

**Table 1. National greenhouse gas inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol<sup>a</sup> and greenhouse gas precursors**

Greenhouse gas source and sink categories	CO <sub>2</sub> emissions (Gg)	CO <sub>2</sub> removals (Gg)	CH <sub>4</sub> (Gg)	N <sub>2</sub> O (Gg)	CO (Gg)	NO <sub>x</sub> (Gg)	NMVOCs (Gg)	SO <sub>x</sub> (Gg)
	<b>Total national emissions and removals</b>	X	X	X	X	X	X	X
<b>1. Energy</b>	X	X	X	X	X	X	X	X
A. Fuel combustion (sectoral approach)	X		X	X	X	X	X	X
1. Energy industries	X		X	X	X	X	X	X
2. Manufacturing industries and construction	X		X	X	X	X	X	X
3. Transport	X		X	X	X	X	X	X
4. Other sectors	X		X	X	X	X	X	X
5. Other (please specify)	X		X	X	X	X	X	X
B. Fugitive emissions from fuels	X		X		X	X	X	X
1. Solid fuels			X		X	X	X	X
2. Oil and natural gas			X		X	X	X	X
<b>2. Industrial processes</b>	X	X	X	X	X	X	X	X
A. Mineral products	X				X	X	X	X
B. Chemical industry	X		X	X	X	X	X	X
C. Metal production	X		X	X	X	X	X	X
D. Other production	X				X	X	X	X
E. Production of halocarbons and sulphur hexafluoride								
F. Consumption of halocarbons and sulphur hexafluoride								
G. Other (please specify)	X		X	X	X	X	X	X
<b>3. Solvent and other product use</b>	X							X
<b>4. Agriculture</b>			X	X	X	X	X	X
A. Enteric fermentation			X					
B. Manure management			X	X				X
C. Rice cultivation			X					X
D. Agricultural soils			X	X				X
E. Prescribed burning of savannahs			X	X	X	X		X
F. Field burning of agricultural residues			X	X	X	X		X
G. Other (please specify)			X	X	X	X		X
<b>5. Land-use change and forestry</b>	X <sup>b</sup>	X <sup>b</sup>	X	X	X	X	X	X
A. Changes in forest and other woody biomass stocks	X <sup>b</sup>	X <sup>b</sup>						
B. Forest and grassland conversion	X	X	X	X	X	X		
C. Abandonment of managed lands		X						
D. CO <sub>2</sub> emissions and removals from soil	X <sup>b</sup>	X <sup>b</sup>						
E. Other (please specify)	X	X	X	X	X	X		
<b>6. Waste</b>			X	X	X	X	X	X
A. Solid waste disposal on land			X		X		X	
B. Waste-water handling			X	X	X	X	X	
C. Waste incineration					X	X	X	X
D. Other (please specify)			X	X	X	X	X	X
<b>7. Other (please specify)</b>	X	X	X	X	X	X	X	X
<b>Memo items</b>								
<b>International bunkers</b>	X		X	X	X	X	X	X
Aviation	X		X	X	X	X	X	X
Marine	X		X	X	X	X	X	X
<b>CO<sub>2</sub> emissions from biomass</b>	X							

Note: Shaded cells do not require entries.

**Table 2. National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF<sub>6</sub>**

Greenhouse gas source and sink categories	HFCs <sup>a,b</sup> (Gg)			PFCs <sup>a,b</sup> (Gg)			SF <sub>6</sub> <sup>a</sup> (Gg)
	HFC-23	HFC-134	Other (to be added)	CF <sub>4</sub>	C <sub>2</sub> F <sub>6</sub>	Other (to be added)	
<b>Total national emissions and removals</b>	X	X	X	X	X	X	X
<b>1. Energy</b>							
A. Fuel combustion (sectoral approach)							
1. Energy industries							
2. Manufacturing industries and construction							
3. Transport							
4. Other sectors							
5. Other (please specify)							
B. Fugitive emissions from fuels							
1. Solid fuels							
2. Oil and natural gas							
<b>2. Industrial processes</b>	X	X	X	X	X	X	X
A. Mineral products							
B. Chemical industry							
C. Metal production	X	X	X	X	X	X	X
D. Other production							
E. Production of halocarbons and sulphur hexafluoride	X	X	X	X	X	X	X
F. Consumption of halocarbons and sulphur hexafluoride	X	X	X	X	X	X	X
G. Other (please specify)							
<b>3. Solvent and other product use</b>							
<b>4. Agriculture</b>							
A. Enteric fermentation							
B. Manure management							
C. Rice cultivation							
D. Agricultural soils							
E. Prescribed burning of savannahs							
F. Field burning of agricultural residues							
G. Other (please specify)							
<b>5. Land-use change and forestry</b>							
A. Changes in forest and other woody biomass stocks							
B. Forest and grassland conversion							
C. Abandonment of managed lands							
D. CO <sub>2</sub> emissions and removals from soil							
E. Other (please specify)							
<b>6. Waste</b>							
A. Solid waste disposal on land							
B. Waste-water handling							
C. Waste incineration							
D. Other (please specify)							
<b>7. Other (please specify)</b>	X	X	X	X	X	X	X
<b>Memo items</b>							
<b>International bunkers</b>							
Aviation							
Marine							
<b>CO<sub>2</sub> emissions from biomass</b>							

