

別添 (Annex) 9. 共通報告様式 (CRF) の概要

以下に各年の排出及び吸収状況が分かる CRF の Summary.2 Table を記載する。

日本は、1990 年～1994 年の期間は HFCs、PFCs、SF₆ の潜在排出量のみを報告している。CRF 本体の各年の傾向を示す Table.10 において、1990 年～1994 年の期間は HFCs、PFCs、SF₆ の潜在排出量が示されており、1995 年以降は HFCs、PFCs、SF₆ の実排出量が示されている。

表 A9-1 1990 年の排出量¹及び吸収量SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 1990
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,071,525.74	32,139.58	31,633.60	17,930.00	5,670.00	38,240.00	1,197,138.92
1. Energy	1,068,296.26	3,927.31	6,751.72				1,078,975.30
A. Fuel Combustion (Sectoral Approach)	1,068,259.64	890.17	6,751.61				1,075,901.42
1. Energy Industries	324,253.21	29.72	922.25				325,205.19
2. Manufacturing Industries and Construction	371,311.49	355.49	1,350.14				373,017.12
3. Transport	211,053.69	297.54	4,205.72				215,556.95
4. Other Sectors	161,641.24	207.42	273.50				162,122.16
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	36.62	3,037.14	0.11				3,073.88
1. Solid Fuels	NE,NO	2,806.43	NE,NO				2,806.43
2. Oil and Natural Gas	36.62	230.71	0.11				267.45
2. Industrial Processes	59,875.69	357.58	8,266.95	17,930.00	5,670.00	38,240.00	130,340.22
A. Mineral Products	55,310.54	NA,NO	NA,NO				55,310.54
B. Chemical Industry	4,209.07	338.22	8,266.95	NA	NA	NA	12,814.24
C. Metal Production	356.09	19.36	NO	IE,NE	IE,NA,NE	IE,NA,NE	375.45
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				NE,NO	NE,NO	NE,NO	NE,NO
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				17,930.00	5,670.00	38,240.00	61,840.00
G. Other	NO	NO	NO	NE,NO	NE,NO	NE,NO	NE,NO
3. Solvent and Other Product Use	NA,NE		287.07				287.07
4. Agriculture		17,681.22	13,409.09				31,090.31
A. Enteric Fermentation		7,676.61					7,676.61
B. Manure Management		2,944.25	5,555.52				8,499.77
C. Rice Cultivation		6,959.68					6,959.68
D. Agricultural Soils ⁽³⁾		NA	7,826.31				7,826.31
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		100.68	27.25				127.93
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-69,612.00	8.51	71.15				-69,532.34
A. Forest Land	-78,590.05	8.51	0.86				-78,580.68
B. Cropland	3,662.78	NE,NO	70.28				3,733.06
C. Grassland	-265.95	NE,NO	NE,NO				-265.95
D. Wetlands	68.08	NE,NO	NE,NO				68.08
E. Settlements	3,532.05	NE,NO	NE,NO				3,532.05
F. Other Land	1,430.85	NO	NO				1,430.85
G. Other	550.24	NA,NE	NA,NE				550.24
6. Waste	12,965.78	10,164.95	2,847.63				25,978.36
A. Solid Waste Disposal on Land	NA,NE,NO	7,637.37					7,637.37
B. Waste-water Handling		2,402.25	1,255.52				3,657.78
C. Waste Incineration	12,262.95	13.48	1,493.04				13,769.47
D. Other	702.83	111.85	99.06				913.74
7. Other (as specified in Summary 1.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	30,829.18	43.15	279.35				31,151.68
Aviation	13,189.32	7.84	130.44				13,327.60
Marine	17,639.86	35.31	148.92				17,824.08
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	18,747.30						18,747.30
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,266,671.26
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,197,138.92

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary 1.A.

¹ HFCs、PFCs、SF₆ については潜在排出量が報告されている

表 A9-2 1991 年の排出量²及び吸収量SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 1991
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,073,291.88	31,873.45	31,118.22	18,070.00	6,370.00	43,498.00	1,204,221.55
1. Energy	1,076,104.87	3,691.08	7,031.00				1,086,826.95
A. Fuel Combustion (Sectoral Approach)	1,076,051.20	896.32	7,030.84				1,083,978.36
1. Energy Industries	326,986.60	31.16	955.50				327,973.27
2. Manufacturing Industries and Construction	366,282.86	356.15	1,426.61				368,065.61
3. Transport	222,466.79	299.95	4,368.84				227,135.59
4. Other Sectors	160,314.95	209.06	279.89				160,803.90
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	53.67	2,794.76	0.16				2,848.59
1. Solid Fuels	NE,NO	2,538.33	NE,NO				2,538.33
2. Oil and Natural Gas	53.67	256.43	0.16				310.26
2. Industrial Processes	60,982.03	347.49	7,539.75	18,070.00	6,370.00	43,498.00	136,807.27
A. Mineral Products	56,474.62	NA,NO	NA,NO				56,474.62
B. Chemical Industry	4,184.37	329.15	7,539.75	NA	NA	NA	12,053.27
C. Metal Production	323.04	18.34	NO	IE,NE	IE,NA,NE	IE,NA,NE	341.38
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				NE,NO	NE,NO	NE,NO	NE,NO
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				18,070.00	6,370.00	43,498.00	67,938.00
G. Other	NO	NO	NO	NE,NO	NE,NO	NE,NO	NE,NO
3. Solvent and Other Product Use	NA,NE		356.85				356.85
4. Agriculture		17,803.31	13,216.78				31,020.10
A. Enteric Fermentation		7,787.92					7,787.92
B. Manure Management		2,937.40	5,524.58				8,461.98
C. Rice Cultivation		6,977.75					6,977.75
D. Agricultural Soils ⁽³⁾		NA	7,664.98				7,664.98
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		100.24	27.22				127.46
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-76,779.59	6.36	66.46				-76,706.77
A. Forest Land	-85,944.00	6.36	0.65				-85,936.99
B. Cropland	2,942.42	NE,NO	65.81				3,008.23
C. Grassland	-340.12	NE,NO	NE,NO				-340.12
D. Wetlands	62.42	NE,NO	NE,NO				62.42
E. Settlements	4,371.38	NE,NO	NE,NO				4,371.38
F. Other Land	1,600.94	NO	NO				1,600.94
G. Other	527.37	NA,NE	NA,NE				527.37
6. Waste	12,984.57	10,025.21	2,907.38				25,917.15
A. Solid Waste Disposal on Land	NA,NE,NO	7,565.70					7,565.70
B. Waste-water Handling		2,343.80	1,281.68				3,625.48
C. Waste Incineration	12,298.12	13.08	1,534.80				13,846.01
D. Other	686.45	102.62	90.89				879.96
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	32,531.98	45.53	294.78				32,872.29
Aviation	13,919.12	8.27	137.65				14,065.05
Marine	18,612.86	37.25	157.13				18,807.24
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	18,870.94						18,870.94
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,280,928.32
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,204,221.55

⁽¹⁾ For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

⁽²⁾ Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

⁽³⁾ Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

⁽⁴⁾ See footnote 8 to table Summary I.A.

