Zealand	0.4	101	106	110	117	126	128
Norway <sup>e</sup>	0.0						
Poland <sup>a</sup>							
Romania <sup>f</sup>	0.3	101					
Slovakia <sup>a</sup>							
Spain <sup>g</sup>	2.0	102	105	119	132	150	
Sweden <sup>a</sup>							
Switzerland <sup>a</sup>							
United Kingdom	4.2	104	114	140	175	209	243
United States of America	200.0	100	100	100	100	100	100

<sup>a</sup> As estimates for 1990 (or base year other than 1990 for some EIT Parties) were not provided in the annual inventory submissions, and no indication as to the methodological consistency with estimates provided in second national communications was made, no trends are shown in this table.

<sup>b</sup> The Party only provided estimates for the years 1990, 1995 and 1996.

<sup>c</sup> N<sub>2</sub>O estimates were only provided for 1990-1995.

<sup>d</sup> The trend in emissions is not shown here as estimates reported were approximately zero (0.001-0.003 Gg, 1990 to 1996).

<sup>e</sup> The trend in emissions is not shown here as estimates reported for the year 1990 and 1991 were zero.

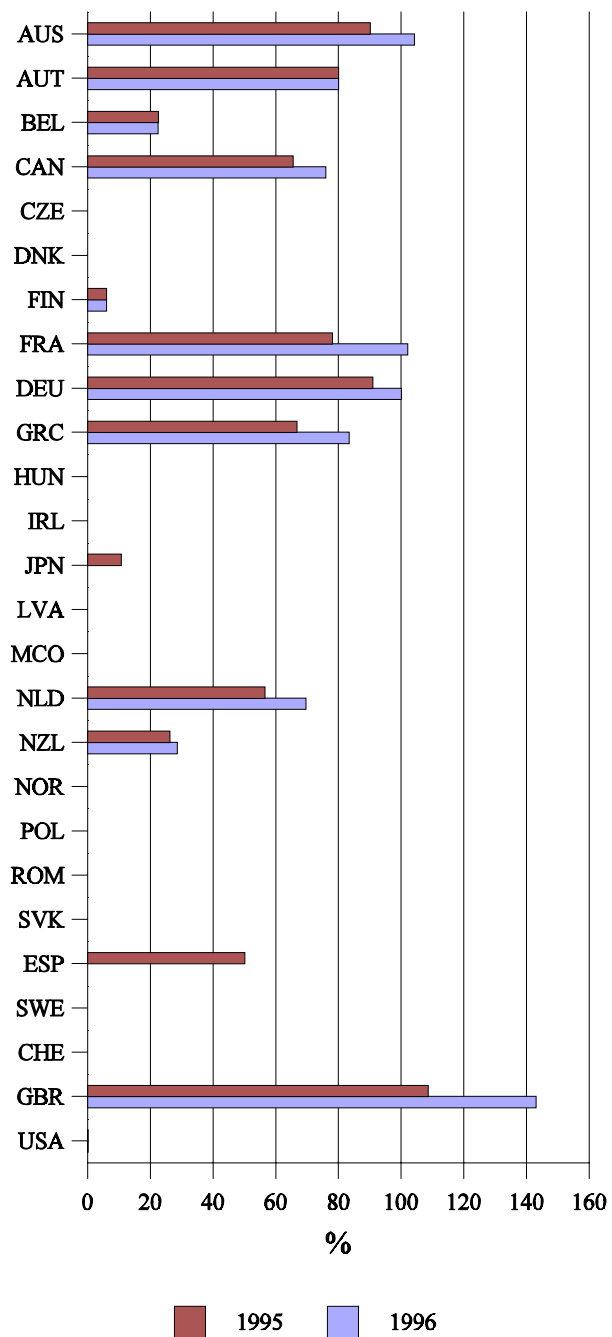
<sup>f</sup> In accordance with decision 9/CP.2, Romania uses the year 1989 as its base year. Estimates were only provided for 1989 to 1994. The trend shown here may not be fully consistent, as the Party noted that estimates provided for the period 1992-1994 need to be updated according to the IPCC methodology, as had been done for estimates for the 1989-1991 period.

<sup>g</sup> The Party did not provide 1996 estimates.

Table B.16. (continued)

Last reported values		1996 to 1995 percentage 1995=100	
1995	1996		
(Gg)	(Gg)	(%)	
9.8	10.5	107	AUS
1.8	1.8	100	AUT
1.1	1.1	100	BEL
48.0	51.0	106	CAN
	1.8		CZE
	1.1		DNK
1.8	1.8	100	FIN
7.1	8.0	113	FRA
21.0	22.0	105	DEU
1.0	1.1	110	GRC
			HUN
0.6	0.6	100	IRL
14.3			JPN
	0.3		LVA
0.0	0.0	100	MCO
7.2	7.8	108	NLD
0.4	0.5	102	NZL
1.0	1.0	100	NOR
	1.4		POL
			ROM
0.3	0.4	133	SVK
3.0			ESP
	1.7		SWE
	1.9		CHE
8.8	10.2	117	GBR
200.0	200.0	100	USA

Figure B.16.



Percentage change in N<sub>2</sub>O emissions from transport in 1995 and 1996, relative to 1990

**Table B.17. N<sub>2</sub>O emissions from industrial processes, 1990 - 1996 (Gigagrams and percentage)**

	Percentage relative to 1990, 1990=100						
	1990	1991	1992	1993	1994	1995	1996
	(Gg)	%	%	%	%	%	%
Australia	1.6	93	113	99	86	86	97
Austria	0.6	100	83	100	100	83	83
Belgium	11.5	97	88	95	107	120	122
Canada	37.0	95	95	86	103	100	108
Czech Republic <sup>a</sup>							
Denmark <sup>a</sup>							
Finland <sup>b</sup>	3.0					87	87
France	90.0	97	92	83	86	89	90
Germany	83.0	100	112	101	98	99	105
Greece	2.3	83	87	83	78	78	78
Hungary <sup>a</sup>							
Ireland <sup>a</sup>							
Japan <sup>c</sup>	23.8	91	90	88	100	99	
Latvia <sup>a</sup>							
Monaco <sup>d</sup>							
Netherlands	31.5	103	97	95	100	100	100
New Zealand <sup>e</sup>							
Norway	7.0	86	57	71	71	71	71
Poland <sup>a</sup>							
Romania <sup>f</sup>	24.4	26	28	27	23		
Slovakia <sup>a</sup>							
Spain <sup>g</sup>	10.4	92	78	64	77	81	
Sweden <sup>a</sup>							
Switzerland <sup>a</sup>							
United Kingdom	95.3	94	76	64	76	69	74
United States of America	96.0	102	98	103	110	110	113

<sup>a</sup> As estimates for 1990 (or base year other than 1990 for some EIT Parties) were not provided in the annual inventory submissions, and no indication as to the methodological consistency with estimates provided in second national communications was made, no trends are shown in this table.

<sup>b</sup> The Party only provided estimates for the years 1990, 1995 and 1996.

<sup>c</sup> N<sub>2</sub>O estimates were only provided for 1990-1995.

<sup>d</sup> The Party did not provide estimates but indicated that emissions were negligible.

<sup>e</sup> The Party indicated that N<sub>2</sub>O emissions from this source category are not occurring in the country.

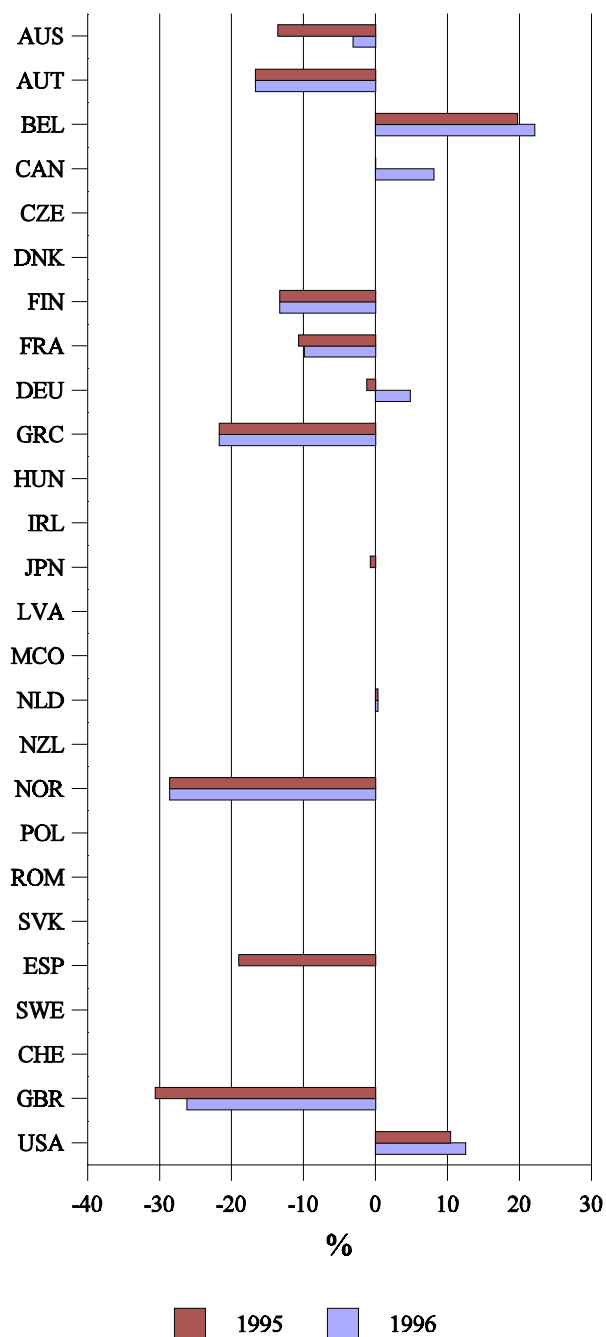
<sup>f</sup> In accordance with decision 9/CP.2, Romania uses the year 1989 as its base year. Estimates were only provided for 1989 to 1994. The trend shown here may not be fully consistent, as the Party noted that estimates provided for the period 1992-1994 need to be updated according to the IPCC methodology, as had been done for estimates for the 1989-1991 period.

<sup>g</sup> The Party did not provide 1996 estimates.

Table B.17. (continued)

Last reported values		1996 to 1995 percentage 1995=100	
1995	1996		
(Gg)	(Gg)	(%)	
1.4	1.6	112	AUS
0.5	0.5	100	AUT
13.8	14.0	102	BEL
37.0	40.0	108	CAN
	3.3		CZE
	0.0		DNK
2.6	2.6	100	FIN
80.4	81.1	101	FRA
82.0	87.0	106	DEU
1.8	1.8	100	GRC
0.0	0.0	0	HUN
2.6	2.6	100	IRL
23.6			JPN
	0.0		LVA
			MCO
31.6	31.6	100	NLD
			NZL
5.0	5.0	100	NOR
	16.2		POL
			ROM
1.1	1.1	100	SVK
8.4			ESP
	2.8		SWE
	0.3		CHE
66.1	70.3	106	GBR
106.0	108.0	102	USA

Figure B.17.



