

ANNEXES TO THE LATVIA'S NATIONAL INVENTORY REPORT 1990-2020

Riga, 2022

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ANNEX 1: KEY CATEGORIES

Key categories identified automatically by the CRF Reporter Software according to the Approach 1 method are presented in the CRF Table 7. Nationally calculated analysis tables with numerical results according to Approach 1 and Approach 2 are presented below from Table A.1.1 to Table A.1.12.

The aggregation level of subcategories used in the analysis is generally based on the suggested aggregation level in the 2006 IPCC Guidelines. In Latvia's case list of IPCC categories is modified to reflect particular national circumstances, for example, types of fuels in transport, more disaggregated agricultural categories (by animal species) and more disaggregated LULUCF categories (by taking into account soil type etc.) Such modifications have been made to clarify key categories of Latvia. Key category analysis is an important element for planning and prioritization of necessary inventory improvements.

Indirect CO₂ emissions are not included in the key category analysis.

A.1.1. APPROACH 1 ANALYSIS FOR 1990 – LEVEL ASSESSMENT WITH LULUCF

(Hereinafter key categories are shaded grey)

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
4.A.1 Forest Land remaining Forest Land – Carbon stock change, living biomass	CO ₂	-17804.089	17804.089	0.349	35%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	3078.955	0.060	41%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	2657.607	0.052	46%
4.B.1 Cropland remaining Cropland – Carbon stock change, organic soil	CO ₂	2371.344	2371.344	0.047	51%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	2117.989	0.042	55%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	1722.391	0.034	58%
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	1615.023	0.032	62%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	1366.092	0.027	64%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	1066.131	0.021	66%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	1017.269	0.020	68%
4.C.1 Grassland remaining Grassland – Carbon stock change, organic soil	CO ₂	958.698	958.698	0.019	70%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CO ₂	855.360	855.360	0.017	72%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	782.443	0.015	73%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, organic soil	CO ₂	772.156	772.156	0.015	75%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	700.654	0.014	76%
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	622.514	0.012	78%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	586.626	0.012	79%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	564.767	0.011	80%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, dead wood	CO ₂	-539.448	539.448	0.011	81%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	536.766	0.011	82%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	N ₂ O	531.006	531.006	0.010	83%
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	526.803	0.010	84%
3.G. Liming	CO ₂	357.133	357.133	0.007	85%
2.A.1. Cement Production	CO ₂	345.783	345.783	0.007	85%
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	332.334	0.007	86%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	316.064	0.006	87%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	314.753	0.006	87%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	311.748	0.006	88%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	275.826	0.005	88%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	269.980	0.005	89%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	266.754	0.005	89%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	235.643	0.005	90%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	220.705	0.004	90%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, organic soils	CO ₂	211.968	211.968	0.004	91%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	211.145	0.004	91%
5.D.1 Domestic Wastewater	CH ₄	198.300	198.300	0.004	92%
4.B. Cropland 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.774	196.774	0.004	92%
4.C. Grassland – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.741	196.741	0.004	92%
1.B.2.b Natural Gas	CH ₄	177.238	177.238	0.003	93%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	175.098	0.003	93%
4. G. Harvested wood products	CO ₂	-166.113	166.113	0.003	93%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	150.166	0.003	94%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	145.786	0.003	94%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	144.762	0.003	94%
5.D.2 Industrial Wastewater	CH ₄	137.076	137.076	0.003	95%
2.A.2. Lime Production	CO ₂	121.915	121.915	0.002	95%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	120.666	0.002	95%
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	110.967	0.002	95%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	104.785	0.002	95%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	100.342	0.002	96%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	99.041	0.002	96%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	97.245	0.002	96%
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	92.154	0.002	96%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CH ₄	90.462	90.462	0.002	96%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	75.346	0.001	96%
4.E.2 Land converted to Settlements – Carbon stock change, living biomass	CO ₂	70.353	70.353	0.001	97%
1.B.2.c Venting and Flaring	CH ₄	70.344	70.344	0.001	97%
2.C.1 Iron and Steel Production	CO ₂	69.555	69.555	0.001	97%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	69.454	0.001	97%
2.A.4. Other process uses of carbonates	CO ₂	69.185	69.185	0.001	97%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, living biomass	CO ₂	-68.172	68.172	0.001	97%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	66.886	0.001	97%
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	65.585	0.001	98%
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	61.352	0.001	98%
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	61.201	0.001	98%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	52.541	0.001	98%
5.D.1 Domestic Wastewater	N ₂ O	50.413	50.413	0.001	98%
4.E.1 Settlements remaining Settlements – Carbon stock change, living biomass	CO ₂	-50.035	50.035	0.001	98%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	48.931	0.001	98%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	48.030	0.001	98%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CH ₄	44.523	44.523	0.001	98%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	43.267	0.001	98%
1.A.4.b Residential - Peat	CO ₂	42.549	42.549	0.001	99%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	40.269	0.001	99%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	39.135	0.001	99%
1.A.3.b Road Transportation - LPG	CO ₂	37.148	37.148	0.001	99%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	32.920	0.001	99%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	26.667	0.001	99%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	25.015	0.000	99%
4.A.1 Forest land remaining forest land – wildfires	CO ₂	24.350	24.350	0.000	99%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	23.542	0.000	99%
2.D.1 Lubricant Use	CO ₂	23.301	23.301	0.000	99%
4.A.1 Forest land remaining forest land – Controlled burning	CH ₄	22.635	22.635	0.000	99%
2.D.3. Solvent Use	CO ₂	20.973	20.973	0.000	99%
4.C.1 Grassland remaining Grassland – Carbon stock change, living biomass	CO ₂	-20.226	20.226	0.000	99%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	19.998	0.000	99%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	18.091	0.000	99%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	16.836	0.000	99%
5.B.1. Composting	CH ₄	16.689	16.689	0.000	99%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	16.404	0.000	99%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	16.265	0.000	99%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	16.004	0.000	99%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	15.704	0.000	99%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, dead organic matter	CO ₂	-13.091	13.091	0.000	100%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	12.485	0.000	100%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	12.226	0.000	100%
5.B.1. Composting	N ₂ O	11.936	11.936	0.000	100%
4.E.2 Land converted to Settlements – Carbon stock change, organic soils	CO ₂	10.644	10.644	0.000	100%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	N ₂ O	9.815	9.815	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	9.150	0.000	100%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.944	0.000	100%
4.C.2 Land converted to Grassland – Carbon stock change, organic soil	CO ₂	8.219	8.219	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	8.109	0.000	100%
3.H. Urea Application	CO ₂	7.709	7.709	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	7.163	0.000	100%
4.B.2 Land converted to Cropland – Carbon stock change, organic soil	CO ₂	6.838	6.838	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	6.796	0.000	100%
4.A.2 Land Converted to Forest Land – Carbon stock change, dead wood	CO ₂	-6.793	6.793	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	6.666	0.000	100%
4.B.1 Cropland remaining Cropland – Carbon stock change, living biomass	CO ₂	-6.458	6.458	0.000	100%
4.A.2 Land Converted to Forest Land – Carbon stock change, litter	CO ₂	-6.449	6.449	0.000	100%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	6.220	0.000	100%
4.E.1 Settlements remaining Settlements – Carbon stock change, dead organic matter	CO ₂	-5.815	5.815	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	5.286	0.000	100%
2.G.3. N ₂ O from product uses	N ₂ O	4.838	4.838	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	4.652	0.000	100%
4.C.1 Grassland remaining Grassland – Carbon stock change, dead organic matter	CO ₂	-3.884	3.884	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	3.728	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	3.218	0.000	100%
1.A.4.b Residential - Peat	CH ₄	3.188	3.188	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	3.079	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	3.023	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	3.005	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	2.863	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	2.688	0.000	100%
4.A.1 Forest land remaining forest land – Controlled burning	N ₂ O	2.654	2.654	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	2.607	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	CH ₄	2.396	2.396	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	2.341	2.341	0.000	100%
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	2.320	0.000	100%
4.E.2 Lands converted to settlements – Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	2.237	2.237	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	1.774	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	1.697	0.000	100%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CH ₄	1.480	1.480	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.454	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	1.437	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	1.302	0.000	100%
4.B.1 Cropland remaining Cropland – Carbon stock change, dead organic matter	CO ₂	-1.240	1.240	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	1.205	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	1.030	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.998	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	0.842	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.782	0.000	100%
4.A.2 Land converted to Forest Land – Carbon stock change, living biomass	CO ₂	-0.755	0.755	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.745	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.702	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.629	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.628	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.626	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.618	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.616	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.589	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.575	0.000	100%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CO ₂	0.558	0.558	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.547	0.000	100%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	0.520	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.501	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.483	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.478	0.000	100%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	0.455	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.423	0.000	100%
2.A.3. Glass production	CO ₂	0.356	0.356	0.000	100%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	0.327	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.318	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.296	0.000	100%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	0.287	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.285	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	N ₂ O	0.281	0.281	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.273	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.272	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.267	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.264	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.259	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.239	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.233	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.213	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	0.198	0.000	100%
1.A.4.b Residential - Peat	N ₂ O	0.186	0.186	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.181	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.173	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.171	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.171	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.168	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.149	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.143	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.127	0.000	100%
4.D.2 Land Converted to Wetland - Carbon stock change, organic soils	CO ₂	0.125	0.125	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.124	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.119	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.107	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.101	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.095	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.089	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.081	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.079	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.076	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.069	0.000	100%
2.C.1 Iron and Steel Production	CH ₄	0.069	0.069	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.068	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.058	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.057	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.054	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	N ₂ O	0.054	0.054	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.054	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.050	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	CH ₄	0.050	0.050	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.048	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.043	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.036	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.034	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.032	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.030	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.025	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.023	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.018	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.015	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.014	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.013	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	0.013	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.012	0.012	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.011	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.011	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.009	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	0.008	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	0.007	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	0.005	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.003	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.003	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.001	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.001	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.0005	0.0005	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	0.0002	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.0001	0.0001	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	0.00001	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	0.000002	0.000	100%

A.1.2. APPROACH 1 ANALYSIS FOR 1990 – LEVEL ASSESSMENT WITHOUT LULUCF

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	3078.955	0.119	12%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	2657.607	0.103	22%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	2117.989	0.082	30%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	1722.391	0.067	37%
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	1615.023	0.062	43%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	1366.092	0.053	49%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	1066.131	0.041	53%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	1017.269	0.039	57%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	782.443	0.030	60%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	700.654	0.027	62%
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	622.514	0.024	65%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	586.626	0.023	67%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	564.767	0.022	69%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	536.766	0.021	71%
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	526.803	0.020	73%
3.G. Liming	CO ₂	357.133	357.133	0.014	75%
2.A.1. Cement Production	CO ₂	345.783	345.783	0.013	76%
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	332.334	0.013	77%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	316.064	0.012	79%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	314.753	0.012	80%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	311.748	0.012	81%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	275.826	0.011	82%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	269.980	0.010	83%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	266.754	0.010	84%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	235.643	0.009	85%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	220.705	0.009	86%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	211.145	0.008	87%
5.D.1 Domestic Wastewater	CH ₄	198.300	198.300	0.008	87%
1.B.2.b Natural Gas	CH ₄	177.238	177.238	0.007	88%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	175.098	0.007	89%
1.A.2.d. Pulp, Paper and Print - Gaseous	CO ₂	150.166	150.166	0.006	89%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
Fuels					
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	145.786	0.006	90%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	144.762	0.006	91%
5.D.2 Industrial Wastewater	CH ₄	137.076	137.076	0.005	91%
2.A.2. Lime Production	CO ₂	121.915	121.915	0.005	92%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	120.666	0.005	92%
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	110.967	0.004	92%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	104.785	0.004	93%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	100.342	0.004	93%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	99.041	0.004	94%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	97.245	0.004	94%
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	92.154	0.004	94%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	75.346	0.003	95%
1.B.2.c Venting and Flaring	CH ₄	70.344	70.344	0.003	95%
2.C.1 Iron and Steel Production	CO ₂	69.555	69.555	0.003	95%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	69.454	0.003	95%
2.A.4. Other process uses of carbonates	CO ₂	69.185	69.185	0.003	96%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	66.886	0.003	96%
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	65.585	0.003	96%
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	61.352	0.002	96%
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	61.201	0.002	97%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	52.541	0.002	97%
5.D.1 Domestic Wastewater	N ₂ O	50.413	50.413	0.002	97%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	48.931	0.002	97%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	48.030	0.002	97%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	43.267	0.002	98%
1.A.4.b Residential - Peat	CO ₂	42.549	42.549	0.002	98%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	40.269	0.002	98%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	39.135	0.002	98%
1.A.3.b Road Transportation - LPG	CO ₂	37.148	37.148	0.001	98%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	32.920	0.001	98%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	26.667	0.001	98%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	25.015	0.001	99%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	23.542	0.001	99%
2.D.1 Lubricant Use	CO ₂	23.301	23.301	0.001	99%
2.D.3. Solvent Use	CO ₂	20.973	20.973	0.001	99%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	19.998	0.001	99%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	18.091	0.001	99%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	16.836	0.001	99%
5.B.1. Composting	CH ₄	16.689	16.689	0.001	99%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	16.404	0.001	99%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	16.265	0.001	99%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	16.004	0.001	99%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	15.704	0.001	99%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	12.485	0.000	99%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	12.226	0.000	99%
5.B.1. Composting	N ₂ O	11.936	11.936	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	9.150	0.000	100%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.944	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	8.109	0.000	100%
3.H. Urea Application	CO ₂	7.709	7.709	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	7.163	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	6.796	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	6.666	0.000	100%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	6.220	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	5.286	0.000	100%
2.G.3. N ₂ O from product uses	N ₂ O	4.838	4.838	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	4.652	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	3.728	0.000	100%
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	3.218	0.000	100%
1.A.4.b Residential - Peat	CH ₄	3.188	3.188	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	3.079	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	3.023	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	3.005	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	2.863	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	2.688	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	2.607	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	2.341	2.341	0.000	100%
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	2.320	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries -	CH ₄	1.774	1.774	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
Gaseous Fuels					
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	1.697	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.454	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	1.437	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	1.302	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	1.205	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	1.030	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.998	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	0.842	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.782	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.745	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.702	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.629	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.628	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.626	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.618	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.616	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.589	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.575	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.547	0.000	100%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	0.520	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.501	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.483	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.478	0.000	100%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	0.455	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.423	0.000	100%
2.A.3. Glass production	CO ₂	0.356	0.356	0.000	100%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	0.327	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.318	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.296	0.000	100%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	0.287	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.285	0.000	100%
1.A.3.b Road Transportation - Gaseous	N ₂ O	0.273	0.273	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
Fuels					
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.272	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.267	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.264	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.259	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.239	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.233	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.213	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	0.198	0.000	100%
1.A.4.b Residential - Peat	N ₂ O	0.186	0.186	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.181	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.173	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.171	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.171	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.168	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.149	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.143	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.127	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.124	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.119	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.107	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.101	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.095	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.089	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.081	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.079	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.076	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.069	0.000	100%
2.C.1 Iron and Steel Production	CH ₄	0.069	0.069	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.068	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.058	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.057	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.054	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.054	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Absolute value of Base year, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.050	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.048	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.043	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.036	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.034	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.032	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.030	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.025	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.023	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.018	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.015	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.014	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.013	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	0.013	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.012	0.012	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.011	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.011	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.009	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	0.008	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	0.007	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	0.005	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.003	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.003	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.001	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.001	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.0005	0.0005	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	0.0002	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.0001	0.0001	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	0.00001	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	0.000002	0.000	100%