² HFCs、PFCs、SF₆については潜在排出量が報告されている

表 A9-3 1992 年の排出量³及び吸収量SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Inventory 1992

Submission 2013 v1.1

JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,082,060.74	31,629.10	31,278.39	19,750.00	6,370.00	47,800.00	1,218,888.23
1. Energy	1,083,526.98	3,438.48	7,227.01				1,094,192.47
A. Fuel Combustion (Sectoral Approach)	1,083,470.03	911.14	7,226.84				1,091,608.01
1. Energy Industries	333,717.45	31.85	929.83				334,679.13
2. Manufacturing Industries and Construction	358,404.85	352.17	1,541.60				360,298.62
3. Transport	226,859.69	303.05	4,460.92				231,623.66
4. Other Sectors	164,488.04	224.07	294.48				165,006.59
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	56.95	2,527.34	0.17				2,584.46
1. Solid Fuels	NE,NO	2,267.52	NE,NO				2,267.52
2. Oil and Natural Gas	56.95	259.82	0.17				316.94
2. Industrial Processes	60,993.20	322.22	7,452.41	19,750.00	6,370.00	47,800.00	142,687.83
A. Mineral Products	56,567.06	NA,NO	NA,NO				56,567.06
B. Chemical Industry	4,101.09	304.45	7,452.41	NA	NA	NA	11,857.96
C. Metal Production	325.05	17.76	NO	IE,NE	IE,NA,NE	IE,NA,NE	342.81
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				NE,NO	NE,NO	NE,NO	NE,NO
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				19,750.00	6,370.00	47,800.00	73,920.00
G. Other	NO	NO	NO	NE,NO	NE,NO	NE,NO	NE,NO
3. Solvent and Other Product Use	NA,NE		413.01				413.01
4. Agriculture		17,892.62	13,087.49				30,980.11
A. Enteric Fermentation		7,830.18					7,830.18
B. Manure Management		2,909.98	5,480.58				8,390.56
C. Rice Cultivation		7,059.04					7,059.04
D. Agricultural Soils ⁽³⁾		NA	7,581.34				7,581.34
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		93.42	25.57				118.99
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-76,483.67	4.39	62.72				-76,416.56
A. Forest Land	-86,300.29	4.39	0.45				-86,295.45
B. Cropland	3,027.36	NE,NO	62.27				3,089.64
C. Grassland	-294.81	NE,NO	NE,NO				-294.81
D. Wetlands	201.39	NE,NO	NE,NO				201.39
E. Settlements	5,049.82	NE,NO	NE,NO				5,049.82
F. Other Land	1,355.71	NO	NO				1,355.71
G. Other	477.14	NA,NE	NA,NE				477.14
6. Waste	14,024.24	9,971.38	3,035.75				27,031.37
A. Solid Waste Disposal on Land	NA,NE,NO	7,529.58					7,529.58
B. Waste-water Handling		2,325.43	1,271.41				3,596.85
C. Waste Incineration	13,325.34	13.43	1,673.16				15,011.93
D. Other	698.90	102.94	91.17				893.01
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	32,937.28	45.92	298.63				33,281.83
Aviation	14,216.76	8.45	140.60				14,365.81
Marine	18,720.51	37.47	158.04				18,916.02
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	18,419.27						18,419.27
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,295,304.79
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,218,888.23

⁽¹⁾ For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

⁽²⁾ Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

⁽³⁾ Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

⁽⁴⁾ See footnote 8 to table Summary I.A.

³ HFCs、PFCs、SF₆については潜在排出量が報告されている

表 A9-4 1993 年の排出量⁴及び吸収量SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 1993
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,072,004.41	31,389.83	31,038.70	21,310.00	8,860.00	45,410.00	1,210,012.93
1. Energy	1,077,164.28	3,269.31	7,275.69				1,087,709.28
A. Fuel Combustion (Sectoral Approach)	1,077,111.06	930.09	7,275.53				1,085,316.68
1. Energy Industries	315,598.93	31.64	938.35				316,568.92
2. Manufacturing Industries and Construction	357,499.46	352.95	1,579.68				359,432.09
3. Transport	231,727.93	295.90	4,433.85				236,457.68
4. Other Sectors	172,284.75	249.59	323.64				172,857.98
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	53.21	2,339.23	0.16				2,392.61
1. Solid Fuels	NE,NO	2,075.76	NE,NO				2,075.76
2. Oil and Natural Gas	53.21	263.46	0.16				316.84
2. Industrial Processes	59,938.82	320.55	7,302.85	21,310.00	8,860.00	45,410.00	143,142.22
A. Mineral Products	55,713.23	NA,NO	NA,NO				55,713.23
B. Chemical Industry	3,894.83	303.85	7,302.85	NA	NA	NA	11,501.53
C. Metal Production	330.76	16.70	NO	IE,NE	IE,NA,NE	IE,NA,NE	347.46
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				NE,NO	NE,NO	NE,NO	NE,NO
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				21,310.00	8,860.00	45,410.00	75,580.00
G. Other	NO	NO	NO	NE,NO	NE,NO	NE,NO	NE,NO
3. Solvent and Other Product Use	NA,NE		411.66				411.66
4. Agriculture		17,978.31	12,925.67				30,903.98
A. Enteric Fermentation		7,781.42					7,781.42
B. Manure Management		2,853.25	5,386.71				8,239.96
C. Rice Cultivation		7,247.60					7,247.60
D. Agricultural Soils ⁽³⁾		NA	7,512.67				7,512.67
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		96.05	26.29				122.34
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-78,872.74	24.22	60.62				-78,787.90
A. Forest Land	-86,649.28	24.22	2.46				-86,622.60
B. Cropland	2,338.88	NE,NO	58.16				2,397.03
C. Grassland	-359.25	NE,NO	NE,NO				-359.25
D. Wetlands	114.73	NE,NO	NE,NO				114.73
E. Settlements	3,535.61	NE,NO	NE,NO				3,535.61
F. Other Land	1,664.99	NO	NO				1,664.99
G. Other	481.58	NA,NE	NA,NE				481.58
6. Waste	13,774.05	9,797.42	3,062.22				26,633.69
A. Solid Waste Disposal on Land	NA,NE,NO	7,396.57					7,396.57
B. Waste-water Handling		2,284.56	1,296.88				3,581.44
C. Waste Incineration	13,093.30	13.36	1,674.17				14,780.83
D. Other	680.75	102.94	91.17				874.85
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	34,935.20	50.42	314.96				35,300.58
Aviation	13,856.19	8.23	137.03				14,001.45
Marine	21,079.01	42.19	177.93				21,299.12
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	17,568.73						17,568.73
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,288,800.84
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,210,012.93