Percentage change in N<sub>2</sub>O emissions from industrial processes in 1995 and 1996, relative to 1990

**Table B.18. N<sub>2</sub>O emissions from agriculture, 1990 - 1996 (Gigagrams and percentage)**

	Percentage relative to 1990, 1990=100						
	1990	1991	1992	1993	1994	1995	1996
	(Gg)	%	%	%	%	%	%
Australia	63.0	100	98	100	99	101	99
Austria	3.3	100	100	100	100	100	100
Belgium	10.9	100	100	98	99	90	90
Canada	110.0	100	100	100	109	109	118
Czech Republic <sup>a</sup>							
Denmark <sup>a</sup>							
Finland <sup>b</sup>	10.1					92	89
France	181.1	98	95	93	94	95	96
Germany	96.0	91	86	84	90	89	89
Greece	20.6	100	95	94	96	90	95
Hungary <sup>a</sup>							
Ireland <sup>a</sup>							
Japan <sup>c</sup>	9.3	98	98	97	95	92	
Latvia <sup>a</sup>							
Monaco <sup>d</sup>							
Netherlands	22.2	103	118	118	119	124	124
New Zealand	36.3	99	99	100	101	101	101
Norway	9.0	100	100	100	100	100	100
Poland <sup>a</sup>							
Romania <sup>e</sup>	25.3	27	27	27	27		
Slovakia <sup>a</sup>							
Spain <sup>f</sup>	63.5	99	97	94	91	92	
Sweden <sup>a</sup>							
Switzerland <sup>a</sup>							
United Kingdom	103.8	99	94	92	94	94	95
United States of America	770.0	102	105	103	113	108	110

<sup>a</sup> As estimates for 1990 (or base year other than 1990 for some EIT Parties) were not provided in the annual inventory submissions, and no indication as to the methodological consistency with estimates provided in second national communications was made, no trends are shown in this table.

<sup>b</sup> The Party only provided estimates for the years 1990, 1995 and 1996.

<sup>c</sup> N<sub>2</sub>O estimates were only provided for 1990-1995.

<sup>d</sup> The Party did not provide estimates but indicated that emissions were negligible.

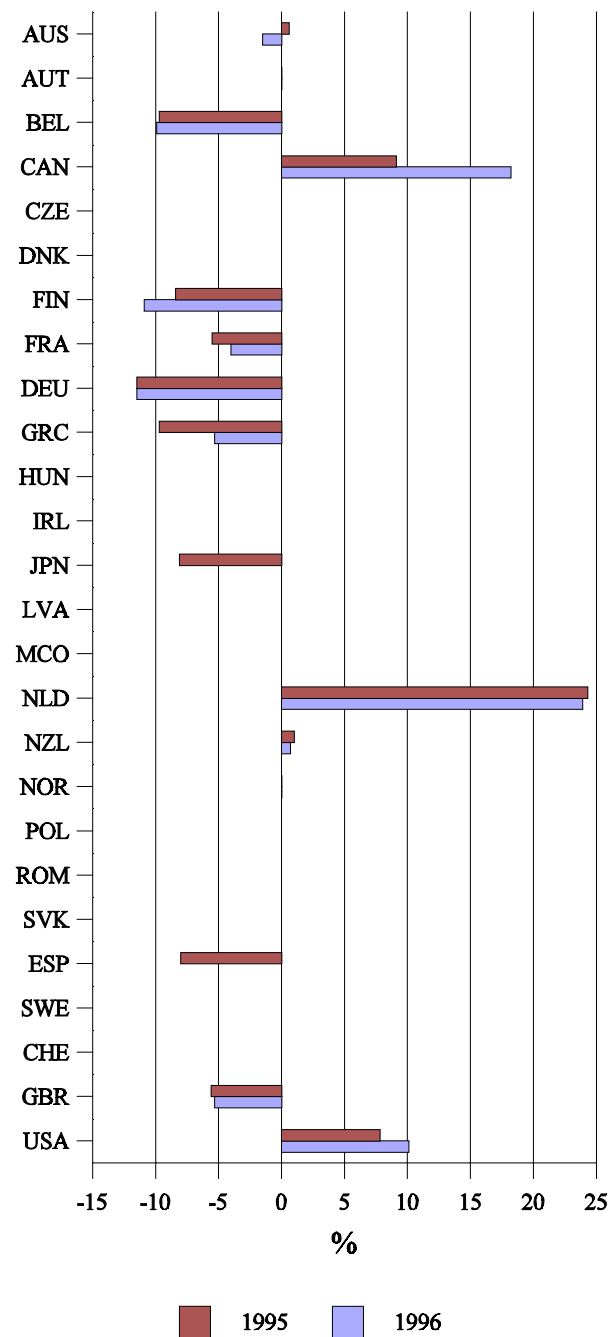
<sup>e</sup> In accordance with decision 9/CP.2, Romania uses the year 1989 as its base year. Estimates were only provided for 1989 to 1994. The trend shown here may not be fully consistent, as the Party noted that estimates provided for the period 1992-1994 need to be updated according to the IPCC methodology, as had been done for estimates for the 1989-1991 period.

<sup>f</sup> The Party did not provide 1996 estimates.

Table B.18. (continued)

Last reported values		1996 to 1995 percentage 1995=100	
1995	1996		
(Gg)	(Gg)	(%)	
63.4	62.0	98	AUS
3.3	3.3	100	AUT
9.8	9.8	100	BEL
120.0	130.0	108	CAN
	20.6		CZE
	30.2		DNK
9.3	9.0	97	FIN
171.1	173.7	102	FRA
85.0	85.0	100	DEU
18.6	19.5	105	GRC
1.6	1.7	104	HUN
19.1	19.0	99	IRL
8.5			JPN
	15.6		LVA
			MCO
27.6	27.5	100	NLD
36.6	36.5	100	NZL
9.0	9.0	100	NOR
	30.5		POL
			ROM
5.4	5.5	102	SVK
58.6			ESP
	0.2		SWE
	8.7		CHE
98.0	98.3	100	GBR
830.0	848.0	102	USA

Figure B.18.



Percentage change in N<sub>2</sub>O emissions from agriculture in 1995 and 1996, relative to 1990



**Table C.1. Projected anthropogenic emissions of CO<sub>2</sub>, excluding land-use change and forestry, until 2020 (Gigagrams)**

	Base level (1990) <sup>a</sup>			Projection and percentage deviation relative to the projection base level			
	<u>Inventory</u>	<u>Projection</u>	<u>Last reported inventory<sup>b</sup></u>	<u>2000</u>		<u>2005</u>	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia	275 344	262 600	308 413	311 200	19	336 500	28
Austria	62 100	61 880	65 000	57 300	-7	57 500	-7
Belgium <sup>c</sup>	116 090	115 800	128 546	125 200	8	133 300	15
Canada	460 899	463 700	508 574	500 600	8	522 900	13
Czech Republic		167 000	132 538	139 000	-17	153 000	-8
Denmark		[59 958]	73 236	54 309	-9	50 547	-16
Finland	59 200	53 800	66 340	(58 000) - (60 000)	(8 - 12)		
France	390 708	[379 901]	406 666	372 934	-2		
Germany	1 014 155	1 014 000	910 000	894 000	-12	867 000	-14
Greece	85 349	76 834	91 978	89 120	16	92 090	20
Hungary		83 676	60 475	~64 300	-23		
Ireland		30 719	34 819	34 998	14	38 228	24
Japan	1 124 532	1 125 000	1 234 904				
Latvia		24 906	11 065	12 274	-51	11 067	-56
Monaco	108		141				
Netherlands	161 360	[173 000]	184 870	173 500	0	181 000	5
New Zealand	25 241	25 476	29 008	31 080	22	33 570	32
Norway	35 457	36 000	41 073	44 000	22	47 000	31
Poland		484 000	372 530	425 000	-12		
Romania <sup>d</sup>	194 826	194 826	125 597	150 807	-23	156 432	-20
Slovakia		59 752	46 105	(44 780) - (46 178)	(-25) - (-23)	(49 142) - (51 919)	(-18) - (-13)
Spain	226 423	226 423	247 703	258 247	14		
Sweden <sup>e</sup>		[58 500]	63 350	60 100	3	62 100	6
Switzerland		[47 100]	44 970	43 900	-7	44 700	-5
United Kingdom	583 165	580 000	563 450	550 000	-5	593 000	2
United States of America	4 943 300	4 960 000	5 393 883	5 627 310	13	5 865 600	18

<sup>a</sup> Differences between the inventory base level and the projection base level are, for example, due to revisions of inventories, rounding, calibration of models, or the projection of only a subset of the sources. For some Parties (Denmark, France, Netherlands, Sweden and Switzerland) differences are also due to temperature adjustments. Base year values for projections that have been subject to temperature adjustments are put in brackets. Inventory figures are from tables A.3 and A.4.

<sup>b</sup> All Parties reported their last inventory for 1996, with the exception of Romania and Spain whose most recent reported inventories were for 1994 and 1995 respectively.

<sup>c</sup> Belgium also provided a projection base level adjusted for temperature which had a value of 121,100 Gg.

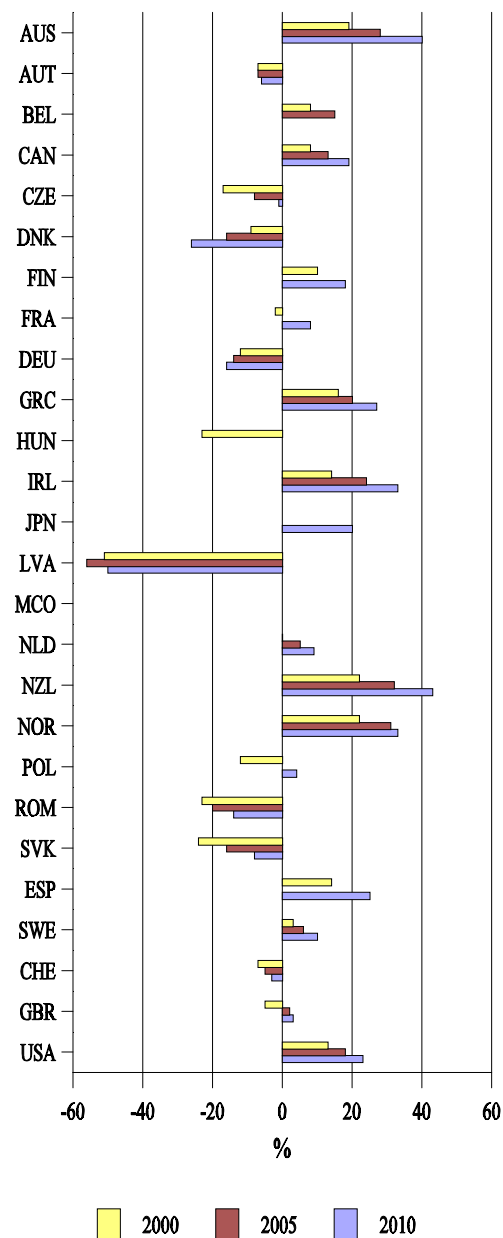
<sup>d</sup> Romania provided projections for the year 1995. Total CO<sub>2</sub> emissions were projected to be 130,823 Gg in 1995, which corresponds to a decrease of 33 per cent relative to the base year.

<sup>e</sup> Sweden reported 1995 rather than 1990 as the base level for projections. All variations from the base level are thus given in relation to 1995.