A.1.3. APPROACH 2 ANALYSIS FOR 1990 – LEVEL ASSESSMENT WITH LULUCF

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
4.A.1 Forest Land remaining Forest Land – Carbon stock change, organic soil	CO ₂	772.156	772.156	5%	296%	2.960	0.015	0.045	0.208	21%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, living biomass	CO ₂	-17804.089	17804.089	2%	11%	0.115	0.349	0.040	0.187	40%
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	1615.023	25%	50%	0.559	0.032	0.018	0.082	48%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	N ₂ O	531.006	531.006	44%	119%	1.269	0.010	0.013	0.061	54%
4.C.1 Grassland remaining Grassland – Carbon stock change, organic soil	CO ₂	958.698	958.698	26%	40%	0.473	0.019	0.009	0.041	58%
4.B.1 Cropland remaining Cropland – Carbon stock change, organic soil	CO ₂	2371.344	2371.344	13%	13%	0.188	0.047	0.009	0.041	62%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	2117.989	2%	20%	0.201	0.042	0.008	0.039	66%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	3078.955	2%	10%	0.102	0.060	0.006	0.029	69%
4.B. Cropland 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.774	196.774	115%	71%	1.350	0.004	0.005	0.024	71%
4.C. Grassland – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.741	196.741	61%	91%	1.094	0.004	0.004	0.020	73%
3.G. Liming	CO ₂	357.133	357.133	5%	50%	0.502	0.007	0.004	0.016	75%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	314.753	6%	52%	0.523	0.006	0.003	0.015	76%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	311.748	2%	50%	0.500	0.006	0.003	0.014	78%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other	CH ₄	90.462	90.462	44%	153%	1.593	0.002	0.003	0.013	79%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
management of organic and mineral soils, total organic soils										
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	2657.607	2%	5%	0.054	0.052	0.003	0.013	80%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, organic soils	CO ₂	211.968	211.968	6%	55%	0.557	0.004	0.002	0.011	82%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	1066.131	2%	10%	0.102	0.021	0.002	0.010	83%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	1017.269	2%	10%	0.102	0.020	0.002	0.009	83%
1.B.2.b Natural Gas	CH ₄	177.238	177.238	35%	35%	0.495	0.003	0.002	0.008	84%
5.D.2 Industrial Wastewater	CH ₄	137.076	137.076	46%	30%	0.549	0.003	0.001	0.007	85%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, living biomass	CO ₂	-68.172	68.172	6%	110%	1.098	0.001	0.001	0.007	86%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	700.654	2%	10%	0.102	0.014	0.001	0.007	86%
5.D.1 Domestic Wastewater	CH ₄	198.300	198.300	7%	30%	0.308	0.004	0.001	0.006	87%
4.E.2 Land converted to Settlements – Carbon stock change, living biomass	CO ₂	70.353	70.353	20%	84%	0.858	0.001	0.001	0.006	87%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	564.767	2%	10%	0.102	0.011	0.001	0.005	88%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	97.245	25%	50%	0.559	0.002	0.001	0.005	88%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	1366.092	2%	3%	0.036	0.027	0.001	0.004	89%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	1722.391	2%	2%	0.028	0.034	0.001	0.004	89%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CO ₂	855.360	855.360	5%		0.050	0.017	0.001	0.004	90%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	782.443	2%	5%	0.054	0.015	0.001	0.004	90%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
4.E.1 Settlements remaining Settlements – Carbon stock change, living biomass	CO ₂	-50.035	50.035	9%	84%	0.841	0.001	0.001	0.004	90%
2.A.1. Cement Production	CO ₂	345.783	345.783	8%	8%	0.113	0.007	0.001	0.004	91%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	120.666	25%	20%	0.320	0.002	0.001	0.004	91%
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	110.967	25%	20%	0.320	0.002	0.001	0.003	92%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	69.454	2%	50%	0.500	0.001	0.001	0.003	92%
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	332.334	2%	10%	0.102	0.007	0.001	0.003	92%
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	61.201	2%	50%	0.500	0.001	0.001	0.003	92%
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	526.803	2%	5%	0.054	0.010	0.001	0.003	93%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CH ₄	44.523	44.523	6%	63%	0.630	0.001	0.001	0.003	93%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	269.980	2%	10%	0.102	0.005	0.001	0.003	93%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	266.754	2%	10%	0.102	0.005	0.001	0.002	93%
4.A.1 Forest land remaining forest land – Controlled burning	CH ₄	22.635	22.635	93%	72%	1.173	0.000	0.001	0.002	94%
4. G. Harvested wood products	CO ₂	-166.113	166.113	15%	0%	0.150	0.003	0.000	0.002	94%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	48.931	2%	50%	0.500	0.001	0.000	0.002	94%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	48.030	2%	50%	0.500	0.001	0.000	0.002	94%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, dead wood	CO ₂	-539.448	539.448	2%	4%	0.042	0.011	0.000	0.002	95%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	43.267	2%	50%	0.500	0.001	0.000	0.002	95%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	586.626	2%	3%	0.036	0.012	0.000	0.002	95%
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	65.585	25%	20%	0.320	0.001	0.000	0.002	95%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	39.135	1%	50%	0.500	0.001	0.000	0.002	95%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	622.514	2%	2%	0.028	0.012	0.000	0.002	95%
5.B.1. Composting	CH ₄	16.689	16.689	28%	100%	1.040	0.000	0.000	0.002	96%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	316.064	2%	5%	0.054	0.006	0.000	0.002	96%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	32.920	2%	50%	0.500	0.001	0.000	0.002	96%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	144.762	5%	10%	0.112	0.003	0.000	0.001	96%
5.D.1 Domestic Wastewater	N ₂ O	50.413	50.413	6%	30%	0.306	0.001	0.000	0.001	96%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	536.766	2%	2%	0.028	0.011	0.000	0.001	96%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	145.786	2%	10%	0.102	0.003	0.000	0.001	96%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	275.826	2%	5%	0.054	0.005	0.000	0.001	97%
2.A.2. Lime Production	CO ₂	121.915	121.915	8%	8%	0.110	0.002	0.000	0.001	97%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	40.269	25%	20%	0.320	0.001	0.000	0.001	97%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	235.643	2%	5%	0.054	0.005	0.000	0.001	97%
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	61.352	2%	20%	0.201	0.001	0.000	0.001	97%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	220.705	2%	5%	0.054	0.004	0.000	0.001	97%
4.C.1 Grassland remaining Grassland – Carbon stock change, living biomass	CO ₂	-20.226	20.226	5%	56%	0.559	0.000	0.000	0.001	97%
5.B.1. Composting	N ₂ O	11.936	11.936	28%	90%	0.944	0.000	0.000	0.001	97%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	52.541	2%	20%	0.201	0.001	0.000	0.001	98%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	N ₂ O	9.815	9.815	6%	107%	1.073	0.000	0.000	0.001	98%
1.B.2.c Venting and Flaring	CH ₄	70.344	70.344	10%	10%	0.141	0.001	0.000	0.001	98%
4.A.1 Forest land remaining forest land – wildfires	CO ₂	24.350	24.350	37%	12%	0.393	0.000	0.000	0.001	98%
1.A.2.e Food Processing, Beverages and Tobacco -	CO ₂	175.098	175.098	2%	5%	0.054	0.003	0.000	0.001	98%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Gaseous Fuels										
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	92.154	2%	10%	0.102	0.002	0.000	0.001	98%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	18.091	2%	50%	0.500	0.000	0.000	0.001	98%
4.B.1 Cropland remaining Cropland – Carbon stock change, living biomass	CO ₂	-6.458	6.458	3%	135%	1.353	0.000	0.000	0.001	98%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	16.404	2%	50%	0.500	0.000	0.000	0.001	98%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	150.166	2%	5%	0.054	0.003	0.000	0.001	98%
4.B.2 Land converted to Cropland – Carbon stock change, organic soil	CO ₂	6.838	6.838	114%	13%	1.147	0.000	0.000	0.001	98%
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	19.998	25%	30%	0.391	0.000	0.000	0.001	98%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	75.346	2%	10%	0.102	0.001	0.000	0.001	98%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	211.145	2%	3%	0.036	0.004	0.000	0.001	99%
2.D.3. Solvent Use	CO ₂	20.973	20.973	25%	25%	0.354	0.000	0.000	0.001	99%
2.A.4. Other process uses of carbonates	CO ₂	69.185	69.185	8%	8%	0.106	0.001	0.000	0.001	99%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	66.886	2%	10%	0.102	0.001	0.000	0.001	99%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	12.226	2%	50%	0.500	0.000	0.000	0.001	99%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	104.785	2%	5%	0.054	0.002	0.000	0.001	99%
4.C.2 Land converted to Grassland – Carbon stock change, organic soil	CO ₂	8.219	8.219	55%	40%	0.679	0.000	0.000	0.001	99%
4.E.2 Land converted to Settlements – Carbon stock change, organic soils	CO ₂	10.644	10.644	47%	18%	0.505	0.000	0.000	0.000	99%
2.C.1 Iron and Steel Production	CO ₂	69.555	69.555	5%	5%	0.071	0.001	0.000	0.000	99%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	16.265	2%	30%	0.301	0.000	0.000	0.000	99%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	12.485	25%	30%	0.391	0.000	0.000	0.000	99%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
2.G.3. N ₂ O from product uses	N ₂ O	4.838	4.838	2%	100%	1.000	0.000	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	9.150	1%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.b Residential - Peat	CO ₂	42.549	42.549	2%	10%	0.102	0.001	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	8.109	2%	50%	0.500	0.000	0.000	0.000	99%
3.H. Urea Application	CO ₂	7.709	7.709	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	100.342	2%	3%	0.036	0.002	0.000	0.000	99%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	7.163	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	99.041	2%	3%	0.036	0.002	0.000	0.000	99%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	6.796	2%	50%	0.500	0.000	0.000	0.000	99%
4.E.2 Lands converted to settlements – Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	2.237	2.237	20%	151%	1.520	0.000	0.000	0.000	99%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	6.666	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	6.220	1%	50%	0.500	0.000	0.000	0.000	99%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CH ₄	1.480	1.480	6%	198%	1.981	0.000	0.000	0.000	100%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.944	5%	30%	0.304	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	5.286	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	25.015	2%	10%	0.102	0.000	0.000	0.000	100%
4.A.1 Forest land remaining forest land –	N ₂ O	2.654	2.654	93%		0.926	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Controlled burning										
1.A.3.b Road Transportation - LPG	CO ₂	37.148	37.148	2%	5%	0.054	0.001	0.000	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	CH ₄	2.396	2.396	37%	72%	0.811	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	3.728	2%	50%	0.500	0.000	0.000	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	4.652	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	15.704	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.4.b Residential - Peat	CH ₄	3.188	3.188	2%	50%	0.500	0.000	0.000	0.000	100%
4.A.2 Land Converted to Forest Land – Carbon stock change, litter	CO ₂	-6.449	6.449	8%	23%	0.244	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	3.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	2.863	2%	50%	0.500	0.000	0.000	0.000	100%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CO ₂	0.558	0.558	6%	246%	2.464	0.000	0.000	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	2.688	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	23.542	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	2.320	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	26.667	2%	3%	0.036	0.001	0.000	0.000	100%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, dead organic matter	CO ₂	-13.091	13.091	6%	4%	0.071	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	16.836	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	1.774	2%	50%	0.500	0.000	0.000	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	2.341	2.341	19%	30%	0.355	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass	N ₂ O	1.454	1.454	1%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Fuels										
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	1.437	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.1 Lubricant Use	CO ₂	23.301	23.301	2%	2%	0.028	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	1.302	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	3.079	2%	20%	0.201	0.000	0.000	0.000	100%
4.A.2 Land Converted to Forest Land – Carbon stock change, dead wood	CO ₂	-6.793	6.793	8%	4%	0.089	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	1.205	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	16.004	2%	3%	0.036	0.000	0.000	0.000	100%
4.E.1 Settlements remaining Settlements – Carbon stock change, dead organic matter	CO ₂	-5.815	5.815	9%	4%	0.095	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	1.030	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	1.697	2%	30%	0.301	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.998	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.745	2%	50%	0.500	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.575	50%	40%	0.637	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	3.218	10%	5%	0.112	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.702	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.629	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.628	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.626	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.618	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	3.023	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.616	2%	50%	0.500	0.000	0.000	0.000	100%
4.D.2 Land Converted to Wetland - Carbon stock change, organic soils	CO ₂	0.125	0.125	13%	246%	2.467	0.000	0.000	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.782	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.589	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.547	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	0.520	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.501	2%	50%	0.500	0.000	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – Carbon stock change, dead organic matter	CO ₂	-3.884	3.884	5%	4%	0.064	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.483	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.478	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	0.455	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.423	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	0.327	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.318	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.296	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	0.287	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.285	2%	50%	0.500	0.000	0.000	0.000	100%
4.A.2 Land converted to Forest Land – Carbon	CO ₂	-0.755	0.755	8%	16%	0.182	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
stock change, living biomass										
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.273	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.272	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.267	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.264	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.259	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.239	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.233	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.213	2%	50%	0.500	0.000	0.000	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	N ₂ O	0.281	0.281	37%		0.374	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	0.198	2%	0.5	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	2.607	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.4.b Residential - Peat	N ₂ O	0.186	0.186	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.181	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.171	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.171	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.168	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.149	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.143	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.127	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.124	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.119	2%	50%	0.500	0.000	0.000	0.000	100%
4.B.1 Cropland remaining Cropland – Carbon stock	CO ₂	-1.240	1.240	3%	4%	0.047	0.000	0.000	0.000	100%

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change, dead organic matter										
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.107	2%	50%	0.500	0.000	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	N ₂ O	0.054	0.054	10%	96%	0.965	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.101	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.095	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	0.842	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.089	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.081	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.079	2%	50%	0.500	0.000	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	CH ₄	0.050	0.050	10%	78%	0.786	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.076	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.069	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.068	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.058	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.057	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.054	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.050	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.048	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.043	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.036	2%	50%	0.500	0.000	0.000	0.000	100%

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1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.034	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.032	2%	50%	0.500	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.012	0.012	50%	100%	1.116	0.000	0.000	0.000	100%
2.A.3. Glass production	CO ₂	0.356	0.356	3%	3%	0.035	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.025	10%	50%	0.510	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.023	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.030	10%	30%	0.316	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.173	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.018	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.015	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.014	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.013	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	0.013	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.011	2%	50%	0.500	0.000	0.000	0.000	100%
2.C.1 Iron and Steel Production	CH ₄	0.069	0.069	5%	5%	0.071	0.000	0.000	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.009	35%	35%	0.495	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	0.008	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	0.007	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.054	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	0.005	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.003	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.003	20%	20%	0.283	0.000	0.000	0.000	100%

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1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.011	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.001	20%	20%	0.283	0.000	0.000	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	10%	10%	0.141	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.0005	0.0005	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	0.0002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.0001	0.0001	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	0.00001	2%	60%	0.600	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	0.000002	2%	60%	0.600	0.000	0.000	0.000	100%

A.1.4. APPROACH 2 ANALYSIS FOR 1990 – LEVEL ASSESSMENT WITHOUT LULUCF

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	1615.023	25%	50%	0.559	0.062	0.035	0.231	23%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	2117.989	2%	20%	0.201	0.082	0.016	0.109	34%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	3078.955	2%	10%	0.102	0.119	0.012	0.080	42%
3.G. Liming	CO ₂	357.133	357.133	5%	50%	0.502	0.014	0.007	0.046	47%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	314.753	6%	52%	0.523	0.012	0.006	0.042	51%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	311.748	2%	50%	0.500	0.012	0.006	0.040	55%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	2657.607	2%	5%	0.054	0.103	0.006	0.037	58%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	1066.131	2%	10%	0.102	0.041	0.004	0.028	61%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	1017.269	2%	10%	0.102	0.039	0.004	0.027	64%
1.B.2.b Natural Gas	CH ₄	177.238	177.238	35%	35%	0.495	0.007	0.003	0.022	66%
5.D.2 Industrial Wastewater	CH ₄	137.076	137.076	46%	30%	0.549	0.005	0.003	0.019	68%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	700.654	2%	10%	0.102	0.027	0.003	0.018	70%
5.D.1 Domestic Wastewater	CH ₄	198.300	198.300	7%	30%	0.308	0.008	0.002	0.016	71%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	564.767	2%	10%	0.102	0.022	0.002	0.015	73%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	97.245	25%	50%	0.559	0.004	0.002	0.014	74%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	1366.092	2%	3%	0.036	0.053	0.002	0.013	76%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	1722.391	2%	2%	0.028	0.067	0.002	0.012	77%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	782.443	2%	5%	0.054	0.030	0.002	0.011	78%
2.A.1. Cement Production	CO ₂	345.783	345.783	8%	8%	0.113	0.013	0.002	0.010	79%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	120.666	25%	20%	0.320	0.005	0.001	0.010	80%
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	110.967	25%	20%	0.320	0.004	0.001	0.009	81%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	69.454	2%	50%	0.500	0.003	0.001	0.009	82%
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	332.334	2%	10%	0.102	0.013	0.001	0.009	82%
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	61.201	2%	50%	0.500	0.002	0.001	0.008	83%
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	526.803	2%	5%	0.054	0.020	0.001	0.007	84%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	269.980	2%	10%	0.102	0.010	0.001	0.007	85%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	266.754	2%	10%	0.102	0.010	0.001	0.007	85%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	48.931	2%	50%	0.500	0.002	0.001	0.006	86%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	48.030	2%	50%	0.500	0.002	0.001	0.006	87%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	43.267	2%	50%	0.500	0.002	0.001	0.006	87%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	586.626	2%	3%	0.036	0.023	0.001	0.005	88%
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	65.585	25%	20%	0.320	0.003	0.001	0.005	88%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	39.135	1%	50%	0.500	0.002	0.001	0.005	89%
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	622.514	2%	2%	0.028	0.024	0.001	0.004	89%
5.B.1. Composting	CH ₄	16.689	16.689	28%	100%	1.040	0.001	0.001	0.004	90%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	316.064	2%	5%	0.054	0.012	0.001	0.004	90%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	32.920	2%	50%	0.500	0.001	0.001	0.004	91%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	144.762	5%	10%	0.112	0.006	0.001	0.004	91%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
5.D.1 Domestic Wastewater	N ₂ O	50.413	50.413	6%	30%	0.306	0.002	0.001	0.004	91%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	536.766	2%	2%	0.028	0.021	0.001	0.004	92%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	145.786	2%	10%	0.102	0.006	0.001	0.004	92%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	275.826	2%	5%	0.054	0.011	0.001	0.004	92%
2.A.2. Lime Production	CO ₂	121.915	121.915	8%	8%	0.110	0.005	0.001	0.003	93%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	40.269	25%	20%	0.320	0.002	0.000	0.003	93%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	235.643	2%	5%	0.054	0.009	0.000	0.003	93%
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	61.352	2%	20%	0.201	0.002	0.000	0.003	94%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	220.705	2%	5%	0.054	0.009	0.000	0.003	94%
5.B.1. Composting	N ₂ O	11.936	11.936	28%	90%	0.944	0.000	0.000	0.003	94%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	52.541	2%	20%	0.201	0.002	0.000	0.003	95%
1.B.2.c Venting and Flaring	CH ₄	70.344	70.344	10%	10%	0.141	0.003	0.000	0.003	95%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	175.098	2%	5%	0.054	0.007	0.000	0.002	95%
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	92.154	2%	10%	0.102	0.004	0.000	0.002	95%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	18.091	2%	50%	0.500	0.001	0.000	0.002	96%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	16.404	2%	50%	0.500	0.001	0.000	0.002	96%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	150.166	2%	5%	0.054	0.006	0.000	0.002	96%
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	19.998	25%	30%	0.391	0.001	0.000	0.002	96%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	75.346	2%	10%	0.102	0.003	0.000	0.002	96%
1.A.1.a Public Electricity and Heat	CO ₂	211.145	211.145	2%	3%	0.036	0.008	0.000	0.002	97%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Production - Solid Fuels										
2.D.3. Solvent Use	CO ₂	20.973	20.973	25%	25%	0.354	0.001	0.000	0.002	97%
2.A.4. Other process uses of carbonates	CO ₂	69.185	69.185	8%	8%	0.106	0.003	0.000	0.002	97%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	66.886	2%	10%	0.102	0.003	0.000	0.002	97%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	12.226	2%	50%	0.500	0.000	0.000	0.002	97%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	104.785	2%	5%	0.054	0.004	0.000	0.001	97%
2.C.1 Iron and Steel Production	CO ₂	69.555	69.555	5%	5%	0.071	0.003	0.000	0.001	98%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	16.265	2%	30%	0.301	0.001	0.000	0.001	98%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	12.485	25%	30%	0.391	0.000	0.000	0.001	98%
2.G.3. N ₂ O from product uses	N ₂ O	4.838	4.838	2%	100%	1.000	0.000	0.000	0.001	98%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	9.150	1%	50%	0.500	0.000	0.000	0.001	98%
1.A.4.b Residential - Peat	CO ₂	42.549	42.549	2%	10%	0.102	0.002	0.000	0.001	98%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	8.109	2%	50%	0.500	0.000	0.000	0.001	98%
3.H. Urea Application	CO ₂	7.709	7.709	2%	50%	0.500	0.000	0.000	0.001	98%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	100.342	2%	3%	0.036	0.004	0.000	0.001	98%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	7.163	2%	50%	0.500	0.000	0.000	0.001	99%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	99.041	2%	3%	0.036	0.004	0.000	0.001	99%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	6.796	2%	50%	0.500	0.000	0.000	0.001	99%
1.A.4.a Commercial/Institutional - Solid	N ₂ O	6.666	6.666	2%	50%	0.500	0.000	0.000	0.001	99%

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Fuels										
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	6.220	1%	50%	0.500	0.000	0.000	0.001	99%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.944	5%	30%	0.304	0.000	0.000	0.001	99%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	5.286	2%	50%	0.500	0.000	0.000	0.001	99%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	25.015	2%	10%	0.102	0.001	0.000	0.001	99%
1.A.3.b Road Transportation - LPG	CO ₂	37.148	37.148	2%	5%	0.054	0.001	0.000	0.001	99%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	3.728	2%	50%	0.500	0.000	0.000	0.000	99%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	4.652	25%	30%	0.391	0.000	0.000	0.000	99%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	15.704	2%	10%	0.102	0.001	0.000	0.000	99%
1.A.4.b Residential - Peat	CH ₄	3.188	3.188	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	3.005	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	2.863	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	2.688	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	23.542	2%	5%	0.054	0.001	0.000	0.000	99%
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	2.320	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	26.667	2%	3%	0.036	0.001	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	16.836	2%	5%	0.054	0.001	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	1.774	2%	50%	0.500	0.000	0.000	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	2.341	2.341	19%	30%	0.355	0.000	0.000	0.000	100%

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1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.454	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	1.437	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.1 Lubricant Use	CO ₂	23.301	23.301	2%	2%	0.028	0.001	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	1.302	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	3.079	2%	20%	0.201	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	1.205	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	16.004	2%	3%	0.036	0.001	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	1.030	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	1.697	2%	30%	0.301	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.998	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.745	2%	50%	0.500	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.575	50%	40%	0.637	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	3.218	10%	5%	0.112	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.702	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.629	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.628	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.626	2%	50%	0.500	0.000	0.000	0.000	100%