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

⁴ HFCs、PFCs、SF₆については潜在排出量が報告されている

表 A9-6 1995 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Inventory 1995

Submission 2013 v1.1

JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,143,035.00	29,908.16	32,696.73	20,260.17	14,271.14	16,961.45	1,257,132.65
1. Energy	1,145,820.01	2,647.81	8,284.52				1,156,752.34
A. Fuel Combustion (Sectoral Approach)	1,145,769.09	1,037.94	8,284.37				1,155,091.39
1. Energy Industries	344,948.18	34.41	1,413.32				346,395.92
2. Manufacturing Industries and Construction	370,539.38	437.59	1,871.05				372,848.03
3. Transport	251,166.53	308.82	4,651.65				256,126.99
4. Other Sectors	179,115.00	257.11	348.35				179,720.46
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	50.92	1,609.87	0.16				1,660.95
1. Solid Fuels	NE,NO	1,344.68	NE,NO				1,344.68
2. Oil and Natural Gas	50.92	265.19	0.16				316.26
2. Industrial Processes	61,332.91	322.37	8,212.71	20,260.17	14,271.14	16,961.45	121,360.75
A. Mineral Products	56,756.12	NA,NO	NA,NO				56,756.12
B. Chemical Industry	4,219.57	304.45	8,212.71	NA	NA	NA	12,736.73
C. Metal Production	357.22	17.92	NO	IE,NE	69.74	119.50	564.38
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				17,445.12	762.85	4,708.30	22,916.27
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				2,815.05	13,438.56	12,133.65	28,387.26
G. Other	NO	NO	NO	NO	NO	NO	NO
3. Solvent and Other Product Use	NA,NE		437.58				437.58
4. Agriculture		17,530.67	12,329.83				29,860.50
A. Enteric Fermentation		7,606.43					7,606.43
B. Manure Management		2,747.49	5,173.84				7,921.33
C. Rice Cultivation		7,082.74					7,082.74
D. Agricultural Soils ⁽³⁾		NA	7,130.16				7,130.16
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		94.01	25.84				119.85
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-80,652.33	8.73	49.90				-80,593.70
A. Forest Land	-87,340.30	8.73	0.89				-87,330.69
B. Cropland	2,262.65	NE,NO	49.01				2,311.66
C. Grassland	-309.05	NE,NO	NE,NO				-309.05
D. Wetlands	306.66	NE,NO	NE,NO				306.66
E. Settlements	2,665.61	NE,NO	NE,NO				2,665.61
F. Other Land	1,458.58	NO	NO				1,458.58
G. Other	303.53	NA,NE	NA,NE				303.53
6. Waste	16,534.40	9,398.59	3,382.19				29,315.17
A. Solid Waste Disposal on Land	NA,NE,NO	7,070.17					7,070.17
B. Waste-water Handling		2,207.18	1,306.53				3,513.71
C. Waste Incineration	15,866.57	14.87	1,981.44				17,862.88
D. Other	667.83	106.37	94.22				868.42
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	38,179.77	52.60	346.77				38,579.14
Aviation	16,922.99	10.06	167.36				17,100.41
Marine	21,256.78	42.54	179.42				21,478.73
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	18,487.35						18,487.35
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,337,726.35
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,257,132.65

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A9-8 1997 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 1997
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,145,963.02	28,127.40	34,336.67	19,905.11	16,187.61	14,998.12	1,259,517.92
1. Energy	1,154,948.65	2,228.39	8,643.07				1,165,820.11
A. Fuel Combustion (Sectoral Approach)	1,154,900.68	951.14	8,642.93				1,164,494.74
1. Energy Industries	342,054.20	38.03	1,490.10				343,582.33
2. Manufacturing Industries and Construction	381,142.92	361.98	2,060.36				383,565.27
3. Transport	258,734.10	315.74	4,786.90				263,836.74
4. Other Sectors	172,969.46	235.38	305.56				173,510.41
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	47.97	1,277.25	0.15				1,325.37
1. Solid Fuels	NE,NO	1,006.86	NE,NO				1,006.86
2. Oil and Natural Gas	47.97	270.39	0.15				318.51
2. Industrial Processes	58,981.65	260.90	9,792.47	19,905.11	16,187.61	14,998.12	120,125.86
A. Mineral Products	54,452.99	NA,NO	NA,NO				54,452.99
B. Chemical Industry	4,144.19	242.58	9,792.47	NA	NA	NA	14,179.23
C. Metal Production	384.48	18.33	NO	IE,NE	59.43	191.20	653.44
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				15,077.99	1,416.80	2,581.20	19,075.99
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				4,827.12	14,711.38	12,225.72	31,764.21
G. Other	NO	NO	NO	NO	NO	NO	NO
3. Solvent and Other Product Use	NA,NE		404.60				404.60
4. Agriculture		16,704.92	11,868.07				28,573.00
A. Enteric Fermentation		7,505.45					7,505.45
B. Manure Management		2,673.61	5,052.54				7,726.14
C. Rice Cultivation		6,440.28					6,440.28
D. Agricultural Soils ⁽³⁾		NA	6,791.75				6,791.75
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		85.58	23.79				109.37
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-85,514.51	34.51	41.79				-85,438.22
A. Forest Land	-91,153.89	34.51	3.50				-91,115.87
B. Cropland	2,044.03	NE,NO	38.28				2,082.32
C. Grassland	-276.82	NE,NO	NE,NO				-276.82
D. Wetlands	108.34	NE,NO	NE,NO				108.34
E. Settlements	1,747.08	NE,NO	NE,NO				1,747.08
F. Other Land	1,713.10	NO	NO				1,713.10
G. Other	303.65	NA,NE	NA,NE				303.65
6. Waste	17,547.22	8,898.67	3,586.67				30,032.57
A. Solid Waste Disposal on Land	NA,NE,NO	6,641.40					6,641.40
B. Waste-water Handling		2,143.20	1,316.27				3,459.47
C. Waste Incineration	16,891.99	14.71	2,182.40				19,089.10
D. Other	655.23	99.36	88.01				842.60
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	35,432.29	43.98	326.77				35,803.04
Aviation	19,134.37	11.37	189.23				19,334.97
Marine	16,297.92	32.61	137.54				16,468.07
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	19,107.10						19,107.10
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,344,956.14
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,259,517.92

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A9-9 1998 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Inventory 1998

Submission 2013 v1.1

JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,110,596.47	27,307.89	32,817.57	19,415.96	13,401.73	13,624.11	1,217,163.73
1. Energy	1,125,032.90	2,059.34	8,512.99				1,135,605.22
A. Fuel Combustion (Sectoral Approach)	1,124,990.17	921.36	8,512.85				1,134,424.38
1. Energy Industries	332,405.28	39.82	1,515.22				333,960.32
2. Manufacturing Industries and Construction	357,838.95	324.31	1,985.38				360,148.64
3. Transport	257,853.86	304.72	4,688.42				262,847.00
4. Other Sectors	176,892.07	252.52	323.83				177,468.42
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	42.73	1,137.98	0.13				1,180.84
1. Solid Fuels	NE,NO	872.46	NE,NO				872.46
2. Oil and Natural Gas	42.73	265.52	0.13				308.38
2. Industrial Processes	53,317.07	243.52	8,577.87	19,415.96	13,401.73	13,624.11	108,580.26
A. Mineral Products	49,384.13	NA,NO	NA,NO				49,384.13
B. Chemical Industry	3,639.82	227.37	8,577.87	NA	NA	NA	12,445.07
C. Metal Production	293.11	16.15	NO	IE,NE	49.40	406.30	764.96
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				14,053.43	1,389.50	2,103.20	17,546.13
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				5,362.53	11,962.83	11,114.61	28,439.97
G. Other	NO	NO	NO	NO	NO	NO	NO
3. Solvent and Other Product Use	NA,NE		377.05				377.05
4. Agriculture		16,407.17	11,729.72				28,136.89
A. Enteric Fermentation		7,466.79					7,466.79
B. Manure Management		2,629.41	5,007.42				7,636.83
C. Rice Cultivation		6,229.14					6,229.14
D. Agricultural Soils ⁽³⁾		NA	6,699.34				6,699.34
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		81.84	22.96				104.80
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-85,273.68	10.73	36.21				-85,226.74
A. Forest Land	-90,992.66	10.73	1.09				-90,980.84
B. Cropland	2,051.86	NE,NO	35.12				2,086.97
C. Grassland	-254.18	NE,NO	NE,NO				-254.18
D. Wetlands	444.29	NE,NO	NE,NO				444.29
E. Settlements	1,779.53	NE,NO	NE,NO				1,779.53
F. Other Land	1,397.49	NO	NO				1,397.49
G. Other	300.00	NA,NE	NA,NE				300.00
6. Waste	17,520.19	8,587.13	3,583.73				29,691.05
A. Solid Waste Disposal on Land	NA,NE,NO	6,370.39					6,370.39
B. Waste-water Handling		2,098.97	1,305.22				3,404.19
C. Waste Incineration	16,911.07	14.53	2,187.07				19,112.67
D. Other	609.12	103.25	91.45				803.81
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	37,361.08	46.63	344.33				37,752.04
Aviation	20,001.55	11.89	197.80				20,211.24
Marine	17,359.53	34.74	146.53				17,540.80
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	17,556.58						17,556.58
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,302,390.48
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,217,163.73

⁽¹⁾ For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

⁽²⁾ Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

⁽³⁾ Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

⁽⁴⁾ See footnote 8 to table Summary I.A.