Table C.1. (continued)

Projection and percentage deviation relative to the projection base level				
2010		2020		
(Gg)	(%)	(Gg)	(%)	
366 800	40	431 100	64	AUS
58 300	-6			AUT
				BEL
549 900	19	628 300	35	CAN
166 000	-1			CZE
44 660	-26	34 158	-43	DNK
(56 000) -	(4 - 32)	(49 000) -	(-9) - (-49)	FIN
(71 000)		(80 000)		
411 621	8	(453 975) -	(19 - 45)	FRA
		(550 417)		
854 000	-16	847 000	-16	DEU
97 680	27			GRE
				HUN
40 775	33			IRE
1 353 000	20			JPN
12 566	-50	13 936	-44	LAT
				MON
188 000	9	202 000	17	NLD
36 310	43	43 560	71	NZL
48 000	33	46 000	28	NOR
502 000	4			POL
167 656	-14			ROM
(53 220) -	(-11) - (-5)			SLO
(56 519)				
282 440	25			ESP
64 300	10	~80 000	~37	SWE
45 700	-3			CHE
595 000	3	682 000	18	GBR
6 118 554	23	6 496 512	31	USA

Figure C.1.



Percentage change in projected CO<sub>2</sub> emissions, excluding land-use change and forestry, in 2000, 2005 and 2010, relative to the base year

Table C.2. CO<sub>2</sub> projections in land-use change and forestry until 2020 (Gigagrams)<sup>a</sup>

	Base level (1990) <sup>b</sup>			Projection and percentage deviation relative to the projection base level			
	<u>Inventory</u>	<u>Projection</u>	<u>Last reported inventory</u> <sup>c</sup>	<u>2000</u>		<u>2005</u>	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia	58 873	-23 100	36 260	-29 000	-26	-29 300	-27
Austria	- 13 300		- 13 800				
Belgium	- 2 057	-2 057	- 2 057	-2 057	0	-2 057	0
Canada	- 44 000		- 29 000				
Czech Republic		-2 000	- 4 479	-5 000	-150	-5 000	-150
Denmark		-924	- 24	-1 046	-13	-1 128	-22
Finland <sup>d</sup>		-24 500		(-17 000) - (-12 000)	(31) - (51)		
France	- 30 316	-35 203	- 41 249	-53 538	-52		
Germany	- 30 000		- 35 900				
Greece							
Hungary			- 3 931				
Ireland		-5 160	- 6 497	-7 580	-47	-8 630	-67
Japan	- 83 903	-83 341	- 96 705	-67 192	19	-59 762	28
Latvia		-10 844	- 14 320				
Monaco							
Netherlands	- 1 500	-1 500	- 1 700	-1 700	-13	-1 700	-13
New Zealand	- 21 313	-20 569	- 16 530	-18 944	8	-20 807	-1
Norway	- 9 590	-9 400	- 17 611	-11 000	-17	-12 900	-37
Poland			- 42 617				
Romania <sup>e</sup>	- 2 925	-2 925	- 6 590	-23 041	-688	-25 000	-755
Slovakia		-4 257	- 5 281	-5 227	-23		
Spain		-28 970		-28 970	0	-28 970	0
Sweden <sup>f</sup>		-34 000	- 32 296	-29 000	15	-26 000	24
Switzerland		-4 360	- 5 200	-5 100	-17	-5 100	-17
United Kingdom	20 207	20 600	11 299	11 100	-46	8 900	-57
United States of America	-1 142 200	-458 750	- 764 683	-411 040	10	-403 700	12

<sup>a</sup> Negative values in Gg denote removal of CO<sub>2</sub>. Positive values denote a net source of emissions. Negative values in percentage denote more removals in 2000 and beyond than in 1990, or a decrease in net emissions.

<sup>b</sup> Differences in 1990 levels between inventories and projections are, for example, due to revisions of inventories, rounding, or the fact that only a subset of the sources was projected. Inventory figures are from table B.8.

<sup>c</sup> All Parties reported their most recent inventory for 1996, with the exception of Romania and Spain, whose most recent reported inventories were for 1994 and 1995, respectively, and Japan, whose last estimates for land-use change and forestry were for 1995.

<sup>d</sup> Deviation relative to the projection base level calculated on the basis of the mean of the range (-30,000)-(-19,000) Gg.

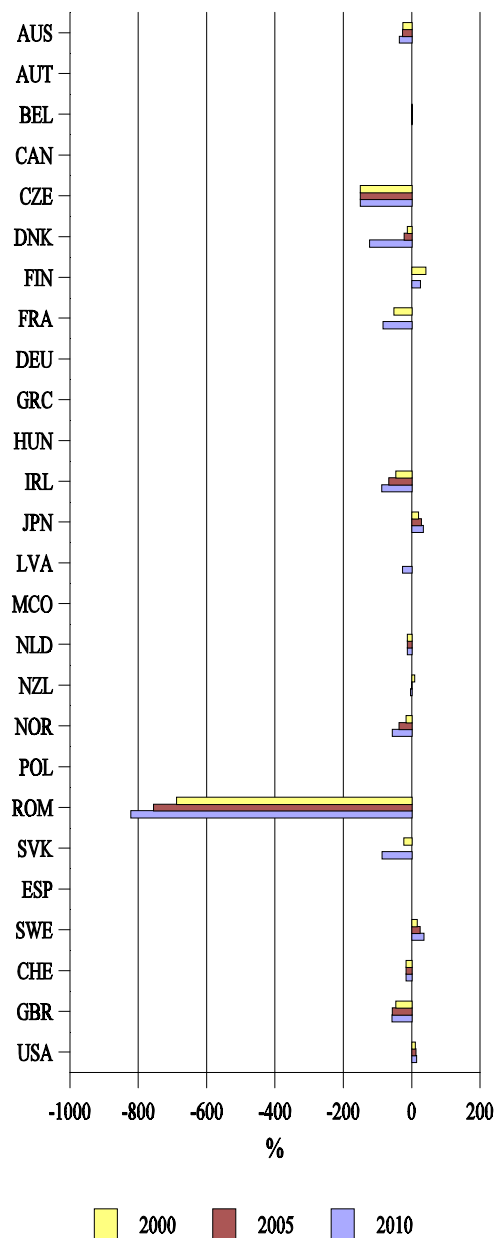
<sup>e</sup> Romania provided projections for the year 1995. Net CO<sub>2</sub> removals were projected to be 18,488 Gg in 1995, which corresponds to an increase of sinks of 532 per cent relative to the base year.

<sup>f</sup> Sweden reported 1995 rather than 1990 as the base level for projections. All variations from the base level are thus given in relation to 1995.

Table C.2. (continued)

Projection and percentage deviation relative to the projection base level				
2010		2020		
(Gg)	(%)	(Gg)	(%)	
-31 500	-36	-32 800	-42	AUS
-2 057	0	-2 057	0	AUT
				BEL
-5 000	-150			CAN
-2 063	-123	-2 703	-193	CZE
(-15 000) - (-22 000)	(39) - (10)	(-27 000) - (1 000)	(-10) - (104)	DNK
				FIN
-64 906	-84			FRA
				DEU
				GRE
				HUN
-9 690	-88			IRE
-55 811	33			JPN
-13 752	-27	-12 512	-15	LAT
				MON
-1 700	-13	-1 700	-13	NLD
-21 208	-3	-31 654	-54	NZL
-14 800	-57	-15 700	-67	NOR
				POL
-26 953	-822			ROM
-7 957	-87	-12 397	-191	SLO
-28 970	0			ESP
-22 000	35			SWE
-5 100	-17	-5 100	-17	CHE
8 700	-58	12 800	-38	GBR
-400 030	13	-348 650	24	USA

Figure C.2.



Percentage change in projected CO<sub>2</sub> emissions (and removals) in land-use change and forestry, in 2000, 2005 and 2010, relative to the base year

**Table C.3. Projected anthropogenic emissions of CH<sub>4</sub> until 2020 (Gigagrams)**

	Base level (1990) <sup>a</sup>		Last reported inventory <sup>b</sup>	Projection and percentage deviation relative to the projection base level			
	Inventory	Projection		2000		2005	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia	5 345	5 051	5 308	5 306	5	5 499	9
Austria	587	587	574	600	2		
Belgium	634	626	591	530	-15	487	-22
Canada	3 300	3 148	4 000	3 546	13	3 600	14
Czech Republic		886	573	742	-16	864	-2
Denmark		424	425	408	-4	377	-11
Finland	358	246	270	226	-8	206	-16
France	3 018	2 253	2 712	2 095	-7		
Germany	5 522	5 682	4 724	3 892	-32	3 004	-47
Greece	437		457				
Hungary			813				
Ireland		811	800	837	3	838	3
Japan	1 549	1 575	1 482	1 576	0	1 473	-6
Latvia		186	93	95	-49	100	-46
Monaco	0		0				
Netherlands	1 292	1 067	1 179	788	-26	700	-34
New Zealand	1 673	1 706	1 593	1 541	-10	1 552	-9
Norway	442	432	485	414	-4	377	-13
Poland			2 252				
Romania <sup>c</sup>	2 357	2 357	1 461	1 342	-43	1 313	-44
Slovakia		401	314	(251 - 401)	(-37) - (0)	(237 - 348)	(-41) - (-13)
Spain	2 181	2 181	2 370	2 356	8		
Sweden <sup>d</sup>		302	297	284	-6	271	-10
Switzerland		244	228	229	-6	211	-14
United Kingdom	4 438	4 402	3 712	3 418	-22	3 227	-27
United States of America	29 628	29 676	31 138	26 186	-12	26 534	-11

<sup>a</sup> Differences between the inventory base level and the projection base level are due to revisions of inventories, rounding, etc. Inventory figures are from tables A.7 and A.8.

<sup>b</sup> All Parties reported their most recent inventory for 1996, with the exception of Romania and Spain, whose last reported inventories were for 1994 and 1995, respectively, and Japan, whose last CH<sub>4</sub> estimates were for 1995.

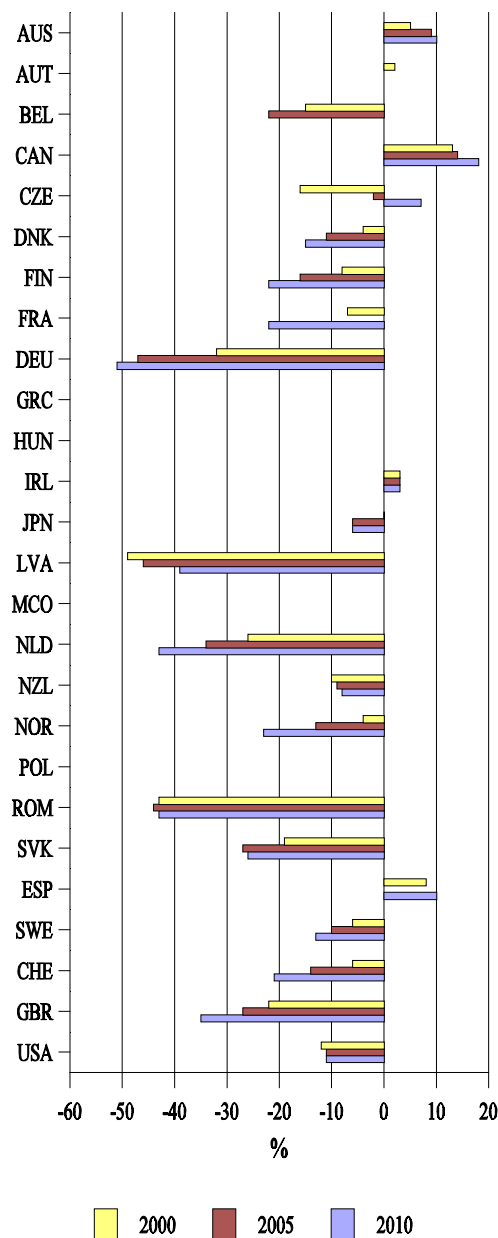
<sup>c</sup> Romania provided projections for the year 1995. Total CH<sub>4</sub> emissions were projected to be 1,260 Gg in 1995, which corresponds to a decrease of 47 per cent relative to the base year.