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1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.618	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	3.023	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.616	2%	50%	0.500	0.000	0.000	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.782	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.589	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.547	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	0.520	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.501	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.483	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.478	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	0.455	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.423	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	0.327	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.318	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.296	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	0.287	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.285	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.273	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.272	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.267	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.264	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.259	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.239	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.233	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.213	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	0.198	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	2.607	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.4.b Residential - Peat	N ₂ O	0.186	0.186	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.181	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.171	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.171	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.168	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.149	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.143	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.127	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.124	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.119	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.107	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.101	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.095	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	0.842	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.089	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.081	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.079	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.076	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.069	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.068	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.058	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.057	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.054	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.050	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.048	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid	CH ₄	0.043	0.043	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Fuels										
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.036	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.034	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.032	2%	50%	0.500	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.012	0.012	50%	100%	1.116	0.000	0.000	0.000	100%
2.A.3. Glass production	CO ₂	0.356	0.356	3%	3%	0.035	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.025	10%	50%	0.510	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.023	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.030	10%	30%	0.316	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.173	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.018	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.015	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.014	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.013	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	0.013	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.011	2%	50%	0.500	0.000	0.000	0.000	100%
2.C.1 Iron and Steel Production	CH ₄	0.069	0.069	5%	5%	0.071	0.000	0.000	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.009	35%	35%	0.495	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals -	N ₂ O	0.008	0.008	1%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	ABS base year emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Biomass Fuels										
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	0.007	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.054	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	0.005	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.003	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.003	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.011	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.001	20%	20%	0.283	0.000	0.000	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	10%	10%	0.141	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.0005	0.0005	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	0.0002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.0001	0.0001	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	0.00001	2%	60%	0.600	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	0.000002	2%	60%	0.600	0.000	0.000	0.000	100%

A.1.5 APPROACH 1 ANALYSIS FOR 2020 – LEVEL ASSESSMENT WITH LULUCF

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
4.A.1 Forest Land remaining Forest Land – Carbon stock change, living biomass	CO ₂	-2837.623	2837.623	0.118	12%
1.A.3.b Road Transportation - Diesel Oil	CO ₂	2352.479	2352.479	0.098	22%
4. G. Harvested wood products	CO ₂	-1726.145	1726.145	0.072	29%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, dead wood	CO ₂	-1340.699	1340.699	0.056	34%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	1272.807	1272.807	0.053	40%
4.B.1 Cropland remaining Cropland – Carbon stock change, organic soil	CO ₂	1180.924	1180.924	0.049	44%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CO ₂	1152.360	1152.360	0.048	49%
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	981.740	981.740	0.041	53%
3.A.1 Enteric Fermentation - Cattle	CH ₄	811.767	811.767	0.034	57%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, organic soil	CO ₂	727.047	727.047	0.030	60%
4.C.1 Grassland remaining Grassland – Carbon stock change, organic soil	CO ₂	576.097	576.097	0.024	62%
2.A.1. Cement Production	CO ₂	550.832	550.832	0.023	64%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	N ₂ O	500.773	500.773	0.021	66%
1.A.3.b Road Transportation - Gasoline	CO ₂	499.711	499.711	0.021	69%
4.C.2 Land converted to Grassland – Carbon stock change, organic soil	CO ₂	491.498	491.498	0.020	71%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	458.525	458.525	0.019	72%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CH ₄	366.937	366.937	0.015	74%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	280.529	280.529	0.012	75%
5.A.1. Managed Waste Disposal on Land	CH ₄	262.997	262.997	0.011	76%
4.E.2 Land converted to Settlements – Carbon stock change, organic soils	CO ₂	255.373	255.373	0.011	77%
1.A.4.b Residential - Gaseous Fuels	CO ₂	255.016	255.016	0.011	78%
2.F.1. Refrigeration and air conditioning	HFCs	242.553	242.553	0.010	79%
4.B.2 Land converted to Cropland – Carbon stock change, organic soil	CO ₂	209.061	209.061	0.009	80%
4.C.2 Land converted to Grassland – Carbon stock change, forest land converted to grassland, dead organic matter	CO ₂	202.123	202.123	0.008	81%
4.C. Grassland – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.576	196.576	0.008	82%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	179.093	179.093	0.007	83%
4.E.1 Settlements remaining Settlements – Carbon stock change, living biomass	CO ₂	-173.877	173.877	0.007	83%
1.A.4.b Residential - Liquid Fuels	CO ₂	158.482	158.482	0.007	84%
4.E.2 Land converted to Settlements – Carbon stock change, dead organic matter	CO ₂	150.770	150.770	0.006	85%
4.C.1 Grassland remaining Grassland – Carbon stock change, living biomass	CO ₂	-144.422	144.422	0.006	85%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, organic soils	CO ₂	142.995	142.995	0.006	86%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CO ₂	139.412	139.412	0.006	86%
4.E.2 Land converted to Settlements – Carbon stock change, mineral soils	CO ₂	130.459	130.459	0.005	87%
1.A.2.g Other - Liquid Fuels	CO ₂	129.528	129.528	0.005	87%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	116.102	116.102	0.005	88%
4.A.2 Land converted to Forest Land – Carbon stock change, living biomass	CO ₂	-115.114	115.114	0.005	88%
1.A.3.b Road Transportation - LPG	CO ₂	115.021	115.021	0.005	89%
4.B. Cropland 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	115.009	115.009	0.005	89%
1.A.4.b Residential - Biomass Fuels	CH ₄	110.521	110.521	0.005	90%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	109.534	109.534	0.005	90%
4.E.2 Land converted to Settlements – Carbon stock change, living biomass	CO ₂	108.503	108.503	0.005	91%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CO ₂	106.131	106.131	0.004	91%
4.E.2 Lands converted to settlements – Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	104.188	104.188	0.004	92%
1.B.2.b Natural Gas	CH ₄	82.983	82.983	0.003	92%
1.A.3.c Railways - Liquid Fuels	CO ₂	80.954	80.954	0.003	92%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	77.148	77.148	0.003	93%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	75.594	75.594	0.003	93%
4.C.2 Land converted to Grassland – Carbon stock change, forest land converted to grassland, living biomass	CO ₂	72.142	72.142	0.003	93%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	71.214	71.214	0.003	94%
5.D.1 Domestic Wastewater	CH ₄	69.385	69.385	0.003	94%
1.A.2.g Other - Gaseous Fuels	CO ₂	67.165	67.165	0.003	94%
3.B.1.1 Manure Management - Cattle	CH ₄	66.487	66.487	0.003	94%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands,	CH ₄	62.157	62.157	0.003	95%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
rewetted organic soils					
3.G. Liming	CO ₂	61.871	61.871	0.003	95%
4.B.1 Land converted to Cropland – Carbon stock change, forest land converted to cropland, dead organic matter	CO ₂	52.141	52.141	0.002	95%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, dead organic matter	CO ₂	50.858	50.858	0.002	95%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	49.270	49.270	0.002	96%
4.A.1 Forest land remaining forest land – wildfires	CO ₂	43.168	43.168	0.002	96%
4.B.1 Cropland remaining Cropland – Carbon stock change, living biomass	CO ₂	-43.076	43.076	0.002	96%
4.A.2 Land Converted to Forest Land – Carbon stock change, litter	CO ₂	-40.130	40.130	0.002	96%
4.E.1 Settlements remaining Settlements – Carbon stock change, organic soils	CO ₂	34.778	34.778	0.001	96%
3.B.2.1 Manure Management - Cattle	N ₂ O	34.476	34.476	0.001	96%
4.A.2 Land Converted to Forest Land – Carbon stock change, dead wood	CO ₂	-34.414	34.414	0.001	96%
5.D.1 Domestic Wastewater	N ₂ O	32.081	32.081	0.001	97%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CH ₄	30.036	30.036	0.001	97%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	27.343	27.343	0.001	97%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	27.183	27.183	0.001	97%
5.B.1. Composting	CH ₄	26.931	26.931	0.001	97%
2.D.3. Solvent Use	CO ₂	24.382	24.382	0.001	97%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CO ₂	23.424	23.424	0.001	97%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	22.897	22.897	0.001	97%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	22.573	22.573	0.001	97%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	22.431	22.431	0.001	98%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	21.411	21.411	0.001	98%
4.C.1 Grassland remaining Grassland – Carbon stock change, dead organic matter	CO ₂	-21.347	21.347	0.001	98%
4.E.1 Settlements remaining Settlements – Carbon stock change, dead organic matter	CO ₂	-20.625	20.625	0.001	98%
4.D.2 Land Converted to Wetland - Carbon stock change, organic soils	CO ₂	19.702	19.702	0.001	98%
5.B.1. Composting	N ₂ O	19.261	19.261	0.001	98%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	18.762	18.762	0.001	98%
3.A.2 Enteric Fermentation - Sheep	CH ₄	18.380	18.380	0.001	98%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.2.g Other - Biomass Fuels	N ₂ O	18.275	18.275	0.001	98%
1.B.2.c Venting and Flaring	CH ₄	17.549	17.549	0.001	98%
5.B.2. Anaerobic digestion at biogas facilities	CH ₄	17.232	17.232	0.001	98%
3.B.1.3 Manure Management - Swaine	CH ₄	16.783	16.783	0.001	98%
1.A.5.b Mobile - Liquid Fuels	CO ₂	14.723	14.723	0.001	98%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	14.420	14.420	0.001	99%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	14.376	14.376	0.001	99%
1.A.2.g Other - Liquid Fuels	N ₂ O	13.504	13.504	0.001	99%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	13.366	13.366	0.001	99%
2.D.1 Lubricant Use	CO ₂	12.291	12.291	0.001	99%
2.G.1. Electrical equipment	SF ₆	11.937	11.937	0.000	99%
1.A.4.b Residential - Liquid Fuels	N ₂ O	11.715	11.715	0.000	99%
3.A.3 Enteric Fermentation - Swine	CH ₄	11.505	11.505	0.000	99%
1.A.2.g Other - Biomass Fuels	CH ₄	11.498	11.498	0.000	99%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	10.553	10.553	0.000	99%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	10.417	10.417	0.000	99%
1.A.3.c Railways - Liquid Fuels	N ₂ O	9.230	9.230	0.000	99%
3.H. Urea Application	CO ₂	9.103	9.103	0.000	99%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	9.083	9.083	0.000	99%
2.A.4. Other process uses of carbonates	CO ₂	8.858	8.858	0.000	99%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.458	8.458	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	7.731	7.731	0.000	99%
4.E.1 Settlements remaining Settlements – 4 (III) Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	7.309	7.309	0.000	99%
4.A.1 Forest land remaining forest land – Controlled burning	CH ₄	7.245	7.245	0.000	99%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	7.027	7.027	0.000	99%
3.B.2.4 Manure Management - Other livestock	N ₂ O	6.637	6.637	0.000	99%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	N ₂ O	6.621	6.621	0.000	99%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	6.565	6.565	0.000	99%
2.F.4. Aerosols	HFCs	6.070	6.070	0.000	99%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	5.913	5.913	0.000	99%
4.B.2 Land converted to Cropland – Carbon stock change, forest land converted to cropland, living biomass	CO ₂	5.869	5.869	0.000	99%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, living biomass	CO ₂	5.633	5.633	0.000	100%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.4.b Residential - Solid Fuels	CO ₂	5.310	5.310	0.000	100%
1.A.3.b Road Transportation - Other fossil fuel (please specify)	CO ₂	5.240	5.240	0.000	100%
3.B.1.4 Manure Management - Other livestock	CH ₄	5.119	5.119	0.000	100%
2.D.2 Paraffin wax use	CO ₂	5.056	5.056	0.000	100%
1.A.3.b Road Transportation - Lubricants	CO ₂	4.946	4.946	0.000	100%
4.C.2 Land converted to Grassland – Carbon stock change, settlements converted to grassland, living biomass	CO ₂	-4.899	4.899	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	4.382	4.382	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	CH ₄	4.247	4.247	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	4.079	4.079	0.000	100%
3.B.2.3 Manure Management - Swaine	N ₂ O	3.897	3.897	0.000	100%
2.G.3. N ₂ O from product uses	N ₂ O	3.624	3.624	0.000	100%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	3.414	3.414	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	3.379	3.379	0.000	100%
5.D.2 Industrial Wastewater	CH ₄	3.073	3.073	0.000	100%
4.C.2 Land converted to Grassland – Carbon stock change, wetlands converted to grassland, living biomass	CO ₂	-2.635	2.635	0.000	100%
4 (IV) Indirect nitrous oxide (N ₂ O) emissions from managed soils	N ₂ O	2.546	2.546	0.000	100%
4.B.2 Land converted to Cropland – Carbon stock change, forest land converted to cropland, mineral soil	CO ₂	2.471	2.471	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	2.332	2.332	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	2.099	2.099	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	2.028	2.028	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CO ₂	1.992	1.992	0.000	100%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	N ₂ O	1.933	1.933	0.000	100%
4.B.1 Cropland remaining Cropland – Carbon stock change, dead organic matter	CO ₂	1.812	1.812	0.000	100%
1.A.3.b Road Transportation - Gasoline	N ₂ O	1.678	1.678	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	1.641	1.641	0.000	100%
1.A.3.b Road Transportation - Gasoline	CH ₄	1.347	1.347	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	1.321	1.321	0.000	100%
2.D.3.d Urea Use	CO ₂	1.267	1.267	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.254	1.254	0.000	100%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CH ₄	1.216	1.216	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	1.214	1.214	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	1.168	1.168	0.000	100%
1.A.3.b Road Transportation - Biomass	N ₂ O	1.160	1.160	0.000	100%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.3.b Road Transportation - Diesel Oil	CH ₄	0.967	0.967	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.966	0.966	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.930	0.930	0.000	100%
4.A.2 Land converted to Forest Land – Carbon stock change, organic soil	CO ₂	0.863	0.863	0.000	100%
4.A.1 Forest land remaining forest land – Controlled burning	N ₂ O	0.849	0.849	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.840	0.840	0.000	100%
1.A.2.g Other - Peat	CO ₂	0.831	0.831	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CO ₂	0.776	0.776	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	0.732	0.732	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.710	0.710	0.000	100%
2.A.3. Glass production	CO ₂	0.684	0.684	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	0.684	0.684	0.000	100%
1.A.2.g Other - Solid Fuels	CO ₂	0.676	0.676	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CO ₂	0.660	0.660	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.632	0.632	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.575	0.575	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	0.574	0.574	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.560	0.560	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	N ₂ O	0.498	0.498	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.469	0.469	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.447	0.447	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.437	0.437	0.000	100%
1.A.4.b Residential - Solid Fuels	CH ₄	0.413	0.413	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	N ₂ O	0.390	0.390	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	0.388	0.388	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.350	0.350	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.347	0.347	0.000	100%
1.A.3.c. Railway Biomass Fuels	N ₂ O	0.339	0.339	0.000	100%
2.F.2 Foam blowing agents	HFCs	0.285	0.285	0.000	100%
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	0.251	0.251	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	0.251	0.251	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	CH ₄	0.245	0.245	0.000	100%
1.A.2.c Chemicals - Biomass Fuels	N ₂ O	0.239	0.239	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CO ₂	0.220	0.220	0.000	100%
4.B.2 Land converted to cropland – 4(III) Direct nitrous oxide (N ₂ O) emissions from nitrogen (N)	N ₂ O	0.210	0.210	0.000	100%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
mineralization/ immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils					
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.196	0.196	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	0.191	0.191	0.000	100%
2.A.4.b Other Use of soda ash	CO ₂	0.191	0.191	0.000	100%
1.A.3.c Railways - Other Fuels (please specify)	CO ₂	0.168	0.168	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.151	0.151	0.000	100%
1.A.2.c Chemicals - Biomass Fuels	CH ₄	0.150	0.150	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	0.145	0.145	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.137	0.137	0.000	100%
1.A.5.b Mobile - Liquid Fuels	N ₂ O	0.119	0.119	0.000	100%
1.A.3.b Road Transportation - Biomass	CH ₄	0.117	0.117	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.112	0.112	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	0.106	0.106	0.000	100%
1.A.2.c Chemicals - Solid Fuels	CO ₂	0.097	0.097	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	N ₂ O	0.091	0.091	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	CH ₄	0.084	0.084	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CH ₄	0.068	0.068	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.060	0.060	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.054	0.054	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	0.051	0.051	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.051	0.051	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.045	0.045	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.041	0.041	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.039	0.039	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.038	0.038	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.038	0.038	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.036	0.036	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.035	0.035	0.000	100%
1.A.5.b Mobile - Liquid Fuels	CH ₄	0.033	0.033	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.032	0.032	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	0.030	0.030	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.030	0.030	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	0.025	0.025	0.000	100%
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	N ₂ O	0.024	0.024	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CH ₄	0.023	0.023	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.020	0.020	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.019	0.019	0.000	100%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	0.017	0.017	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	0.016	0.016	0.000	100%
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	CH ₄	0.015	0.015	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.015	0.015	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.012	0.012	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.012	0.012	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.011	0.011	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	N ₂ O	0.011	0.011	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.010	0.010	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.009	0.009	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.009	0.009	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	0.009	0.009	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	0.008	0.008	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.008	0.008	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.008	0.008	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.008	0.008	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.007	0.007	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.006	0.006	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.006	0.006	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.006	0.006	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.005	0.005	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.005	0.005	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.005	0.005	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.005	0.005	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.005	0.005	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.004	0.004	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.004	0.004	0.000	100%
1.A.3.c. Railway Biomass Fuels	CH ₄	0.004	0.004	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	0.004	0.004	0.000	100%
1.A.2.g Other - Peat	N ₂ O	0.004	0.004	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	N ₂ O	0.004	0.004	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.003	0.003	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	0.000	100%
2.F.3. Fire Protection	HFCs	0.003	0.003	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.002	0.002	0.000	100%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.002	0.002	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.002	0.002	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.001	0.001	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.001	0.001	0.000	100%
1.A.2.g Other - Peat	CH ₄	0.001	0.001	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.001	0.001	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.0004	0.0004	0.000	100%
1.A.2.c Chemicals - Solid Fuels	N ₂ O	0.0004	0.0004	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0004	0.0004	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	N ₂ O	0.0004	0.0004	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CH ₄	0.0004	0.0004	0.000	100%
1.A.2.c Chemicals - Solid Fuels	CH ₄	0.0003	0.0003	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.0002	0.0002	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.0002	0.0002	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.0002	0.0002	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.0001	0.0001	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.0001	0.0001	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.0001	0.0001	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.00003	0.00003	0.000	100%

