

# Annex 1

## SUMMARY 1.A. SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Sheet 1 of 3)

Inventory 2020  
Submission 2022 v6  
FINLAND

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Net CO <sub>2</sub> emissions/removals	CH <sub>4</sub>	N <sub>2</sub> O	HFCs <sup>(1)</sup>	PFCs <sup>(1)</sup>	Unspecified mix of HFCs and PFCs <sup>(1)</sup>	SF <sub>6</sub>	NF <sub>3</sub>	NO <sub>x</sub>	CO	NM VOC	SO <sub>2</sub>
	(kt)	(kt)	(kt)	(kt CO <sub>2</sub> equivalent)	(kt CO <sub>2</sub> equivalent)	(kt CO <sub>2</sub> equivalent)	(kt)	(kt)	(kt)	(kt)	(kt)	(kt)
<b>Total national emissions and removals</b>	17504.84	206.70	22.63	975.87	1.72	NO	0.00	NO	98.18	315.91	84.41	23.17
<b>1. Energy</b>	33509.96	10.26	1.75						94.61	311.16	37.87	15.17
A. Fuel combustion Reference approach(2)	33514.01											
Sectoral approach(2)	33433.62	9.40	1.75						94.56	311.14	31.21	15.16
1. Energy industries	12867.90	1.17	0.78						20.49	21.44	1.14	7.58
2. Manufacturing industries and construction	6079.17	0.82	0.47						28.17	35.23	1.65	3.99
3. Transport	10345.40	0.49	0.29						30.93	52.84	6.19	0.11
4. Other sectors	3201.53	6.80	0.20						12.96	200.40	22.09	3.13
5. Other	939.62	0.12	0.02						2.00	1.23	0.16	0.36
B. Fugitive emissions from fuels	76.34	0.87	0.00						0.05	0.02	6.65	0.01
1. Solid fuels	NO	NO	NO						NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	76.34	0.87	0.00						0.05	0.02	6.65	0.01
C. CO <sub>2</sub> Transport and storage	NO,IE,NA											
<b>2. Industrial processes and product use</b>	3883.45	0.05	0.82	975.87	1.72	NO	0.00	NO	1.36	0.19	30.77	8.00
A. Mineral industry	946.52								0.06	NO	NO	0.00
B. Chemical industry	1049.67	0.05	0.76	NO	NO	NO	NO	NO	0.79	NO	2.16	4.12
C. Metal industry	1756.77	0.00	NO						0.37	0.17	0.28	2.80
D. Non-energy products from fuels and solvent use	130.50	0.01	0.00						0.13	0.03	24.00	0.13
E. Electronic industry				NO,IE	NO,IE	NO	NO,IE	NO				
F. Product uses as substitutes for ODS				971.44	0.78							
G. Other product manufacture and use			0.05		NO,IE		0.00					
H. Other <sup>(3)</sup>	NO	NO	NO	4.43	0.93		0.00		0.00	NO	4.33	0.95
<b>3. Agriculture</b>	202.52	101.03	12.88						2.15	2.35	15.67	NO
A. Enteric fermentation		83.14										
B. Manure management		17.82	0.91								12.37	
C. Rice cultivation		NO									NO,NA	
D. Agricultural soils		NE,NO	11.97						2.09	NE	3.19	
E. Prescribed burning of savannas		NO	NO						NO	NO	NO	
F. Field burning of agricultural residues		0.07	0.00						0.06	2.35	0.11	
G. Liming	200.96											
H. Urea application	1.56											
I. Other carbon-containing fertilizers	NA											
J. Other	NO	NO	NO						NO	NO	NO	NO
<b>4. Land use, land-use change and forestry<sup>(4)</sup></b>	-20091.08	30.63	6.79						0.06	2.21	NE	NE
A. Forest land <sup>(4)</sup>	-30351.27	27.76	6.36						0.06	2.19	NE	
B. Cropland <sup>(4)</sup>	8042.35	IE,NA	0.02						NE,IE	NE,IE	NE	
C. Grassland <sup>(4)</sup>	767.41	0.00	0.00						0.00	0.02	NE	
D. Wetlands <sup>(4)</sup>	2034.79	2.86	0.33						NE,NA	NE,NA	NE	
E. Settlements <sup>(4)</sup>	712.38	NE,NA	0.07						NE,NA	NE,NA	NE	
F. Other land <sup>(4)</sup>	NO,NA	NA	NA						NA	NA	NE	
G. Harvested wood products	-1296.74											
H. Other <sup>(4)</sup>	NA	NA	NA						NA	NA	NE	NE
<b>5. Waste</b>	NO,NE,IE	64.73	0.40						NO,NE,IE	NO,NE,IE	0.10	NO,NE,IE
A. Solid waste disposal <sup>(5)</sup>	NO	55.40							NO	NO	0.07	
B. Biological treatment of solid waste <sup>(5)</sup>		2.86	0.15						NO	NO	NO	
C. Incineration and open burning of waste <sup>(5)</sup>	NO,NE,IE	NO,NE,IE	NO,NE,IE						NE,IE	NE,IE	NE,IE	NE,IE
D. Wastewater treatment and discharge		6.47	0.25						NO	NO	0.03	
E. Other <sup>(5)</sup>	NO	NO	NO						NO	NO	NO	NO
<b>6. Other (please specify)<sup>(6)</sup></b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Memo items:<sup>(7)</sup></b>												
<b>International bunkers</b>	1848.98	0.09	0.05						21.36	3.19	0.83	0.85
Aviation	869.13	0.00	0.02						4.22	0.82	0.09	0.23
Navigation	979.85	0.08	0.02						17.14	2.37	0.74	0.62
<b>Multilateral operations</b>	NO	NO	NO						NO	NO	NO	NO
<b>CO<sub>2</sub> emissions from biomass</b>	39632.96											
<b>CO<sub>2</sub> captured</b>	101.51											
<b>Long-term storage of C in waste disposal sites</b>	54646.56											
<b>Indirect N<sub>2</sub>O</b>			0.46									
<b>Indirect CO<sub>2</sub></b>	65.95											

<sup>(1)</sup> The emissions of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), unspecified mix of HFCs and PFCs and other fluorinated gases are to be expressed as carbon dioxide (CO<sub>2</sub>) equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in table 2(II) of this common reporting format.

<sup>(2)</sup> For verification purposes, Parties are requested to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in the documentation box to table 1.A(c). For estimating national total emissions, the results from the Sectoral approach should be used.

<sup>(3)</sup> 2.H. Other includes pulp and paper and food and beverages industry.

<sup>(4)</sup> For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

<sup>(5)</sup> CO<sub>2</sub> from categories solid waste disposal on land and waste incineration should only be included if it stems from non-biogenic or inorganic waste streams. Only emissions from waste incineration without energy recovery are to be reported in the waste sector, whereas emissions from incineration with energy recovery are to be reported in the energy sector.

<sup>(6)</sup> If reporting any country-specific category under sector "6. Other", detailed explanations should be provided in Chapter 8: Other (CRF sector 6) of the national inventory report (NIR).

<sup>(7)</sup> Parties are asked to report emissions from international aviation and international navigation and multilateral operations, as well as CO<sub>2</sub> emissions from biomass and CO<sub>2</sub> captured, under Memo Items. These emissions should not be included in the national total emissions from the energy sector. Amounts of biomass used as fuel are included in the national energy consumption but the corresponding CO<sub>2</sub> emissions are not included in the national total as it is assumed that the biomass is produced in a sustainable manner. If the biomass is harvested at an unsustainable rate, net CO<sub>2</sub> emissions are accounted for as a loss of biomass stocks in the Land Use, Land-use Change and Forestry sector.

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

(Sheet 1 of 1)