<sup>d</sup> Sweden reported 1995 rather than 1990 as the base level for projections. All variations from the base level are thus given in relation to 1995.

Table C.3. (continued)

Projection and percentage deviation relative to the projection base level				
2010		2020		
(Gg)	(%)	(Gg)	(%)	
5 537	10	5 919	17	AUS
				AUT
				BEL
3 719	18	4 179	33	CAN
951	7			CZE
362	-15			DNK
191	-22	179	-27	FIN
1 764	-22	1 676	-26	FRA
2 759	-51	2 505	-56	DEU
				GRE
				HUN
839	3			IRE
1 487	-6			JPN
114	-39	143	-23	LAT
				MON
611	-43	594	-44	NLD
1 573	-8	1 604	-6	NZL
332	-23	325	-25	NOR
				POL
1 356	-43			ROM
(224 - 367)	(-44) - (-8)			SLO
2 399	10			ESP
262	-13			SWE
192	-21			CHE
2 852	-35	2 670	-39	GBR
26 534	-11	26 840	-10	USA

Figure C.3.



Percentage change in projected CH<sub>4</sub> emissions, in 2000, 2005 and 2010, relative to the base year

**Table C.4. Projected anthropogenic emissions of N<sub>2</sub>O until 2020 (Gigagrams)**

	Base level (1990) <sup>a</sup>			Projection and percentage deviation relative to the projection base level			
	<u>Inventory</u>	<u>Projection</u>	<u>Last reported inventory</u> <sup>b</sup>	2000		2005	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia	74.9	75.0	78.9	86.0	15	91.0	21
Austria <sup>c</sup>	9.2		10.0				
Belgium	30.8	27.9	35.2	30.4	9	32.5	16
Canada	190.0	86.0	230.0	74.0	-14	77.1	-10
Czech Republic		25.0	29.1	22.0	-12	24.0	-4
Denmark		34.0	33.9	28.0	-18	28.0	-18
Finland	18.6	18.0	18.5	21.5	19	(23 - 25)	(28 - 39)
France	308.7	154.0	297.4	80.3	-48		
Germany	226.0	226.0	228.0	162.0	-28	159.0	-30
Greece	29.9		29.3				
Hungary			5.1				
Ireland		29.4	26.2	26.0	-12	26.1	-11
Japan	61.0	105.3	62.7	121.4	15	127.4	21
Latvia		23.0	16.3	15.0	-35	15.0	-35
Monaco	0.0		0.0				
Netherlands	63.9	62.6	72.4	65.2	4	67.0	7
New Zealand	37.1	47.5	37.5	46.0	-3	45.6	-4
Norway	18.0	15.3	18.0	16.0	5	16.5	8
Poland			53.9				
Romania <sup>d</sup>	66.3	66.3	25.0	24.2	-63	24.7	-63
Slovakia		10.9	7.9	(6.8 - 10.6)	(-38) - (-3)	(6.9 - 11.7)	(-37) - (7)
Spain	94.2	94.0	90.5	94.0	0		
Sweden <sup>e</sup>		9.3	10.1	10.5	13	11.5	24
Switzerland		11.5	11.8	11.7	2	11.6	1
United Kingdom	215.0	111.7	189.3	42.9	-62	48.3	-57
United States of America	1 136.0	426.0	1 232.0	367.0	-14	378.0	-11

<sup>a</sup> Differences between the inventory base level and the projection base level are due to revisions of inventories, rounding, etc. Inventory figures are from tables A.9 and A.10.

<sup>b</sup> All Parties reported their last inventory for 1996, with the exception of Romania and Spain whose most recent reported inventories were for 1994 and 1995, respectively, and Japan, whose last N<sub>2</sub>O estimates were for 1995.

<sup>c</sup> Austria stated that reliable projections for 2000 and beyond cannot be presented because of revised emission factors; the existing emission projections for N<sub>2</sub>O no longer agree with the emissions reported for 1990 and 1995 (p. 146).

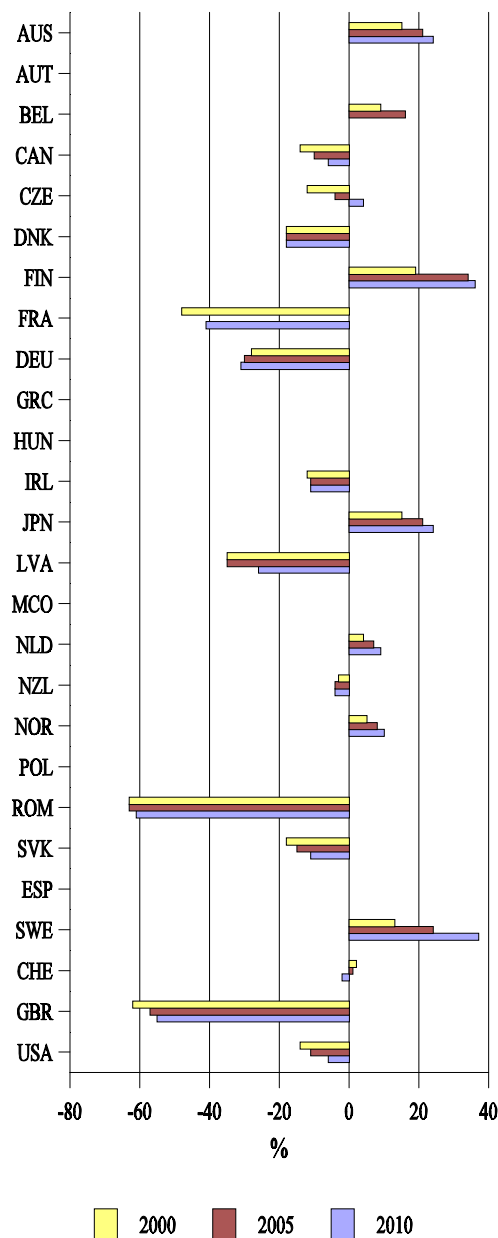
<sup>d</sup> Romania provided projections for the year 1995. Total N<sub>2</sub>O emissions were projected to be 21.9 Gg in 1995, which corresponds to a decrease of 67 per cent relative to the base year.

<sup>e</sup> Sweden reported 1995 rather than 1990 as the base level for projections. All variations from the base level are thus given in relation to 1995.

Table C.4. (continued)

Projection and percentage deviation relative to the projection base level				
2010		2020		
(Gg)	(%)	(Gg)	(%)	
93.0	24	101.0	35	AUS
				AUT
				BEL
81.1	-6	88.3	3	DNK
26.0	4			CAN
28.0	-18			CZE
(24 - 25)	(33 - 39)	(23 - 26)	(28 - 44)	FIN
90.8	-41	101.1	-34	FRA
157.0	-31	156.0	-31	DEU
				GRE
				HUN
26.1	-11			IRE
130.9	24			JPN
17.0	-26	18.0	-22	LVA
				MON
68.1	9	70.1	12	NLD
45.7	-4	45.7	-4	NZL
16.9	10	17.7	16	NOR
				POL
25.8	-61			ROM
(7.4 - 12.0)	(-32) - (10)			SVK
94.0	0			ESP
12.7	37			SLO
11.3	-2			SWE
50.8	-55.0	53.3	-52	CHE
402.0	-6.0	402.0	-6	GBR
				USA

Figure C.4.



Percentage change in projected N<sub>2</sub>O emissions, in 2000, 2005 and 2010, relative to the base year



**Table C.5.1. Projected emissions of HFCs until 2020 (Gigagrams, CO<sub>2</sub> equivalent)<sup>a</sup>**

	Base level (1990)			Projection and percentage deviation relative to the projection base level			
	<u>Inventory</u>	<u>Projection</u>	<u>Last reported inventory<sup>b</sup></u>	2000		2005	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia							
Austria			712				
Belgium			533				
Canada <sup>c</sup>		500	500	2 000	300	4 000	700
Czech Republic			222				
Denmark			300				
Finland <sup>cd</sup>	200	79	380	130	65	156	97
France	2 232		2 325				
Germany	2 340	2 340	3 593	6 336	171	10 388	344
Greece	935		3 746				
Hungary							
Ireland							
Japan	17 564		34 433				
Latvia							
Monaco							
Netherlands	4 900	4 880	7 200	4 763	-2	5 767	18
New Zealand <sup>cd</sup>		183	297	213	16	247	35
Norway	0	244	268	800	300	1 300	550
Poland			68				
Romania							
Slovakia							
Spain							
Sweden <sup>c</sup>		200		800	300	900	350
Switzerland			413				
United Kingdom <sup>c</sup>	12 180	12 645	15 358	4 651	-63	(4 556 - 8 212)	(-35)-(-64)
United States of America <sup>f</sup>	35 809		66 824				

<sup>a</sup> Estimates based on IPCC 1995 GWPs, with a time-horizon of 100 years.

<sup>b</sup> All Parties providing HFC estimates reported their last inventory for 1996. Inventory figures are from table A.11.

<sup>c</sup> Canada, Finland, New Zealand and Sweden used 1995 as base level for the HFC projections.

<sup>d</sup> Finland and New Zealand only reported aggregate projection data for HFCs in full mass units (Gg). The secretariat therefore assumed that all these emissions were HFC-134a.

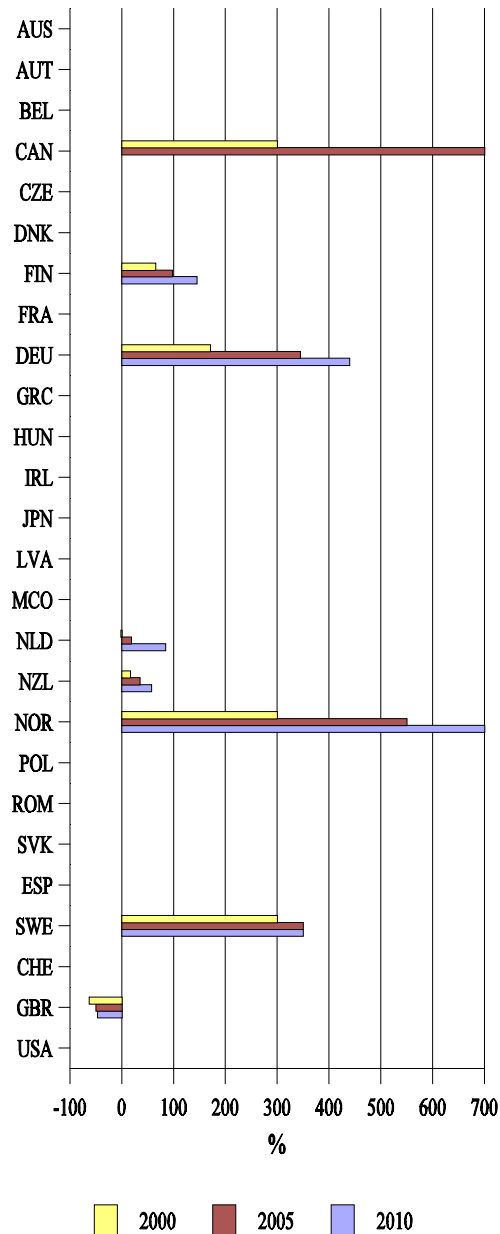
<sup>e</sup> The estimate for 2000 is the value based on the mid point of the projected range for HFCs.