A.1.6 APPROACH 1 ANALYSIS FOR 2020 – LEVEL ASSESSMENT WITHOUT LULUCF

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.3.b Road Transportation - Diesel Oil	CO ₂	2352.479	2352.479	0.225	23%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	1272.807	1272.807	0.122	35%
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	981.740	981.740	0.094	44%
3.A.1 Enteric Fermentation - Cattle	CH ₄	811.767	811.767	0.078	52%
2.A.1. Cement Production	CO ₂	550.832	550.832	0.053	57%
1.A.3.b Road Transportation - Gasoline	CO ₂	499.711	499.711	0.048	62%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	458.525	458.525	0.044	66%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	280.529	280.529	0.027	69%
5.A.1. Managed Waste Disposal on Land	CH ₄	262.997	262.997	0.025	72%
1.A.4.b Residential - Gaseous Fuels	CO ₂	255.016	255.016	0.024	74%
2.F.1. Refrigeration and air conditioning	HFCs	242.553	242.553	0.023	76%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	179.093	179.093	0.017	78%
1.A.4.b Residential - Liquid Fuels	CO ₂	158.482	158.482	0.015	80%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CO ₂	139.412	139.412	0.013	81%
1.A.2.g Other - Liquid Fuels	CO ₂	129.528	129.528	0.012	82%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	116.102	116.102	0.011	83%
1.A.3.b Road Transportation - LPG	CO ₂	115.021	115.021	0.011	84%
1.A.4.b Residential - Biomass Fuels	CH ₄	110.521	110.521	0.011	85%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	109.534	109.534	0.010	86%
1.B.2.b Natural Gas	CH ₄	82.983	82.983	0.008	87%
1.A.3.c Railways - Liquid Fuels	CO ₂	80.954	80.954	0.008	88%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	77.148	77.148	0.007	89%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	75.594	75.594	0.007	89%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	71.214	71.214	0.007	90%
5.D.1 Domestic Wastewater	CH ₄	69.385	69.385	0.007	91%
1.A.2.g Other - Gaseous Fuels	CO ₂	67.165	67.165	0.006	91%
3.B.1.1 Manure Management - Cattle	CH ₄	66.487	66.487	0.006	92%
3.G. Liming	CO ₂	61.871	61.871	0.006	93%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	49.270	49.270	0.005	93%
3.B.2.1 Manure Management - Cattle	N ₂ O	34.476	34.476	0.003	93%
5.D.1 Domestic Wastewater	N ₂ O	32.081	32.081	0.003	94%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	27.343	27.343	0.003	94%
3.B.5 Indirect N ₂ O emissions from Manure	N ₂ O	27.183	27.183	0.003	94%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
Management					
5.B.1. Composting	CH ₄	26.931	26.931	0.003	95%
2.D.3. Solvent Use	CO ₂	24.382	24.382	0.002	95%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	22.897	22.897	0.002	95%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	22.573	22.573	0.002	95%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	22.431	22.431	0.002	95%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	21.411	21.411	0.002	96%
5.B.1. Composting	N ₂ O	19.261	19.261	0.002	96%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	18.762	18.762	0.002	96%
3.A.2 Enteric Fermentation - Sheep	CH ₄	18.380	18.380	0.002	96%
1.A.2.g Other - Biomass Fuels	N ₂ O	18.275	18.275	0.002	96%
1.B.2.c Venting and Flaring	CH ₄	17.549	17.549	0.002	97%
5.B.2. Anaerobic digestion at biogas facilities	CH ₄	17.232	17.232	0.002	97%
3.B.1.3 Manure Management - Swaine	CH ₄	16.783	16.783	0.002	97%
1.A.5.b Mobile - Liquid Fuels	CO ₂	14.723	14.723	0.001	97%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	14.420	14.420	0.001	97%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	14.376	14.376	0.001	97%
1.A.2.g Other - Liquid Fuels	N ₂ O	13.504	13.504	0.001	97%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	13.366	13.366	0.001	98%
2.D.1 Lubricant Use	CO ₂	12.291	12.291	0.001	98%
2.G.1. Electrical equipment	SF ₆	11.937	11.937	0.001	98%
1.A.4.b Residential - Liquid Fuels	N ₂ O	11.715	11.715	0.001	98%
3.A.3 Enteric Fermentation - Swine	CH ₄	11.505	11.505	0.001	98%
1.A.2.g Other - Biomass Fuels	CH ₄	11.498	11.498	0.001	98%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	10.553	10.553	0.001	98%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	10.417	10.417	0.001	98%
1.A.3.c Railways - Liquid Fuels	N ₂ O	9.230	9.230	0.001	98%
3.H. Urea Application	CO ₂	9.103	9.103	0.001	98%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	9.083	9.083	0.001	99%
2.A.4. Other process uses of carbonates	CO ₂	8.858	8.858	0.001	99%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.458	8.458	0.001	99%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	7.731	7.731	0.001	99%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	7.027	7.027	0.001	99%
3.B.2.4 Manure Management - Other livestock	N ₂ O	6.637	6.637	0.001	99%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	6.565	6.565	0.001	99%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
2.F.4. Aerosols	HFCs	6.070	6.070	0.001	99%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	5.913	5.913	0.001	99%
1.A.4.b Residential - Solid Fuels	CO ₂	5.310	5.310	0.001	99%
1.A.3.b Road Transportation - Other fossil fuel (please specify)	CO ₂	5.240	5.240	0.001	99%
3.B.1.4 Manure Management - Other livestock	CH ₄	5.119	5.119	0.000	99%
2.D.2 Paraffin wax use	CO ₂	5.056	5.056	0.000	99%
1.A.3.b Road Transportation - Lubricants	CO ₂	4.946	4.946	0.000	99%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	4.382	4.382	0.000	99%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	4.079	4.079	0.000	99%
3.B.2.3 Manure Management - Swaine	N ₂ O	3.897	3.897	0.000	99%
2.G.3. N ₂ O from product uses	N ₂ O	3.624	3.624	0.000	99%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	3.414	3.414	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	3.379	3.379	0.000	100%
5.D.2 Industrial Wastewater	CH ₄	3.073	3.073	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	2.332	2.332	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	2.099	2.099	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	2.028	2.028	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CO ₂	1.992	1.992	0.000	100%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	N ₂ O	1.933	1.933	0.000	100%
1.A.3.b Road Transportation - Gasoline	N ₂ O	1.678	1.678	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	1.641	1.641	0.000	100%
1.A.3.b Road Transportation - Gasoline	CH ₄	1.347	1.347	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	1.321	1.321	0.000	100%
2.D.3.d Urea Use	CO ₂	1.267	1.267	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.254	1.254	0.000	100%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CH ₄	1.216	1.216	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	1.214	1.214	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	1.168	1.168	0.000	100%
1.A.3.b Road Transportation - Biomass	N ₂ O	1.160	1.160	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	CH ₄	0.967	0.967	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.966	0.966	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.930	0.930	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.840	0.840	0.000	100%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.2.g Other - Peat	CO ₂	0.831	0.831	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CO ₂	0.776	0.776	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	0.732	0.732	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.710	0.710	0.000	100%
2.A.3. Glass production	CO ₂	0.684	0.684	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	0.684	0.684	0.000	100%
1.A.2.g Other - Solid Fuels	CO ₂	0.676	0.676	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CO ₂	0.660	0.660	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.632	0.632	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.575	0.575	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	0.574	0.574	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.560	0.560	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.469	0.469	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.447	0.447	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.437	0.437	0.000	100%
1.A.4.b Residential - Solid Fuels	CH ₄	0.413	0.413	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	N ₂ O	0.390	0.390	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	0.388	0.388	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.350	0.350	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.347	0.347	0.000	100%
1.A.3.c. Railway Biomass Fuels	N ₂ O	0.339	0.339	0.000	100%
2.F.2 Foam blowing agents	HFCs	0.285	0.285	0.000	100%
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	0.251	0.251	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	0.251	0.251	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	CH ₄	0.245	0.245	0.000	100%
1.A.2.c Chemicals - Biomass Fuels	N ₂ O	0.239	0.239	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CO ₂	0.220	0.220	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.196	0.196	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	0.191	0.191	0.000	100%
2.A.4.b Other Use of soda ash	CO ₂	0.191	0.191	0.000	100%
1.A.3.c Railways - Other Fuels (please specify)	CO ₂	0.168	0.168	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.151	0.151	0.000	100%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
1.A.2.c Chemicals - Biomass Fuels	CH ₄	0.150	0.150	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	0.145	0.145	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.137	0.137	0.000	100%
1.A.5.b Mobile - Liquid Fuels	N ₂ O	0.119	0.119	0.000	100%
1.A.3.b Road Transportation - Biomass	CH ₄	0.117	0.117	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.112	0.112	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	0.106	0.106	0.000	100%
1.A.2.c Chemicals - Solid Fuels	CO ₂	0.097	0.097	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CH ₄	0.068	0.068	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.060	0.060	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.054	0.054	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	0.051	0.051	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.051	0.051	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.045	0.045	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.041	0.041	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.039	0.039	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.038	0.038	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.038	0.038	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.036	0.036	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.035	0.035	0.000	100%
1.A.5.b Mobile - Liquid Fuels	CH ₄	0.033	0.033	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.032	0.032	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	0.030	0.030	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.030	0.030	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	0.025	0.025	0.000	100%
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	N ₂ O	0.024	0.024	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CH ₄	0.023	0.023	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.020	0.020	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.019	0.019	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	0.017	0.017	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	0.016	0.016	0.000	100%
1.A.2.d. Pulp, Paper and Print - Biomass	CH ₄	0.015	0.015	0.000	100%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
Fuels					
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.015	0.015	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.012	0.012	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.012	0.012	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.011	0.011	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	N ₂ O	0.011	0.011	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.010	0.010	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.009	0.009	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.009	0.009	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	0.009	0.009	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	0.008	0.008	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.008	0.008	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.008	0.008	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.008	0.008	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.007	0.007	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.006	0.006	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.006	0.006	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.006	0.006	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.005	0.005	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.005	0.005	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.005	0.005	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.005	0.005	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.005	0.005	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.004	0.004	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.004	0.004	0.000	100%
1.A.3.c. Railway Biomass Fuels	CH ₄	0.004	0.004	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	0.004	0.004	0.000	100%
1.A.2.g Other - Peat	N ₂ O	0.004	0.004	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	N ₂ O	0.004	0.004	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.003	0.003	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	0.000	100%
2.F.3. Fire Protection	HFCs	0.003	0.003	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous	N ₂ O	0.002	0.002	0.000	100%

IPCC category	Gas	Year 2020 emissions or removals, kt CO ₂ eq.	Absolute value of 2020 emissions, kt CO ₂ eq.	Level assessment	Cumulative total of Level assessment
Fuels					
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.002	0.002	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.002	0.002	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.001	0.001	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.001	0.001	0.000	100%
1.A.2.g Other - Peat	CH ₄	0.001	0.001	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.001	0.001	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.0004	0.0004	0.000	100%
1.A.2.c Chemicals - Solid Fuels	N ₂ O	0.0004	0.0004	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0004	0.0004	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	N ₂ O	0.0004	0.0004	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CH ₄	0.0004	0.0004	0.000	100%
1.A.2.c Chemicals - Solid Fuels	CH ₄	0.0003	0.0003	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.0002	0.0002	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.0002	0.0002	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.0002	0.0002	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.0001	0.0001	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.0001	0.0001	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.0001	0.0001	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.00003	0.00003	0.000	100%

A.1.7 APPROACH 2 ANALYSIS FOR 2020 – LEVEL ASSESSMENT WITH LULUCF

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
4.A.1 Forest Land remaining Forest Land – Carbon stock change, organic soil	CO ₂	772.156	727.047	727.047	5%	296%	2.960	0.030	0.089	0.239	24%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	N ₂ O	531.006	500.773	500.773	44%	119%	1.269	0.021	0.026	0.071	31%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CH ₄	90.462	366.937	366.937	44%	153%	1.593	0.015	0.024	0.065	37%
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	981.740	981.740	25%	50%	0.559	0.041	0.023	0.061	44%
4.C.2 Land converted to Grassland – Carbon stock change, organic soil	CO ₂	8.219	491.498	491.498	55%	40%	0.679	0.020	0.014	0.037	47%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, living biomass	CO ₂	-17804.089	-2837.623	2837.623	2%	11%	0.115	0.118	0.014	0.036	51%
4.C.1 Grassland remaining Grassland – Carbon stock change, organic soil	CO ₂	958.698	576.097	576.097	26%	40%	0.473	0.024	0.011	0.030	54%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CO ₂	0.000	106.131	106.131	5%	246%	2.464	0.004	0.011	0.029	57%
4. G. Harvested wood products	CO ₂	-166.113	-1726.145	1726.145	15%	0%	0.150	0.072	0.011	0.029	60%
4.B.2 Land converted to Cropland – Carbon stock change, organic soil	CO ₂	6.838	209.061	209.061	114%	13%	1.147	0.009	0.010	0.027	62%
4.B.1 Cropland remaining Cropland – Carbon stock change, organic soil	CO ₂	2371.344	1180.924	1180.924	13%	13%	0.188	0.049	0.009	0.025	65%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
4.C. Grassland – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.741	196.576	196.576	61%	91%	1.094	0.008	0.009	0.024	67%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	811.767	811.767	2%	20%	0.201	0.034	0.007	0.018	69%
4.E.2 Lands converted to settlements – Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	2.237	104.188	104.188	20%	151%	1.520	0.004	0.007	0.018	71%
4.B. Cropland 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.774	115.009	115.009	115%	71%	1.350	0.005	0.006	0.017	72%
4.E.1 Settlements remaining Settlements – Carbon stock change, living biomass	CO ₂	-50.035	-173.877	173.877	9%	84%	0.841	0.007	0.006	0.016	74%
2.F.1. Refrigeration and air conditioning	HFCs	0.000	242.553	242.553	50%	30%	0.583	0.010	0.006	0.016	76%
5.A.1. Managed Waste Disposal on Land	CH ₄	0.000	262.997	262.997	6%	52%	0.523	0.011	0.006	0.015	77%
4.E.2 Land converted to Settlements – Carbon stock change, organic soils	CO ₂	10.644	255.373	255.373	47%	18%	0.505	0.011	0.005	0.014	79%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CH ₄	1.480	62.157	62.157	6%	198%	1.981	0.003	0.005	0.014	80%
4.E.2 Land converted to Settlements – Carbon stock change, living biomass	CO ₂	70.353	108.503	108.503	20%	84%	0.858	0.005	0.004	0.010	81%
3.D.2 Indirect N ₂ O Emissions from managed	N ₂ O	311.748	179.093	179.093	2%	50%	0.500	0.007	0.004	0.010	82%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
soils											
4.C.1 Grassland remaining Grassland – Carbon stock change, living biomass	CO ₂	-20.226	-144.422	144.422	5%	56%	0.559	0.006	0.003	0.009	83%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, organic soils	CO ₂	211.968	142.995	142.995	6%	55%	0.557	0.006	0.003	0.009	84%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	1272.807	1272.807	2%	5%	0.054	0.053	0.003	0.008	85%
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	2352.479	2352.479	2%	2%	0.028	0.098	0.003	0.007	85%
2.A.1. Cement Production	CO ₂	345.783	550.832	550.832	8%	8%	0.113	0.023	0.003	0.007	86%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	116.102	116.102	6%	52%	0.523	0.005	0.003	0.007	87%
4.B.1 Cropland remaining Cropland – Carbon stock change, living biomass	CO ₂	-6.458	-43.076	43.076	3%	135%	1.353	0.002	0.002	0.006	87%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CO ₂	0.558	23.424	23.424	6%	246%	2.464	0.001	0.002	0.006	88%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CO ₂	855.360	1152.360	1152.360	5%		0.050	0.048	0.002	0.006	89%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, dead wood	CO ₂	-539.448	-1340.699	1340.699	2%	4%	0.042	0.056	0.002	0.006	89%
4.C.2 Land converted to Grassland – Carbon stock change, forest land converted to grassland, dead organic matter	CO ₂	0.000	202.123	202.123	10%	23%	0.253	0.008	0.002	0.006	90%
4.D.2 Land Converted to Wetland - Carbon	CO ₂	0.125	19.702	19.702	13%	246%	2.467	0.001	0.002	0.005	90%

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stock change, organic soils											
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	458.525	458.525	2%	10%	0.102	0.019	0.002	0.005	91%
4.E.2 Land converted to Settlements – Carbon stock change, dead organic matter	CO ₂	0.000	150.770	150.770	20%	23%	0.305	0.006	0.002	0.005	91%
1.B.2.b Natural Gas	CH ₄	177.238	82.983	82.983	35%	35%	0.495	0.003	0.002	0.005	92%
4.C.2 Land converted to Grassland – Carbon stock change, forest land converted to grassland, living biomass	CO ₂	0.000	72.142	72.142	10%	56%	0.564	0.003	0.002	0.005	92%
4.E.2 Land converted to Settlements – Carbon stock change, mineral soils	CO ₂	0.000	130.459	130.459	22%	13%	0.256	0.005	0.001	0.004	93%
3.G. Liming	CO ₂	357.133	61.871	61.871	5%	50%	0.502	0.003	0.001	0.003	93%
4.B.1 Land converted to Cropland – Carbon stock change, forest land converted to cropland, dead organic matter	CO ₂	0.000	52.141	52.141	53%	23%	0.583	0.002	0.001	0.003	93%
5.B.1. Composting	CH ₄	16.689	26.931	26.931	28%	100%	1.040	0.001	0.001	0.003	94%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	49.270	49.270	2%	50%	0.500	0.002	0.001	0.003	94%
5.D.1 Domestic Wastewater	CH ₄	198.300	69.385	69.385	7%	30%	0.308	0.003	0.001	0.002	94%
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	66.487	66.487	25%	20%	0.320	0.003	0.001	0.002	94%
4.A.2 Land converted to Forest Land – Carbon stock change, living biomass	CO ₂	-0.755	-115.114	115.114	8%	16%	0.182	0.005	0.001	0.002	95%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CH ₄	44.523	30.036	30.036	6%	63%	0.630	0.001	0.001	0.002	95%

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5.B.1. Composting	N ₂ O	11.936	19.261	19.261	28%	90%	0.944	0.001	0.001	0.002	95%
5.B.2. Anaerobic digestion at biogas facilities	CH ₄	0.000	17.232	17.232	20%	100%	1.020	0.001	0.001	0.002	95%
4.A.1 Forest land remaining forest land – wildfires	CO ₂	24.350	43.168	43.168	37%	12%	0.393	0.002	0.001	0.002	95%
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	158.482	158.482	2%	10%	0.102	0.007	0.001	0.002	96%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	27.183	27.183	25%	50%	0.559	0.001	0.001	0.002	96%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	280.529	280.529	2%	5%	0.054	0.012	0.001	0.002	96%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	499.711	499.711	2%	2%	0.028	0.021	0.001	0.002	96%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	255.016	255.016	2%	5%	0.054	0.011	0.001	0.002	96%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	129.528	129.528	2%	10%	0.102	0.005	0.001	0.001	96%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	110.521	110.521	5%	10%	0.112	0.005	0.001	0.001	96%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	22.897	22.897	1%	50%	0.500	0.001	0.000	0.001	97%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	22.431	22.431	2%	50%	0.500	0.001	0.000	0.001	97%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	109.534	109.534	2%	10%	0.102	0.005	0.000	0.001	97%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	34.476	34.476	25%	20%	0.320	0.001	0.000	0.001	97%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	21.411	21.411	1%	50%	0.500	0.001	0.000	0.001	97%
5.D.1 Domestic Wastewater	N ₂ O	50.413	32.081	32.081	6%	30%	0.306	0.001	0.000	0.001	97%
4.A.2 Land Converted to Forest Land – Carbon stock change, litter	CO ₂	-6.449	-40.130	40.130	8%	23%	0.244	0.002	0.000	0.001	97%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	18.380	18.380	2%	50%	0.500	0.001	0.000	0.001	97%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	18.275	18.275	1%	50%	0.500	0.001	0.000	0.001	98%

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2.D.3. Solvent Use	CO ₂	20.973	24.382	24.382	25%	25%	0.354	0.001	0.000	0.001	98%
4.B.2 Land converted to Cropland – Carbon stock change, forest land converted to cropland, living biomass	CO ₂	0.000	5.869	5.869	53%	135%	1.454	0.000	0.000	0.001	98%
4.A.1 Forest land remaining forest land – Controlled burning	CH ₄	22.635	7.245	7.245	93%	72%	1.173	0.000	0.000	0.001	98%
1.A.5.b Mobile - Liquid Fuels	CO ₂	0.000	14.723	14.723	2%	50%	0.500	0.001	0.000	0.001	98%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	14.420	14.420	1%	50%	0.500	0.001	0.000	0.001	98%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	14.376	14.376	2%	50%	0.500	0.001	0.000	0.001	98%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	N ₂ O	9.815	6.621	6.621	6%	107%	1.073	0.000	0.000	0.001	98%
4.E.1 Settlements remaining Settlements – Carbon stock change, organic soils	CO ₂	0.000	34.778	34.778	9%	18%	0.204	0.001	0.000	0.001	98%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	13.504	13.504	2%	50%	0.500	0.001	0.000	0.001	98%
1.A.3.b Road Transportation - LPG	CO ₂	37.148	115.021	115.021	2%	5%	0.054	0.005	0.000	0.001	98%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, living biomass	CO ₂	-68.172	5.633	5.633	6%	110%	1.098	0.000	0.000	0.001	98%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	11.715	11.715	2%	50%	0.500	0.000	0.000	0.001	98%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	11.498	11.498	1%	50%	0.500	0.000	0.000	0.001	99%
4 (IV) Indirect nitrous oxide (N ₂ O) emissions from managed soils	N ₂ O	0.000	2.546	2.546	42%	212%	2.157	0.000	0.000	0.001	99%
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	16.783	16.783	25%	20%	0.320	0.001	0.000	0.001	99%
1.A.4.a Commercial/Institutional - Liquid	N ₂ O	69.454	10.553	10.553	2%	50%	0.500	0.000	0.000	0.001	99%