Inventory 2020

Submission 2022 v6

FINLAND

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub> <sup>(1)</sup>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	SF <sub>6</sub>	Unspecifie d mix of HFCs and PFCs	NF <sub>3</sub>	Total
	CO <sub>2</sub> equivalent (kt)								
<b>Total (net emissions)<sup>(1)</sup></b>	17504.84	5167.55	6744.06	975.87	1.72	19.13	NO	NO	30413.18
<b>1. Energy</b>	33509.96	256.60	522.94						34289.50
A. Fuel combustion (sectoral approach)	33433.62	234.91	522.28						34190.82
1. Energy industries	12867.90	29.33	232.53						13129.76
2. Manufacturing industries and construction	6079.17	20.44	138.62						6238.23
3. Transport	10345.40	12.15	85.88						10443.43
4. Other sectors	3201.53	170.11	58.59						3430.23
5. Other	939.62	2.89	6.66						949.17
B. Fugitive emissions from fuels	76.34	21.69	0.66						98.68
1. Solid fuels	NO	NO	NO						NO
2. Oil and natural gas	76.34	21.69	0.66						98.68
C. CO <sub>2</sub> transport and storage	NO,IE,NA								NO,IE,NA
<b>2. Industrial processes and product use</b>	3883.45	1.25	243.05	975.87	1.72	19.13	NO	NO	5124.48
A. Mineral industry	946.52								946.52
B. Chemical industry	1049.67	1.13	226.53	NO	NO	NO	NO	NO	1277.33
C. Metal industry	1756.77	0.00	NO			NO			1756.77
D. Non-energy products from fuels and solvent use	130.50	0.13	0.76						131.39
E. Electronic Industry				NO,IE	NO,IE	NO,IE	NO	NO	NO,IE
F. Product uses as ODS substitutes				971.44	0.78				972.22
G. Other product manufacture and use			15.76		NO,IE	13.96			29.72
H. Other	NO	NO	NO	4.43	0.93	5.17			10.54
<b>3. Agriculture</b>	202.52	2525.80	3837.63						6565.95
A. Enteric fermentation		2078.48							2078.48
B. Manure management		445.60	270.27						715.87
C. Rice cultivation		NO							NO
D. Agricultural soils		NE,NO	3566.83						3566.83
E. Prescribed burning of savannas		NO	NO						NO
F. Field burning of agricultural residues		1.72	0.53						2.25
G. Liming	200.96								200.96
H. Urea application	1.56								1.56
I. Other carbon-containing fertilizers	NA								NA
J. Other	NO	NO	NO						NO
<b>4. Land use, land-use change and forestry<sup>(1)</sup></b>	-20091.08	765.67	2022.30						-17303.12
A. Forest land	-30351.27	694.03	1894.22						-27763.02
B. Cropland	8042.35	IE,NA	7.21						8049.56
C. Grassland	767.41	0.02	0.65						768.08
D. Wetlands	2034.79	71.62	98.22						2204.63
E. Settlements	712.38	NE,NA	20.26						732.65
F. Other land	NO,NA	NA	NA						NO,NA
G. Harvested wood products	-1296.74								-1296.74
H. Other	NA	NA	NA						NA
<b>5. Waste</b>	NO,NE,IE	1618.22	118.14						1736.37
A. Solid waste disposal	NO	1385.01							1385.01
B. Biological treatment of solid waste		71.56	43.35						114.92
C. Incineration and open burning of waste	NO,NE,IE	NO,NE,IE	NO,NE,IE						NO,NE,IE
D. Waste water treatment and discharge		161.65	74.79						236.43
E. Other	NO	NO	NO						NO
<b>6. Other (as specified in summary I.A)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Memo items:<sup>(2)</sup></b>									
<b>International bunkers</b>	1848.98	2.19	13.93						1865.09
Aviation	869.13	0.11	7.08						876.32
Navigation	979.85	2.07	6.85						988.78
<b>Multilateral operations</b>	NO	NO	NO						NO
<b>CO<sub>2</sub> emissions from biomass</b>	39632.96								39632.96
<b>CO<sub>2</sub> captured</b>	101.51								101.51
<b>Long-term storage of C in waste disposal sites</b>	54646.56								54646.56
<b>Indirect N<sub>2</sub>O</b>			137.29						
<b>Indirect CO<sub>2</sub><sup>(3)</sup></b>	65.95								
<b>Total CO<sub>2</sub> equivalent emissions without land use, land-use change and forestry</b>									47716.30
<b>Total CO<sub>2</sub> equivalent emissions with land use, land-use change and forestry</b>									30413.18
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, without land use, land-use change and forestry</b>									47782.25
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, with land use, land-use change and forestry</b>									30479.13

<sup>(1)</sup> For carbon dioxide (CO<sub>2</sub>) 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

<sup>(2)</sup> See footnote 7 to table Summary 1.A.

<sup>(3)</sup> In accordance with the UNFCCC Annex I inventory reporting guidelines, for Parties that decide to report indirect CO<sub>2</sub>, the national totals shall be provided with and without indirect





TABLE 10 EMISSION TRENDS

CO<sub>2</sub>

(Sheet 2 of 6)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	(kt)															
<b>1. Energy</b>	52584.73	52584.73	51230.84	50610.24	52504.63	57806.18	54306.99	60013.26	58436.80	55128.78	54547.58	52784.64	58150.46	60743.02	68318.40	64460.62
A. Fuel combustion (sectoral approach)	52473.23	52473.23	51127.38	50500.39	52347.74	57739.75	54232.40	59948.50	58333.58	55064.84	54492.43	52726.16	58097.51	60681.51	68262.38	64405.59
1. Energy industries	18843.01	18843.01	18651.29	18460.42	21185.15	26149.66	23833.72	29548.82	27165.10	23917.16	23378.08	21924.67	27306.91	30081.30	37117.91	33074.21
2. Manufacturing industries and construction	13192.36	13192.36	12696.96	12194.18	12262.27	12591.98	11989.02	11849.42	12110.28	11750.11	11704.88	11732.69	11294.12	10993.62	11383.89	11452.51
3. Transport	11821.46	11821.46	11454.17	11371.83	10916.49	11272.09	11076.35	11077.53	11638.06	11771.32	11988.70	11890.46	12066.78	12201.27	12401.36	12754.26
4. Other sectors	7489.95	7489.95	7330.36	7418.44	7009.54	6499.63	6016.13	6100.91	6107.96	6196.16	6115.64	5774.79	5985.97	5939.85	5841.74	5741.51
5. Other	1126.45	1126.45	994.59	1055.52	974.29	1226.39	1317.18	1371.82	1312.18	1430.09	1305.13	1403.55	1503.72	1465.47	1517.48	1383.09
B. Fugitive emissions from fuels	111.49	111.49	103.46	109.84	156.89	66.43	74.60	64.76	103.22	63.94	55.15	58.48	52.96	61.50	56.02	55.04
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	111.49	111.49	103.46	109.84	156.89	66.43	74.60	64.76	103.22	63.94	55.15	58.48	52.96	61.50	56.02	55.04
C. CO <sub>2</sub> transport and storage	NO,NA	NO,NA	NA,NO	NA,NO	NO,IE,NA	NO,IE,NA	NO,IE,NA	NO,IE,NA	NO,IE,NA	NO,IE,NA	NO,IE,NA	NO,IE,NA	NO,IE,NA	NO,IE,NA	NO,IE,NA	NO,IE,NA
<b>2. Industrial processes</b>	3682.21	3682.21	3500.36	3355.35	3335.61	3453.30	3398.25	3541.97	3767.58	3770.28	3865.72	3874.43	3943.42	3850.74	4032.98	4201.46
A. Mineral industry	1218.22	1218.22	1050.07	952.06	857.51	898.40	873.72	913.96	943.13	955.98	1030.01	1080.45	1084.49	1084.31	1127.58	1189.36
B. Chemical industry	270.23	270.23	289.75	236.06	187.65	237.13	262.62	263.23	259.06	248.36	246.91	268.12	275.97	305.84	307.38	325.82
C. Metal industry	1976.06	1976.06	1987.05	1991.26	2113.32	2121.91	2076.29	2198.67	2414.58	2419.66	2448.48	2389.22	2440.13	2318.34	2480.87	2576.16
D. Non-energy products from fuels and solvent use	217.69	217.69	173.49	175.98	177.13	195.86	185.62	166.10	150.81	146.29	140.32	136.64	142.84	142.24	117.16	110.12
E. Electronic industry																
F. Product uses as ODS substitutes																
G. Other product manufacture and use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Agriculture</b>	647.40	647.40	457.56	299.47	473.13	473.18	410.27	477.83	491.79	452.41	453.60	350.85	419.85	447.22	302.95	277.02
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	642.01	642.01	455.16	296.88	472.14	472.49	409.67	477.26	490.96	451.61	452.82	350.01	418.92	446.22	301.90	275.91
H. Urea application	5.39	5.39	2.40	2.60	0.99	0.69	0.60	0.58	0.83	0.80	0.79	0.85	0.93	1.00	1.05	1.11
I. Other carbon-containing fertilizers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Land use, land-use change and forestry<sup>(2)</sup></b>	-17105.00	-17105.00	-29960.28	-24067.01	-24097.31	-17341.72	-16780.55	-23878.07	-19176.45	-17949.16	-18673.32	-18543.75	-20073.04	-21295.23	-22133.40	-23195.08
A. Forest land	-22730.92	-22730.92	-37170.72	-31052.27	-29031.83	-21160.68	-20977.67	-29881.42	-23401.94	-21941.11	-23431.75	-23142.00	-27224.01	-27997.94	-28507.80	-29630.69
B. Cropland	5389.04	5389.04	5116.04	5110.90	5414.01	5641.69	5640.44	6566.24	7271.36	7152.54	7283.69	7430.16	7182.96	7094.04	7356.04	7608.20
C. Grassland	1019.08	1019.08	998.85	964.86	954.44	925.68	905.73	881.13	887.28	860.27	847.99	838.00	855.17	834.64	829.96	882.27
D. Wetlands	1334.64	1334.64	1312.39	1495.45	1439.47	1651.39	1517.65	1566.52	1639.65	1444.27	1849.25	1653.62	1863.45	1899.13	1817.24	1738.55
E. Settlements	834.76	834.76	871.13	910.12	973.16	1029.81	1037.52	1104.69	1208.52	1261.43	1261.73	1283.03	1452.94	1424.85	1468.77	1607.25
F. Other land	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA
G. Harvested wood products	-2951.60	-2951.60	-1087.97	-1496.07	-3846.57	-5429.62	-4904.21	-4115.24	-6781.32	-6726.55	-6484.23	-6606.56	-4203.54	-4549.95	-5097.62	-5400.65
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>5. Waste</b>	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE
A. Solid waste disposal	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Biological treatment of solid waste																
C. Incineration and open burning of waste	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE
D. Waste water treatment and discharge																
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Other (as specified in summary 1.A)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Memo items:</b>																
<b>International bunkers</b>	2839.72	2839.72	2693.75	3043.24	2512.50	2169.38	1955.73	2159.25	2294.79	2680.68	2863.84	3110.16	2922.80	3146.74	3167.94	2931.02
Aviation	1007.73	1007.73	948.28	838.29	787.76	829.37	896.99	960.24	997.65	1022.15	1094.07	1063.28	1089.98	1077.56	1113.56	1282.23
Navigation	1832.00	1832.00	1745.48	2204.95	1724.74	1340.01	1058.74	1199.00	1297.14	1658.53	1769.77	2046.88	1832.82	2069.18	2054.38	1648.79
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO <sub>2</sub> emissions from biomass	18306.86	18306.86	17982.73	17676.41	20981.71	21773.40	22206.28	22368.06	25388.93	26184.30	27544.04	27918.78	27238.97	29325.13	30112.74	31687.89
CO <sub>2</sub> captured	NO	NO	NO,NA	NO,NA	0.86	20.07	54.15	73.54	106.08	127.95	156.47	183.44	175.68	176.47	186.21	212.73
<b>Long-term storage of C in waste disposal sites</b>	37785.27	37785.27	39123.77	40334.09	41438.78	42456.86	43405.85	44279.05	45103.92	45860.11	46554.49	47266.63	47943.58	48569.52	49175.57	49760.89
<b>Indirect N<sub>2</sub>O</b>																
Indirect CO <sub>2</sub> <sup>(3)</sup>	166.34	166.34	155.75	149.69	143.32	142.74	133.48	119.37	118.25	115.07	110.57	108.29	107.95	98.27	98.11	95.22
<b>Total CO<sub>2</sub> equivalent emissions without land use, land-use change and forestry</b>	56914.34	56914.34	55188.76	54265.06	56313.37	61732.67	58115.52	64033.06	62696.17	59351.46	58866.90	57009.92	62513.74	65040.97	72654.32	68939.11
<b>Total CO<sub>2</sub> equivalent emissions with land use, land-use change and forestry</b>	39809.33	39809.33	25228.48	30198.05	32216.05	44390.95	41334.97	40154.98	43519.72	41402.31	40193.58	38466.17	42440.70	43745.74	50520.93	45744.04
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, without land use, land-use change and forestry</b>	57080.68	57080.68	55344.51	54414.74	56456.69	61875.41	58248.99	64152.42	62814.42	59466.54	58977.47	57118.21	62621.69	65139.24	72752.44	69034.33
<b>Total CO<sub>2</sub> equivalent emissions, including indirect CO<sub>2</sub>, with land use, land-use change and forestry</b>	39975.68	39975.68	25384.23	30347.74	32359.38	44533.69	41468.45	40274.35	43637.97	41517.38	40304.15	38574.46	42548.65	43844.01	50619.04	45839.26