<sup>f</sup> Projections of HFCs, PFCs and SF<sub>6</sub> were presented together in terms of CO<sub>2</sub> equivalent. The estimates are given in the explanatory notes on page 92.

Table C.5.1. (continued)

Projection and percentage deviation relative to the projection base level			
2010		2020	
(Gg)	(%)	(Gg)	(%)
7 000	1 300	14 000	2 700
195	145	195	145
12 609	439	12 355	428
8 964	84	16 119	230
287	57	583	219
1 600	700	1 900	850
900	350		
(4 307 - 9 262)	(-27)-(-66)		

Figure C.5.1.



Percentage change in projected HFC emissions, in 2000, 2005 and 2010, relative to the base year

**Table C.5.2. Projected emissions of PFCs until 2020 (Gigagrams, CO<sub>2</sub> equivalent)<sup>a</sup>**

	Base level (1990)			Projection and percentage deviation relative to the projection base level			
	<u>Inventory</u>	<u>Projection</u>	<u>Last reported inventory<sup>b</sup></u>	<u>2000</u>		<u>2005</u>	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia	4 860		1 484				
Austria			70				
Belgium			73				
Canada	6 000	7 144	6 000	7 420	4	7 420	4
Czech Republic			4				
Denmark			3				
Finland <sup>cd</sup>		0.3		0.4	33	0.4	33
France	3 033		1 428				
Germany	2 694	2 694	1 617	799	-70	784	-71
Greece	503		385				
Hungary							
Ireland							
Japan	5 670		15 830				
Latvia							
Monaco							
Netherlands	2 500	2 234	2 300	2 512	12	2 640	18
New Zealand <sup>c</sup>	601	601	262	230	-62	237	-61
Norway	2 546	2 500	1 271	1 300	-48	1 200	-52
Poland			7				
Romania							
Slovakia			320				
Spain							
Sweden		400		500	25	500	25
Switzerland			24				
United Kingdom	2 085	2 087	535	398	-81	544	-74
United States of America <sup>e</sup>	18 003		18 401				

<sup>a</sup> Estimates based on IPCC 1995 GWPs with a time-horizon of 100 years.

<sup>b</sup> All Parties providing PFC estimates reported their most recent inventory for 1996. Inventory figures are from table A.11.

<sup>c</sup> Finland and New Zealand reported only aggregate PFC projection figures in full mass units (Gg). In order to estimate the CO<sub>2</sub> equivalent, the secretariat assumed that approximately 90 per cent was CF<sub>4</sub> and 10 per cent C<sub>2</sub>F<sub>6</sub>.

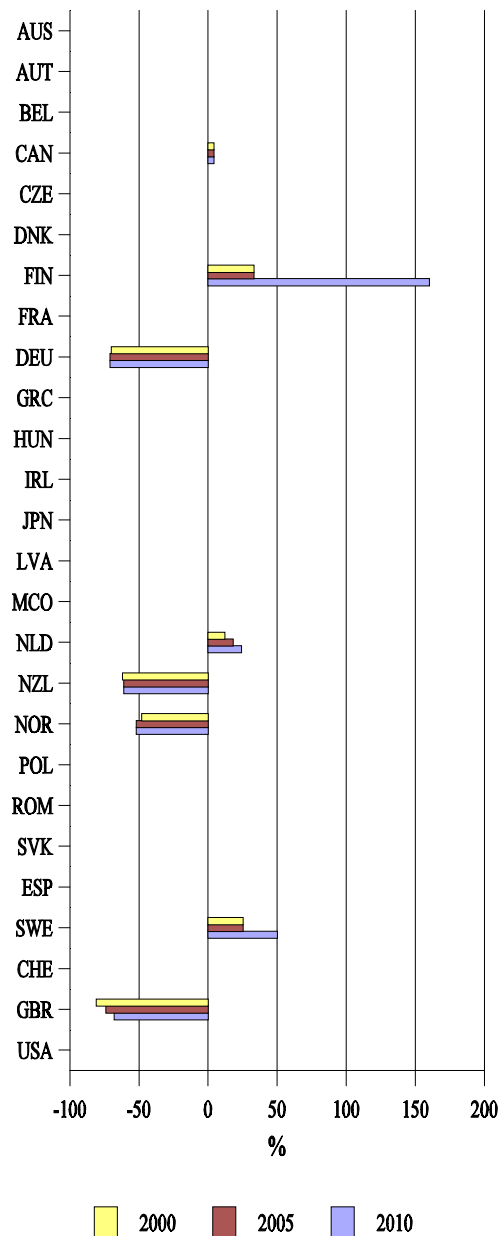
<sup>d</sup> Finland used 1995 as base level for the PFC projections. Finland projected PFC emissions but noted that they are small.

<sup>e</sup> Projections of HFCs, PFCs and SF<sub>6</sub> were presented together in terms of CO<sub>2</sub> equivalent. The estimates are given in the explanatory notes on page 92.

Table C.5.2. (continued)

Projection and percentage deviation relative to the projection base level			
2010		2020	
(Gg)	(%)	(Gg)	(%)
7 420	4	7 420	4
0.8	160	0.8	160
784	-71	784	-71
2 776	24	3 033	36
237	-61	251	-58
1 200	-52	1 200	-52
600	50		
672	-68		

Figure C.5.2.



Percentage change in projected PFC emissions, in 2000, 2005 and 2010, relative to the base year

**Table C.5.3. Projected emissions of SF<sub>6</sub> until 2020 (Gigagrams CO<sub>2</sub> equivalent)<sup>a</sup>**

	Base level (1990)			Projection and percentage deviation relative to the projection base level			
	<u>Inventory</u>	<u>Projection</u>	<u>Last reported inventory<sup>b</sup></u>	2000		2005	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia			15				
Austria			789				
Belgium	333		333				
Canada	3 000	2 868	1 000	1 912	-33	1 912	-33
Czech Republic			183				
Denmark			134				
Finland <sup>c</sup>	100	96	120	120	25	143	49
France	2 414		2 701				
Germany	3 896	3 896	5 879	4 971	28	4 445	14
Greece							
Hungary							
Ireland							
Japan	38 240		52 580				
Latvia							
Monaco							
Netherlands	1 400	1 386	1 500	1 625	17	1 793	29
New Zealand	25	5	25	7	50	7	50
Norway	2 199	2 200	526	525	-76	525	-76
Poland							
Romania							
Slovakia							
Spain							
Sweden		1 000		1 200	20	1 200	20
Switzerland			72				
United Kingdom	574	574	837	1 028	79	1 028	79
United States of America <sup>d</sup>	26 744		36 663				

<sup>a</sup> Estimates based on IPCC 1995 GWPs with a time-horizon of 100 years.

<sup>b</sup> All Parties providing SF<sub>6</sub> estimates reported their last inventory for 1996. Inventory figures are from table A.11.

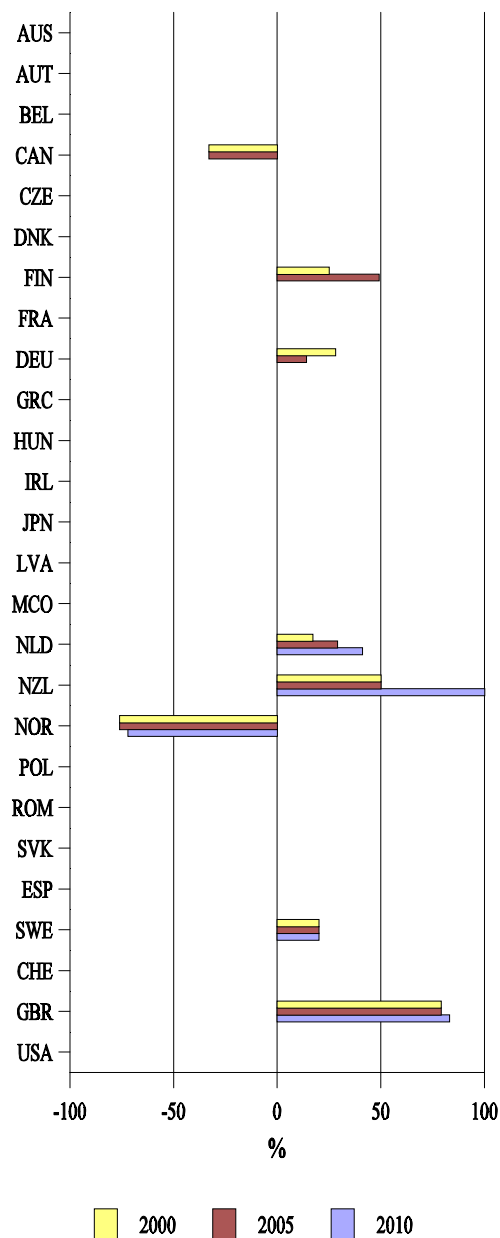
<sup>c</sup> Finland used 1995 as base level for the SF<sub>6</sub> projections.

<sup>d</sup> Projections of HFCs, PFCs and SF<sub>6</sub> were presented together in terms of CO<sub>2</sub> equivalent. The estimates are given in the explanatory notes on page 92.

Table C.5.3. (continued)

Projection and percentage deviation relative to the projection base level				
2010		2020		
(Gg)	(%)	(Gg)	(%)	
				AUS
				AUT
				BEL
1 912	-33	1 912	-33	CAN
				CZE
				DNK
143	49	143	49	FIN
				FRA
5 401	39	6 979	79	DEU
				IRE
				JPN
				LVA
				JPN
				LAT
1 960	41	2 271	64	NLD
10	100	34	610	NZL
600	-72	700	-68	NOR
				POL
				ROM
				SVK
				ESP
				SLO
1 200	20			ESP
				SWE
				CHE
1 052	83			CHE
				GBR
				USA

Figure C.5.3.