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Fuels											
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	9.230	9.230	2%	50%	0.500	0.000	0.000	0.001	99%
3.H. Urea Application	CO ₂	7.709	9.103	9.103	2%	50%	0.500	0.000	0.000	0.001	99%
2.F.4. Aerosols	HFCs	0.000	6.070	6.070	50%	50%	0.707	0.000	0.000	0.000	99%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	77.148	77.148	2%	5%	0.054	0.003	0.000	0.000	99%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CO ₂	0.000	139.412	139.412	2%	2%	0.028	0.006	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	7.731	7.731	1%	50%	0.500	0.000	0.000	0.000	99%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	71.214	71.214	2%	5%	0.054	0.003	0.000	0.000	99%
4.C.2 Land converted to Grassland – Carbon stock change, settlements converted to grassland, living biomass	CO ₂	0.000	-4.899	4.899	10%	75%	0.756	0.000	0.000	0.000	99%
2.G.3. N ₂ O from product uses	N ₂ O	4.838	3.624	3.624	2%	100%	1.000	0.000	0.000	0.000	99%
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	67.165	67.165	2%	5%	0.054	0.003	0.000	0.000	99%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, dead organic matter	CO ₂	-13.091	50.858	50.858	6%	4%	0.071	0.002	0.000	0.000	99%
4.A.1 Forest land remaining forest land – wildfires	CH ₄	2.396	4.247	4.247	37%	72%	0.811	0.000	0.000	0.000	99%
4.A.2 Land Converted to Forest Land – Carbon stock change, dead wood	CO ₂	-6.793	-34.414	34.414	8%	4%	0.089	0.001	0.000	0.000	99%
2.G.1. Electrical equipment	SF ₆	0.000	11.937	11.937	2%	25%	0.251	0.000	0.000	0.000	99%
4.E.1 Settlements remaining Settlements – 4 (III) Direct nitrous oxide (N ₂ O) emissions from nitrogen (N)	N ₂ O	0.000	7.309	7.309	9%	38%	0.387	0.000	0.000	0.000	99%

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mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils											
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	75.594	75.594	2%	3%	0.036	0.003	0.000	0.000	99%
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	6.637	6.637	25%	30%	0.391	0.000	0.000	0.000	99%
4.A.2 Land converted to Forest Land – Carbon stock change, organic soil	CO ₂	0.000	0.863	0.863	44%	296%	2.992	0.000	0.000	0.000	99%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.458	8.458	5%	30%	0.304	0.000	0.000	0.000	99%
1.B.2.c Venting and Flaring	CH ₄	70.344	17.549	17.549	10%	10%	0.141	0.001	0.000	0.000	99%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	11.505	11.505	2%	20%	0.201	0.000	0.000	0.000	100%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	80.954	80.954	2%	2%	0.028	0.003	0.000	0.000	100%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	5.119	5.119	25%	30%	0.391	0.000	0.000	0.000	100%
4.C.2 Land converted to Grassland – Carbon stock change, wetlands converted to grassland, living biomass	CO ₂	0.000	-2.635	2.635	10%	75%	0.756	0.000	0.000	0.000	100%
4.E.1 Settlements remaining Settlements – Carbon stock change, dead organic matter	CO ₂	-5.815	-20.625	20.625	9%	4%	0.095	0.001	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	18.762	18.762	2%	10%	0.102	0.001	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	3.414	3.414	1%	50%	0.500	0.000	0.000	0.000	100%
5.D.2 Industrial Wastewater	CH ₄	137.076	3.073	3.073	46%	30%	0.549	0.000	0.000	0.000	100%
4.B.2 Land converted to Cropland – Carbon stock change, forest land converted to cropland, mineral soil	CO ₂	0.000	2.471	2.471	65%	22%	0.682	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	27.343	27.343	2%	5%	0.054	0.001	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – Carbon stock change, dead organic matter	CO ₂	-3.884	-21.347	21.347	5%	4%	0.064	0.001	0.000	0.000	100%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	3.897	3.897	25%	20%	0.320	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	22.573	22.573	2%	5%	0.054	0.001	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	10.417	10.417	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	2.099	2.099	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	N ₂ O	0.000	1.933	1.933	2%	50%	0.500	0.000	0.000	0.000	100%
2.A.4. Other process uses of carbonates	CO ₂	69.185	8.858	8.858	8%	8%	0.106	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	9.083	9.083	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	1.678	1.678	2%	50%	0.500	0.000	0.000	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	2.028	2.028	25%	30%	0.391	0.000	0.000	0.000	100%
4.A.1 Forest land remaining forest land – Controlled burning	N ₂ O	2.654	0.849	0.849	93%		0.926	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	13.366	13.366	2%	5%	0.054	0.001	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	1.321	1.321	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.254	1.254	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CH ₄	0.000	1.216	1.216	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	5.913	5.913	2%	10%	0.102	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.3.b Road Transportation - Other fossil fuel (please specify)	CO ₂	0.000	5.240	5.240	10%	5%	0.112	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	1.168	1.168	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Biomass	N ₂ O	0.000	1.160	1.160	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	4.946	4.946	10%	5%	0.112	0.000	0.000	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.966	0.966	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.840	0.840	2%	0.5	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	4.079	4.079	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	1.347	1.347	2%	30%	0.301	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	7.027	7.027	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	0.732	0.732	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.d Urea Use	CO ₂	0.000	1.267	1.267	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.710	0.710	1%	50%	0.500	0.000	0.000	0.000	100%
2.D.1 Lubricant Use	CO ₂	23.301	12.291	12.291	2%	2%	0.028	0.001	0.000	0.000	100%
4.B.2 Land converted to cropland – 4(III) Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/ immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	0.000	0.210	0.210	65%	151%	1.639	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	0.684	0.684	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.632	0.632	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	0.967	0.967	2%	30%	0.301	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.575	0.575	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	0.574	0.574	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2.332	2.332	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	6.565	6.565	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	4.382	4.382	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.469	0.469	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.447	0.447	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	0.413	0.413	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	1.992	1.992	2%	10%	0.102	0.000	0.000	0.000	100%
2.F.2 Foam blowing agents	HFCs	0.000	0.285	0.285	50%	50%	0.707	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	N ₂ O	0.000	0.390	0.390	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	5.310	5.310	2%	3%	0.036	0.000	0.000	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	N ₂ O	0.281	0.498	0.498	37%		0.374	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.350	0.350	2%	50%	0.500	0.000	0.000	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.437	0.437	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.3.c. Railway Biomass Fuels	N ₂ O	0.000	0.339	0.339	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.2 Paraffin wax use	CO ₂	0.000	5.056	5.056	2%	2%	0.028	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries -	CO ₂	0.000	0.660	0.660	2%	20%	0.201	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Other Fossil Fuels											
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	0.251	0.251	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	CH ₄	0.000	0.245	0.245	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	3.379	3.379	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Biomass Fuels	N ₂ O	0.000	0.239	0.239	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.196	0.196	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	0.191	0.191	2%	50%	0.500	0.000	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	N ₂ O	0.054	0.091	0.091	10%	96%	0.965	0.000	0.000	0.000	100%
4.B.1 Cropland remaining Cropland – Carbon stock change, dead organic matter	CO ₂	-1.240	1.812	1.812	3%	4%	0.047	0.000	0.000	0.000	100%
1.A.2.g Other - Peat	CO ₂	0.000	0.831	0.831	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.151	0.151	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Biomass Fuels	CH ₄	0.000	0.150	0.150	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.137	0.137	2%	50%	0.500	0.000	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	CH ₄	0.050	0.084	0.084	10%	78%	0.786	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	1.214	1.214	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.5.b Mobile - Liquid Fuels	N ₂ O	0.000	0.119	0.119	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	1.641	1.641	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.112	0.112	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
5.D.2 Industrial Wastewater	N ₂ O	2.341	0.145	0.145	19%	30%	0.355	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.930	0.930	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CO ₂	0.000	0.220	0.220	2%	20%	0.201	0.000	0.000	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CO ₂	0.000	0.776	0.776	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Biomass	CH ₄	0.000	0.117	0.117	2%	30%	0.301	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CH ₄	0.000	0.068	0.068	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.560	0.560	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	0.251	0.251	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	0.051	0.051	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.051	0.051	2%	50%	0.500	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.039	0.039	50%	40%	0.637	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	0.676	0.676	2%	3%	0.036	0.000	0.000	0.000	100%
2.A.3. Glass production	CO ₂	0.356	0.684	0.684	3%	3%	0.035	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.045	0.045	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	0.388	0.388	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.041	0.041	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.038	0.038	10%	50%	0.510	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.038	0.038	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.c Railways - Other Fuels (please	CO ₂	0.000	0.168	0.168	10%	5%	0.112	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
specify)											
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.347	0.347	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.036	0.036	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.035	0.035	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.060	0.060	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.5.b Mobile - Liquid Fuels	CH ₄	0.000	0.033	0.033	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.032	0.032	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.054	0.054	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	0.030	0.030	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.030	0.030	2%	50%	0.500	0.000	0.000	0.000	100%
2.A.4.b Other Use of soda ash	CO ₂	0.000	0.191	0.191	8%	3%	0.079	0.000	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	0.025	0.025	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	N ₂ O	0.000	0.024	0.024	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CH ₄	0.000	0.023	0.023	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	0.106	0.106	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.020	0.020	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.019	0.019	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	0.017	0.017	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	0.016	0.016	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	CH ₄	0.000	0.015	0.015	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.015	0.015	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.012	0.012	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.012	0.012	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.000	0.008	0.008	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.011	0.011	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	N ₂ O	0.000	0.011	0.011	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.010	0.010	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.009	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.009	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	0.009	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	0.008	0.008	2%	50%	0.500	0.000	0.000	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.008	0.008	35%	35%	0.495	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.008	0.008	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.007	0.007	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Solid Fuels	CO ₂	0.000	0.097	0.097	2%	3%	0.036	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.000	0.005	0.005	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.006	0.006	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.006	0.006	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.005	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.005	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.005	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.005	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.c. Railway Biomass Fuels	CH ₄	0.000	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
2.F.3. Fire Protection	HFCs	0.000	0.003	0.003	50%	50%	0.707	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.006	0.006	10%	30%	0.316	0.000	0.000	0.000	100%
1.A.2.g Other - Peat	N ₂ O	0.000	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	N ₂ O	0.000	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.003	0.003	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.002	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.002	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.012	0.001	0.001	50%	100%	1.116	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.002	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.001	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	0.003	10%	10%	0.141	0.000	0.000	0.000	100%
1.A.2.g Other - Peat	CH ₄	0.000	0.001	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.001	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.0004	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Solid Fuels	N ₂ O	0.000	0.0004	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	0.0004	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	N ₂ O	0.000	0.0004	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CH ₄	0.000	0.0004	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Solid Fuels	CH ₄	0.000	0.0003	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.0002	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	0.0002	0.000	2%	60%	0.600	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.0002	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	0.0001	0.000	2%	60%	0.600	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.0001	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.0001	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.00003	0.000	2%	50%	0.500	0.000	0.000	0.000	100%

A.1.8 APPROACH 2 ANALYSIS FOR 2020 – LEVEL ASSESSMENT WITHOUT LULUCF

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	981.740	981.740	25%	50%	0.559	0.094	0.053	0.285	28%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	811.767	811.767	2%	20%	0.201	0.078	0.016	0.085	37%
2.F.1. Refrigeration and air conditioning	HFCs	0.000	242.553	242.553	50%	30%	0.583	0.023	0.014	0.073	44%
5.A.1. Managed Waste Disposal on Land	CH ₄	0.000	262.997	262.997	6%	52%	0.523	0.025	0.013	0.071	51%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	179.093	179.093	2%	50%	0.500	0.017	0.009	0.047	56%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	1272.807	1272.807	2%	5%	0.054	0.122	0.007	0.036	60%
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	2352.479	2352.479	2%	2%	0.028	0.225	0.006	0.035	63%
2.A.1. Cement Production	CO ₂	345.783	550.832	550.832	8%	8%	0.113	0.053	0.006	0.032	66%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	116.102	116.102	6%	52%	0.523	0.011	0.006	0.032	70%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	458.525	458.525	2%	10%	0.102	0.044	0.004	0.024	72%
1.B.2.b Natural Gas	CH ₄	177.238	82.983	82.983	35%	35%	0.495	0.008	0.004	0.021	74%
3.G. Liming	CO ₂	357.133	61.871	61.871	5%	50%	0.502	0.006	0.003	0.016	76%
5.B.1. Composting	CH ₄	16.689	26.931	26.931	28%	100%	1.040	0.003	0.003	0.015	77%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	49.270	49.270	2%	50%	0.500	0.005	0.002	0.013	78%
5.D.1 Domestic Wastewater	CH ₄	198.300	69.385	69.385	7%	30%	0.308	0.007	0.002	0.011	80%
3.B.1.1 Manure Management -	CH ₄	110.967	66.487	66.487	25%	20%	0.320	0.006	0.002	0.011	81%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Cattle											
5.B.1. Composting	N ₂ O	11.936	19.261	19.261	28%	90%	0.944	0.002	0.002	0.009	82%
5.B.2. Anaerobic digestion at biogas facilities	CH ₄	0.000	17.232	17.232	20%	100%	1.020	0.002	0.002	0.009	82%
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	158.482	158.482	2%	10%	0.102	0.015	0.002	0.008	83%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	27.183	27.183	25%	50%	0.559	0.003	0.001	0.008	84%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	280.529	280.529	2%	5%	0.054	0.027	0.001	0.008	85%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	499.711	499.711	2%	2%	0.028	0.048	0.001	0.007	86%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	255.016	255.016	2%	5%	0.054	0.024	0.001	0.007	86%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	129.528	129.528	2%	10%	0.102	0.012	0.001	0.007	87%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	110.521	110.521	5%	10%	0.112	0.011	0.001	0.006	88%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	22.897	22.897	1%	50%	0.500	0.002	0.001	0.006	88%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	22.431	22.431	2%	50%	0.500	0.002	0.001	0.006	89%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	109.534	109.534	2%	10%	0.102	0.010	0.001	0.006	89%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	34.476	34.476	25%	20%	0.320	0.003	0.001	0.006	90%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	21.411	21.411	1%	50%	0.500	0.002	0.001	0.006	91%
5.D.1 Domestic Wastewater	N ₂ O	50.413	32.081	32.081	6%	30%	0.306	0.003	0.001	0.005	91%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	18.380	18.380	2%	50%	0.500	0.002	0.001	0.005	92%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	18.275	18.275	1%	50%	0.500	0.002	0.001	0.005	92%
2.D.3. Solvent Use	CO ₂	20.973	24.382	24.382	25%	25%	0.354	0.002	0.001	0.004	92%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.5.b Mobile - Liquid Fuels	CO ₂	0.000	14.723	14.723	2%	50%	0.500	0.001	0.001	0.004	93%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	14.420	14.420	1%	50%	0.500	0.001	0.001	0.004	93%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	14.376	14.376	2%	50%	0.500	0.001	0.001	0.004	94%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	13.504	13.504	2%	50%	0.500	0.001	0.001	0.004	94%
1.A.3.b Road Transportation - LPG	CO ₂	37.148	115.021	115.021	2%	5%	0.054	0.011	0.001	0.003	94%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	11.715	11.715	2%	50%	0.500	0.001	0.001	0.003	95%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	11.498	11.498	1%	50%	0.500	0.001	0.001	0.003	95%
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	16.783	16.783	25%	20%	0.320	0.002	0.001	0.003	95%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	10.553	10.553	2%	50%	0.500	0.001	0.001	0.003	95%
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	9.230	9.230	2%	50%	0.500	0.001	0.000	0.002	96%
3.H. Urea Application	CO ₂	7.709	9.103	9.103	2%	50%	0.500	0.001	0.000	0.002	96%
2.F.4. Aerosols	HFCs	0.000	6.070	6.070	50%	50%	0.707	0.001	0.000	0.002	96%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	77.148	77.148	2%	5%	0.054	0.007	0.000	0.002	96%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CO ₂	0.000	139.412	139.412	2%	2%	0.028	0.013	0.000	0.002	97%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	7.731	7.731	1%	50%	0.500	0.001	0.000	0.002	97%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	71.214	71.214	2%	5%	0.054	0.007	0.000	0.002	97%
2.G.3. N ₂ O from product uses	N ₂ O	4.838	3.624	3.624	2%	100%	1.000	0.000	0.000	0.002	97%
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	67.165	67.165	2%	5%	0.054	0.006	0.000	0.002	97%

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2.G.1. Electrical equipment	SF ₆	0.000	11.937	11.937	2%	25%	0.251	0.001	0.000	0.002	97%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	75.594	75.594	2%	3%	0.036	0.007	0.000	0.001	98%
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	6.637	6.637	25%	30%	0.391	0.001	0.000	0.001	98%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.458	8.458	5%	30%	0.304	0.001	0.000	0.001	98%
1.B.2.c Venting and Flaring	CH ₄	70.344	17.549	17.549	10%	10%	0.141	0.002	0.000	0.001	98%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	11.505	11.505	2%	20%	0.201	0.001	0.000	0.001	98%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	80.954	80.954	2%	2%	0.028	0.008	0.000	0.001	98%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	5.119	5.119	25%	30%	0.391	0.000	0.000	0.001	98%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	18.762	18.762	2%	10%	0.102	0.002	0.000	0.001	98%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	3.414	3.414	1%	50%	0.500	0.000	0.000	0.001	99%
5.D.2 Industrial Wastewater	CH ₄	137.076	3.073	3.073	46%	30%	0.549	0.000	0.000	0.001	99%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	27.343	27.343	2%	5%	0.054	0.003	0.000	0.001	99%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	3.897	3.897	25%	20%	0.320	0.000	0.000	0.001	99%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	22.573	22.573	2%	5%	0.054	0.002	0.000	0.001	99%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	10.417	10.417	2%	10%	0.102	0.001	0.000	0.001	99%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	2.099	2.099	1%	50%	0.500	0.000	0.000	0.001	99%

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1.A.2.f Non-metallic Minerals - Other Fossil Fuels	N ₂ O	0.000	1.933	1.933	2%	50%	0.500	0.000	0.000	0.001	99%
2.A.4. Other process uses of carbonates	CO ₂	69.185	8.858	8.858	8%	8%	0.106	0.001	0.000	0.000	99%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	9.083	9.083	2%	10%	0.102	0.001	0.000	0.000	99%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	1.678	1.678	2%	50%	0.500	0.000	0.000	0.000	99%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	2.028	2.028	25%	30%	0.391	0.000	0.000	0.000	99%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	13.366	13.366	2%	5%	0.054	0.001	0.000	0.000	99%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	1.321	1.321	1%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.254	1.254	1%	50%	0.500	0.000	0.000	0.000	99%
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CH ₄	0.000	1.216	1.216	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	5.913	5.913	2%	10%	0.102	0.001	0.000	0.000	99%
1.A.3.b Road Transportation - Other fossil fuel (please specify)	CO ₂	0.000	5.240	5.240	10%	5%	0.112	0.001	0.000	0.000	99%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	1.168	1.168	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.3.b Road Transportation - Biomass	N ₂ O	0.000	1.160	1.160	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	4.946	4.946	10%	5%	0.112	0.000	0.000	0.000	99%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.966	0.966	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.3.d Domestic Navigation -	N ₂ O	0.101	0.840	0.840	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Diesel Oil											
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	4.079	4.079	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	1.347	1.347	2%	30%	0.301	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	7.027	7.027	2%	5%	0.054	0.001	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	0.732	0.732	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.d Urea Use	CO ₂	0.000	1.267	1.267	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.710	0.710	1%	50%	0.500	0.000	0.000	0.000	100%
2.D.1 Lubricant Use	CO ₂	23.301	12.291	12.291	2%	2%	0.028	0.001	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	0.684	0.684	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.632	0.632	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	0.967	0.967	2%	30%	0.301	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.575	0.575	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	0.574	0.574	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2.332	2.332	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	6.565	6.565	2%	3%	0.036	0.001	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	4.382	4.382	2%	5%	0.054	0.000	0.000	0.000	100%