Note: All footnotes for this table are given at the end of the table on sheet 6.



**TABLE 10 EMISSION TRENDS**  
**CH<sub>4</sub>**  
**(Sheet 3 of 6)**

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	(kt)															
<b>I. Energy</b>	12.65	12.65	13.86	14.48	15.06	15.43	15.39	15.85	15.31	15.38	14.26	13.26	14.71	14.20	14.58	14.17
A. Fuel combustion (sectoral approach)	12.21	12.21	11.96	11.86	11.75	11.72	11.68	12.08	12.06	12.03	11.59	10.76	11.60	11.64	11.79	11.66
1. Energy industries	0.39	0.39	0.41	0.43	0.48	0.58	0.62	0.73	0.77	0.78	0.76	0.74	0.92	1.15	1.33	1.23
2. Manufacturing industries and construction	0.63	0.63	0.61	0.59	0.68	0.70	0.72	0.70	0.74	0.71	0.72	0.74	0.70	0.68	0.70	0.71
3. Transport	4.50	4.50	4.29	4.14	3.95	3.70	3.50	3.36	3.20	2.92	2.66	2.37	2.19	1.96	1.72	1.59
4. Other sectors	6.53	6.53	6.52	6.59	6.55	6.62	6.69	7.14	7.21	7.46	7.29	6.76	7.64	7.70	7.88	7.97
5. Other	0.15	0.15	0.12	0.11	0.10	0.13	0.15	0.16	0.15	0.17	0.15	0.16	0.16	0.16	0.17	0.17
B. Fugitive emissions from fuels	0.44	0.44	1.91	2.62	3.32	3.71	3.70	3.77	3.25	3.35	2.67	2.50	3.11	2.56	2.79	2.51
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from	0.44	0.44	1.91	2.62	3.32	3.71	3.70	3.77	3.25	3.35	2.67	2.50	3.11	2.56	2.79	2.51
C. CO <sub>2</sub> transport and storage																
<b>2. Industrial processes</b>	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.28	0.14	0.23	0.11	0.13	0.17	0.12	0.11
A. Mineral industry																
B. Chemical industry	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.28	0.13	0.23	0.10	0.12	0.17	0.11	0.10
C. Metal industry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Non-energy products from fuels and solvent use	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
E. Electronic industry																
F. Product uses as ODS substitutes																
G. Other product manufacture and use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Agriculture</b>	111.66	111.66	107.55	104.40	105.67	106.65	101.58	102.50	104.71	102.11	100.43	100.85	100.48	102.05	101.80	101.28
A. Enteric fermentation	96.82	96.82	93.31	90.09	90.92	91.15	85.82	86.16	87.49	85.40	83.95	84.35	83.60	84.58	83.72	82.99
B. Manure management	14.72	14.72	14.13	14.22	14.63	15.39	15.66	16.23	17.11	16.63	16.40	16.38	16.78	17.37	17.99	18.21
C. Rice cultivation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural soils	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	0.12	0.12	0.11	0.09	0.12	0.11	0.10	0.11	0.11	0.08	0.08	0.11	0.10	0.10	0.09	0.09
G. Liming																
H. Urea application																
I. Other carbon-containing fertilizers																
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Land use, land-use change and forestry</b>	61.27	61.27	60.57	59.98	59.29	58.69	58.03	57.37	56.73	56.03	54.97	53.83	52.76	51.62	50.45	49.30
A. Forest land	59.42	59.42	58.68	58.04	57.29	56.63	55.91	55.19	54.50	53.74	52.64	51.46	50.35	49.20	48.01	46.81
B. Cropland	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Wetlands	1.85	1.85	1.89	1.95	2.00	2.06	2.11	2.17	2.23	2.28	2.33	2.37	2.41	2.42	2.44	2.49
E. Settlements	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G. Harvested wood products																
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>5. Waste</b>	182.98	182.98	185.16	185.71	185.48	182.94	179.86	175.57	170.59	162.60	158.45	148.44	142.03	131.91	123.68	117.31
A. Solid waste disposal	173.11	173.11	175.38	176.03	175.68	173.04	169.80	165.36	160.63	152.68	148.54	138.54	132.13	121.91	113.60	107.15
B. Biological treatment of solid waste	1.03	1.03	1.16	1.30	1.40	1.49	1.70	1.93	1.95	2.06	2.18	2.29	2.41	2.54	2.63	2.73
C. Incineration and open burning of waste	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE
D. Waste water treatment and discharge	8.84	8.84	8.62	8.38	8.40	8.40	8.35	8.28	8.01	7.86	7.73	7.61	7.48	7.46	7.45	7.42
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Other (as specified in summary 1.A)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total CH<sub>4</sub> emissions without CH<sub>4</sub> from LULUCF</b>	307.49	307.49	306.76	304.79	306.41	305.22	297.03	294.12	290.89	280.23	273.36	262.65	257.35	248.34	240.18	232.87
<b>Total CH<sub>4</sub> emissions with CH<sub>4</sub> from LULUCF</b>	368.76	368.76	367.33	364.77	365.69	363.90	355.06	351.48	347.63	336.25	328.33	316.48	310.11	299.96	290.63	282.16
<b>Memo items:</b>																
<b>International bunkers</b>	0.14	0.14	0.14	0.17	0.13	0.10	0.08	0.09	0.10	0.13	0.14	0.16	0.15	0.16	0.16	0.13
Aviation	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Navigation	0.14	0.14	0.13	0.16	0.13	0.10	0.07	0.09	0.09	0.12	0.14	0.15	0.14	0.16	0.16	0.12
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO<sub>2</sub> emissions from biomass</b>																
<b>CO<sub>2</sub> captured</b>																
<b>Long-term storage of C in waste disposal sites</b>																
<b>Indirect N<sub>2</sub>O</b>																
<b>Indirect CO<sub>2</sub> <sup>(2)</sup></b>																

Note: All footnotes for this table are given at the end of the table on sheet 6.



GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change from base to latest reported year
	(kt)																%
<b>1. Energy</b>	14.43	13.81	13.70	13.28	13.31	14.16	12.52	13.19	12.58	12.38	11.96	12.54	12.34	12.18	11.87	10.26	-18.84
A. Fuel combustion (sectoral approach)	11.54	11.32	11.44	11.10	11.24	12.37	10.96	11.58	11.02	11.09	10.50	11.22	11.13	11.01	10.82	9.40	-23.05
1. Energy industries	1.01	1.19	1.09	1.06	1.01	1.17	1.07	1.03	1.04	1.04	0.95	1.08	1.12	1.24	1.22	1.17	198.94
2. Manufacturing industries and construction	0.66	0.71	0.70	0.67	0.58	0.74	0.83	0.82	0.84	0.88	0.87	0.87	0.89	0.89	0.85	0.82	28.76
3. Transport	1.48	1.36	1.27	1.07	0.97	0.91	0.82	0.74	0.71	0.68	0.65	0.60	0.56	0.53	0.50	0.49	-89.21
4. Other sectors	8.22	7.91	8.23	8.16	8.56	9.42	8.12	8.84	8.32	8.39	7.93	8.57	8.44	8.24	8.13	6.80	4.17
5. Other	0.17	0.15	0.15	0.13	0.12	0.13	0.13	0.13	0.12	0.11	0.11	0.10	0.12	0.12	0.11	0.12	-21.50
B. Fugitive emissions from fuels	2.89	2.49	2.26	2.18	2.08	1.79	1.56	1.61	1.57	1.28	1.46	1.32	1.21	1.17	1.05	0.87	99.33
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
2. Oil and natural gas and other emissions from	2.89	2.49	2.26	2.18	2.08	1.79	1.56	1.61	1.57	1.28	1.46	1.32	1.21	1.17	1.05	0.87	99.33
C. CO <sub>2</sub> transport and storage																	
<b>2. Industrial processes</b>	0.10	0.09	0.16	0.10	0.10	0.10	0.05	0.06	0.06	0.05	0.08	0.05	0.15	0.10	0.04	0.05	-74.31
A. Mineral industry																	
B. Chemical industry	0.10	0.09	0.16	0.10	0.10	0.10	0.05	0.05	0.06	0.05	0.07	0.04	0.15	0.10	0.04	0.05	-75.54
C. Metal industry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.42
D. Non-energy products from fuels and solvent use	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	-54.77
E. Electronic industry																	
F. Product uses as ODS substitutes																	
G. Other product manufacture and use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<b>3. Agriculture</b>	101.25	101.30	100.69	99.41	100.67	102.54	100.87	100.24	100.34	102.00	103.33	102.94	102.21	101.37	101.02	101.03	-9.52
A. Enteric fermentation	82.31	82.54	81.81	81.24	82.02	83.78	82.82	82.06	82.20	83.51	84.60	84.17	83.82	83.13	82.81	83.14	-14.13
B. Manure management	18.86	18.67	18.79	18.09	18.56	18.70	17.98	18.11	18.04	18.41	18.65	18.69	18.32	18.18	18.13	17.82	21.10
C. Rice cultivation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
D. Agricultural soils	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	NE,NO	0.00
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
F. Field burning of agricultural residues	0.09	0.08	0.09	0.09	0.08	0.06	0.07	0.07	0.09	0.08	0.07	0.07	0.07	0.06	0.08	0.07	-43.96
G. Liming																	
H. Urea application																	
I. Other carbon-containing fertilizers																	
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<b>4. Land use, land-use change and forestry</b>	48.19	47.07	45.92	43.63	41.32	39.01	36.71	35.46	34.26	33.06	31.84	30.60	30.59	30.61	30.61	30.63	-50.01
A. Forest land	45.66	44.52	43.32	40.96	38.59	36.22	33.90	32.64	31.42	30.20	28.95	27.72	27.72	27.73	27.70	27.76	-53.28
B. Cropland	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	IE,NA	0.00
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-68.02
D. Wetlands	2.52	2.55	2.60	2.67	2.73	2.78	2.80	2.82	2.84	2.85	2.89	2.88	2.87	2.88	2.90	2.86	55.13
E. Settlements	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	NE,NA	0.00
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00
G. Harvested wood products																	
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00
<b>5. Waste</b>	107.54	110.49	106.15	101.33	97.40	97.21	93.69	91.56	86.70	81.37	78.91	73.62	69.73	68.11	66.78	64.73	-64.62
A. Solid waste disposal	97.22	100.06	95.44	90.93	87.23	86.76	83.06	81.42	76.62	71.36	69.23	64.30	60.36	58.69	57.03	55.40	-68.00
B. Biological treatment of solid waste	3.06	3.17	3.47	3.26	3.28	3.42	3.49	3.06	3.12	3.10	2.76	2.50	2.59	2.71	3.14	2.86	177.91
C. Incineration and open burning of waste	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	0.00
D. Waste water treatment and discharge	7.25	7.26	7.24	7.14	6.89	7.03	7.14	7.08	6.96	6.91	6.93	6.82	6.79	6.71	6.61	6.47	-26.85
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<b>6. Other (as specified in summary I.A)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<b>Total CH<sub>4</sub> emissions without CH<sub>4</sub> from LULUCF</b>	223.32	225.69	220.70	214.12	211.48	214.00	207.13	205.04	199.69	195.80	194.28	189.15	184.44	181.76	179.71	176.08	-42.74
<b>Total CH<sub>4</sub> emissions with CH<sub>4</sub> from LULUCF</b>	271.51	272.76	266.62	257.75	252.81	253.01	243.84	240.50	233.95	228.85	226.12	219.75	215.03	212.37	210.32	206.70	-43.95
<b>Memo items:</b>																	
<b>International bunkers</b>	0.13	0.15	0.12	0.11	0.07	0.06	0.06	0.04	0.04	0.03	0.09	0.09	0.11	0.10	0.10	0.09	-38.05
Aviation	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	-18.18
Navigation	0.12	0.14	0.11	0.10	0.06	0.05	0.05	0.03	0.03	0.02	0.08	0.08	0.10	0.09	0.09	0.08	-38.86
<b>Multilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<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>(3)</sup></b>																	



TABLE 10 EMISSION TRENDS

N<sub>2</sub>O

(Sheet 4 of 6)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	(kt)															
<b>1. Energy</b>	1.82	1.82	1.80	1.80	1.90	1.98	1.96	2.08	2.11	2.08	2.05	1.99	2.13	2.20	2.30	2.24
A. Fuel combustion (sectoral approach)	1.81	1.81	1.80	1.79	1.89	1.97	1.95	2.08	2.11	2.08	2.05	1.99	2.13	2.20	2.30	2.24
1. Energy industries	0.39	0.39	0.42	0.46	0.52	0.60	0.61	0.72	0.71	0.71	0.69	0.67	0.83	0.95	1.07	1.01
2. Manufacturing industries and construction	0.56	0.56	0.52	0.48	0.53	0.55	0.54	0.55	0.61	0.59	0.61	0.61	0.59	0.56	0.56	0.59
3. Transport	0.54	0.54	0.55	0.54	0.53	0.53	0.52	0.51	0.49	0.47	0.46	0.43	0.42	0.39	0.37	0.35
4. Other sectors	0.29	0.29	0.28	0.29	0.28	0.26	0.25	0.26	0.26	0.27	0.26	0.24	0.26	0.26	0.26	0.26
5. Other	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.04
B. Fugitive emissions from fuels	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C. CO <sub>2</sub> transport and storage																
<b>2. Industrial processes</b>	5.56	5.56	4.86	4.42	4.61	4.85	4.94	4.94	4.88	4.66	4.56	4.59	4.34	4.47	4.69	4.97
A. Mineral industry																
B. Chemical industry	5.34	5.34	4.64	4.20	4.39	4.63	4.72	4.72	4.66	4.44	4.34	4.40	4.17	4.30	4.54	4.83
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E. Electronic industry																
F. Product uses as ODS substitutes																
G. Other product manufacture and use	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.18	0.17	0.16	0.15	0.14
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Agriculture</b>	13.65	13.65	13.25	12.26	12.53	12.58	12.58	12.61	12.71	12.36	12.27	12.56	12.29	12.22	12.31	12.37
A. Enteric fermentation																
B. Manure management	0.95	0.95	0.89	0.87	0.87	0.88	0.85	0.87	0.89	0.87	0.85	0.84	0.84	0.84	0.85	0.84
C. Rice cultivation																
D. Agricultural soils	12.70	12.70	12.37	11.39	11.66	11.70	11.73	11.74	11.82	11.48	11.42	11.71	11.45	11.38	11.45	11.53
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G. Liming																
H. Urea application																
I. Other carbon containing fertilizers																
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Land use, land-use change and forestry</b>	7.15	7.15	7.15	7.14	7.13	7.17	7.17	7.18	7.21	7.22	7.22	7.22	7.22	7.20	7.18	7.16
A. Forest land	6.85	6.85	6.84	6.83	6.82	6.85	6.85	6.85	6.87	6.88	6.87	6.86	6.86	6.84	6.81	6.79
B. Cropland	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Wetlands	0.23	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28
E. Settlements	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.06
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G. Harvested wood products																
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I. Other	0.32	0.32	0.32	0.31	0.32	0.31	0.33	0.34	0.33	0.34	0.35	0.36	0.36	0.36	0.38	0.39
<b>5. Waste</b>	0.06	0.06	0.07	0.08	0.08	0.09	0.10	0.11	0.12	0.12	0.13	0.14	0.14	0.15	0.16	0.16
A. Solid waste disposal	0.06	0.06	0.07	0.08	0.08	0.09	0.10	0.11	0.12	0.12	0.13	0.14	0.14	0.15	0.16	0.16
B. Biological treatment of solid waste	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE
C. Incineration and open burning of waste	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE
D. Waste water treatment and discharge	0.26	0.26	0.25	0.24	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.22	0.23
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Other (as specified in summary 1.A)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Total direct N<sub>2</sub>O emissions without N<sub>2</sub>O from LULUCF</b>	21.35	21.35	20.24	18.80	19.35	19.72	19.81	19.97	20.04	19.44	19.23	19.49	19.13	19.25	19.67	19.98
<b>Total direct N<sub>2</sub>O emissions with N<sub>2</sub>O from LULUCF</b>	28.50	28.50	27.39	25.93	26.49	26.89	26.98	27.15	27.25	26.66	26.45	26.71	26.35	26.45	26.86	27.14
<b>Memo items:</b>																
International bunkers	0.08	0.08	0.07	0.08	0.07	0.06	0.05	0.06	0.06	0.07	0.08	0.08	0.08	0.08	0.08	0.07
Aviation	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Navigation	0.05	0.05	0.05	0.06	0.05	0.04	0.03	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.05	0.04
Multilateral operations	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
CO <sub>2</sub> emissions from biomass																
CO <sub>2</sub> captured																
Long-term storage of C in waste disposal sites																
Indirect N <sub>2</sub> O	1.41	1.41	1.38	1.34	1.36	1.36	1.26	1.28	1.26	1.19	1.17	1.11	1.13	1.11	1.15	1.09
Indirect CO <sub>2</sub> <sup>(3)</sup>																