表 A 9-10 1999 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 1999
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,145,385.00	26,716.35	26,392.80	19,934.46	10,428.82	9,309.93	1,238,167.35
1. Energy	1,160,147.36	2,078.84	8,730.08				1,170,956.27
A. Fuel Combustion (Sectoral Approach)	1,160,109.30	950.42	8,729.96				1,169,789.68
1. Energy Industries	349,785.30	42.67	1,615.88				351,443.85
2. Manufacturing Industries and Construction	365,074.78	328.47	2,073.48				367,476.73
3. Transport	260,017.18	303.48	4,681.87				265,002.53
4. Other Sectors	185,232.04	275.79	358.74				185,866.57
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	38.06	1,128.42	0.12				1,166.60
1. Solid Fuels	NE,NO	865.69	NE,NO				865.69
2. Oil and Natural Gas	38.06	262.73	0.12				300.91
2. Industrial Processes	53,320.07	236.22	2,000.86	19,934.46	10,428.82	9,309.93	95,230.36
A. Mineral Products	49,100.52	NA,NO	NA,NO				49,100.52
B. Chemical Industry	3,965.06	220.14	2,000.86	NA	NA	NA	6,186.06
C. Metal Production	254.49	16.08	NO	IE,NE	29.12	645.30	944.99
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				14,260.55	1,270.88	1,529.60	17,061.03
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				5,673.90	9,128.81	7,135.03	21,937.75
G. Other	NO	NO	NO	NO	NO	NO	NO
3. Solvent and Other Product Use	NA,NE		362.53				362.53
4. Agriculture		16,089.70	11,638.79				27,728.48
A. Enteric Fermentation		7,407.75					7,407.75
B. Manure Management		2,578.48	4,953.79				7,532.26
C. Rice Cultivation		6,024.77					6,024.77
D. Agricultural Soils ⁽³⁾		NA	6,662.78				6,662.78
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		78.70	22.21				100.91
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-85,412.27	5.25	32.77				-85,374.25
A. Forest Land	-90,833.07	5.25	0.53				-90,827.29
B. Cropland	2,014.59	NE,NO	32.24				2,046.83
C. Grassland	-240.91	NE,NO	NE,NO				-240.91
D. Wetlands	427.92	NE,NO	NE,NO				427.92
E. Settlements	1,444.69	NE,NO	NE,NO				1,444.69
F. Other Land	1,480.94	NO	NO				1,480.94
G. Other	293.57	NA,NE	NA,NE				293.57
6. Waste	17,329.84	8,306.35	3,627.76				29,263.95
A. Solid Waste Disposal on Land	NA,NE,NO	6,114.02					6,114.02
B. Waste-water Handling		2,074.47	1,274.86				3,349.33
C. Waste Incineration	16,677.27	14.04	2,260.95				18,952.25
D. Other	652.58	103.82	91.96				848.35
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	36,022.49	44.55	332.43				36,399.47
Aviation	19,576.46	11.63	193.60				19,781.70
Marine	16,446.03	32.92	138.83				16,617.77
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	18,260.06						18,260.06
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,323,541.60
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,238,167.35

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A 9-11 2000 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Inventory 2000

Submission 2013 v1.1

JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,165,445.29	26,141.51	28,950.52	18,800.43	9,583.35	7,188.49	1,256,109.60
1. Energy	1,180,079.82	2,002.50	8,761.94				1,190,844.26
A. Fuel Combustion (Sectoral Approach)	1,180,043.79	959.35	8,761.82				1,189,764.97
1. Energy Industries	357,574.13	42.59	1,699.97				359,316.69
2. Manufacturing Industries and Construction	376,777.84	354.88	2,116.49				379,249.21
3. Transport	259,076.39	298.43	4,589.32				263,964.14
4. Other Sectors	186,615.43	263.45	356.05				187,234.92
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	36.03	1,043.15	0.11				1,079.29
1. Solid Fuels	NE,NO	769.13	NE,NO				769.13
2. Oil and Natural Gas	36.03	274.02	0.11				310.16
2. Industrial Processes	53,887.04	195.78	4,690.09	18,800.43	9,583.35	7,188.49	94,345.18
A. Mineral Products	49,745.61	NA,NO	NA,NO				49,745.61
B. Chemical Industry	3,893.01	178.95	4,690.09	NA	NA	NA	8,762.04
C. Metal Production	248.42	16.84	NO	IE,NE	17.78	1,027.70	1,310.74
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				12,659.84	1,359.00	860.40	14,879.24
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				6,140.59	8,206.56	5,300.39	19,647.55
G. Other	NO	NO	NO	NO	NO	NO	NO
3. Solvent and Other Product Use	NA,NE		340.99				340.99
4. Agriculture		15,907.30	11,557.60				27,464.89
A. Enteric Fermentation		7,369.97					7,369.97
B. Manure Management		2,540.47	4,905.30				7,445.77
C. Rice Cultivation		5,919.76					5,919.76
D. Agricultural Soils ⁽³⁾		NA	6,630.51				6,630.51
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		77.10	21.78				98.88
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-86,015.43	7.78	29.70				-85,977.95
A. Forest Land	-90,672.55	7.78	0.79				-90,663.98
B. Cropland	1,867.60	NE,NO	28.91				1,896.52
C. Grassland	-242.91	NE,NO	NE,NO				-242.91
D. Wetlands	408.61	NE,NO	NE,NO				408.61
E. Settlements	1,120.73	NE,NO	NE,NO				1,120.73
F. Other Land	1,170.19	NO	NO				1,170.19
G. Other	332.90	NA,NE	NA,NE				332.90
6. Waste	17,493.86	8,028.15	3,570.20				29,092.22
A. Solid Waste Disposal on Land	NA,NE,NO	5,875.90					5,875.90
B. Waste-water Handling		2,042.76	1,243.51				3,286.28
C. Waste Incineration	16,837.95	13.33	2,241.52				19,092.80
D. Other	655.91	96.16	85.17				837.25
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	36,731.88	46.01	336.87				37,114.77
Aviation	19,542.61	11.61	191.78				19,746.00
Marine	17,189.28	34.40	145.09				17,368.76
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	18,846.04						18,846.04
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,342,087.55
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,256,109.60

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A 9-12 2001 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Inventory 2001