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1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.469	0.469	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.447	0.447	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	0.413	0.413	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	1.992	1.992	2%	10%	0.102	0.000	0.000	0.000	100%
2.F.2 Foam blowing agents	HFCs	0.000	0.285	0.285	50%	50%	0.707	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	N ₂ O	0.000	0.390	0.390	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	5.310	5.310	2%	3%	0.036	0.001	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.350	0.350	2%	50%	0.500	0.000	0.000	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.437	0.437	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.3.c. Railway Biomass Fuels	N ₂ O	0.000	0.339	0.339	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.2 Paraffin wax use	CO ₂	0.000	5.056	5.056	2%	2%	0.028	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CO ₂	0.000	0.660	0.660	2%	20%	0.201	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	0.251	0.251	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	CH ₄	0.000	0.245	0.245	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	3.379	3.379	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Biomass Fuels	N ₂ O	0.000	0.239	0.239	1%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.196	0.196	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	0.191	0.191	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Peat	CO ₂	0.000	0.831	0.831	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.151	0.151	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Biomass Fuels	CH ₄	0.000	0.150	0.150	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.137	0.137	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	1.214	1.214	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.5.b Mobile - Liquid Fuels	N ₂ O	0.000	0.119	0.119	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	1.641	1.641	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.112	0.112	2%	50%	0.500	0.000	0.000	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	2.341	0.145	0.145	19%	30%	0.355	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.930	0.930	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CO ₂	0.000	0.220	0.220	2%	20%	0.201	0.000	0.000	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CO ₂	0.000	0.776	0.776	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Biomass	CH ₄	0.000	0.117	0.117	2%	30%	0.301	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CH ₄	0.000	0.068	0.068	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.560	0.560	2%	5%	0.054	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	0.251	0.251	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	0.051	0.051	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.051	0.051	2%	50%	0.500	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.039	0.039	50%	40%	0.637	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	0.676	0.676	2%	3%	0.036	0.000	0.000	0.000	100%
2.A.3. Glass production	CO ₂	0.356	0.684	0.684	3%	3%	0.035	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.045	0.045	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	0.388	0.388	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.041	0.041	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.038	0.038	10%	50%	0.510	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.038	0.038	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.c Railways - Other Fuels (please specify)	CO ₂	0.000	0.168	0.168	10%	5%	0.112	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.347	0.347	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.036	0.036	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.035	0.035	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.060	0.060	20%	20%	0.283	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.5.b Mobile - Liquid Fuels	CH ₄	0.000	0.033	0.033	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.032	0.032	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.054	0.054	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	0.030	0.030	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.030	0.030	2%	50%	0.500	0.000	0.000	0.000	100%
2.A.4.b Other Use of soda ash	CO ₂	0.000	0.191	0.191	8%	3%	0.079	0.000	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	0.025	0.025	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	N ₂ O	0.000	0.024	0.024	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CH ₄	0.000	0.023	0.023	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	0.106	0.106	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.020	0.020	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.019	0.019	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	0.017	0.017	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	0.016	0.016	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	CH ₄	0.000	0.015	0.015	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.015	0.015	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.012	0.012	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.012	0.012	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.000	0.008	0.008	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.011	0.011	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	N ₂ O	0.000	0.011	0.011	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.010	0.010	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.009	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.009	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	0.009	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	0.008	0.008	2%	50%	0.500	0.000	0.000	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.008	0.008	35%	35%	0.495	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.008	0.008	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.007	0.007	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Solid Fuels	CO ₂	0.000	0.097	0.097	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation	N ₂ O	0.000	0.005	0.005	2%	70%	0.700	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
Gasoline											
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.006	0.006	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.006	0.006	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.005	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.005	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.005	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.005	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.c. Railway Biomass Fuels	CH ₄	0.000	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
2.F.3. Fire Protection	HFCs	0.000	0.003	0.003	50%	50%	0.707	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.006	0.006	10%	30%	0.316	0.000	0.000	0.000	100%
1.A.2.g Other - Peat	N ₂ O	0.000	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Other Fossil Fuels	N ₂ O	0.000	0.004	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.003	0.003	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.002	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.002	0.002	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
5.C.1 Waste Incineration	N ₂ O	0.012	0.001	0.001	50%	100%	1.116	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.002	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.001	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	0.003	10%	10%	0.141	0.000	0.000	0.000	100%
1.A.2.g Other - Peat	CH ₄	0.000	0.001	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.001	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Solid Fuels	N ₂ O	0.0000	0.0004	0.0004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	0.0004	0.0004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	N ₂ O	0.0000	0.0004	0.0004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CH ₄	0.0000	0.0004	0.0004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Solid Fuels	CH ₄	0.0000	0.0003	0.0003	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.0002	0.0002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	0.0002	0.0002	2%	60%	0.600	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.0002	0.0002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	0.0001	0.0001	2%	60%	0.600	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.0001	0.0001	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	ABS Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Level Assessment	Level Assessment with Uncertainty	Contribution to Level Assessment	Cumulative Total
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.0001	0.0001	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.00003	0.00003	2%	50%	0.500	0.000	0.000	0.000	100%

A 1.9 APPROACH 1 ANALYSIS FOR 2020 – TREND ASSESSMENT WITH LULUCF

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
4.A.1 Forest Land remaining Forest Land – Carbon stock change, living biomass	CO ₂	-17804.089	-2837.623	2%	11%	0.864	0.339	34%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	4.079	2%	10%	0.185	0.073	41%
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	2352.479	2%	2%	0.136	0.053	47%
4. G. Harvested wood products	CO ₂	-166.113	-1726.145	15%	0%	0.117	0.046	51%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	6.565	2%	3%	0.082	0.032	54%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	811.767	2%	20%	0.068	0.027	57%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	499.711	2%	2%	0.067	0.026	60%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	1272.807	2%	5%	0.066	0.026	62%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, dead wood	CO ₂	-539.448	-1340.699	2%	4%	0.066	0.026	65%
4.B.1 Cropland remaining Cropland – Carbon stock change, organic soil	CO ₂	2371.344	1180.924	13%	13%	0.056	0.022	67%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	129.528	2%	10%	0.055	0.021	69%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	109.534	2%	10%	0.053	0.021	71%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	22.573	2%	0.05	0.045	0.018	73%
4.C.2 Land converted to Grassland – Carbon stock change, organic soil	CO ₂	8.219	491.498	55%	40%	0.036	0.014	74%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	5.310	2%	3%	0.035	0.014	76%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CO ₂	855.360	1152.360	5%		0.033	0.013	77%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	9.083	2%	10%	0.033	0.013	78%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	67.165	2%	5%	0.027	0.011	79%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	80.954	2%	2%	0.026	0.010	81%
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	981.740	25%	50%	0.025	0.010	81%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CH ₄	90.462	366.937	44%	153%	0.022	0.008	82%
2.A.1. Cement Production	CO ₂	345.783	550.832	8%	8%	0.020	0.008	83%
4.E.2 Land converted to Settlements – Carbon stock change, organic soils	CO ₂	10.644	255.373	47%	18%	0.018	0.007	84%
3.G. Liming	CO ₂	357.133	61.871	5%	50%	0.017	0.007	85%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	5.913	2%	10%	0.016	0.006	85%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	10.417	2%	10%	0.016	0.006	86%
4.C.1 Grassland remaining Grassland – Carbon stock change, organic soil	CO ₂	958.698	576.097	26%	40%	0.015	0.006	86%
4.B.2 Land converted to Cropland – Carbon stock change, organic soil	CO ₂	6.838	209.061	114%	13%	0.015	0.006	87%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	0.388	2%	5%	0.014	0.006	87%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	71.214	2%	5%	0.014	0.005	88%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	3.379	2%	3%	0.012	0.005	89%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	116.102	6%	52%	0.010	0.004	89%
4.E.1 Settlements remaining Settlements – Carbon stock change, living biomass	CO ₂	-50.035	-173.877	9%	84%	0.010	0.004	89%
4.C.1 Grassland remaining Grassland – Carbon stock change, living biomass	CO ₂	-20.226	-144.422	5%	56%	0.009	0.004	90%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	0.106	2%	10%	0.009	0.003	90%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	4.382	2%	5%	0.009	0.003	90%
4.A.2 Land converted to Forest Land – Carbon stock change, living biomass	CO ₂	-0.755	-115.114	8%	16%	0.008	0.003	91%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	458.525	2%	10%	0.008	0.003	91%
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	158.482	2%	10%	0.008	0.003	91%
5.D.2 Industrial Wastewater	CH ₄	137.076	3.073	46%	30%	0.008	0.003	92%
4.E.2 Lands converted to settlements – Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	2.237	104.188	20%	151%	0.008	0.003	92%
2.A.2. Lime Production	CO ₂	121.915	0.000	8%	8%	0.007	0.003	92%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, organic soil	CO ₂	772.156	727.047	5%	296%	0.007	0.003	93%
5.D.1 Domestic Wastewater	CH ₄	198.300	69.385	7%	30%	0.007	0.003	93%
1.A.3.b Road Transportation - LPG	CO ₂	37.148	115.021	2%	5%	0.006	0.002	93%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	0.000	2%	3%	0.006	0.002	93%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	1.641	2%	3%	0.006	0.002	93%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	179.093	2%	50%	0.006	0.002	94%
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	0.000	2%	10%	0.006	0.002	94%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	255.016	2%	5%	0.005	0.002	94%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	N ₂ O	531.006	500.773	44%	119%	0.005	0.002	94%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	77.148	2%	5%	0.005	0.002	95%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	34.476	25%	20%	0.005	0.002	95%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	75.594	2%	3%	0.005	0.002	95%
1.B.2.b Natural Gas	CH ₄	177.238	82.983	35%	35%	0.005	0.002	95%
4.D.1 Wetlands remaining Wetlands – Carbon stock change,	CO ₂	-13.091	50.858	6%	4%	0.005	0.002	95%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
dead organic matter								
4.D.1 Wetlands remaining Wetlands – Carbon stock change, living biomass	CO ₂	-68.172	5.633	6%	110%	0.005	0.002	95%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CH ₄	1.480	62.157	6%	198%	0.004	0.002	96%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2.332	2%	10%	0.004	0.002	96%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	27.343	2%	5%	0.004	0.002	96%
2.C.1 Iron and Steel Production	CO ₂	69.555	0.000	5%	5%	0.004	0.002	96%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	280.529	2%	5%	0.004	0.002	96%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	1.992	2%	10%	0.004	0.002	96%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	27.183	25%	50%	0.004	0.002	97%
4.E.2 Land converted to Settlements – Carbon stock change, living biomass	CO ₂	70.353	108.503	20%	84%	0.004	0.001	97%
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	0.000	2%	20%	0.004	0.001	97%
2.A.4. Other process uses of carbonates	CO ₂	69.185	8.858	8%	8%	0.004	0.001	97%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	10.553	2%	50%	0.003	0.001	97%
4.B. Cropland 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.774	115.009	115%	71%	0.003	0.001	97%
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	9.230	2%	50%	0.003	0.001	97%
1.B.2.c Venting and Flaring	CH ₄	70.344	17.549	10%	10%	0.003	0.001	98%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	0.413	2%	50%	0.003	0.001	98%
4.B.1 Cropland remaining Cropland – Carbon stock change, living biomass	CO ₂	-6.458	-43.076	3%	135%	0.003	0.001	98%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	16.783	25%	20%	0.003	0.001	98%
4.C. Grassland – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.741	196.576	61%	91%	0.003	0.001	98%
4.A.2 Land Converted to Forest Land – Carbon stock change, litter	CO ₂	-6.449	-40.130	8%	23%	0.003	0.001	98%
1.A.4.b Residential - Peat	CO ₂	42.549	0.000	2%	10%	0.003	0.001	98%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	11.505	2%	20%	0.002	0.001	98%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, organic soils	CO ₂	211.968	142.995	6%	55%	0.002	0.001	98%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	3.897	25%	20%	0.002	0.001	98%
4.A.2 Land Converted to Forest Land – Carbon stock change, dead wood	CO ₂	-6.793	-34.414	8%	4%	0.002	0.001	98%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	13.504	2%	50%	0.002	0.001	99%
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	66.487	25%	20%	0.002	0.001	99%
4.A.1 Forest land remaining forest land – wildfires	CO ₂	24.350	43.168	37%	12%	0.002	0.001	99%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CO ₂	0.558	23.424	6%	246%	0.002	0.001	99%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	22.897	1%	50%	0.002	0.001	99%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	0.676	2%	3%	0.002	0.001	99%
4.D.2 Land Converted to Wetland - Carbon stock change, organic soils	CO ₂	0.125	19.702	13%	246%	0.001	0.001	99%
4.C.1 Grassland remaining Grassland – Carbon stock change, dead organic matter	CO ₂	-3.884	-21.347	5%	4%	0.001	0.001	99%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	18.275	1%	50%	0.001	0.001	99%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	22.431	2%	50%	0.001	0.000	99%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
4.E.1 Settlements remaining Settlements – Carbon stock change, dead organic matter	CO ₂	-5.815	-20.625	9%	4%	0.001	0.000	99%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	14.420	1%	50%	0.001	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	49.270	2%	50%	0.001	0.000	99%
5.B.1. Composting	CH ₄	16.689	26.931	28%	100%	0.001	0.000	99%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	0.251	2%	10%	0.001	0.000	99%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	1.214	2%	5%	0.001	0.000	99%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	1.347	2%	30%	0.001	0.000	99%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	11.498	1%	50%	0.001	0.000	99%
4.A.1 Forest land remaining forest land – Controlled burning	CH ₄	22.635	7.245	93%	72%	0.001	0.000	99%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	21.411	1%	50%	0.001	0.000	99%
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	6.637	25%	30%	0.001	0.000	100%
5.B.1. Composting	N ₂ O	11.936	19.261	28%	90%	0.001	0.000	100%
5.D.1 Domestic Wastewater	N ₂ O	50.413	32.081	6%	30%	0.001	0.000	100%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	18.380	2%	50%	0.001	0.000	100%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	1.678	2%	50%	0.001	0.000	100%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	110.521	5%	10%	0.001	0.000	100%
2.D.3. Solvent Use	CO ₂	20.973	24.382	25%	25%	0.001	0.000	100%
2.D.1 Lubricant Use	CO ₂	23.301	12.291	2%	2%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	0.000	2%	50%	0.000	0.000	100%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CH ₄	44.523	30.036	6%	63%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	7.027	2%	5%	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	13.366	2%	5%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	0.009	2%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	0.030	2%	50%	0.000	0.000	100%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	5.119	25%	30%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	0.732	2%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	0.017	2%	50%	0.000	0.000	100%
4.B.1 Cropland remaining Cropland – Carbon stock change, dead organic matter	CO ₂	-1.240	1.812	3%	4%	0.000	0.000	100%
3.H. Urea Application	CO ₂	7.709	9.103	2%	50%	0.000	0.000	100%
1.A.4.b Residential - Peat	CH ₄	3.188	0.000	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	0.000	2%	20%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	0.000	2%	10%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	0.004	2%	50%	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	0.025	2%	50%	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	4.946	10%	5%	0.000	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	CH ₄	2.396	4.247	37%	72%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	0.000	2%	3%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	2.099	1%	50%	0.000	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	0.191	2%	50%	0.000	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	2.028	25%	30%	0.000	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	2.341	0.145	19%	30%	0.000	0.000	100%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	11.715	2%	50%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	18.762	2%	10%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	3.414	1%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	0.251	2%	50%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	N ₂ O	9.815	6.621	6%	107%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	0.051	2%	0.5	0.000	0.000	100%
4.A.1 Forest land remaining forest land – Controlled burning	N ₂ O	2.654	0.849	93%		0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	1.321	1%	50%	0.000	0.000	100%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.458	5%	30%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	0.008	2%	50%	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	1.168	2%	50%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.930	2%	5%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	0.016	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.000	2%	50%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.840	2%	50%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.560	2%	5%	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.051	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.000	2%	50%	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.005	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.000	2%	50%	0.000	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.112	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.011	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	0.684	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.710	1%	50%	0.000	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.966	2%	50%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.005	2%	50%	0.000	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.039	50%	40%	0.000	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	0.967	2%	30%	0.000	0.000	100%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	14.376	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	0.574	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.000	2%	50%	0.000	0.000	100%
2.A.3. Glass production	CO ₂	0.356	0.684	3%	3%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.008	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.012	2%	50%	0.000	0.000	100%
2.G.3. N ₂ O from product uses	N ₂ O	4.838	3.624	2%	100%	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.469	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.447	1%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.350	2%	50%	0.000	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	N ₂ O	0.281	0.498	37%		0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.010	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	7.731	1%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.009	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.004	2%	50%	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.004	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.005	2%	50%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.347	2%	5%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.020	2%	50%	0.000	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.437	25%	30%	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.036	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.000	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.000	2%	50%	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.575	2%	50%	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.030	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.196	2%	50%	0.000	0.000	100%
1.A.4.b Residential - Peat	N ₂ O	0.186	0.000	2%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.005	2%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.632	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.000	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.038	2%	50%	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.003	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.000	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.032	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.000	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.254	1%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.002	2%	50%	0.000	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.060	20%	20%	0.000	0.000	100%
2.C.1 Iron and Steel Production	CH ₄	0.069	0.000	5%	5%	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.002	2%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.002	2%	50%	0.000	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.054	20%	20%	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	N ₂ O	0.054	0.091	10%	96%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.001	2%	50%	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	CH ₄	0.050	0.084	10%	78%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.000	2%	50%	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.137	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.041	2%	50%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.015	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.0348	2%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.00012	2%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.151	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.000	2%	50%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.012	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.000	2%	50%	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.006	10%	30%	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.038	10%	50%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.0006	2%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.000	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.000	2%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	0.000	2%	50%	0.000	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.012	0.001	50%	100%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.0011	0.009	2%	50%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.000	0.008	2%	70%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.0071	0.000	2%	50%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.000	0.005	2%	70%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.006	2%	50%	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.007	2%	50%	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.006	2%	50%	0.000	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.008	35%	35%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.045	2%	50%	0.000	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	10%	10%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.000	0.000	2%	50%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.0000	0.0002	2%	60%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.00000	0.0001	2%	60%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023140	0.0188	2%	50%	0.000	0.000	100%