SUMMARY 2 SUMMARY REPORT FOR CO<sub>2</sub> EQUIVALENT EMISSIONS

Year  
Submission  
Country

(Sheet 1 of 1)

Table 1. National greenhouse gas inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol<sup>1</sup> and greenhouse gas precursors

Greenhouse gas source and sink categories	CO <sub>2</sub> emissions (Gg)	CO <sub>2</sub> removals (Gg)	CH <sub>4</sub> (Gg)	N <sub>2</sub> O (Gg)	CO (Gg)	NO <sub>x</sub> (Gg)	NMVOCs (Gg)	SO <sub>x</sub> (Gg)
<b>Total national emissions and removals</b>	X	X	X	X	X	X	X	X
<b>1. Energy</b>	X	X	X	X	X	X	X	X
A. Fuel combustion (sectoral approach)	X		X	X	X	X	X	X
1. Energy industries	X		X	X	X	X	X	X
2. Manufacturing industries and construction	X		X	X	X	X	X	X
3. Transport	X		X	X	X	X	X	X
4. Other sectors	X		X	X	X	X	X	X
5. Other (please specify)	X		X	X	X	X	X	X
B. Fugitive emissions from fuels	X		X	X	X	X	X	X
1. Solid fuels			X	X	X	X	X	X
2. Oil and natural gas			X	X	X	X	X	X
<b>2. Industrial processes</b>	X	X	X	X	X	X	X	X
A. Mineral products	X			X	X	X	X	X
B. Chemical industry	X		X	X	X	X	X	X
C. Metal production	X		X	X	X	X	X	X
D. Other production	X			X	X	X	X	X
E. Production of halocarbons and sulphur hexafluoride								
F. Consumption of halocarbons and sulphur hexafluoride								
G. Other (please specify)	X		X	X	X	X	X	X
<b>3. Solvent and other product use</b>	X		X				X	
<b>4. Agriculture</b>			X	X	X	X	X	X
A. Enteric fermentation			X					
B. Manure management			X	X			X	
C. Rice cultivation			X				X	
D. Agricultural soils			X	X			X	
E. Prescribed burning of savannahs			X	X	X	X	X	
F. Field burning of agricultural residues			X	X	X	X	X	
G. Other (please specify)			X	X	X	X	X	
<b>5. Land-use change and forestry</b>	X <sup>b</sup>	X <sup>b</sup>	X	X	X	X	X	X
A. Changes in forest and other woody biomass stocks	X <sup>b</sup>	X <sup>b</sup>						
B. Forest and grassland conversion	X	X	X	X	X	X		
C. Abandonment of managed lands		X						
D. CO <sub>2</sub> emissions and removals from soil	X <sup>b</sup>	X <sup>b</sup>						
E. Other (please specify)	X	X	X	X	X	X		
<b>6. Waste</b>			X	X	X	X	X	X
A. Solid waste disposal on land			X	X	X	X	X	
B. Waste-water handling			X	X	X	X	X	
C. Waste incineration					X	X	X	X
D. Other (please specify)			X	X	X	X	X	X
E. Other (please specify)	X	X	X	X	X	X	X	X
<b>Memo items</b>								
<b>International bunkers</b>	X		X	X	X	X	X	X
Aviation	X		X	X	X	X	X	X
Marine	X		X	X	X	X	X	X
<b>CO<sub>2</sub> emissions from biomass</b>	X							