Percentage change in projected SF<sub>6</sub> emissions, in 2000, 2005 and 2010, relative to the base year

**Table C.6. Projected anthropogenic emissions of all greenhouse gases, excluding land-use change and forestry, until 2020 (Gigagrams, CO<sub>2</sub> equivalent)<sup>a</sup>**

	Base level (1990) <sup>b</sup>			Projection and percentage deviation relative to the projection base level			
	<u>Inventory</u>	<u>Projection</u>	<u>Last reported inventory</u> <sup>c</sup>	2000		2005	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia	415 656	410 990	445 840	463 800	13	495 905	21
Austria	77 271		81 723				
Belgium	139 276	137 595	152 797	145 754	6	153 602	12
Canada	598 099	566 480	671 374	609 118	8	635 513	12
Czech Republic		193 356	153 989	161 402	-17	178 594	-8
Denmark		79 402	93 117	71 557	-10	67 144	-15
Finland	72 786	65 546	78 243	69 660	6		
France	557 452	474 946	562 271	441 831	-7		
Germany	1 209 107	1 210 232	1 090 974	1 038 058	-14	994 991	-18
Greece	105 235		114 789				
Hungary			79 130				
Ireland		56 864	59 722	60 625	7	64 486	13
Japan	1 237 446	1 190 718	1 369 311				
Latvia		35 795	18 064	18 919	-47	17 817	-50
Monaco	111		145				
Netherlands	217 107	223 313	243 071	219 160	-2	226 670	2
New Zealand	72 499	76 816	74 667	78 151	2	80 789	5
Norway	55 064	54 515	58 903	60 279	11	63 057	16
Poland			436 616				
Romania <sup>d</sup>	264 879	264 879	164 026	186 491	-30	191 658	-28
Slovakia		73 064	55 468	55 840	-24	61 875	-15
Spain	301 431	301 364	325 530	336 863	12		
Sweden <sup>e</sup>		68 225	72 723	71 447	5	73 919	8
Switzerland		55 789	53 924	52 336	-6	52 727	-5
United Kingdom <sup>f</sup>	757 851	722 375	716 818	641 154	-11	(681 868 - 685	(-6)-(-5)
United States of America	5 998 204	5 803 278	6 551 589	6 444 828	11	6 789 432	17

<sup>a</sup> Using IPCC 1995 GWPs, with a time-horizon of 100 years. Figures from tables C.1, C.3, C.4, C.5.1, C.5.2, and C.5.3 were used as the starting point for these projections. Only gases and sources that were projected are included.

<sup>b</sup> Differences in 1990 levels between inventories and projections are, for example, due to revisions of inventories, rounding, and temperature adjustments for the projection base level (Denmark, Netherlands, Sweden and Switzerland). Inventory figures are from table B.1.

<sup>c</sup> All Parties reported their last inventory for 1996, with the exception of Romania and Spain, whose most recent reported inventories were for 1994 and 1995, respectively, and Japan, whose last complete inventory was for 1995.

<sup>d</sup> Romania provided projections for the year 1995. Aggregate GHG emissions were projected to be 164,072 Gg in 1995, which corresponds to a decrease of 38 per cent relative to the base year.

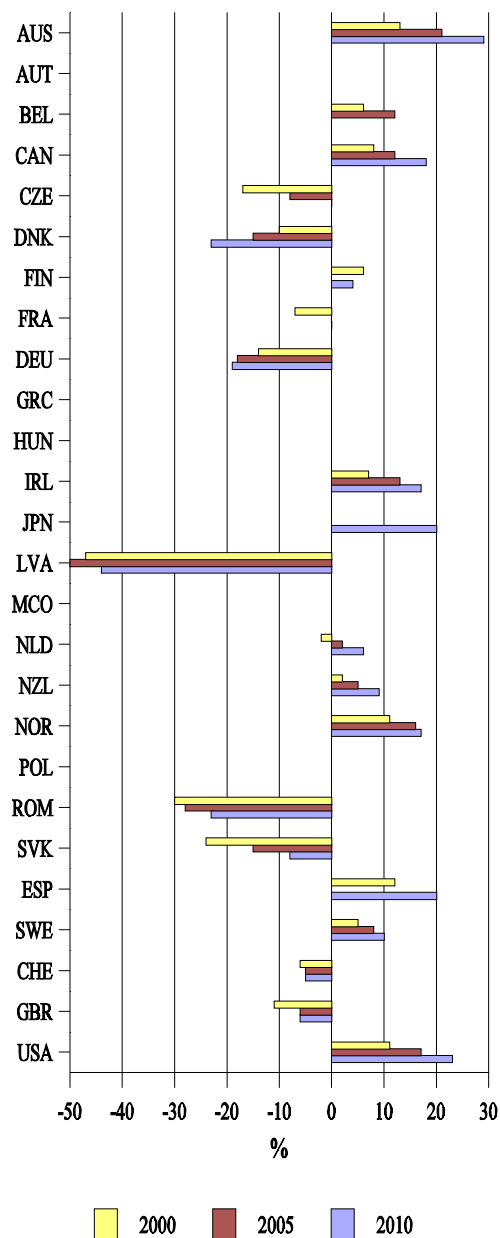
<sup>e</sup> Sweden reported 1995 rather than 1990 as the base level for projections. All variations from the base level are thus given in relation to 1995.

<sup>f</sup> The estimate for 2020 does not include emissions of HFCs, PFCs, or SF<sub>6</sub> as they were not reported for 2020.

Table C.6. (continued)

Projection and percentage deviation relative to the projection base level				
2010		2020		
(Gg)	(%)	(Gg)	(%)	
528 810	29	607 120	48	AUS
				AUT
				BEL
669 252	18	766 544	35	CAN
194 031	~0			CZE
60 942	-23			DNK
(67 790) -	3-4	(60 227) -	-8	FIN
(67 900)		(60 607)		
476 805	0	(520 519) -	10 - 30	FRA
		(616 961)		
979 403	-19	968 083	-20	DEU
				GRE
				HUN
66 454	17			IRE
1 424 806	20			JPN
20 139	-44	22 608	-37	LAT
				MON
235 642	6	257 658	15	NLD
84 044	9	92 279	20	NZL
63 611	17	62 112	14	NOR
				POL
204 134	-23			ROM
66 975	-8			SLO
361 959	20			ESP
74 996	10			SWE
53 235	-5			CHE
(676 671 - 681)	-6	754 593	4	GBR
7 134 036	23	7 324 668	26	USA

Figure C.6.



Percentage change in projected emissions of all greenhouse gases for all sectors, excluding land-use change and forestry, in 2000, 2005 and 2010, relative to the base year



**Table C.7. Projected anthropogenic net emissions of all greenhouse gases, including land-use change and forestry, until 2020 (Gigagrams, CO<sub>2</sub> equivalent)<sup>a</sup>**

	Base level (1990) <sup>b</sup>			Projection and percentage deviation relative to the projection base level			
	<u>Inventory</u>	<u>Projection</u>	<u>Last reported inventory<sup>c</sup></u>	2000		2005	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia	474 529	387 890	482 101	434 800	12	466 605	20
Austria <sup>d</sup>	63 971		67 923				
Belgium	137 219	135 538	150 740	143 697	6	151 545	12
Canada <sup>d</sup>	554 099		642 374				
Czech Republic		191 356	149 510	156 402	-18	173 548	-9
Denmark		78 478	93 093	70 511	-10	66 016	-16
Finland		41 046		(52 660) - (57 660)	28-40		
France	527 136	439 742	521 022	388 293	-12		
Germany <sup>d</sup>	1 179 107		1 055 074				
Greece							
Hungary			75 199				
Ireland		51 701	53 225	53 045	3	55 856	8
Japan	1 153 543	1 107 377	1 272 606				
Latvia		24 835	3 744				
Monaco							
Netherlands	215 607	221 813	241 371	217 460	-2	224 970	1
New Zealand	51 186	56 247	58 137	59 207	5	59 982	7
Norway	45 474	45 115	41 292	49 279	9	50 157	11
Poland			393 999				
Romania <sup>e</sup>	261 954	261 954	157 436	163 450	-38	166 658	-36
Slovakia		68 738	50 187	50 613	-26		
Spain		272 394		307 893	13		
Sweden <sup>f</sup>		34 225	40 427	42 447	24	47 919	40
Switzerland		51 429	48 724	47 236	-8	47 627	-7
United Kingdom	778 057	731 694	728 118	650 172	-11	688 508	-6
United States of America	4 856 004	5 345 028	5 786 906	6 034 236	13	6 386 172	19

<sup>a</sup> Estimates based on IPCC 1995 GWPs, with a time-horizon of 100 years. Figures from tables C.6 and C.2 were used as the starting point for these projections.

<sup>b</sup> Differences in 1990 levels between inventories and projections are, for example, due to revisions of inventories, rounding and temperature adjustments for the projection base level (Denmark, Netherlands, Sweden and Switzerland). Inventory figures are from tables B.2. and B.8.

<sup>c</sup> All Parties reported their last inventory for 1996, with the exception of Romania and Spain whose last inventories were for 1994 and 1995 respectively, and Japan whose last complete inventory was for 1995.

<sup>d</sup> Austria, Canada and Germany did not present projections in the *land-use change and forestry* subcategory and therefore they were not included here.

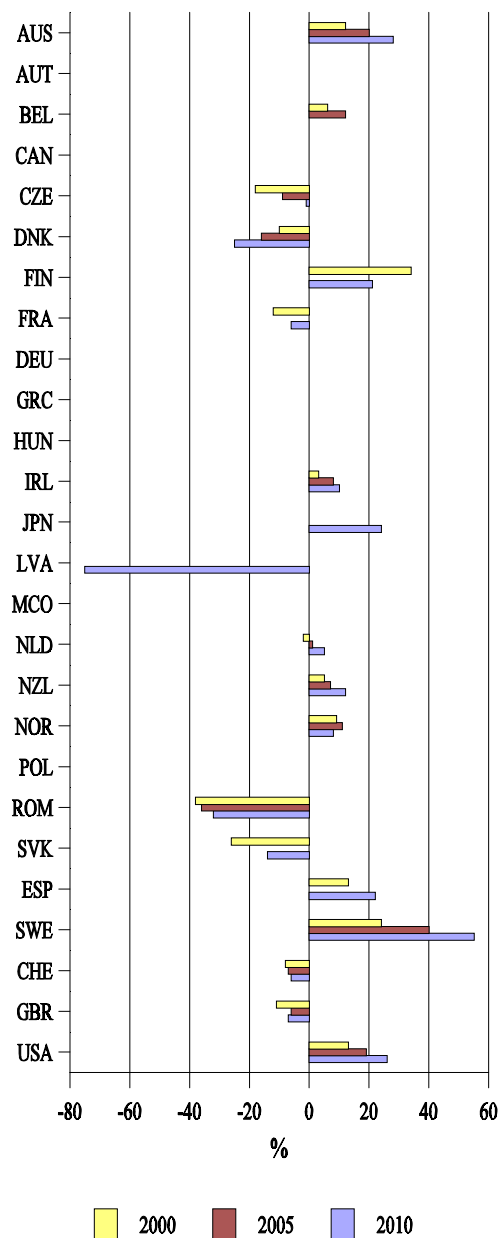
<sup>e</sup> Romania provided projections for the year 1995. Aggregate GHG emissions were projected to be 145,584 Gg in 1995 which corresponds to a decrease of 44 per cent relative to the base year.

<sup>f</sup> Sweden reported 1995 rather than 1990 as the base level for projections. All variations from the base level are thus given in relation to 1995.

Table C.7. (continued)

Projection and percentage deviation relative to the projection base level				
2010		2020		
(Gg)	(%)	(Gg)	(%)	
497 310	28	574 320	48	AUS
				AUT
				BEL
				CAN
189 031	-1			CZE
58 879	-25			DNK
(45 900)-	12-29	(33 227) -	-19-51	FIN
(52 790)		(62 147)		
411 900	-6			FRA
				DEU
				GRE
				HUN
56 764	10			IRE
1 368 995	24			JPN
6 269	-75	9 978	-60	LAT
				MON
233 942	5	255 928	15	NLD
62 836	12	60 625	8	NZL
48 811	8	46 412	3	NOR
				POL
177 181	-32			ROM
59 018	-14			SLO
332 989	22			ESP
52 996	55			SWE
48 135	-6			CHE
683 549	-7			GBR
6 734 442	26	7 324 668	37	USA

Figure C.7.