Submission 2013 v1.1

JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,150,203.28	25,228.20	25,531.30	16,168.06	7,953.56	5,962.42	1,231,046.82
1. Energy	1,167,417.49	1,765.63	8,747.90				1,177,931.02
A. Fuel Combustion (Sectoral Approach)	1,167,385.05	927.44	8,747.80				1,177,060.30
1. Energy Industries	349,730.24	41.59	1,912.30				351,684.13
2. Manufacturing Industries and Construction	366,481.38	333.61	2,068.04				368,883.03
3. Transport	261,120.73	292.77	4,412.32				265,825.82
4. Other Sectors	190,052.70	259.47	355.15				190,667.31
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	32.44	838.18	0.10				870.72
1. Solid Fuels	NE,NO	570.30	NE,NO				570.30
2. Oil and Natural Gas	32.44	267.88	0.10				300.42
2. Industrial Processes	52,657.08	147.50	1,414.89	16,168.06	7,953.56	5,962.42	84,303.51
A. Mineral Products	48,847.78	NA,NO	NA,NO				48,847.78
B. Chemical Industry	3,598.60	131.66	1,414.89	NA	NA	NA	5,145.14
C. Metal Production	210.71	15.84	NO	IE,NE	15.73	1,147.20	1,389.48
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				9,713.43	1,082.60	788.70	11,584.73
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				6,454.63	6,855.24	4,026.52	17,336.38
G. Other	NO	NO	NO	NO	NO	NO	NO
3. Solvent and Other Product Use	NA,NE		343.60				343.60
4. Agriculture		15,726.87	11,470.89				27,197.75
A. Enteric Fermentation		7,325.24					7,325.24
B. Manure Management		2,515.91	4,859.65				7,375.55
C. Rice Cultivation		5,810.23					5,810.23
D. Agricultural Soils ⁽³⁾		NA	6,589.91				6,589.91
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		75.49	21.33				96.82
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-86,117.23	12.42	27.16				-86,077.66
A. Forest Land	-90,514.55	12.42	1.26				-90,500.87
B. Cropland	1,808.08	NE,NO	25.90				1,833.98
C. Grassland	-232.92	NE,NO	NE,NO				-232.92
D. Wetlands	378.93	NE,NO	NE,NO				378.93
E. Settlements	928.60	NE,NO	NE,NO				928.60
F. Other Land	1,267.28	NO	NO				1,267.28
G. Other	247.35	NA,NE	NA,NE				247.35
6. Waste	16,245.95	7,575.78	3,526.85				27,348.58
A. Solid Waste Disposal on Land	NA,NE,NO	5,616.50					5,616.50
B. Waste-water Handling		1,849.17	1,270.85				3,120.02
C. Waste Incineration	15,615.42	12.61	2,169.64				17,797.66
D. Other	630.53	97.50	86.36				814.40
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	33,571.42	40.84	309.05				33,921.32
Aviation	18,721.34	11.13	183.72				18,916.19
Marine	14,850.08	29.72	125.33				15,005.12
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	17,203.99						17,203.99
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,317,124.47
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,231,046.82

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A 9-13 2002 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Inventory 2002

Submission 2013 v1.1

JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,186,188.07	24,297.72	24,795.27	13,693.03	7,433.60	5,579.50	1,261,987.19
1. Energy	1,207,919.26	1,323.28	8,433.20				1,217,675.74
A. Fuel Combustion (Sectoral Approach)	1,207,888.33	916.84	8,433.10				1,217,238.27
1. Energy Industries	381,372.56	32.36	1,837.01				383,241.92
2. Manufacturing Industries and Construction	372,969.32	343.45	2,081.76				375,394.53
3. Transport	255,478.88	282.23	4,150.88				259,911.99
4. Other Sectors	198,067.58	258.81	363.45				198,689.84
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	30.94	406.44	0.10				437.47
1. Solid Fuels	NE,NO	118.34	NE,NO				118.34
2. Oil and Natural Gas	30.94	288.10	0.10				319.13
2. Industrial Processes	49,841.06	141.54	1,238.77	13,693.03	7,433.60	5,579.50	77,927.50
A. Mineral Products	46,234.63	NA,NO	NA,NO				46,234.63
B. Chemical Industry	3,385.48	124.90	1,238.77	NA	NA	NA	4,749.16
C. Metal Production	220.95	16.64	NO	IE,NE	14.83	1,123.30	1,375.72
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				6,456.62	1,009.92	860.40	8,326.94
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				7,236.41	6,408.85	3,595.80	17,241.05
G. Other	NO	NO	NO	NO	NO	NO	NO
3. Solvent and Other Product Use	NA,NE		334.05				334.05
4. Agriculture		15,538.48	11,417.72				26,956.20
A. Enteric Fermentation		7,276.11					7,276.11
B. Manure Management		2,496.93	4,831.64				7,328.58
C. Rice Cultivation		5,693.94					5,693.94
D. Agricultural Soils ⁽³⁾		NA	6,565.84				6,565.84
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		71.50	20.24				91.74
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-87,208.53	20.59	24.24				-87,163.70
A. Forest Land	-90,354.05	20.59	2.09				-90,331.37
B. Cropland	1,772.68	NE,NO	22.15				1,794.83
C. Grassland	-212.41	NE,NO	NE,NO				-212.41
D. Wetlands	94.94	NE,NO	NE,NO				94.94
E. Settlements	67.33	NE,NO	NE,NO				67.33
F. Other Land	1,153.05	NO	NO				1,153.05
G. Other	269.92	NA,NE	NA,NE				269.92
6. Waste	15,636.28	7,273.84	3,347.28				26,257.39
A. Solid Waste Disposal on Land	NA,NE,NO	5,354.58					5,354.58
B. Waste-water Handling		1,801.07	1,272.43				3,073.50
C. Waste Incineration	15,059.23	19.51	1,987.46				17,066.21
D. Other	577.05	98.67	87.39				763.10
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	36,728.93	43.74	339.03				37,111.70
Aviation	21,149.32	12.57	207.55				21,369.44
Marine	15,579.61	31.17	131.47				15,742.26
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	17,917.42						17,917.42
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,349,150.89
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,261,987.19

⁽¹⁾ For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

⁽²⁾ Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

⁽³⁾ Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

⁽⁴⁾ See footnote 8 to table Summary I.A.

表 A 9-14 2003 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 2003
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,182,204.95	23,785.76	24,442.48	13,761.68	7,178.70	5,253.91	1,256,627.49
1. Energy	1,213,922.87	1,283.66	8,136.57				1,223,343.11
A. Fuel Combustion (Sectoral Approach)	1,213,888.39	894.28	8,136.46				1,222,919.14
1. Energy Industries	395,368.37	31.98	1,863.13				397,263.48
2. Manufacturing Industries and Construction	373,173.39	368.24	2,049.80				375,591.43
3. Transport	252,947.16	270.32	3,879.77				257,097.26
4. Other Sectors	192,399.48	223.74	343.75				192,966.97
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	34.48	389.38	0.11				423.97
1. Solid Fuels	NE,NO	93.86	NE,NO				93.86
2. Oil and Natural Gas	34.48	295.52	0.11				330.11
2. Industrial Processes	49,010.32	133.88	1,259.55	13,761.68	7,178.70	5,253.91	76,598.04
A. Mineral Products	45,640.14	NA,NO	NA,NO				45,640.14
B. Chemical Industry	3,128.60	117.37	1,259.55	NA	NA	NA	4,505.53
C. Metal Production	241.57	16.50	NO	IE,NE	15.21	1,125.53	1,398.81
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				5,459.50	965.60	812.60	7,237.70
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				8,302.18	6,197.90	3,315.79	17,815.86
G. Other	NO	NO	NO	NO	NO	NO	NO
3. Solvent and Other Product Use	NA,NE		320.83				320.83
4. Agriculture		15,382.46	11,345.98				26,728.44
A. Enteric Fermentation		7,163.24					7,163.24
B. Manure Management		2,460.49	4,798.57				7,259.06
C. Rice Cultivation		5,690.55					5,690.55
D. Agricultural Soils ⁽³⁾		NA	6,528.13				6,528.13
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		68.18	19.28				87.46
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-96,300.05	3.93	19.68				-96,276.44
A. Forest Land	-99,126.97	3.93	0.40				-99,122.64
B. Cropland	1,769.11	NE,NO	19.28				1,788.39
C. Grassland	-194.33	NE,NO	NE,NO				-194.33
D. Wetlands	64.08	NE,NO	NE,NO				64.08
E. Settlements	-22.92	NE,NO	NE,NO				-22.92
F. Other Land	964.57	NO	NO				964.57
G. Other	246.40	NA,NE	NA,NE				246.40
6. Waste	15,571.81	6,981.84	3,359.87				25,913.51
A. Solid Waste Disposal on Land	NA,NE,NO	5,090.73					5,090.73
B. Waste-water Handling		1,765.94	1,279.04				3,044.98
C. Waste Incineration	15,055.29	16.79	1,984.84				17,056.92
D. Other	516.53	108.37	95.99				720.89
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	37,506.71	46.37	344.55				37,897.63
Aviation	20,387.64	12.12	200.08				20,599.83
Marine	17,119.07	34.25	144.47				17,297.79
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	18,296.50						18,296.50
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,352,903.93
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,256,627.49