Note: All footnotes for this table are given at the end of the table on sheet 6.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change from base to latest reported year
	(kt)																%
<b>Energy</b>	1.99	2.18	2.15	2.01	1.89	2.18	2.04	1.96	1.96	1.88	1.82	1.93	1.88	1.99	1.95	1.75	-3.39
A. Fuel combustion (sectoral approach)	1.99	2.18	2.15	2.01	1.89	2.18	2.03	1.96	1.96	1.88	1.81	1.92	1.88	1.99	1.95	1.75	-3.30
1. Energy industries	0.83	1.07	1.07	0.99	0.95	1.17	1.08	0.99	1.00	0.92	0.84	0.89	0.85	0.94	0.91	0.78	99.72
2. Manufacturing industries and construction	0.55	0.52	0.50	0.48	0.40	0.45	0.43	0.43	0.44	0.44	0.46	0.51	0.51	0.53	0.52	0.47	-16.84
3. Transport	0.33	0.31	0.30	0.28	0.27	0.27	0.27	0.26	0.27	0.27	0.27	0.28	0.28	0.29	0.29	0.29	-46.69
4. Other sectors	0.25	0.25	0.25	0.23	0.24	0.27	0.23	0.24	0.23	0.23	0.21	0.23	0.22	0.21	0.21	0.20	-32.86
5. Other	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-22.63
B. Fugitive emissions from fuels	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	-44.65
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
2. Oil and natural gas and other emissions from	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	-44.65
C. CO <sub>2</sub> transport and storage																	
<b>Industrial processes</b>	5.41	4.79	4.91	5.22	2.66	6.65	6.54	6.64	6.80	6.78	6.95	6.82	6.86	6.79	6.75	6.82	-85.34
A. Mineral industry																	
B. Chemical industry	5.24	4.64	4.77	5.09	2.56	6.54	6.44	6.54	6.71	6.69	6.87	6.73	6.77	6.71	6.69	6.76	-85.77
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
D. Non-energy products from fuels and solvent use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-54.79
E. Electronic industry																	
F. Product uses as ODS substitutes																	
G. Other product manufacture and use	0.16	0.14	0.13	0.13	0.10	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.09	0.08	0.06	0.05	-75.56
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<b>Agriculture</b>	12.44	12.24	12.37	12.73	12.45	12.78	12.58	12.54	12.46	12.75	12.78	12.80	12.74	12.59	13.08	12.88	-5.66
A. Enteric fermentation																	
B. Manure management	0.85	0.85	0.86	0.86	0.91	0.94	0.93	0.96	0.95	0.96	0.97	0.97	0.95	0.94	0.94	0.91	-4.53
C. Rice cultivation																	
D. Agricultural soils	11.59	11.38	11.51	11.87	11.54	11.84	11.65	11.58	11.51	11.78	11.80	11.83	11.79	11.64	12.15	11.97	-5.73
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
F. Field burning of agricultural residues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-43.96
G. Liming																	
H. Urea application																	
I. Other carbon containing fertilizers																	
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<b>Land use, land-use change and forestry</b>	7.14	7.15	7.13	7.15	7.09	7.06	7.03	6.95	6.90	6.85	6.78	6.74	6.77	6.78	6.78	6.79	-5.14
A. Forest land	6.77	6.76	6.74	6.75	6.68	6.64	6.60	6.52	6.46	6.40	6.34	6.29	6.33	6.34	6.35	6.36	-7.21
B. Cropland	0.02	0.03	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	8.52
C. Grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.09
D. Wetlands	0.29	0.29	0.30	0.30	0.31	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	40.81
E. Settlements	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.07	0.07	0.07	0.07	70.00
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00
G. Harvested wood products																	
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00
<b>Waste</b>	0.42	0.42	0.44	0.43	0.42	0.44	0.45	0.43	0.42	0.42	0.40	0.38	0.38	0.39	0.42	0.40	24.78
A. Solid waste disposal																	
B. Biological treatment of solid waste	0.18	0.19	0.20	0.19	0.19	0.20	0.20	0.17	0.17	0.17	0.15	0.13	0.13	0.14	0.17	0.15	136.24
C. Incineration and open burning of waste	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	NO,NE,IE	0.00
D. Waste water treatment and discharge	0.23	0.23	0.24	0.25	0.23	0.25	0.25	0.26	0.25	0.25	0.25	0.26	0.25	0.25	0.25	0.25	-2.02
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<b>Other (as specified in summary 1.A)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<b>War direct N<sub>2</sub>O emissions without N<sub>2</sub>O from LULUCF</b>	20.25	19.63	19.87	20.40	17.42	16.05	15.61	15.57	15.64	15.83	15.95	15.93	15.87	15.76	16.20	15.84	-25.78
<b>Total direct N<sub>2</sub>O emissions with N<sub>2</sub>O from LULUCF</b>	27.40	26.78	26.99	27.55	24.51	23.11	22.64	22.53	22.54	22.68	22.73	22.66	22.65	22.55	22.98	22.63	-20.60
<b>Items:</b>																	
<b>International bunkers</b>	0.08	0.08	0.08	0.08	0.06	0.06	0.07	0.06	0.06	0.06	0.08	0.07	0.08	0.09	0.09	0.05	-38.14
Aviation	0.04	0.04	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.07	0.02	-13.73
Maritime	0.04	0.04	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.02	-52.14
<b>Unilateral operations</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00
<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>	0.95	1.03	0.97	0.89	0.81	0.85	0.77	0.73	0.72	0.68	0.62	0.60	0.58	0.56	0.53	0.46	-67.44
<b>Indirect CO<sub>2</sub> (3)</b>																	





## Annex 2

CTF Tables for financial, technological  
and capacity-building support

7(2019), 7(2020), 7(a)\_2019, 7(a)\_2020, 7(b)\_2019,  
7(b)\_2020, 8 and 9

**Provision of public financial support: summary information in 2019<sup>a</sup>**

Allocation channels	Year									
	European euro - EUR					USD <sup>b</sup>				
	Core/ general <sup>c,1</sup>	Climate-specific <sup>d,2</sup>				Core/ general <sup>c,1</sup>	Climate-specific <sup>d,2</sup>			
		Mitigation	Adaptation	Cross-cutting <sup>e</sup>	Other <sup>f</sup>		Mitigation	Adaptation	Cross-cutting <sup>e</sup>	Other <sup>f</sup>
<b>Total contributions through multilateral channels:</b>	236,475,496.00	46,957,400.00		64,767,716.00		264,721,250.30	52,566,214.00		72,503,877.50	
Multilateral climate change funds <sup>g</sup>	80,337,000.00	46,957,400.00		28,550,000.00		89,932,832.00	52,566,214.00		31,960,147.00	
Other multilateral climate change funds <sup>h</sup>	53,400,000.00	46,000,000.00		6,400,000.00		59,778,349.00	51,494,458.00		7,164,446.00	
Multilateral financial institutions, including regional development banks	93,737,307.00			20,947,538.00		104,933,735.00			23,449,610.00	
Specialized United Nations bodies	62,401,189.00			15,270,178.00		69,854,683.30			17,094,120.50	
<b>Total contributions through bilateral, regional and other channels</b>		10,466,544.00	1,932,239.00	22,113,688.00			11,716,716.00	2,163,034.00	24,755,050.00	
<b>Total</b>	236,475,496.00	57,423,944.00	1,932,239.00	86,881,404.00		264,721,250.30	64,282,930.00	2,163,034.00	97,258,927.50	

Note: Explanation of numerical footnotes is provided in the documentation box after tables 7, 7(a) and 7(b).

Abbreviation: USD = United States dollars.

<sup>a</sup> Parties should fill in a separate table for each year, namely 2015 and 2016, where 2018 is the reporting year.

<sup>b</sup> Parties should provide an explanation of the methodology used for currency exchange for the information provided in tables 7, 7(a) and 7(b) in the documentation box.

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

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

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

<sup>f</sup> Please specify.

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

<sup>h</sup> Other multilateral climate change funds as referred in paragraph 17(b) of the “UNFCCC biennial reporting guidelines for developed country Parties” in decision 2/CP.17.

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

1: Core/general
Overall/unearmarked support to a given organization
2: Climate-specific
Share of Finnish core/general funding that is directed to mitigation and/or adaptation (= the share Finland reports as climate finance)
3: Status
Finland reports only disbursed amounts of climate finance
4: Funding source
Finland's climate finance is part of its official development assistance (ODA) flows, as defined by OECD/DAC.
5: Financial instrument
Finland reports financial instrument as defined by OECD/DAC.
6: Type of support
Mitigation and Adaptation based on OECD Rio markers, cross-cutting when support covers both mitigation and adaptation.
7: Sector
As defined by OECD/DAC.
Each Party shall provide an indication of what new and additional financial resources they have provided, and clarify how they have determined that such resources are new and additional. Please provide this information in relation to table 7(a) and (b).
In 2020 Finland's public climate finance to developing countries totaled EUR 131 million, which compared to 147 million in 2019, 47 million in 2018, 119 million in 2017 and 43 million in 2016 continues on a growing track. Climate finance is part of Finland's official ODA budget. The total ODA budget was EUR 1122 million in 2020, EUR 1010 million in 2019 and EUR 833 million in 2018. Out of the total ODA, the share of climate finance was 6% in 2018, 15% in 2019, and 12% in 2020. Even though there was a slight drop in 2020, climate finance is on a growing trajectory. Furthermore, when taking into account the planned figures until 2025, the current government has been able to grow climate finance 80% compared to the previous government (2015-2018).