Percentage change in projected emissions of all greenhouse gases, including land-use change and forestry, in 2000, 2005 and 2010, relative to the base year

**Table C.8. Projected CO<sub>2</sub> emissions from bunker fuels (Gigagrams)**

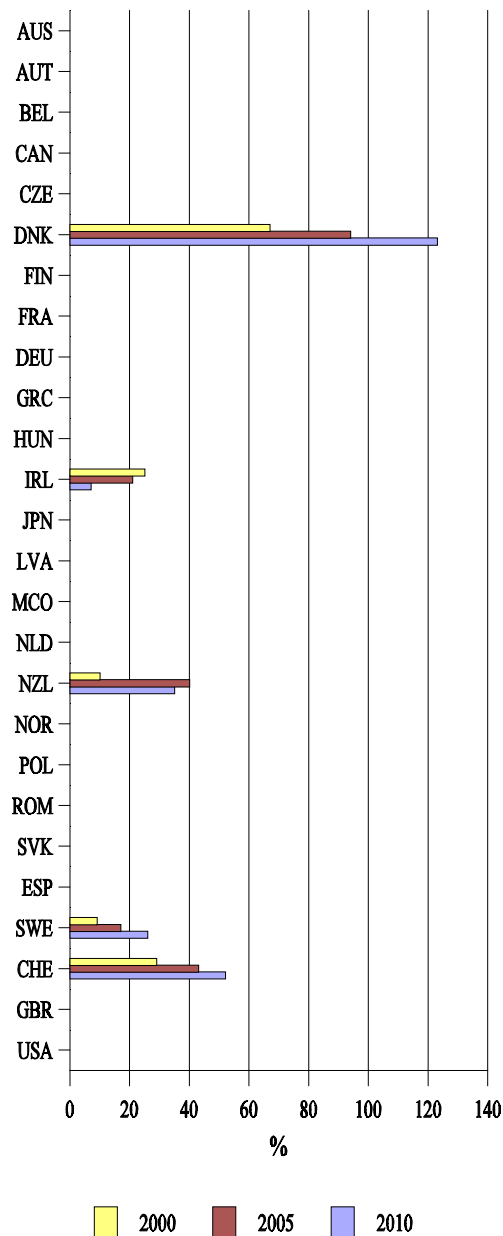
	Base level (1990) <sup>a</sup>		<u>Last reported inventory</u> <sup>a</sup> (Gg)	Projection and percentage deviation relative to the projection base level			
	<u>Inventory</u>	<u>Projection</u>		2000		2005	
	(Gg)	(Gg)	(Gg)	(Gg)	(%)	(Gg)	(%)
Australia	6 401		9 031				
Austria	890		1 380				
Belgium	15 726		18 308				
Canada	4 920		5 170				
Czech Republic			459				
Denmark		4 975	6 970	8 327	67	9 645	94
Finland	2 800		2 100				
France	15 488		18 154				
Germany	19 569		19 874				
Greece	10 423		12 432				
Hungary			560				
Ireland		1 172	1 605	1 465	25	1 414	21
Japan	30 806		32 420				
Latvia							
Monaco							
Netherlands	40 400		45 800				
New Zealand	2 384	2 413	2 580	2 645	10	3 378	40
Norway	1 988		3 112				
Poland			2 068				
Romania							
Slovakia							
Spain							
Sweden		5 400	4 899	5 900	9	6 300	17
Switzerland		2 100	2 500	2 700	29	3 000	43
United Kingdom	21 349		28 163				
United States of America	83 400		82 400				

<sup>a</sup> Inventory figures are from table B.9.

Table C.8. (continued)

Projection and percentage deviation relative to the projection base level				
2010		2020		
(Gg)	(%)	(Gg)	(%)	
				AUS
				AUT
				BEL
				CAN
				CZE
11 094	123	12 530	152	DNK
				FIN
				FRA
				DEU
				GRE
				HUN
1 253	7			IRE
				JPN
				LAT
				MON
				NLD
3 251	35	3 967	64	NZL
				NOR
				POL
				ROM
				SVK
				ESP
				SLO
6 800	26			ESP
3 200	52			SWE
				CHE
				GBR
				USA

Figure C.8.



Percentage change in projected CO<sub>2</sub> emissions from bunker fuels in 2000, 2005 and 2010, relative to the base year

### Explanatory notes for tables C.1 to C.8

All references in parentheses are to the national communications. To the extent possible, the figures in the tables are taken from the “with measures” projections or from projection scenarios that best represent or reflect the implementation of measures; the notes below indicate where “with measures” projections were not provided or in some instances provide some additional information and/or further explanation. In the notes for table C.1 a description is given of the approach/scenarios used, which are applicable to data provided in tables C.2 through C.8, therefore notes for these Parties are not necessarily repeated in the notes for these tables.

#### Table C.1

**Australia:** The projections are for energy-related emissions only, taking into account the estimated impact of policies currently in place. Projections do not include effects of measures from the Commonwealth package of strengthened greenhouse gas measures announced in November 1997 (p. 69).

**Austria:** Four CO<sub>2</sub> scenarios were provided: (1) “without measures” scenario, (2) “current measures” scenario (assuming that only the currently implemented measures will continue to be effective), (3) “additional measures” scenario (assuming the start of a restructuring programme in 1997), and (4) “additional measures delayed” scenario (assuming a delayed start of a restructuring programme in 2000). Projections from the “current measures” scenario are presented in this table.

**Belgium:** The projection given in table C.1 is based on the “with measures” scenario. It includes a CO<sub>2</sub>/energy tax, which is envisaged. One other scenario was supplied: “with envisaged measures”, which incorporates supplementary measures. In addition, Belgium submitted projections from a temperature-adjusted base year.

**Canada:** The projection provided is a reference projection, based on the maintenance of current energy and related policy over the projection period (p.45).

**Czech Republic:** The “with measures” scenario represented here for the Czech Republic was called “base scenario” in the second national communication. No baseline projection was supplied. For 1995, CO<sub>2</sub> emissions of 129,000 Gg were projected. The CO<sub>2</sub> emissions for 1990 and 1995, as reported in the inventories, differ from those of the projection, because different calculation methodologies were used. These differences, however, do not exceed expected limits of confidence.

**Denmark:** Projections are based on general considerations, such as conservation of heat and electricity, use of energy efficient appliances and processes, and use of renewable energy.

**Finland:** The range of emissions as given in the table reflects two scenarios, one being the “energy market scenario” (EMS) without national or international measures to curb CO<sub>2</sub> emissions, and the other, the “energy policy scenario” (EPO), which assumes strengthening current control measures. Two different variants of strengthening the control measures are examined within the EPO scenario, one in which the use of wood and gas is increased, and one in which more nuclear power capacity is built.

**France:** Projections are from the “with measures” scenario; a range is given for 2020, however, to take account of the possible future composition of electricity production units and competition among European electric utilities.

**Germany:** The scenario presented in table C.1 is the “with measures scenario” / “Interministerial Working Group (IWG)-measures scenario” where CO<sub>2</sub> reduction measures are taken into account to the greatest possible extent. In addition, a “without measures scenario”/“reference scenario” was presented where efficiency improvements are the main factor to counter increases in CO<sub>2</sub> emissions. The latter leads to a reduction of CO<sub>2</sub> emissions by 3 per cent instead of 12 per cent under the scenario reported in the table.

**Greece:** Five projection scenarios were presented for energy-related CO<sub>2</sub> emissions: “business-as-usual”; “conventional wisdom”; “forum”; “current trends”; and “effects of the Community Support Framework”. The “conventional wisdom” scenario is in line with the Government’s stated intention to restrict the increase in CO<sub>2</sub> emissions to 13 per cent in 2010 (p. 90) and is the scenario presented in this table.

**Hungary:** Four projection scenarios for fuel-related CO<sub>2</sub> emissions were provided: B-BAU, B-REF, S-MOD, and S-SEF. B-BAU and B-REF are “without measures” scenarios, with B-BAU assuming no change in energy efficiency indicators, and

B-REF assuming substantial restructuring and improvement in energy intensity due to a decline in energy-intensive industries. S-MOD is a policy scenario which supposes moderate penetration of climate change mitigation measures. S-SEF supposes significant progress in the utilization of the theoretical energy-saving potential toward a sustainable energy future. The S-MOD can be regarded as the most probable outlook for the medium term (p. 54) and is the scenario presented in this table.

**Ireland:** Projections are based on forecast energy balances.

**Japan:** A “with measures” scenario was not presented as “studies are currently being conducted” (p. 91). Forecasts were made using the latest socio-economic data including “factors such as economic growth forecasts contained in the Ministry of Health and Welfare’s estimate of future population, the report of the Economic Council, and the interim report of the Subcommittee for Industrial Structure Council” (p. 91). Under this framework a “standard scenario” was established based on past trends, not taking into consideration possible effects of policies and measures. Forecasts represent fiscal years (1 April to 31 March).

**Latvia:** A reference (without measures) and a mitigation (with measures) scenario were presented. The mitigation scenario is presented in this table.

**Netherlands:** The emission projections presented here are based on the trend scenario, which according to the second national communication “can be considered as an existing policy scenario” (p. 75). In addition, a “favourable CO<sub>2</sub> scenario” and a “without measures” scenario were presented. As the Energy Research Foundation (ECN) scenarios used in the second national communication only provide figures for 2020, estimates for the years 2005 and 2010 are based on linear interpolation between 2000 and 2020. The Netherlands projection figures are to be updated by the end of 1998 and should therefore be interpreted with caution.

**New Zealand:** The “with measures” scenario presented in the table is estimated to reduce the growth in energy-related CO<sub>2</sub> emissions by about 21.5 per cent below the “business-as-usual” scenario.

**Norway:** The emission projections presented in the table are based on a variant of the “reference alternative” scenario based on current policies. In addition, a “baseline reference scenario” was developed, which assumes stabilization of global CO<sub>2</sub> emissions at 1990 levels by means of a global CO<sub>2</sub> tax.

**Poland:** Three reference scenarios were presented to reflect the uncertainty concerning strategies for future development: the “baseline scenario” is based on political assumptions currently declared by authorities; the “scenario of chance” is based on the assumption of faster and more thorough structural changes than the baseline scenario; the “scenario of stagnation” is based on the assumed lack of public acceptance for structural change in the economy and related costs; with a lower rate of transformation than in the baseline scenario (p. 44). The “baseline scenario” is presented in this table. Also presented were the results of macroeconomic reduction scenarios (chance and baseline), assuming “moderate activities toward climate protection” (p. 45), which project for 2010 for the baseline scenario emissions of 469, 000 Gg (as compared to 502,000 Gg for the regular baseline scenario in 2010 given in this table).

**Romania:** A reference scenario (without implementation of new measures) and two alternative scenarios, a low scenario (low restructuring and modernization of industry) and a high scenario (high implementation of all mitigation measures), were provided for all relevant sectors of CO<sub>2</sub> emissions (fuel combustion, industrial processes, waste). Projection data for the high scenario are given in this table. The low scenario leads to a reduction of total CO<sub>2</sub> emissions by 19 per cent instead of 23 per cent under the scenario presented in this table by the year 2000.

**Slovakia:** Slovakia did not present a “with measures” scenario. The ranges of emissions given here reflect scenarios 2 and 3. Some of the measures indicated under the scenario have not been implemented (p. 50).