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A 9-15 2004 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 2004
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,182,074.65	23,370.18	24,455.04	10,552.49	7,478.43	5,095.89	1,253,026.67
1. Energy	1,214,021.73	1,268.22	7,844.94				1,223,134.90
A. Fuel Combustion (Sectoral Approach)	1,213,986.74	895.26	7,844.83				1,222,726.83
1. Energy Industries	390,980.48	30.07	1,855.33				392,865.88
2. Manufacturing Industries and Construction	378,734.31	382.65	2,070.77				381,187.73
3. Transport	252,413.86	250.53	3,572.83				256,237.22
4. Other Sectors	191,858.09	232.02	345.90				192,436.01
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	34.99	372.96	0.11				408.07
1. Solid Fuels	NE,NO	66.51	NE,NO				66.51
2. Oil and Natural Gas	34.99	306.45	0.11				341.56
2. Industrial Processes	48,837.57	143.54	1,657.60	10,552.49	7,478.43	5,095.89	73,765.51
A. Mineral Products	45,407.93	NA,NO	NA,NO				45,407.93
B. Chemical Industry	3,171.80	126.53	1,657.60	NA	NA	NA	4,955.94
C. Metal Production	257.84	17.01	NO	IE,NE	14.80	1,111.02	1,400.67
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				1,469.74	866.84	764.80	3,101.38
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				9,082.75	6,596.78	3,220.06	18,899.60
G. Other	NO	NO	NO	NO	NO	NO	NO
3. Solvent and Other Product Use	NA,NE		297.54				297.54
4. Agriculture		15,260.98	11,281.17				26,542.15
A. Enteric Fermentation		7,063.68					7,063.68
B. Manure Management		2,418.64	4,771.30				7,189.94
C. Rice Cultivation		5,712.00					5,712.00
D. Agricultural Soils ⁽³⁾		NA	6,491.06				6,491.06
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		66.65	18.81				85.46
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-95,808.99	12.13	17.10				-95,779.77
A. Forest Land	-98,612.86	12.13	1.23				-98,599.50
B. Cropland	1,731.24	NE,NO	15.87				1,747.11
C. Grassland	-176.91	NE,NO	NE,NO				-176.91
D. Wetlands	58.75	NE,NO	NE,NO				58.75
E. Settlements	4.76	NE,NO	NE,NO				4.76
F. Other Land	949.74	NO	NO				949.74
G. Other	236.30	NA,NE	NA,NE				236.30
6. Waste	15,024.34	6,685.32	3,356.68				25,066.34
A. Solid Waste Disposal on Land	NA,NE,NO	4,824.66					4,824.66
B. Waste-water Handling		1,732.07	1,281.53				3,013.59
C. Waste Incineration	14,517.64	15.38	1,974.89				16,507.92
D. Other	506.70	113.20	100.27				720.17
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA	NA	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	39,113.12	48.45	359.20				39,520.78
Aviation	21,190.20	12.59	207.95				21,410.75
Marine	17,922.92	35.86	151.25				18,110.03
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	18,188.60						18,188.60
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,348,806.44
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,253,026.67

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A 9-16 2005 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Inventory 2005

Submission 2013 v1.1

JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,193,277.39	23,024.28	23,960.37	10,518.22	6,990.73	4,807.94	1,262,578.93
1. Energy	1,217,734.50	1,309.82	7,776.84				1,226,821.16
A. Fuel Combustion (Sectoral Approach)	1,217,696.90	914.08	7,776.73				1,226,387.70
1. Energy Industries	406,038.52	31.42	2,067.72				408,137.67
2. Manufacturing Industries and Construction	371,229.41	386.85	2,036.06				373,652.32
3. Transport	247,009.69	237.78	3,321.04				250,568.51
4. Other Sectors	193,419.28	258.02	351.90				194,029.20
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	37.60	395.74	0.12				433.46
1. Solid Fuels	NE,NO	73.56	NE,NO				73.56
2. Oil and Natural Gas	37.60	322.18	0.12				359.90
2. Industrial Processes	49,902.66	133.87	1,299.94	10,518.22	6,990.73	4,807.94	73,653.35
A. Mineral Products	46,773.88	NA,NO	NA,NO				46,773.88
B. Chemical Industry	2,886.85	116.98	1,299.94	NA	NA	NA	4,303.77
C. Metal Production	241.93	16.89	NO	IE,NE	14.80	1,157.31	1,430.93
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				816.01	837.49	975.12	2,628.62
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				9,702.21	6,138.44	2,675.51	18,516.16
G. Other	NO	NO	NO	NA,NO	NA,NO	NO	NA,NO
3. Solvent and Other Product Use	NA,NE		266.41				266.41
4. Agriculture		15,179.64	11,186.42				26,366.07
A. Enteric Fermentation		7,001.90					7,001.90
B. Manure Management		2,373.16	4,768.34				7,141.50
C. Rice Cultivation		5,739.10					5,739.10
D. Agricultural Soils ⁽³⁾		NA	6,399.59				6,399.59
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		65.48	18.49				83.97
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-88,851.06	9.18	14.12				-88,827.76
A. Forest Land	-92,050.35	9.18	0.93				-92,040.25
B. Cropland	1,772.62	NE,NO	13.19				1,785.81
C. Grassland	-159.99	NE,NO	NE,NO				-159.99
D. Wetlands	15.67	NE,NO	NE,NO				15.67
E. Settlements	365.16	NE,NO	NE,NO				365.16
F. Other Land	974.54	NO	NO				974.54
G. Other	231.29	NA,NE	NA,NE				231.29
6. Waste	14,491.29	6,391.78	3,416.63				24,299.70
A. Solid Waste Disposal on Land	NA,NE,NO	4,567.74					4,567.74
B. Waste-water Handling		1,683.82	1,262.70				2,946.52
C. Waste Incineration	13,984.48	14.27	2,042.38				16,041.12
D. Other	506.81	125.95	111.56				744.32
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA	NA	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	41,564.88	53.16	380.11				41,998.14
Aviation	21,336.33	12.68	209.39				21,558.39
Marine	20,228.55	40.48	170.72				20,439.75
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	21,743.33						21,743.33
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,351,406.69
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,262,578.93