Table 7

**Provision of public financial support: summary information in 2020<sup>a</sup>**

Allocation channels	Year									
	European euro - EUR					USD <sup>b</sup>				
	Core/general <sup>c, 1</sup>	Climate-specific <sup>d, 2</sup>				Core/general <sup>c, 1</sup>	Climate-specific <sup>d, 2</sup>			
Mitigation		Adaptation	Cross-cutting <sup>e</sup>	Other <sup>f</sup>	Mitigation		Adaptation	Cross-cutting <sup>e</sup>	Other <sup>f</sup>	
<b>Total contributions through multilateral channels:</b>	186,194,338.00	900,000.00	7,300,000.00	84,164,149.00		212,187,276.00	1,025,641.00	8,319,087.00	95,913,557.50	
Multilateral climate change funds <sup>g</sup>	51,050,000.00		7,000,000.00	37,498,000.00		58,176,636.00		7,977,207.00	42,732,762.00	
Other multilateral climate change funds <sup>h</sup>	8,900,000.00			8,900,000.00		10,142,450.00			10,142,450.00	
Multilateral financial institutions, including regional development banks	113,006,046.00	900,000.00		41,224,734.00		128,781,817.00	1,025,641.00		46,979,753.00	
Specialized United Nations bodies	22,138,292.00		300,000.00	5,441,415.00		25,228,823.00		341,880.00	6,201,042.50	
<b>Total contributions through bilateral, regional and other channels</b>		26,990,313.00	4,000,476.00	9,358,605.00			30,758,192.00	4,558,947.00	10,665,078.00	
<b>Total</b>	186,194,338.00	27,890,313.00	11,300,476.00	93,522,754.00		212,187,276.00	31,783,833.00	12,878,034.00	106,578,635.50	

Note: Explanation of numerical footnotes is provided in the documentation box after tables 7, 7(a) and 7(b).

Abbreviation: USD = United States dollars.

- <sup>a</sup> Parties should fill in a separate table for each year, namely 2015 and 2016, where 2018 is the reporting year.
- <sup>b</sup> Parties should provide an explanation of the methodology used for currency exchange for the information provided in tables 7, 7(a) and 7(b) in the documentation box.
- <sup>c</sup> This refers to support to multilateral institutions that Parties cannot specify as being climate-specific.
- <sup>d</sup> Parties should explain in their biennial reports how they define funds as being climate-specific.
- <sup>e</sup> This refers to funding for activities that are cross-cutting across mitigation and adaptation.
- <sup>f</sup> Please specify.
- <sup>g</sup> Multilateral climate change funds listed in paragraph 17(a) of the “UNFCCC biennial reporting guidelines for developed country Parties” in decision 2/CP.17.
- <sup>h</sup> Other multilateral climate change funds as referred in paragraph 17(b) of the “UNFCCC biennial reporting guidelines for developed country Parties” in decision 2/CP.17.

**Custom Footnotes**

**Documentation Box:**

1: Core/general
Overall/unearmarked support to a given organization
2: Climate-specific
Share of Finnish core/general funding that is directed to mitigation and/or adaptation (= the share Finland reports as climate finance)
3: Status
Finland reports only disbursed amounts of climate finance
4: Funding source
Finland’s climate finance is part of its official development assistance (ODA) flows, as defined by OECD/DAC.
5: Financial instrument
Finland reports financial instrument as defined by OECD/DAC.
6: Type of support
Mitigation and Adaptation based on OECD Rio markers, cross-cutting when support covers both mitigation and adaptation.
7: Sector
As defined by OECD/DAC.
Each Party shall provide an indication of what new and additional financial resources they have provided, and clarify how they have determined that such resources are new and additional. Please provide this information in relation to table 7(a) and (b).
In 2020 Finland's public climate finance to developing countries totaled EUR 131 million, which compared to 147 million in 2019, 47 million in 2018, 119 million in 2017 and 43 million in 2016 continues on a growing track. Climate finance is part of Finland's official ODA budget. The total ODA budget was EUR 1122 million in 2020, EUR 1010 million in 2019 and EUR 833 million in 2018. Out of the total ODA, the share of climate finance was 6% in 2018, 15 % in 2019, and 12 % in 2020. Even though there was a slight drop in 2020, climate finance is on a growing trajectory. Furthermore, when taking into account the planned figures until 2025, the current government has been able to grow climate finance 80 % compared to the previous government (2015-2018).



**Provision of public financial support: contribution through multilateral channels in 2019<sup>a</sup>**

Donor funding	Total amount				Status <sup>b,3</sup>	Funding source <sup>f,4</sup>	Financial instrument <sup>f,5</sup>	Type of support <sup>f,6</sup>	Sector <sup>c,f,7</sup>
	Core/general <sup>d,1</sup>		Climate-specific <sup>e,2</sup>						
	European euro - EUR	USD	European euro - EUR	USD					
Total contributions through multilateral channels (1)	236,475,496.00	264,721,250.30	111,725,116.00	125,070,091.50					
Multilateral climate change funds	80,337,000.00	89,932,832.00	75,507,400.00	84,526,361.00					
1. Global Environment Facility	4,787,000.00	5,358,782.00	957,400.00	1,071,756.00	Disbursed	Oda	Grant	Mitigation	Cross-cutting
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund	22,150,000.00	24,795,701.00	22,150,000.00	24,795,701.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
6. UNFCCC Trust Fund for Supplementary Activities									
7. Other multilateral climate change funds	53,400,000.00	59,778,349.00	52,400,000.00	58,658,904.00					
Finland-IFC Blended Finance for Climate Program	46,000,000.00	51,494,458.00	46,000,000.00	51,494,458.00	Disbursed	Oda	Equity	Mitigation	Cross-cutting
Other multilateral climate change funds (2)	7,400,000.00	8,283,891.00	6,400,000.00	7,164,446.00	Disbursed	ODA	Grant	Cross-cutting	Cross-cutting
Multilateral financial institutions, including regional development banks	93,737,307.00	104,933,735.00	20,947,538.00	23,449,610.00					
1. World Bank	62,590,000.00	70,066,047.00	10,030,400.00	11,228,478.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
2. International Finance Corporation									
3. African Development Bank	28,647,307.00	32,069,077.00	9,167,138.00	10,262,104.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
4. Asian Development Bank	2,500,000.00	2,798,611.00	1,750,000.00	1,959,028.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
5. European Bank for Reconstruction and Development									
6. Inter-American Development Bank									
7. Other									
Specialized United Nations bodies	62,401,189.00	69,854,683.30	15,270,178.00	17,094,120.50					
1. United Nations Development Programme									
2. United Nations Environment Programme	1,500,000.00	1,679,167.00	300,000.00	335,833.00					
Total	1,500,000.00	1,679,167.00	300,000.00	335,833.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
3. Other	60,901,189.00	68,175,516.30	14,970,178.00	16,758,287.50					
Food and Agricultural Organization	700,000.00	783,611.30	560,000.00	626,889.10	Disbursed	Oda	Grant	Cross-cutting	Forestry
International Fund for Agricultural Development	52,000,000.00	58,211,127.00	13,000,000.00	14,552,782.00	Disbursed	Oda	Other (Grant, Concessional Loan)	Cross-cutting	Agriculture
United Nations Children's Fund	5,300,000.00	5,933,057.00	630,000.00	705,250.20	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
United Nations International Strategy for Disaster Reduction	1,000,000.00	1,119,445.00	100,000.00	111,944.50	Disbursed	Oda	Grant	Cross-cutting	Not Applicable
Other multilateral	1,901,189.00	2,128,276.00	680,178.00	761,421.70	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting

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

<sup>a</sup> Parties should fill in a separate table for each year, namely 2015 and 2016, where 2018 is the reporting year.

<sup>b</sup> Parties should explain, in their biennial reports, the methodologies used to specify the funds as disbursed and committed. Parties will provide the information for as many status categories as appropriate in the following order of priority: disbursed and committed.

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

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

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

<sup>f</sup> Please specify.