**Spain:** Projections based on current tendencies taking into account policies and measures in force.

**Sweden:** Sweden reported 1995 rather than 1990 as the base level for projections. All variations from the base level are thus given in relation to 1995. The Swedish forecast assumes that the estimation of future additional emissions, resulting from an increased use of electricity, is based on an emission factor that “on average is equivalent to emissions for natural gas combined cycle plants” (p. 123).

**Switzerland:** The projection for the year 2000 given in the table results from a scenario with “implemented measures”. Bunker fuel emissions were deducted from the total CO<sub>2</sub> emission level. A second scenario was developed with “measures under consideration”. Under this scenario, a 10 per cent reduction of emissions would be reached as compared to the 3 per cent

reduction under the "implemented measures" scenario. The CO<sub>2</sub> emissions exclude emissions arising from the generation of electricity which is subsequently exported.

**United Kingdom:** Land-use change and forestry figures were deducted from the summary CO<sub>2</sub> figure given in the second national communication. The figures given in the national communication represent the mid-point of the central scenarios in the United Kingdom Energy Paper 65 (p. 28).

**United States of America:** The projection provided is the "1997 Climate Action Report (1997 CAR)" projection. The projection integrates an analysis of individual actions described in chapter three of the second national communication and revised forecasts of economic growth, energy prices, programme funding, and regulatory developments (p. 110).

#### **Table C.2**

**Australia:** Projections only include net changes in forest and other woody biomass, while the inventory estimates include removals due to pasture improvement as well. Estimates for projected removals from "agriculture" were given for 2000 to 2020 but not included in this table.

**Denmark:** Projections have been based on establishment of new forests through afforestation. Rough approximations have been made taking into account the non-linear pattern of CO<sub>2</sub> uptake over a 70-150 year period.

**Finland:** The emissions for land-use change and forestry include emissions and uptakes from wetland drainage and peat extraction. The range of emissions given for Finland results from the two scenarios given in the national communication.

**Hungary:** Several scenarios (baseline and four afforestation) were mentioned, but estimates in terms of CO<sub>2</sub> sequestration were not provided. It was mentioned that the current afforestation programme, which was launched in 1991, has the aim to afforest 150,000 hectares by 2000.

**Ireland:** Projections calculated on the basis of estimates of future plantings, drawing on the national plans for forestry.

**Japan:** Forecasts were "based upon factors such as the estimations of deforestation and forest area set out in the Basic Plan for Forestry Resources and Long-Range Demand and Supply Projection for Important Forest Products" (p. 93).

**Netherlands:** The projection figures are to be updated by the end of 1998 and should therefore be interpreted with caution.

**New Zealand:** Three scenarios were reported on the basis of different planting strategies. The "central estimate of new planting post-1997" is given in the table.

**Norway:** Three scenarios are presented: "maximum", "best estimate" and "minimum". The figures given in the table correspond to the "best estimate" scenario.

**Romania:** A reference scenario and two alternative scenarios, a low scenario and a high scenario, were provided for CO<sub>2</sub> sinks from the land-use change and forestry sector. The scenarios consider the impact of tree species composition change, afforestation and non-forest lands, and the increasing of the existing carbon stocks. The underlying option for the with-measures scenarios are: increase of surfaces occupied by forests and forest management. High scenario data are presented here. The low scenario leads to an increase of CO<sub>2</sub> sinks by 615 per cent instead of 688 per cent under the scenario presented in this table by the year 2000.

**Slovakia:** Projections were based on an analysis of the impact of measures to be applied (tree species composition change, afforestation of non-forest lands and protection of existing carbon stock in forests affected by emissions) listing three different scenarios. Figures presented correspond to the medium scenario.

**Spain:** The estimate given by the Party is an annual average value for a 20-year period.

**United Kingdom:** The emissions for land-use change and forestry include emissions and uptakes from wetland drainage and peat extraction.

**Table C.3**

**Australia:** Some sector estimates were provided in CO<sub>2</sub> equivalent aggregated for all GHGs. The proportion of CH<sub>4</sub> contribution to certain sectors (fugitive fuel emissions, industrial processes, waste) was used to calculate total CH<sub>4</sub> projection estimates in this table. Estimates do not include emissions from land-use change and forestry.

**Austria:** A “certain reduction” of CH<sub>4</sub> emissions beyond 2000 is expected (p. 146).

**Denmark:** Projections are based on expected effects due to policies in the agriculture and waste sectors.

**Ireland:** Projections are based on assumptions regarding national animal herds. For CH<sub>4</sub> no significant changes in animal numbers were assumed; CH<sub>4</sub> projections are therefore subject to considerable uncertainty. If account is taken of developments arising from the reform of the EU common agricultural policy, future emissions would be below those indicated in the present projections.

**Japan:** A “with measures” scenario was not presented as “studies are currently being conducted” (p. 91). Estimates are from a “standard scenario” based upon past trends of the principal sources of emissions.

**Netherlands:** The projection is based on the National Environmental Policy Plan ( NEPP2) and the Second Memorandum on Energy Conservation (SMEC) policies with the “European renaissance” scenario with high prices, “ER-High”, as basic scenario. The value for 2005 has been interpolated. The projection figures are to be updated by the end of 1998, and should therefore be interpreted with caution.

**Romania:** A reference scenario and two alternative scenarios, a low scenario and a high scenario, were provided for all relevant CH<sub>4</sub> emission sectors (fuel combustion, fugitive fuel emissions, industrial processes, agriculture, waste). Projection data of the high scenario are presented here. The low scenario leads to a reduction of total CH<sub>4</sub> emissions by 42 per cent instead of 43 per cent under the scenario presented in this table by the year 2000.

**Slovakia:** Slovakia produced two scenarios for CH<sub>4</sub>: scenario 1, which can be taken as baseline, and scenario 3. As not all measures in scenario 3 are under way, the range of both scenarios is given here.

**Table C.4**

**Australia:** Only aggregate estimates for industrial processes for all GHGs in CO<sub>2</sub> equivalent were provided. The proportion of N<sub>2</sub>O contribution to total industrial processes emissions in 1995 was used to calculate total N<sub>2</sub>O projection estimates in this table. Estimates do not include emissions from land-use change and forestry.

**Austria:** Reliable projections for 2000 and beyond could not be presented due to revision of emission factors for emission estimates (p. 94).

**Denmark:** Projections are based on the expected effects of Danish initiatives to reduce the use of commercial fertilizer.

**Ireland:** Projections are based on assumptions regarding national animal herds. For N<sub>2</sub>O no significant changes in animal numbers were assumed; N<sub>2</sub>O projections are therefore subject to considerable uncertainty. If account is taken of developments arising from the reform of the EU common agricultural policy, and recommendations for the use of fertilizer, future emissions would be below those indicated in the present projections.

**Japan:** A “with measures” scenario was not presented as “studies are currently being conducted” (p. 91). Estimates are from a “standard scenario” based upon past trends of the principal sources of emissions.

**Netherlands:** The projection of nitrous oxide emissions is based on existing policies, on the assumption that these policies remain unchanged after 2000, with the “European renaissance” scenario with high prices as basic scenario (p.77). Recent developments in manure practices in the agricultural sector could add an additional 3.5 Gg emissions per annum from 2000 onwards. The value for 2005 has been interpolated. The evaluation of emissions was undertaken on the basis of actual emissions (p. 78- 79). The projection figures are to be updated by the end of 1998 and should therefore be interpreted with caution.

**Romania:** A reference scenario and two alternative scenarios, a low scenario and a high scenario, were provided for all relevant N<sub>2</sub>O emission sectors (fuel combustion, industrial processes, agriculture). Projection data of the high scenario are presented here.



The low scenario leads to a reduction of total N<sub>2</sub>O emissions by 62 per cent instead of 63 per cent under the scenario presented in this table by the year 2000.

**Slovakia:** In the second national communication, two scenarios for N<sub>2</sub>O were produced: scenario 1, which can be taken as baseline, and scenario 3. As not all measures in scenario 3 are under way, the range of both scenarios is given here.

**Table C.5.1-3**

With the exception of Canada, the Netherlands and the United Kingdom, which projected actual emissions, Parties did not express clearly whether HFC emissions projected are potential or actual. Several Parties that did not present projections for HFCs, PFCs and SF<sub>6</sub> stated that they had not been able to establish a comprehensive inventory of these gases and that work was ongoing.

**Netherlands:** The projection of emissions is based on the "European renaissance" scenario with high prices. The reference scenario of the projections is based on the assumption that the Montreal Protocol and its subsequent amendments is fully implemented (p. 78). The projection figures are to be updated by the end of 1998 and should therefore be interpreted with caution.

**Slovakia:** Slovakia noted that it does not use or produce these products.

**Switzerland:** Table C.5.1: very rapid growth rates are anticipated in certain applications: 5-30 per cent in refrigeration and airconditioning, 3-5 per cent in insulation foam, 100 per cent in aerosol propellants (p. 87). Table C.5.2: consumption in the solvent sector is expected to increase at a rate of 10-50 per cent per annum. PFC emissions in the metal industry (aluminium) will decline, as plans exist to stop production in Switzerland (p. 87). Table C.5.3: the information available is insufficient to define a trend (p. 87).

**United States of America:** This Party presented projections of HFCs, PFCs and SF<sub>6</sub> together (p. 116), expressed in terms of CO<sub>2</sub> equivalent. The secretariat was not able to separate those emissions. The figures presented, in gigagrams of CO<sub>2</sub> equivalent, are:

Base level (1990)	1995	2000	2005	2010	2020
Projection (Gg)	Inventory (Gg)	(Gg)	(Gg)	(Gg)	(Gg)
87 984	135 790	153 720	252 940	333 606	486 780

The growth in baseline emissions of HFCs and PFCs is beginning now and can be expected to continue through 2000 and beyond (p.116).

**Table C.6**

**Austria:** As Austria did not present projections for N<sub>2</sub>O and its projection for CH<sub>4</sub> is only for the year 2000, a figure for all greenhouse gases is not presented in this table to ensure consistency among reporting Parties.

**Greece:** As only CO<sub>2</sub> projections were provided, a figure for all greenhouse gases is not presented in this table to ensure consistency among reporting Parties.

**Hungary:** As only CO<sub>2</sub> projections were provided, a figure for all greenhouse gases is not presented in this table to ensure consistency among reporting Parties.

**Monaco:** No projections were presented.

**Netherlands:** The projections figures are to be updated by the end of 1998 and should therefore be interpreted with caution.

**Poland:** As only CO<sub>2</sub> projections were provided, a figure for all greenhouse gases is not presented in this table to ensure consistency among reporting Parties.

**Romania:** A reference scenario and two alternative scenarios, a low scenario and a high scenario, were provided for aggregate GHG emissions using IPCC 1994 GWP. For consistency purposes, the secretariat converted these estimates using IPCC 1995 GWP. Projection data of the high scenario are presented here. The low scenario leads to a reduction of total GHG emissions by 26 per cent instead of 30 per cent under the scenario presented in this table by the year 2000.

**Slovakia:** The Slovakian aggregated projections presented here are taken from the “medium scenario”. They include CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions only.

**Table C.7**

It should be noted that as the aggregation of sources and sinks commonly leads to lower aggregate emissions, the uncertainty of these figures is increased as a consequence of the higher uncertainty associated with land-use change and forestry estimates.

**Table C.8**

**Denmark and New Zealand:** Information on the share of air and marine bunker emissions in projections was also given in the national communication.

-----