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A 9-17 2006 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 2006
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,179,817.09	22,664.47	23,939.81	11,742.22	7,311.27	4,910.86	1,250,385.72
1. Energy	1,199,314.84	1,327.11	7,545.23				1,208,187.18
A. Fuel Combustion (Sectoral Approach)	1,199,278.95	918.86	7,545.12				1,207,742.93
1. Energy Industries	394,358.50	31.39	2,046.29				396,436.18
2. Manufacturing Industries and Construction	373,288.97	412.00	2,009.13				375,710.11
3. Transport	243,632.49	222.18	3,142.89				246,997.57
4. Other Sectors	187,998.99	253.28	346.80				188,599.07
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	35.89	408.25	0.11				444.26
1. Solid Fuels	NE,NO	68.12	NE,NO				68.12
2. Oil and Natural Gas	35.89	340.14	0.11				376.14
2. Industrial Processes	49,975.18	133.09	1,624.72	11,742.22	7,311.27	4,910.86	75,697.33
A. Mineral Products	46,878.88	NA,NO	NA,NO				46,878.88
B. Chemical Industry	2,918.74	115.93	1,624.72	NA	NA	NA	4,659.40
C. Metal Production	177.55	17.16	NO	IE,NE	14.82	1,091.08	1,300.62
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				938.25	879.14	1,366.36	3,183.75
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				10,803.97	6,417.30	2,453.41	19,674.68
G. Other	NO	NO	NO	NA,NO	NA,NO	NO	NA,NO
3. Solvent and Other Product Use	NA,NE		242.34				242.34
4. Agriculture		15,106.48	11,209.83				26,316.30
A. Enteric Fermentation		6,999.93					6,999.93
B. Manure Management		2,334.00	4,786.07				7,120.07
C. Rice Cultivation		5,707.49					5,707.49
D. Agricultural Soils ⁽³⁾		NA	6,405.39				6,405.39
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		65.06	18.36				83.42
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-83,128.10	2.44	11.75				-83,113.90
A. Forest Land	-86,496.27	2.44	0.25				-86,493.58
B. Cropland	1,786.68	NE,NO	11.50				1,798.18
C. Grassland	-161.87	NE,NO	NE,NO				-161.87
D. Wetlands	23.44	NE,NO	NE,NO				23.44
E. Settlements	738.78	NE,NO	NE,NO				738.78
F. Other Land	750.79	NO	NO				750.79
G. Other	230.36	NA,NE	NA,NE				230.36
6. Waste	13,655.17	6,095.35	3,305.94				23,056.46
A. Solid Waste Disposal on Land	NA,NE,NO	4,300.43					4,300.43
B. Waste-water Handling		1,651.99	1,273.62				2,925.61
C. Waste Incineration	13,132.81	13.29	1,917.49				15,063.59
D. Other	522.36	129.65	114.83				766.84
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA	NA	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	38,991.92	49.94	356.50				39,398.36
Aviation	19,964.61	11.87	195.93				20,172.40
Marine	19,027.31	38.07	160.58				19,225.96
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	21,976.71						21,976.71
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,333,499.62
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,250,385.72

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A 9-18 2007 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 2007
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,213,843.66	22,287.55	22,712.09	13,279.24	6,400.59	4,407.45	1,282,930.60
1. Energy	1,233,402.38	1,337.60	7,503.26				1,242,243.25
A. Fuel Combustion (Sectoral Approach)	1,233,364.86	921.41	7,503.14				1,241,789.41
1. Energy Industries	447,301.90	34.12	2,096.38				449,432.41
2. Manufacturing Industries and Construction	370,257.35	438.52	2,062.82				372,758.69
3. Transport	237,830.98	208.03	3,008.07				241,047.07
4. Other Sectors	177,974.62	240.74	335.87				178,551.23
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	37.53	416.20	0.12				453.84
1. Solid Fuels	NE,NO	51.48	NE,NO				51.48
2. Oil and Natural Gas	37.53	364.72	0.12				402.37
2. Industrial Processes	49,212.77	134.15	860.18	13,279.24	6,400.59	4,407.45	74,294.39
A. Mineral Products	46,010.32	NA,NO	NA,NO				46,010.32
B. Chemical Industry	2,990.43	116.85	860.18	NA	NA	NA	3,967.46
C. Metal Production	212.02	17.30	NO	IE,NE	14.69	1,089.34	1,333.35
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				497.61	783.02	1,198.82	2,479.45
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				12,781.64	5,602.88	2,119.29	20,503.80
G. Other	NO	NO	NO	NA,NO	NA,NO	NO	NA,NO
3. Solvent and Other Product Use	NA,NE		159.95				159.95
4. Agriculture		14,980.57	11,025.59				26,006.16
A. Enteric Fermentation		6,974.18					6,974.18
B. Manure Management		2,290.69	4,808.85				7,099.54
C. Rice Cultivation		5,652.17					5,652.17
D. Agricultural Soils ⁽³⁾		NA	6,198.86				6,198.86
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		63.53	17.89				81.42
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-82,309.06	2.04	10.32				-82,296.70
A. Forest Land	-85,282.04	2.04	0.21				-85,279.79
B. Cropland	1,745.27	NE,NO	10.11				1,755.38
C. Grassland	-146.49	NE,NO	NE,NO				-146.49
D. Wetlands	27.76	NE,NO	NE,NO				27.76
E. Settlements	449.68	NE,NO	NE,NO				449.68
F. Other Land	571.76	NO	NO				571.76
G. Other	325.00	NA,NE	NA,NE				325.00
6. Waste	13,537.58	5,833.18	3,152.79				22,523.55
A. Solid Waste Disposal on Land	NA,NE,NO	4,053.40					4,053.40
B. Waste-water Handling		1,611.20	1,251.99				2,863.19
C. Waste Incineration	12,976.38	12.15	1,762.25				14,750.78
D. Other	561.20	156.43	138.55				856.18
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA	NA	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	37,259.15	48.74	339.71				37,647.60
Aviation	18,358.58	10.91	180.16				18,549.66
Marine	18,900.57	37.83	159.54				19,097.94
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	22,957.60						22,957.60
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,365,227.30
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,282,930.60

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A 9-20 2009 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Inventory 2009

Submission 2013 v1.1

JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,067,360.25	21,183.37	22,545.06	16,554.17	3,265.25	1,851.27	1,132,759.38
1. Energy	1,088,839.82	1,259.37	6,845.72				1,096,944.90
A. Fuel Combustion (Sectoral Approach)	1,088,804.67	865.11	6,845.60				1,096,515.38
1. Energy Industries	385,493.23	29.71	1,934.25				387,457.19
2. Manufacturing Industries and Construction	319,043.12	436.40	1,916.90				321,396.42
3. Transport	222,768.36	179.90	2,681.83				225,630.10
4. Other Sectors	161,499.96	219.09	312.62				162,031.66
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	35.15	394.26	0.11				429.52
1. Solid Fuels	NE,NO	46.25	NE,NO				46.25
2. Oil and Natural Gas	35.15	348.01	0.11				383.27
2. Industrial Processes	40,189.35	109.60	1,559.50	16,554.17	3,265.25	1,851.27	63,529.14
A. Mineral Products	37,589.16	NA,NO	NA,NO				37,589.16
B. Chemical Industry	2,488.20	96.64	1,559.50	NA	NA	NA	4,144.34
C. Metal Production	111.99	12.96	NO	IE,NE	11.02	239.00	374.97
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				222.14	399.48	260.51	882.13
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				16,332.03	2,854.75	1,351.76	20,538.55
G. Other	NO	NO	NO	NA,NO	NA,NO	NO	NA,NO
3. Solvent and Other Product Use	NA,NE		120.50				120.50
4. Agriculture		14,560.74	10,989.69				25,550.42
A. Enteric Fermentation		6,772.98					6,772.98
B. Manure Management		2,184.51	5,252.19				7,436.69
C. Rice Cultivation		5,544.83					5,544.83
D. Agricultural Soils ⁽³⁾		NA	5,721.22				5,721.22
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		58.42	16.28				74.70
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-74,105.06	8.61	7.93				-74,088.51
A. Forest Land	-77,894.59	8.61	0.87				-77,885.10
B. Cropland	1,749.83	NE,NO	7.06				1,756.89
C. Grassland	-117.97	NE,NO	NE,NO				-117.97
D. Wetlands	23.84	NE,NO	NE,NO				23.84
E. Settlements	755.17	NE,NO	NE,NO				755.17
F. Other Land	1,108.51	NO	NO				1,108.51
G. Other	270.15	NA,NE	NA,NE				270.15
6. Waste	12,436.14	5,245.05	3,021.74				20,702.93
A. Solid Waste Disposal on Land	NA,NE,NO	3,517.25					3,517.25
B. Waste-water Handling		1,545.11	1,235.85				2,780.97
C. Waste Incineration	11,922.45	10.50	1,633.38				13,566.32
D. Other	513.69	172.19	152.51				838.39
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA	NA	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	30,686.03	39.77	280.09				31,005.89
Aviation	15,372.73	9.14	150.86				15,532.73
Marine	15,313.30	30.64	129.22				15,473.16
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	19,753.79						19,753.79
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,206,847.89
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,132,759.38