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

**Custom Footnotes**

(1) Domestic currency is EUR. 1 USD = EUR 0.8933 (2019), 1 USD = EUR 0.8775 (2020)

(2) Other multilateral climate change funds (2019): Includes disbursement of 0.5 million EUR/ 0.5 million EUR climate specific, NEFCO, recipient country Ukraine

(3) Other multilateral climate change funds (2020): Includes disbursement of 0.5 million EUR / 0.5 million EUR climate specific, NEFCO, recipient country Ukraine

(4) European Bank for Reconstruction and Development (2020): Includes disbursement of 1 million EUR / 0.9 million EUR climate specific, ERBD, partly recipient country Ukraine

Provision of public financial support: contribution through multilateral channels in 2020<sup>a</sup>

Donor funding	Total amount				Status <sup>b,3</sup>	Funding source <sup>f,4</sup>	Financial instrument <sup>f,5</sup>	Type of support <sup>f,8,6</sup>	Sector <sup>c,f,7</sup>
	Core/general <sup>d,1</sup>		Climate-specific <sup>e,2</sup>						
	European euro - EUR	USD	European euro - EUR	USD					
Total contributions through multilateral channels	186,194,338.00	212,187,276.00	92,364,149.00	105,258,285.50					
Multilateral climate change funds	51,050,000.00	58,176,636.00	44,498,000.00	50,709,969.00					
1. Global Environment Facility	8,190,000.00	9,333,333.00	1,638,000.00	1,866,666.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
2. Least Developed Countries Fund	7,000,000.00	7,977,207.00	7,000,000.00	7,977,207.00	Disbursed	Oda	Grant	Adaptation	Cross-cutting
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund	26,960,000.00	30,723,646.00	26,960,000.00	30,723,646.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
6. UNFCCC Trust Fund for Supplementary Activities									
7. Other multilateral climate change funds	8,900,000.00	10,142,450.00	8,900,000.00	10,142,450.00					
Other multilateral climate change funds (3)	8,900,000.00	10,142,450.00	8,900,000.00	10,142,450.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
Multilateral financial institutions, including regional development banks	113,006,046.00	128,781,817.00	42,124,734.00	48,005,394.00					
1. World Bank	57,980,000.00	66,074,074.00	9,456,800.00	10,776,980.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
2. International Finance Corporation	740,000.00	843,304.00	740,000.00	843,304.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
3. African Development Bank	25,806,046.00	29,408,599.00	8,297,934.00	9,456,335.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
4. Asian Development Bank	22,500,000.00	25,641,025.00	17,750,000.00	20,227,920.00	Disbursed	Oda	Other (Grant, Equity)	Cross-cutting	Cross-cutting
5. European Bank for Reconstruction and Development (4)	1,000,000.00	1,139,601.00	900,000.00	1,025,641.00	Disbursed	Oda	Grant	Mitigation	Cross-cutting
6. Inter-American Development Bank									
7. Other	4,980,000.00	5,675,214.00	4,980,000.00	5,675,214.00					
7. Other - Total	4,980,000.00	5,675,214.00	4,980,000.00	5,675,214.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
Specialized United Nations bodies	22,138,292.00	25,228,823.00	5,741,415.00	6,542,922.50					
1. United Nations Development Programme	1,000,000.00	1,139,601.00	300,000.00	341,880.00					
Total	1,000,000.00	1,139,601.00	300,000.00	341,880.00	Disbursed	Oda	Grant	Adaptation	Cross-cutting
2. United Nations Environment Programme	5,500,000.00	6,267,806.00	1,100,000.00	1,253,561.00					
Total	5,500,000.00	6,267,806.00	1,100,000.00	1,253,561.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
3. Other	15,638,292.00	17,821,416.00	4,341,415.00	4,947,481.50					
Food and Agricultural Organization	2,350,000.00	2,678,063.00	1,632,500.00	1,860,399.00	Disbursed	Oda	Grant	Cross-cutting	Forestry
International Fund for Agricultural Development	3,500,000.00	3,988,604.00	875,000.00	997,151.00	Disbursed	Oda	Grant	Cross-cutting	Agriculture
United Nations Children's Fund	5,800,000.00	6,609,687.00	980,000.00	1,116,809.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting
United Nations International Strategy for Disaster Reduction	2,000,000.00	2,279,202.00	200,000.00	227,920.20	Disbursed	Oda	Grant	Cross-cutting	Not Applicable
Other multilateral	1,988,292.00	2,265,860.00	653,915.00	745,202.30	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting

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

<sup>a</sup> Parties should fill in a separate table for each year, namely 2015 and 2016, where 2018 is the reporting year.

<sup>b</sup> Parties should explain, in their biennial reports, the methodologies used to specify the funds as disbursed and committed. Parties will provide the information for as many status categories as appropriate in the following order of priority: disbursed and committed.

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

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

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

<sup>f</sup> Please specify.

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

**Custom Footnotes**

(1) Domestic currency is EUR. 1 USD = EUR 0.8933 (2019), 1 USD = EUR 0.8775 (2020)

(2) Other multilateral climate change funds (2019): Includes disbursement of 0.5 million EUR / 0.5 million EUR climate specific, NEFCO, recipient country Ukraine

(3) Other multilateral climate change funds (2020): Includes disbursement of 0.5 million EUR / 0.5 million EUR climate specific, NEFCO, recipient country Ukraine

(4) European Bank for Reconstruction and Development (2020): Includes disbursement of 1 million EUR / 0.9 million EUR climate specific, ERBD, partly recipient country Ukraine

Table 7(b)

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**Provision of public financial support: contribution through bilateral, regional and other channels in 2019<sup>a</sup>**

Recipient country/ region/project/programme <sup>b</sup>	Total amount		Status <sup>c, 3</sup>	Funding source <sup>g, 4</sup>	Financial instrument <sup>g, 5</sup>	Type of support <sup>g, h, 6</sup>	Sector <sup>d, g, 7</sup>	Additional information <sup>e</sup>
	Climate-specific <sup>f, 2</sup>							
	European euro - EUR	USD						
Total contributions through bilateral, regional and other channels (1) (2)	34,512,471.00	38,634,800.00						
Sierra Leone / ODA equity through Finnfund	9,889,722.00	11,070,997.00	Disbursed		Equity	Cross-cutting	Other (capacity Building)	
Serbia / ODA equity through Finnfund	7,904,000.00	8,848,091.00	Disbursed		Equity	Mitigation	Energy	
Nepal / ODA equity through Finnfund	1,672,740.00	1,872,540.00	Disbursed		Equity	Cross-cutting	Energy	
Asia, regional / Energy and Environment Partnership Programme with the Mekong Region	1,658,030.00	1,856,072.00	Disbursed		Grant	Mitigation	Energy	
Viet Nam / Uppgrading the Rainfall Storm and Lightening Detection Capabilities of National Hydro-Meteorological Service	1,456,458.00	1,630,424.00	Disbursed		Other (Interest Subsidy)	Adaptation	Other (capacity Building)	
Tanzania / Forestry and Value Chains Development FORVAC	987,680.00	1,105,653.00	Disbursed		Grant	Cross-cutting	Forestry	
Africa / Africa, regional / ODA equity through Finnfund	904,514.00	1,012,553.00	Disbursed		Equity	Mitigation	Other (capacity Building)	
Africa / Africa, regional / ODA equity through Finnfund	841,324.00	941,815.00	Disbursed	Oda	Equity	Cross-cutting	Forestry	
Nepal / Rural Village Water Resources Management Project (III phase)	767,068.00	858,690.00	Disbursed		Grant	Cross-cutting	Water And Sanitation	
Honduras / HN/Rural Electrification project ESSE-FN-2008	475,781.00	532,610.00	Disbursed		Other (Interest Subsidy)	Adaptation	Energy	
Asia, regional / ODA equity through Finnfund	427,154.00	478,175.00	Disbursed		Equity	Cross-cutting	Forestry	
/ Other bilateral climate change related programs	7,528,000.00	8,427,180.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting	

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

<sup>a</sup> Parties should fill in a separate table for each year, namely 2015 and 2016, where 2018 is the reporting year.

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

<sup>c</sup> Parties should explain, in their biennial reports, the methodologies used to specify the funds as disbursed and committed.

Parties will provide the information for as many status categories as appropriate in the following order of priority: disbursed and committed.

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

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

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

<sup>g</sup> Please specify.

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

**Custom Footnotes**

(1) Domestic currency is EUR. 1 USD = EUR 0.8933 (2019), 1 USD = EUR 0.8775 (2020)

(2) Domestic currency is EUR. 1 USD = EUR 0.8933 (2019), 1 USD = EUR 0.8775 (2020)

Table 7(b)

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**Provision of public financial support: contribution through bilateral, regional and other channels in 2020<sup>a</sup>**

Recipient country/ region/project/programme <sup>b</sup>	Total amount		Status <sup>c, 3</sup>	Funding source <sup>g, 4</sup>	Financial instrument <sup>g, 5</sup>	Type of support <sup>g, h, 6</sup>	Sector <sup>d, g, 7</sup>	Additional information <sup>e</sup>
	Climate-specific <sup>f, 2</sup>							
	European euro - EUR	USD						
Total contributions through bilateral, regional and other channels	40,349,394.00	45,982,217.00						
Africa / Africa, regional / Finnfund	19,289,605.00	21,982,456.00	Disbursed	Oda	Equity	Mitigation	Other (capacity Building)	
Africa / Africa, regional / Finnfund	6,009,967.00	6,848,965.00	Disbursed	Oda	Equity	Mitigation	Forestry	
Asia, regional / Finnfund	1,188,380.00	1,354,280.00	Disbursed		Equity	Adaptation	Other (capacity Building)	
Myanmar / Finnfund	1,169,864.00	1,333,178.00	Disbursed		Equity	Adaptation	Other (capacity Building)	
India / Finnfund	1,000,000.00	1,139,601.00	Disbursed		Equity	Mitigation	Energy/transport	
Tanzania / The Ministry of Finance and Economic Affairs of Tanzania	931,662.00	1,061,724.00	Disbursed		Grant	Cross-cutting	Forestry	
Ethiopia / Recipient Government	760,000.00	866,096.00	Disbursed		Grant	Adaptation	Water And Sanitation	
Nepal / Other implementers	716,168.00	816,146.00	Disbursed		Grant	Cross-cutting	Water And Sanitation	
Developing countries, unspecified / Finnfund	690,741.00	787,170.00	Disbursed		Equity	Mitigation	Other (capacity Building)	
Tanzania / Other implementers	530,303.00	604,334.00	Disbursed		Grant	Cross-cutting	Forestry	
Africa / Africa, regional / Finnfund	381,498.00	434,756.00	Disbursed	Oda	Equity	Cross-cutting	Forestry	
Zambia / Other implementers	334,466.00	381,157.00	Disbursed		Grant	Cross-cutting	Agriculture	
Honduras / Other implementers	326,754.00	372,370.00	Disbursed		Other (Interest Subsidy)	Adaptation	Energy	
Viet Nam / Recipient Government	279,555.00	318,581.00	Disbursed		Other (Interest Subsidy)	Adaptation	Other (capacity Building)	
Ethiopia / F.a: Towards Resilient Communities	275,923.00	314,442.00	Disbursed		Grant	Adaptation	Water And Sanitation	
/ Other bilateral climate change related programs	6,464,508.00	7,366,961.00	Disbursed	Oda	Grant	Cross-cutting	Cross-cutting	

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

<sup>a</sup> Parties should fill in a separate table for each year, namely 2015 and 2016, where 2018 is the reporting year.