A 1.10 APPROACH 1 ANALYSIS FOR 2020 – TREND ASSESSMENT WITHOUT LULUCF

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	2352.479	2%	2%	0.081	0.233	23%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	4.079	2%	10%	0.048	0.137	37%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	6.565	2%	3%	0.021	0.060	43%
2.A.1. Cement Production	CO ₂	345.783	550.832	8%	8%	0.016	0.046	48%
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	981.740	25%	50%	0.013	0.037	51%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	109.534	2%	10%	0.012	0.033	55%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	129.528	2%	10%	0.012	0.033	58%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	22.573	2%	5%	0.011	0.033	61%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	5.310	2%	3%	0.009	0.026	64%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	9.083	2%	10%	0.008	0.024	66%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	1272.807	2%	5%	0.008	0.022	68%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	499.711	2%	2%	0.008	0.022	71%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	458.525	2%	10%	0.007	0.019	73%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	280.529	2%	5%	0.007	0.019	74%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	255.016	2%	5%	0.006	0.018	76%
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	67.165	2%	5%	0.006	0.016	78%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	80.954	2%	2%	0.005	0.015	79%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	5.913	2%	10%	0.004	0.011	81%
1.A.3.b Road Transportation - LPG	CO ₂	37.148	115.021	2%	5%	0.004	0.011	82%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	10.417	2%	10%	0.004	0.011	83%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	0.388	2%	5%	0.004	0.011	84%
3.G. Liming	CO ₂	357.133	61.871	5%	50%	0.003	0.009	85%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	3.379	2%	3%	0.003	0.009	86%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	75.594	2%	3%	0.003	0.008	86%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	0.106	2%	10%	0.002	0.007	87%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	71.214	2%	5%	0.002	0.006	88%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	4.382	2%	5%	0.002	0.006	88%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	179.093	2%	50%	0.002	0.006	89%
5.D.2 Industrial Wastewater	CH ₄	137.076	3.073	46%	30%	0.002	0.006	89%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	110.521	5%	10%	0.002	0.006	90%
2.A.2. Lime Production	CO ₂	121.915	0.000	8%	8%	0.002	0.005	91%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	811.767	2%	20%	0.002	0.005	91%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	0.000	2%	3%	0.002	0.004	92%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	1.641	2%	3%	0.002	0.004	92%
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	0.000	2%	10%	0.001	0.004	92%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	49.270	2%	50%	0.001	0.004	93%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2.332	2%	10%	0.001	0.003	93%
2.C.1 Iron and Steel Production	CO ₂	69.555	0.000	5%	5%	0.001	0.003	93%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	1.992	2%	10%	0.001	0.003	94%
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	0.000	2%	20%	0.001	0.003	94%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	158.482	2%	10%	0.001	0.003	94%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	22.897	1%	50%	0.001	0.003	94%
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	66.487	25%	20%	0.001	0.002	95%
5.B.1. Composting	CH ₄	16.689	26.931	28%	100%	0.001	0.002	95%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	22.431	2%	50%	0.001	0.002	95%
2.A.4. Other process uses of carbonates	CO ₂	69.185	8.858	8%	8%	0.001	0.002	95%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	0.413	2%	50%	0.001	0.002	96%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	18.275	1%	50%	0.001	0.002	96%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	10.553	2%	50%	0.001	0.002	96%
1.A.4.b Residential - Peat	CO ₂	42.549	0.000	2%	10%	0.001	0.002	96%
2.D.3. Solvent Use	CO ₂	20.973	24.382	25%	25%	0.001	0.002	96%
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	9.230	2%	50%	0.001	0.002	96%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	27.343	2%	5%	0.001	0.002	97%
5.B.1. Composting	N ₂ O	11.936	19.261	28%	90%	0.001	0.002	97%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	14.420	1%	50%	0.001	0.002	97%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	34.476	25%	20%	0.001	0.002	97%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	3.897	25%	20%	0.000	0.001	97%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	27.183	25%	50%	0.000	0.001	97%
5.D.1 Domestic Wastewater	N ₂ O	50.413	32.081	6%	30%	0.000	0.001	98%
1.B.2.b Natural Gas	CH ₄	177.238	82.983	35%	35%	0.000	0.001	98%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	11.498	1%	50%	0.000	0.001	98%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	116.102	6%	52%	0.000	0.001	98%
1.B.2.c Venting and Flaring	CH ₄	70.344	17.549	10%	10%	0.000	0.001	98%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
5.D.1 Domestic Wastewater	CH ₄	198.300	69.385	7%	30%	0.000	0.001	98%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	0.676	2%	3%	0.000	0.001	98%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	11.505	2%	20%	0.000	0.001	98%
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	16.783	25%	20%	0.000	0.001	98%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	18.762	2%	10%	0.000	0.001	99%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	14.376	2%	50%	0.000	0.001	99%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	7.027	2%	5%	0.000	0.001	99%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	77.148	2%	5%	0.000	0.001	99%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	13.504	2%	50%	0.000	0.001	99%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	0.251	2%	10%	0.000	0.001	99%
3.H. Urea Application	CO ₂	7.709	9.103	2%	50%	0.000	0.001	99%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	21.411	1%	50%	0.000	0.001	99%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	1.214	2%	5%	0.000	0.001	99%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	1.347	2%	30%	0.000	0.001	99%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	11.715	2%	50%	0.000	0.001	99%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	18.380	2%	50%	0.000	0.001	99%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.458	5%	30%	0.000	0.001	99%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	7.731	1%	50%	0.000	0.000	99%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	13.366	2%	5%	0.000	0.000	99%
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	4.946	10%	5%	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	0.000	2%	50%	0.000	0.000	99%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	1.678	2%	50%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	0.009	2%	50%	0.000	0.000	100%
2.D.1 Lubricant Use	CO ₂	23.301	12.291	2%	2%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	0.030	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	2.099	1%	50%	0.000	0.000	100%
2.G.3. N ₂ O from product uses	N ₂ O	4.838	3.624	2%	100%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	0.017	2%	50%	0.000	0.000	100%
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	6.637	25%	30%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	0.732	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	1.321	1%	50%	0.000	0.000	100%
1.A.4.b Residential - Peat	CH ₄	3.188	0.000	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	0.000	2%	20%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	0.000	2%	10%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	0.004	2%	50%	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	0.025	2%	50%	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	1.168	2%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	0.000	2%	3%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.930	2%	5%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	3.414	1%	50%	0.000	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	0.191	2%	50%	0.000	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	2.341	0.145	19%	30%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.840	2%	50%	0.000	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.966	2%	50%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	0.251	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.254	1%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	0.051	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.710	1%	50%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.560	2%	5%	0.000	0.000	100%
2.A.3. Glass production	CO ₂	0.356	0.684	3%	3%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	0.008	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.000	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	0.016	2%	50%	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.469	2%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.632	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.447	1%	50%	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.575	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.350	2%	50%	0.000	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	0.967	2%	30%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.347	2%	5%	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.000	2%	50%	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.005	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.000	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.011	2%	50%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.051	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.005	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.000	2%	50%	0.000	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.039	50%	40%	0.000	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.112	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.008	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.196	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.012	2%	50%	0.000	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	2.028	25%	30%	0.000	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.437	25%	30%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.010	2%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.009	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.004	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	0.684	2%	50%	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.004	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.005	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.000	2%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.151	2%	50%	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.020	2%	50%	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.137	2%	50%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	0.574	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.000	2%	50%	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.036	2%	50%	0.000	0.000	100%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	5.119	25%	30%	0.000	0.000	100%
1.A.4.b Residential - Peat	N ₂ O	0.186	0.000	2%	50%	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.030	2%	50%	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.005	2%	50%	0.000	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.060	20%	20%	0.000	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.054	20%	20%	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.000	2%	50%	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.003	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.0002	2%	50%	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.000	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.038	2%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.002	2%	50%	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.038	10%	50%	0.000	0.000	100%
2.C.1 Iron and Steel Production	CH ₄	0.069	0.000	5%	5%	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.002	2%	50%	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.032	2%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.002	2%	50%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.045	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.001	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.000	2%	50%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.0001	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.00003	2%	50%	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.000	2%	50%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.019	2%	50%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.009	2%	50%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.015	2%	50%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.0005	0.008	2%	70%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.012	2%	50%	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.001	2%	50%	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.006	10%	30%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.000	2%	50%	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.000	2%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	0.000	2%	50%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.0001	0.005	2%	70%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.006	2%	50%	0.000	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.008	35%	35%	0.000	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.012	0.001	50%	100%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.041	2%	50%	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	0.000	2%	50%	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.035	2%	50%	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Trend assessment	Contribution to trend	Cumulative total of contribution to trend
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.007	2%	50%	0.000	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	10%	10%	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.006	2%	50%	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	0.0004	2%	50%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	0.0002	2%	60%	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	0.0001	2%	60%	0.000	0.000	100%

A.1.11 APPROACH 2 ANALYSIS FOR 2020 – TREND ASSESSMENT WITH LULUCF

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
4.A.1 Forest Land remaining Forest Land – Carbon stock change, living biomass	CO ₂	-17804.089	-2837.623	2%	11%	0.115	0.864	0.100	0.216	22%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CH ₄	90.462	366.937	44%	153%	1.593	0.022	0.034	0.074	29%
4.C.2 Land converted to Grassland – Carbon stock change, organic soil	CO ₂	8.219	491.498	55%	40%	0.679	0.036	0.024	0.052	34%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, organic soil	CO ₂	772.156	727.047	5%	296%	2.960	0.007	0.021	0.045	39%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	4.079	2%	10%	0.102	0.185	0.019	0.041	43%
4. G. Harvested wood products	CO ₂	-166.113	-1726.145	15%	0%	0.150	0.117	0.018	0.038	47%
4.B.2 Land converted to Cropland – Carbon stock change, organic soil	CO ₂	6.838	209.061	114%	13%	1.147	0.015	0.017	0.037	50%
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	981.740	25%	50%	0.559	0.025	0.014	0.030	53%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	811.767	2%	20%	0.201	0.068	0.014	0.029	56%
4.E.2 Lands converted to settlements – Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	2.237	104.188	20%	151%	1.520	0.008	0.011	0.025	59%
4.B.1 Cropland remaining Cropland – Carbon stock change, organic soil	CO ₂	2371.344	1180.924	13%	13%	0.188	0.056	0.011	0.023	61%
4.E.2 Land converted to Settlements – Carbon stock change, organic soils	CO ₂	10.644	255.373	47%	18%	0.505	0.018	0.009	0.020	63%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CH ₄	1.480	62.157	6%	198%	1.981	0.004	0.009	0.019	65%
3.G. Liming	CO ₂	357.133	61.871	5%	50%	0.502	0.017	0.009	0.018	67%
4.E.1 Settlements remaining Settlements – Carbon stock change, living biomass	CO ₂	-50.035	-173.877	9%	84%	0.841	0.010	0.008	0.018	69%
4.C.1 Grassland remaining Grassland – Carbon stock change, organic soil	CO ₂	958.698	576.097	26%	40%	0.473	0.015	0.007	0.016	70%
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	N ₂ O	531.006	500.773	44%	119%	1.269	0.005	0.006	0.013	72%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	129.528	2%	10%	0.102	0.055	0.006	0.012	73%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	116.102	6%	52%	0.523	0.010	0.005	0.012	74%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	109.534	2%	10%	0.102	0.053	0.005	0.012	75%
4.C.1 Grassland remaining Grassland – Carbon stock change, living biomass	CO ₂	-20.226	-144.422	5%	56%	0.559	0.009	0.005	0.011	76%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, living biomass	CO ₂	-68.172	5.633	6%	110%	1.098	0.005	0.005	0.011	77%
4.B. Cropland 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.774	115.009	115%	71%	1.350	0.003	0.005	0.010	78%
5.D.2 Industrial Wastewater	CH ₄	137.076	3.073	46%	30%	0.549	0.008	0.004	0.010	79%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CO ₂	0.558	23.424	6%	246%	2.464	0.002	0.004	0.009	80%
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	2352.479	2%	2%	0.028	0.136	0.004	0.008	81%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
4.B.1 Cropland remaining Cropland – Carbon stock change, living biomass	CO ₂	-6.458	-43.076	3%	135%	1.353	0.003	0.004	0.008	82%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	1272.807	2%	5%	0.054	0.066	0.004	0.008	83%
4.D.2 Land Converted to Wetland - Carbon stock change, organic soils	CO ₂	0.125	19.702	13%	246%	2.467	0.001	0.004	0.008	83%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	9.083	2%	10%	0.102	0.033	0.003	0.007	84%
4.E.2 Land converted to Settlements – Carbon stock change, living biomass	CO ₂	70.353	108.503	20%	84%	0.858	0.004	0.003	0.007	85%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	6.565	2%	3%	0.036	0.082	0.003	0.006	85%
4.C. Grassland – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.741	196.576	61%	91%	1.094	0.003	0.003	0.006	86%
4.A.1 Forest Land remaining Forest Land – Carbon stock change, dead wood	CO ₂	-539.448	-1340.699	2%	4%	0.042	0.066	0.003	0.006	87%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	179.093	2%	50%	0.500	0.006	0.003	0.006	87%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	22.573	2%	0.05	0.054	0.045	0.002	0.005	88%
1.B.2.b Natural Gas	CH ₄	177.238	82.983	35%	35%	0.495	0.005	0.002	0.005	88%
2.A.1. Cement Production	CO ₂	345.783	550.832	8%	8%	0.113	0.020	0.002	0.005	89%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	27.183	25%	50%	0.559	0.004	0.002	0.005	89%
5.D.1 Domestic Wastewater	CH ₄	198.300	69.385	7%	30%	0.308	0.007	0.002	0.005	90%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	499.711	2%	2%	0.028	0.067	0.002	0.004	90%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	10.553	2%	50%	0.500	0.003	0.002	0.004	90%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from	CO ₂	855.360	1152.360	5%		0.050	0.033	0.002	0.004	91%

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lands, drained organic soils										
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	5.913	2%	10%	0.102	0.016	0.002	0.003	91%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	10.417	2%	10%	0.102	0.016	0.002	0.003	91%
4.A.2 Land converted to Forest Land – Carbon stock change, living biomass	CO ₂	-0.755	-115.114	8%	16%	0.182	0.008	0.002	0.003	92%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	34.476	25%	20%	0.320	0.005	0.002	0.003	92%
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	9.230	2%	50%	0.500	0.003	0.002	0.003	92%
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	67.165	2%	5%	0.054	0.027	0.001	0.003	93%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	0.413	2%	50%	0.500	0.003	0.001	0.003	93%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	5.310	2%	3%	0.036	0.035	0.001	0.003	93%
4.D.1 Wetlands remaining Wetlands – Carbon stock change, organic soils	CO ₂	211.968	142.995	6%	55%	0.557	0.002	0.001	0.003	94%
5.B.1. Composting	CH ₄	16.689	26.931	28%	100%	1.040	0.001	0.001	0.002	94%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	13.504	2%	50%	0.500	0.002	0.001	0.002	94%
4.A.1 Forest land remaining forest land – Controlled burning	CH ₄	22.635	7.245	93%	72%	1.173	0.001	0.001	0.002	94%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	0.106	2%	10%	0.102	0.009	0.001	0.002	94%
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	16.783	25%	20%	0.320	0.003	0.001	0.002	95%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	458.525	2%	10%	0.102	0.008	0.001	0.002	95%
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	158.482	2%	10%	0.102	0.008	0.001	0.002	95%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	22.897	1%	50%	0.500	0.002	0.001	0.002	95%
2.A.2. Lime Production	CO ₂	121.915	0.000	8%	8%	0.110	0.007	0.001	0.002	95%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	0.388	2%	5%	0.054	0.014	0.001	0.002	96%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	80.954	2%	2%	0.028	0.026	0.001	0.002	96%

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1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	0.000	2%	20%	0.201	0.004	0.001	0.002	96%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	71.214	2%	5%	0.054	0.014	0.001	0.002	96%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	3.897	25%	20%	0.320	0.002	0.001	0.001	96%
4.A.1 Forest land remaining forest land – wildfires	CO ₂	24.350	43.168	37%	12%	0.393	0.002	0.001	0.001	96%
5.B.1. Composting	N ₂ O	11.936	19.261	28%	90%	0.944	0.001	0.001	0.001	96%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	18.275	1%	50%	0.500	0.001	0.001	0.001	97%
4.A.2 Land Converted to Forest Land – Carbon stock change, litter	CO ₂	-6.449	-40.130	8%	23%	0.244	0.003	0.001	0.001	97%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	22.431	2%	50%	0.500	0.001	0.001	0.001	97%
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	66.487	25%	20%	0.320	0.002	0.001	0.001	97%
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	0.000	2%	10%	0.102	0.006	0.001	0.001	97%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	14.420	1%	50%	0.500	0.001	0.001	0.001	97%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	49.270	2%	50%	0.500	0.001	0.001	0.001	97%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	4.382	2%	5%	0.054	0.009	0.000	0.001	97%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	11.505	2%	20%	0.201	0.002	0.000	0.001	98%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	3.379	2%	3%	0.036	0.012	0.000	0.001	98%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2.332	2%	10%	0.102	0.004	0.000	0.001	98%
1.B.2.c Venting and Flaring	CH ₄	70.344	17.549	10%	10%	0.141	0.003	0.000	0.001	98%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	11.498	1%	50%	0.500	0.001	0.000	0.001	98%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	1.992	2%	10%	0.102	0.004	0.000	0.001	98%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	21.411	1%	50%	0.500	0.001	0.000	0.001	98%
2.A.4. Other process uses of carbonates	CO ₂	69.185	8.858	8%	8%	0.106	0.004	0.000	0.001	98%
1.A.3.b Road Transportation - LPG	CO ₂	37.148	115.021	2%	5%	0.054	0.006	0.000	0.001	98%

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4.D.1 Wetlands remaining Wetlands – Carbon stock change, dead organic matter	CO ₂	-13.091	50.858	6%	4%	0.071	0.005	0.000	0.001	98%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	18.380	2%	50%	0.500	0.001	0.000	0.001	98%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	1.678	2%	50%	0.500	0.001	0.000	0.001	98%
2.C.1 Iron and Steel Production	CO ₂	69.555	0.000	5%	5%	0.071	0.004	0.000	0.001	99%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	255.016	2%	5%	0.054	0.005	0.000	0.001	99%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CH ₄	44.523	30.036	6%	63%	0.630	0.000	0.000	0.001	99%
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	6.637	25%	30%	0.391	0.001	0.000	0.001	99%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	1.347	2%	30%	0.301	0.001	0.000	0.001	99%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	77.148	2%	5%	0.054	0.005	0.000	0.001	99%
1.A.4.b Residential - Peat	CO ₂	42.549	0.000	2%	10%	0.102	0.003	0.000	0.001	99%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	0.000	2%	50%	0.500	0.000	0.000	0.001	99%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	27.343	2%	5%	0.054	0.004	0.000	0.001	99%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	280.529	2%	5%	0.054	0.004	0.000	0.000	99%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	0.009	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	0.000	2%	3%	0.036	0.006	0.000	0.000	99%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	1.641	2%	3%	0.036	0.006	0.000	0.000	99%
5.D.1 Domestic Wastewater	N ₂ O	50.413	32.081	6%	30%	0.306	0.001	0.000	0.000	99%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	0.030	2%	50%	0.500	0.000	0.000	0.000	99%
4.A.2 Land Converted to Forest Land – Carbon stock change, dead wood	CO ₂	-6.793	-34.414	8%	4%	0.089	0.002	0.000	0.000	99%