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A-9-21 2010 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Inventory 2010

Submission 2013 v1.1

JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,115,286.51	20,744.71	21,999.45	18,307.23	3,408.71	1,862.42	1,181,609.03
1. Energy	1,137,014.96	1,283.77	6,663.58				1,144,962.32
A. Fuel Combustion (Sectoral Approach)	1,136,981.83	908.03	6,663.48				1,144,553.34
1. Energy Industries	405,372.36	32.53	1,902.96				407,307.85
2. Manufacturing Industries and Construction	342,744.16	472.83	1,901.87				345,118.86
3. Transport	225,459.83	169.76	2,533.46				228,163.05
4. Other Sectors	163,405.47	232.92	325.19				163,963.59
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	33.14	375.74	0.11				408.98
1. Solid Fuels	NE,NO	44.49	NE,NO				44.49
2. Oil and Natural Gas	33.14	331.25	0.11				364.50
2. Industrial Processes	41,074.34	118.85	1,077.74	18,307.23	3,408.71	1,862.42	65,849.29
A. Mineral Products	38,177.25	NA,NO	NA,NO				38,177.25
B. Chemical Industry	2,737.23	103.98	1,077.74	NA	NA	NA	3,918.95
C. Metal Production	159.86	14.87	NO	IE,NE	10.38	307.90	493.01
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				128.34	200.24	198.37	526.96
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				18,178.89	3,198.08	1,356.15	22,733.13
G. Other	NO	NO	NO	NA,NO	NA,NO	NO	NA,NO
3. Solvent and Other Product Use	NA,NE		98.95				98.95
4. Agriculture		14,334.45	11,183.03				25,517.48
A. Enteric Fermentation		6,657.63					6,657.63
B. Manure Management		2,143.79	5,450.05				7,593.83
C. Rice Cultivation		5,477.13					5,477.13
D. Agricultural Soils ⁽³⁾		NA	5,717.49				5,717.49
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		55.91	15.49				71.39
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-75,781.75	4.14	6.01				-75,771.61
A. Forest Land	-81,313.62	4.14	0.42				-81,309.06
B. Cropland	1,950.57	NE,NO	5.59				1,956.15
C. Grassland	-57.04	NE,NO	NE,NO				-57.04
D. Wetlands	86.57	NE,NO	NE,NO				86.57
E. Settlements	2,888.36	NE,NO	NE,NO				2,888.36
F. Other Land	420.53	NO	NO				420.53
G. Other	242.88	NA,NE	NA,NE				242.88
6. Waste	12,978.96	5,003.50	2,970.14				20,952.60
A. Solid Waste Disposal on Land	NA,NE,NO	3,286.14					3,286.14
B. Waste-water Handling		1,517.64	1,221.55				2,739.19
C. Waste Incineration	12,452.05	9.72	1,580.30				14,042.06
D. Other	526.91	190.00	168.29				885.21
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA	NA	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	31,179.83	39.46	285.52				31,504.81
Aviation	16,295.33	9.68	159.92				16,464.93
Marine	14,884.50	29.78	125.60				15,039.88
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	32,896.45						32,896.45
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,257,380.64
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,181,609.03

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.

表 A 9-22 2011 年の排出量及び吸収量

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)Inventory 2011
Submission 2013 v1.1
JAPAN

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs ⁽²⁾	PFCs ⁽²⁾	SF ₆ ⁽²⁾	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	1,165,239.66	20,304.37	21,629.00	20,467.03	3,016.35	1,637.85	1,232,294.25
1. Energy	1,186,637.01	1,233.38	6,609.50				1,194,479.89
A. Fuel Combustion (Sectoral Approach)	1,186,604.49	859.01	6,609.39				1,194,072.89
1. Energy Industries	466,617.15	36.91	1,990.20				468,644.26
2. Manufacturing Industries and Construction	335,186.40	462.87	1,884.16				337,533.43
3. Transport	222,132.59	161.61	2,411.54				224,705.75
4. Other Sectors	162,668.34	197.61	323.50				163,189.45
5. Other	NO	NO	NO				NO
B. Fugitive Emissions from Fuels	32.52	374.37	0.10				407.00
1. Solid Fuels	NE,NO	44.66	NE,NO				44.66
2. Oil and Natural Gas	32.52	329.71	0.10				362.33
2. Industrial Processes	41,134.67	120.21	787.56	20,467.03	3,016.35	1,637.85	67,163.67
A. Mineral Products	38,343.73	NA,NO	NA,NO				38,343.73
B. Chemical Industry	2,629.25	105.03	787.56	NA	NA	NA	3,521.84
C. Metal Production	161.70	15.18	NO	IE,NE	10.36	191.20	378.44
D. Other Production	IE						IE
E. Production of Halocarbons and SF ₆				112.49	171.90	138.62	423.02
F. Consumption of Halocarbons and SF ₆ ⁽²⁾				20,354.53	2,834.09	1,308.03	24,496.66
G. Other	NO	NO	NO	NA,NO	NA,NO	NO	NA,NO
3. Solvent and Other Product Use	NA,NE		97.15				97.15
4. Agriculture		14,184.74	11,217.53				25,402.27
A. Enteric Fermentation		6,567.78					6,567.78
B. Manure Management		2,127.48	5,409.83				7,537.31
C. Rice Cultivation		5,433.73					5,433.73
D. Agricultural Soils ⁽³⁾		NA	5,792.31				5,792.31
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		55.76	15.39				71.15
G. Other		NO	NO				NO
5. Land Use, Land-Use Change and Forestry⁽¹⁾	-75,444.81	5.35	5.36				-75,434.10
A. Forest Land	-78,091.31	5.35	0.54				-78,085.41
B. Cropland	1,781.12	NE,NO	4.82				1,785.94
C. Grassland	-90.21	NE,NO	NE,NO				-90.21
D. Wetlands	60.13	NE,NO	NE,NO				60.13
E. Settlements	411.10	NE,NO	NE,NO				411.10
F. Other Land	237.58	NO	NO				237.58
G. Other	246.78	NA,NE	NA,NE				246.78
6. Waste	12,912.79	4,760.69	2,911.90				20,585.38
A. Solid Waste Disposal on Land	NA,NE,NO	3,092.83					3,092.83
B. Waste-water Handling		1,517.60	1,221.54				2,739.14
C. Waste Incineration	12,390.51	9.70	1,565.87				13,966.08
D. Other	522.28	140.55	124.49				787.31
7. Other (as specified in Summary I.A)	NA,NO	NA,NO	NA,NO	NA	NA	NA,NO	NA,NO
Memo Items:⁽⁴⁾							
International Bunkers	31,659.39	37.64	292.28				31,989.31
Aviation	18,272.72	10.86	179.32				18,462.91
Marine	13,386.66	26.78	112.96				13,526.41
Multilateral Operations	NO	NO	NO				NO
CO₂ Emissions from Biomass	32,480.57						32,480.57
Total CO ₂ Equivalent Emissions without Land Use, Land-Use Change and Forestry							1,307,728.35
Total CO ₂ Equivalent Emissions with Land Use, Land-Use Change and Forestry							1,232,294.25

(1) For CO₂ from Land Use, Land-use Change and Forestry the net emissions/removals are to be reported. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

(2) Actual emissions should be included in the national totals. If no actual emissions were reported, potential emissions should be included.

(3) Parties which previously reported CO₂ from soils in the Agriculture sector should note this in the NIR.

(4) See footnote 8 to table Summary I.A.