Note: Shaded cells do not require entries.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub> <sup>(a)</sup>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	SF <sub>6</sub>	Unspecified mix of HFCs and	NF <sub>3</sub>	Total
	CO <sub>2</sub> equivalent (kt)								
<b>Total [net emissions]<sup>(a)</sup></b>									
<b>1. Energy</b>									
A. Fuel combustion (sectoral approach)									
1. Energy industries									
2. Manufacturing industries and construction									
3. Transport									
4. Other sectors									
5. Other									
B. Fugitive emissions from fuels									
1. Solid fuels									
2. Oil and natural gas									
C. CO <sub>2</sub> transport and storage									
<b>2. Industrial processes and product use</b>									
A. Mineral industry									
B. Chemical industry									
C. Metal industry									
D. Non-energy products from fuels and solvent									
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use									
H. Other									
<b>3. Agriculture</b>									
A. Enteric fermentation									
B. Manure management									
C. Rice cultivation									
D. Agricultural soils									
E. Prescribed burning of savannahs									
F. Field burning of agricultural residues									
G. Liming									
H. Urea application									
I. Other carbon-containing fertilizers									
J. Other									
<b>4. Land use, land-use change and forestry<sup>(a)</sup></b>									
A. Forest land									
B. Cropland									
C. Grassland									
D. Wetlands									
E. Settlements									
F. Other land									
G. Harvested wood products									
H. Other									
<b>5. Waste</b>									
A. Solid waste disposal									
B. Biological treatment of solid waste									
C. Incineration and open burning of waste									
D. Waste water treatment and discharge									
E. Other									
<b>6. Other [as specified in summary 1.A]</b>									
<b>Memo items:<sup>(a)</sup></b>									
<b>International bunkers</b>									
Aviation									
Navigation									
<b>Multilateral operations</b>									
<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><sup>(a)</sup></b>									
<b>Total CO<sub>2</sub> equivalent emissions without land use, land-use change and forestry</b>									
<b>Total CO<sub>2</sub> equivalent emissions with land use, land-use change and forestry</b>									
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, without land use, land-use change and forestry</b>									
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, with land use, land-use change and forestry</b>									

all greenhouse gases not covered

Greenhouse gas source and sink categories	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub> <sup>(1)</sup>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	CO <sub>2</sub> equivalent (kt)
<b>Total national emissions and removals</b>	<b>SINK CATEGORIES</b>						
<b>1. Energy</b>	<b>Total (net emissions)<sup>(1)</sup></b>						
<b>A. Fuel combustion (sectoral approach)</b>	<b>1. Energy</b>						
1. Energy industries	A. Fuel combustion (sectoral approach)						
2. Manufacturing industries and construction	1. Energy industries						
3. Transport	2. Manufacturing industries and construction						
4. Other sectors	3. Transport						
5. Other (please specify)	4. Other sectors						
<b>B. Fugitive emissions from fuels</b>	5. Other						
1. Solid fuels	B. Fugitive emissions from fuels						
2. Oil and natural gas	1. Solid fuels						
	2. Oil and natural gas						
	C. CO <sub>2</sub> transport and storage						
<b>2. Industrial processes</b>	<b>2. Industrial processes and product use</b>						
A. Mineral products	A. Mineral industry						
B. Chemical industry	B. Chemical industry						
C. Metal production	C. Metal industry						
D. Other production	D. Non-energy products from fuels and solvent						
E. Production of halocarbons and sulphur hexafluoride	E. Electronic Industry						
F. Consumption of halocarbons and sulphur hexafluoride	F. Product uses as ODS substitutes						
G. Other (please specify)	G. Other product manufacture and use						
	H. Other						
	<b>3. Agriculture</b>						
	A. Enteric fermentation						
	B. Manure management						
	C. Rice cultivation						
	D. Agricultural soils						
	E. Prescribed burning of savannas						
	F. Field burning of agricultural residues						
	G. Liming						
	H. Urea application						
	I. Other carbon-containing fertilizers						
	J. Other						
	<b>4. Land use, land-use change and forestry<sup>(1)</sup></b>						
	A. Forest land						
	B. Cropland						
	C. Grassland						
	D. Wetlands						
	E. Settlements						
	F. Other land						
	G. Harvested wood products						
	H. Other						
	<b>5. Waste</b>						
	A. Solid waste disposal						
	B. Biological treatment of solid waste						
	C. Incineration and open burning of waste						
	D. Waste water treatment and discharge						
	E. Other						
	<b>6. Other (as specified in summary 1.A)</b>						
<b>Memo items</b>							
<b>International bunkers</b>							
Aviation							
Marine							
<b>CO<sub>2</sub> emissions from biomass</b>							
	<b>Memo items:<sup>(2)</sup></b>						
	<b>International bunkers</b>						
	Aviation						