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

<sup>c</sup> Parties should explain, in their biennial reports, the methodologies used to specify the funds as disbursed and committed. Parties will provide the information for as many status categories as appropriate in the following order of priority: disbursed and committed.

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

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

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

<sup>g</sup> Please specify.

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

**Custom Footnotes**

(1) Domestic currency is EUR. 1 USD = EUR 0.8933 (2019), 1 USD = EUR 0.8775 (2020)

(2) Domestic currency is EUR. 1 USD = EUR 0.8933 (2019), 1 USD = EUR 0.8775 (2020)

Table 8

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

<i>Recipient country and/or region</i>	<i>Targeted area</i>	<i>Measures and activities related to technology transfer</i>	<i>Sector<sup>c</sup></i>	<i>Source of the funding for technology transfer</i>	<i>Activities undertaken by</i>	<i>Status</i>	<i>Additional information<sup>d</sup></i>
All regions: LDC, LIC & LMIC countries	Mitigation	Bilateral blended finance trust fund that invests equity and provides concessional loans to private sector climate mitigation projects that would not take place without slightly softer financial terms. Investments are targeted at LDC, LIC & LMIC countries. Technology providers and implementers of the project typically from elsewhere, bringing to these countries technology that is not there yet.	Energy	Public	Private	Implemented	Finland-IFC Blended Finance Climate Program, which channels government funds for equity, mezzanine and loan based investments for private sector renewable energy and energy efficiency projects. Some projects are implementation, while others are still planned.
All regions: mainly LDC, LIC & LMIC countries	Mitigation and Adaptation	Finland's national DFI is tasked to target minimum 50% of its annual new investments in climate mitigation and adaptation projects. Investments are mainly targeted at LDC, LIC & LMIC countries. Technology providers and implementers of the project typically from elsewhere, bringing to these countries technology that is not there yet.	Energy, Transport, Agriculture, Other (Forestry)	Public	Private	Implemented	Finnfund's climate investments are government funds used for equity, mezzanine and loan based investments to renewable energy, energy efficiency, forestry, agriculture, and transport sector projects. Activities ongoing, ie. Some projects implemented, others planned.
Viet Nam	Adaptation	Upgrade of the weather radar observation network, establishment of lightning detection network, installation and commissioning of the meteorological data visualization and automated forecast production system Smartmet which is an open source software developed by the Finnish Meteorological Institute (FMI).	Other (Meteorology)	Public	Private and Public	Implemented	The technology is provided by the Vaisala corporation, world's leading company for weather observation technology and products. The transfer of technology has been accompanied by comprehensive capacity building by the FMI.
ODA countries in Africa and Asia	Adaptation	Installation and/or commissioning of the meteorological data visualization and automated forecast production system SmartMet which is an open source software developed by the Finnish Meteorological Institute (FMI).	Other (Meteorology)	Public	Public	Implemented	The transfer of technology has been a part of the capacity building projects implemented by the FMI. Please see Table 9 as well Section 8.4 for the list of projects. Some projects on-going, some completed
ODA countries in Asia and the Pacific	Mitigation and Adaptation	Equity investments to start-ups and growth companies that create new technology and/or transfer new types of technological solutions to ODA recipient countries in Asia and the Pacific. 80% of the investments are done for climate tech (mitigation and adaptation)	Energy	Public	Private	Planned	Originally government funds, used for equity investments for start-up and growth companies through the ADB Ventures Investment Fund 1, in sectors such as renewable energy, energy efficiency, other cleantech and climatetech.

<sup>a</sup> To be reported to the extent possible.<sup>b</sup> The tables should include measures and activities since the last national communication or biennial report.<sup>c</sup> Parties may report sectoral disaggregation, as appropriate.<sup>d</sup> Additional information may include, for example, funding for technology development and transfer provided, a short description of the measure or activity and co-financing arrangements.**Custom Footnotes**

Table 9

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

<i>Recipient country/region</i>	<i>Targeted area</i>	<i>Programme or project title</i>	<i>Description of programme or project<sup>b,c</sup></i>
Sudan and South Sudan	Adaptation	Promoting Adaptation to Climate Change by Reducing Weather and Climate-Related Losses through Improved Services in Sudan and South Sudan	Institutional cooperation between the Finnish Meteorological Institute (FMI) and Sudan Meteorological Authority (SMA) and South Sudan Meteorological Department (SSMD)
Kyrgyzstan	Adaptation	Capacity Building in the Field of Meteorology, Finnish-Kyrgyzstan Meteorology Project	Institutional cooperation between the Finnish Meteorological Institute (FMI) and The Agency on hydrometeorology under the State Committee on Ecology and Climate of the Kyrgyz Republic (Kyrgyzhydromet)
Tajikistan	Adaptation	Capacity Building in the Field of Meteorology, Finnish-Tajikistan Meteorology Project	Institutional cooperation between the Finnish Meteorological Institute (FMI) and The Agency on Hydrometeorology of the Committee of Environment Protection under the Government of the Republic of Tajikistan (Tajikhydromet)
Nepal	Adaptation	Finnish-Nepalese Project for Improved Capability of the Government of Nepal to Respond to the Increased Risks Related to the Weather-related Natural Disasters Caused by Climate Change	Institutional cooperation between the Finnish Meteorological Institute (FMI) and Department of Meteorology and Hydrology (DHM) in Nepal
Viet Nam	Adaptation	Managed Aquifer Recharge to Ensure Sustainable Groundwater Availability and Quality under Ongoing Climate Change and Fast Economic Development in Vietnam	Institutional cooperation between the Geological Survey of Finland (GTK) and The Sub-Institute of HydroMeteorology and Climate Change (SIHYMECC) and the Center for Water Resources Warning and Forecast (CEWAFO)
Mozambique	Multiple Areas	Capacity building on novel approaches in sustainable management of forest and wood resources in Mozambique	Institutional cooperation between the Natural Resources Institute Finland (LUKE) and the Agrarian Research Institute of Mozambique (IIAM), Agrarian Research Institute of Mozambique (IIAM) and the Faculty of Agronomy and Forest Engineering of Eduardo Mondlane University (UEM-FAEF)
Viet Nam	Adaptation	Promoting the Modernisation of Hydrometeorological Services in Vietnam	Institutional cooperation between the Finnish Meteorological Institute (FMI) and Meteorological and Hydrological Administration of Viet Nam
Sudan	Adaptation	Improving the Adaptation to Climate Change by Enhancing Weather and Climate Services in	Institutional cooperation between the Finnish Meteorological Institute (FMI) and the Sudan Meteorological Authority

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

<sup>b</sup> Each Party included in Annex II to the Convention shall provide information, to the extent possible, on how it has provided capacity-building support that responds to the existing and emerging capacity-building needs identified by Parties not included in Annex I to the Convention in the areas of mitigation, adaptation and technology development and

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

**Custom Footnotes**

Complete list of projects in Chapter 8.4 of Finland's NC8. Please note that the Chapter 8.4. lists projects from 2017 to 2021.

## Annex 3

### Summary of reporting of the Supplementary information under Article 7, paragraph 2, of the Kyoto Protocol in the NC8

Information reported under Article 7, paragraph 2	NC8 section
National system in accordance with Article 5, paragraph 1	3.3
National registry	3.4
Supplementarity relating to the mechanisms pursuant to Article 6, 12 and 17	5.7
Policies and measures in accordance with Article 2	4, 7 and 8
Domestic and regional programmes and/or legislative arrangements and enforcement and administrative procedures	3.3, 3.4, 4.1 – 4.3
Information under Article 10	
Art 10a	3.3, 8.2.4
Art 10b	4.4, 4.5, 6.6 and 6.4
Art 10c	7.6
Art 10d	4.9, 8.3, 8.4
Art 10e	6.7, 8.3, 8.4, 9.3 and 9.4.
Financial resources	7



## Annex 4

Recommendation in FCCC/IDR.7/FIN	Finland's Response in NC8	Where in NC8
The ERT recommends that Finland provide in its next NC information regarding factors and activities [in the projections of GHG emission] for all sectors, including the assumptions for the forest industry and the renewable energy that it produces, to allow readers to gain a better understanding of the development trend by sector.	Finland has improved the transparency of reporting by providing information on factors and activities in the projections of greenhouse gas emissions for all sectors.	Sections 5.8.2

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ISBN 978-952-244-707-4 (pdf)