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2.D.3. Solvent Use	CO ₂	20.973	24.382	25%	25%	0.354	0.001	0.000	0.000	99%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	75.594	2%	3%	0.036	0.005	0.000	0.000	99%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	5.119	25%	30%	0.391	0.000	0.000	0.000	99%
4.A.1 Forest land remaining forest land – wildfires	CH ₄	2.396	4.247	37%	72%	0.811	0.000	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	0.732	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	0.017	2%	50%	0.500	0.000	0.000	0.000	99%
4.E.1 Settlements remaining Settlements – Carbon stock change, dead organic matter	CO ₂	-5.815	-20.625	9%	4%	0.095	0.001	0.000	0.000	99%
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	N ₂ O	9.815	6.621	6%	107%	1.073	0.000	0.000	0.000	100%
3.H. Urea Application	CO ₂	7.709	9.103	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Peat	CH ₄	3.188	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	0.251	2%	10%	0.102	0.001	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
4.A.1 Forest land remaining forest land – Controlled burning	N ₂ O	2.654	0.849	93%		0.926	0.000	0.000	0.000	100%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	0.025	2%	0.5	0.500	0.000	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – Carbon stock change, dead organic matter	CO ₂	-3.884	-21.347	5%	4%	0.064	0.001	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	2.099	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	0.191	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	110.521	5%	10%	0.112	0.001	0.000	0.000	100%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	11.715	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	3.414	1%	50%	0.500	0.000	0.000	0.000	100%

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1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	0.251	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	0.676	2%	3%	0.036	0.002	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	0.051	2%	50%	0.500	0.000	0.000	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	2.028	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	1.214	2%	5%	0.054	0.001	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	1.321	1%	50%	0.500	0.000	0.000	0.000	100%
5.D.2 Industrial Wastewater	N ₂ O	2.341	0.145	19%	30%	0.355	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	0.008	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	0.000	2%	20%	0.201	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	1.168	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	0.016	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.840	2%	0.5	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.458	5%	30%	0.304	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	7.027	2%	5%	0.054	0.000	0.000	0.000	100%
2.G.3. N ₂ O from product uses	N ₂ O	4.838	3.624	2%	100%	1.000	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	13.366	2%	5%	0.054	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.039	50%	40%	0.637	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.051	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	4.946	10%	5%	0.112	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	0.000	2%	10%	0.102	0.000	0.000	0.000	100%

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1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.112	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.011	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	0.684	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.710	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.966	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	14.376	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	0.574	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.008	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.1 Lubricant Use	CO ₂	23.301	12.291	2%	2%	0.028	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	18.762	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.012	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.469	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.447	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.350	2%	50%	0.500	0.000	0.000	0.000	100%
4.B.1 Cropland remaining Cropland – Carbon stock change, dead organic matter	CO ₂	-1.240	1.812	3%	4%	0.047	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	0.967	2%	30%	0.301	0.000	0.000	0.000	100%

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1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.010	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	7.731	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.020	2%	50%	0.500	0.000	0.000	0.000	100%
4.A.1 Forest land remaining forest land – wildfires	N ₂ O	0.281	0.498	37%		0.374	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.036	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.575	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.030	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.196	2%	50%	0.500	0.000	0.000	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.437	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	0.000	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.4.b Residential - Peat	N ₂ O	0.186	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.632	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.038	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.003	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.930	2%	5%	0.054	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
4.C.1 Grassland remaining Grassland – wildfires	N ₂ O	0.054	0.091	10%	96%	0.965	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.032	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
4.C.1 Grassland remaining Grassland – wildfires	CH ₄	0.050	0.084	10%	78%	0.786	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.254	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.560	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.137	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.041	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.060	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.015	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.035	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.00012	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.054	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.151	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.000	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
2.A.3. Glass production	CO ₂	0.356	0.684	3%	3%	0.035	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.012	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.347	2%	5%	0.054	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.012	0.001	50%	100%	1.116	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.038	10%	50%	0.510	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.0006	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.006	10%	30%	0.316	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.0127	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.000	0.008	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
2.C.1 Iron and Steel Production	CH ₄	0.0688	0.000	5%	5%	0.071	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.000	0.005	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.006	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.007	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.006	2%	50%	0.500	0.000	0.000	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.008	35%	35%	0.495	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.045	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.0000	0.0002	2%	60%	0.600	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
1.B.2.c Venting and Flaring	CO ₂	0.00281	0.0029	10%	10%	0.141	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000	0.000	2%	60%	0.600	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023140	0.0188	2%	50%	0.500	0.000	0.000	0.000	100%

A.1.12 APPROACH 2 ANALYSIS FOR 2020 – TREND ASSESSMENT WITHOUT LULUCF

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	981.740	25%	50%	0.559	0.013	0.007	0.181	18%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	4.079	2%	10%	0.102	0.048	0.005	0.124	30%
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	2352.479	2%	2%	0.028	0.081	0.002	0.058	36%
2.A.1. Cement Production	CO ₂	345.783	550.832	8%	8%	0.113	0.016	0.002	0.046	41%
3.G. Liming	CO ₂	357.133	61.871	5%	50%	0.502	0.003	0.002	0.041	45%
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	109.534	2%	10%	0.102	0.012	0.001	0.030	48%
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	129.528	2%	10%	0.102	0.012	0.001	0.030	51%
5.D.2 Industrial Wastewater	CH ₄	137.076	3.073	46%	30%	0.549	0.002	0.001	0.028	54%
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	179.093	2%	50%	0.500	0.002	0.001	0.026	56%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	9.083	2%	10%	0.102	0.008	0.001	0.022	59%
5.B.1. Composting	CH ₄	16.689	26.931	28%	100%	1.040	0.001	0.001	0.021	61%
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	6.565	2%	3%	0.036	0.021	0.001	0.019	63%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	458.525	2%	10%	0.102	0.007	0.001	0.018	64%
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	49.270	2%	50%	0.500	0.001	0.001	0.016	66%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	22.573	2%	5%	0.054	0.011	0.001	0.015	67%
5.B.1. Composting	N ₂ O	11.936	19.261	28%	90%	0.944	0.001	0.001	0.013	69%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	22.897	1%	50%	0.500	0.001	0.000	0.011	70%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	1272.807	2%	5%	0.054	0.008	0.000	0.011	71%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	5.913	2%	10%	0.102	0.004	0.000	0.010	72%
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	10.417	2%	10%	0.102	0.004	0.000	0.010	73%
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	22.431	2%	50%	0.500	0.001	0.000	0.010	74%
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	0.413	2%	50%	0.500	0.001	0.000	0.009	75%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	280.529	2%	5%	0.054	0.007	0.000	0.009	76%
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	18.275	1%	50%	0.500	0.001	0.000	0.009	77%
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	255.016	2%	5%	0.054	0.006	0.000	0.009	77%
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	811.767	2%	20%	0.201	0.002	0.000	0.009	78%
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	10.553	2%	50%	0.500	0.001	0.000	0.009	79%
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	5.310	2%	3%	0.036	0.009	0.000	0.008	80%
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	67.165	2%	5%	0.054	0.006	0.000	0.008	81%
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	9.230	2%	50%	0.500	0.001	0.000	0.008	82%
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	14.420	1%	50%	0.500	0.001	0.000	0.007	82%
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	66.487	25%	20%	0.320	0.001	0.000	0.007	83%
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	27.183	25%	50%	0.559	0.000	0.000	0.007	84%
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	0.106	2%	10%	0.102	0.002	0.000	0.006	84%
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	110.521	5%	10%	0.112	0.002	0.000	0.006	85%
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	116.102	6%	52%	0.523	0.000	0.000	0.006	85%
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	11.498	1%	50%	0.500	0.000	0.000	0.006	86%
1.B.2.b Natural Gas	CH ₄	177.238	82.983	35%	35%	0.495	0.000	0.000	0.006	86%
2.D.3. Solvent Use	CO ₂	20.973	24.382	25%	25%	0.354	0.001	0.000	0.006	87%
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	499.711	2%	2%	0.028	0.008	0.000	0.005	88%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
2.A.2. Lime Production	CO ₂	121.915	0.000	8%	8%	0.110	0.002	0.000	0.005	88%
1.A.3.b Road Transportation - LPG	CO ₂	37.148	115.021	2%	5%	0.054	0.004	0.000	0.005	89%
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	0.388	2%	5%	0.054	0.004	0.000	0.005	89%
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	0.000	2%	20%	0.201	0.001	0.000	0.005	90%
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	34.476	25%	20%	0.320	0.001	0.000	0.004	90%
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	3.897	25%	20%	0.320	0.000	0.000	0.004	90%
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	80.954	2%	2%	0.028	0.005	0.000	0.004	91%
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	0.000	2%	10%	0.102	0.001	0.000	0.004	91%
5.D.1 Domestic Wastewater	N ₂ O	50.413	32.081	6%	30%	0.306	0.000	0.000	0.004	92%
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	14.376	2%	50%	0.500	0.000	0.000	0.003	92%
5.D.1 Domestic Wastewater	CH ₄	198.300	69.385	7%	30%	0.308	0.000	0.000	0.003	92%
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	13.504	2%	50%	0.500	0.000	0.000	0.003	92%
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	16.783	25%	20%	0.320	0.000	0.000	0.003	93%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	71.214	2%	5%	0.054	0.002	0.000	0.003	93%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	4.382	2%	5%	0.054	0.002	0.000	0.003	93%
3.H. Urea Application	CO ₂	7.709	9.103	2%	50%	0.500	0.000	0.000	0.003	94%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	3.379	2%	3%	0.036	0.003	0.000	0.003	94%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2.332	2%	10%	0.102	0.001	0.000	0.003	94%
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	21.411	1%	50%	0.500	0.000	0.000	0.003	95%
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	1.992	2%	10%	0.102	0.001	0.000	0.003	95%
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	11.715	2%	50%	0.500	0.000	0.000	0.002	95%
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	18.380	2%	50%	0.500	0.000	0.000	0.002	95%
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	75.594	2%	3%	0.036	0.003	0.000	0.002	96%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	158.482	2%	10%	0.102	0.001	0.000	0.002	96%
2.A.4. Other process uses of carbonates	CO ₂	69.185	8.858	8%	8%	0.106	0.001	0.000	0.002	96%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	7.731	1%	50%	0.500	0.000	0.000	0.002	96%
2.C.1 Iron and Steel Production	CO ₂	69.555	0.000	5%	5%	0.071	0.001	0.000	0.002	96%
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	11.505	2%	20%	0.201	0.000	0.000	0.002	97%
1.A.4.b Residential - Peat	CO ₂	42.549	0.000	2%	10%	0.102	0.001	0.000	0.002	97%
2.G.3. N ₂ O from product uses	N ₂ O	4.838	3.624	2%	100%	1.000	0.000	0.000	0.002	97%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	0.000	2%	50%	0.500	0.000	0.000	0.002	97%
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	1.678	2%	50%	0.500	0.000	0.000	0.002	97%
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	1.347	2%	30%	0.301	0.000	0.000	0.002	97%
1.B.2.c Venting and Flaring	CH ₄	70.344	17.549	10%	10%	0.141	0.000	0.000	0.002	98%
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.458	5%	30%	0.304	0.000	0.000	0.001	98%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	0.009	2%	50%	0.500	0.000	0.000	0.001	98%
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	0.000	2%	3%	0.036	0.002	0.000	0.001	98%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	1.641	2%	3%	0.036	0.002	0.000	0.001	98%
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	0.030	2%	50%	0.500	0.000	0.000	0.001	98%
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	2.099	1%	50%	0.500	0.000	0.000	0.001	98%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	18.762	2%	10%	0.102	0.000	0.000	0.001	98%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	27.343	2%	5%	0.054	0.001	0.000	0.001	98%
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	0.017	2%	50%	0.500	0.000	0.000	0.001	99%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	0.732	2%	50%	0.500	0.000	0.000	0.001	99%
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	1.321	1%	50%	0.500	0.000	0.000	0.001	99%
1.A.4.b Residential - Peat	CH ₄	3.188	0.000	2%	50%	0.500	0.000	0.000	0.001	99%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	0.251	2%	10%	0.102	0.000	0.000	0.001	99%
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	0.004	2%	50%	0.500	0.000	0.000	0.001	99%
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	0.025	2%	50%	0.500	0.000	0.000	0.001	99%
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	6.637	25%	30%	0.391	0.000	0.000	0.001	99%
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	1.168	2%	50%	0.500	0.000	0.000	0.001	99%
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	3.414	1%	50%	0.500	0.000	0.000	0.000	99%
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	0.191	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	4.946	10%	5%	0.112	0.000	0.000	0.000	99%
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.840	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.966	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.2.g Other - Solid Fuels	CO ₂	26.667	0.676	2%	3%	0.036	0.000	0.000	0.000	99%
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	7.027	2%	5%	0.054	0.000	0.000	0.000	99%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	77.148	2%	5%	0.054	0.000	0.000	0.000	99%
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	0.251	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.254	1%	50%	0.500	0.000	0.000	0.000	99%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	0.051	2%	50%	0.500	0.000	0.000	0.000	99%
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	1.214	2%	5%	0.054	0.000	0.000	0.000	99%
1.A.2.e Food Processing, Beverages and	N ₂ O	0.272	0.710	1%	50%	0.500	0.000	0.000	0.000	99%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
Tobacco - Biomass Fuels										
5.D.2 Industrial Wastewater	N ₂ O	2.341	0.145	19%	30%	0.355	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	0.008	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	0.000	2%	20%	0.201	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	13.366	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	0.016	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.469	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.632	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.447	1%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.575	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.350	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	0.000	2%	10%	0.102	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	CO ₂	0.575	0.039	50%	40%	0.637	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.011	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.051	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.005	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.112	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.008	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.196	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	0.967	2%	30%	0.301	0.000	0.000	0.000	100%
2.D.1 Lubricant Use	CO ₂	23.301	12.291	2%	2%	0.028	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.012	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.010	2%	50%	0.500	0.000	0.000	0.000	100%
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	2.028	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	0.684	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.930	2%	5%	0.054	0.000	0.000	0.000	100%
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.437	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.151	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.020	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.137	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	0.574	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.036	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	0.000	2%	3%	0.036	0.000	0.000	0.000	100%
1.A.4.b Residential - Peat	N ₂ O	0.186	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.030	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.005	2%	50%	0.500	0.000	0.000	0.000	100%
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	5.119	25%	30%	0.391	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.560	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.003	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
2.A.3. Glass production	CO ₂	0.356	0.684	3%	3%	0.035	0.000	0.000	0.000	100%
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.060	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.038	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
2.D.3.c Asphalt roofing	CO ₂	0.003	0.054	20%	20%	0.283	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.347	2%	5%	0.054	0.000	0.000	0.000	100%
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.038	10%	50%	0.510	0.000	0.000	0.000	100%
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.032	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.002	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other	N ₂ O	0.054	0.045	2%	50%	0.500	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
Energy Industries - Liquid Fuels										
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.0001	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.00003	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.0005	0.008	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.019	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.009	2%	50%	0.500	0.000	0.000	0.000	100%
5.C.1 Waste Incineration	N ₂ O	0.012	0.001	50%	100%	1.116	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.015	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.012	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.001	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.0001	0.005	2%	70%	0.700	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.006	2%	50%	0.500	0.000	0.000	0.000	100%
1.B.2.b Natural Gas	CO ₂	0.009	0.008	35%	35%	0.495	0.000	0.000	0.000	100%

IPCC category	Gas	Base year emissions or removals, kt CO ₂ eq.	Year 2020 emissions or removals, kt CO ₂ eq.	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined Uncertainty	Trend assessment	Trend assessment with Uncertainty	% Contribution to Trend	Cumulative total of contribution to trend
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.006	10%	30%	0.316	0.000	0.000	0.000	100%
2.C.1 Iron and Steel Production	CH ₄	0.069	0.000	5%	5%	0.071	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.041	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	0.000	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.035	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.007	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.006	2%	50%	0.500	0.000	0.000	0.000	100%
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	10%	10%	0.141	0.000	0.000	0.000	100%
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	0.0004	2%	50%	0.500	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	0.0002	2%	60%	0.600	0.000	0.000	0.000	100%
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	0.0001	2%	60%	0.600	0.000	0.000	0.000	100%

ANNEX 2: ASSESSMENT OF UNCERTAINTY

Uncertainty analysis for base year (1990) and 2020 is generally in line with table 3.3 of volume 1 of the 2006 IPCC Guidelines. A slight modifications have been made to calculate the uncertainty for base year and 2020 to reflect particular national circumstances, for example, types of fuels in transport, more disaggregated agricultural categories (by animal species) and more disaggregated LULUCF categories (by taking into account soil type etc.).

A.2.1 APPROACH 1 UNCERTAINTY ANALYSIS FOR 1990 INCLUDING LULUCF

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year 1990
		<i>kt CO₂ eq.</i>	%	%	%	
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	2%	10%	0.102	0.001
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	2%	3%	0.036	0.000
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	2%	5%	0.054	0.000
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	2%	10%	0.102	0.000
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	2%	20%	0.201	0.000
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	5%	50%	0.502	0.000
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	5%	50%	0.502	0.000
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	2%	50%	0.500	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year 1990
		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	2%	10%	0.102	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	2%	5%	0.054	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2%	10%	0.102	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	2%	10%	0.102	0.000
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	2%	5%	0.054	0.000
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	2%	20%	0.201	0.000
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	2%	50%	0.500	0.000
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	2%	10%	0.102	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year 1990
		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	2%	5%	0.054	0.000
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	2%	50%	0.500	0.000
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	2%	50%	0.500	0.000
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	2%	50%	0.500	0.000
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	2%	10%	0.102	0.000
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	2%	3%	0.036	0.000
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	2%	5%	0.054	0.000
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	2%	10%	0.102	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	2%	3%	0.036	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	2%	5%	0.054	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	5%	50%	0.502	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous	N ₂ O	0.095	2%	50%	0.500	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year 1990
		<i>kt CO₂ eq.</i>	%	%	%	
Fuels						
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	<i>N₂O</i>	0.272	5%	50%	0.502	0.000
1.A.2.f Non-metallic Minerals - Liquid Fuels	<i>CO₂</i>	266.754	2%	10%	0.102	0.000
1.A.2.f Non-metallic Minerals - Solid Fuels	<i>CO₂</i>	16.004	2%	3%	0.036	0.000
1.A.2.f Non-metallic Minerals - Gaseous Fuels	<i>CO₂</i>	316.064	2%	5%	0.054	0.000
1.A.2.f Non-metallic Minerals - Liquid Fuels	<i>CH₄</i>	0.259	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Solid Fuels	<i>CH₄</i>	0.043	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Gaseous Fuels	<i>CH₄</i>	0.143	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Biomass Fuels	<i>CH₄</i>	0.005	5%	50%	0.502	0.000
1.A.2.f Non-metallic Minerals - Liquid Fuels	<i>N₂O</i>	0.618	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Solid Fuels	<i>N₂O</i>	0.076	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Gaseous Fuels	<i>N₂O</i>	0.171	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Biomass Fuels	<i>N₂O</i>	0.008	5%	50%	0.502	0.000
1.A.2.g Other - Liquid Fuels	<i>CO₂</i>	1066.131	2%	10%	0.102	0.000
1.A.2.g Other - Solid Fuels	<i>CO₂</i>	26.667	2%	3%	0.036	0.000
1.A.2.g Other - Gaseous Fuels	<i>CO₂</i>	526.803	2%	5%	0.054	0.000
1.A.2.g Other - Liquid Fuels	<i>CH₄</i>	2.688	2%	50%	0.500	0.000
1.A.2.g Other - Solid Fuels	<i>CH₄</i>	0.069	2%	50%	0.500	0.000
1.A.2.g Other - Gaseous Fuels	<i>CH₄</i>	0.239	2%	50%	0.500	0.000
1.A.2.g Other - Biomass Fuels	<i>CH₄</i>	0.287	5%	50%	0.502	0.000
1.A.2.g Other - Liquid Fuels	<i>N₂O</i>	48.931	2%	50%	0.500	0.000
1.A.2.g Other - Solid Fuels	<i>N₂O</i>	0.124	2%	50%	0.500	0.000
1.A.2.g Other - Gaseous Fuels	<i>N₂O</i>	0.285	2%	50%	0.500	0.000
1.A.2.g Other - Biomass Fuels	<i>N₂O</i>	0.455	5%	50%	0.502	0.000
1.A.3.a Domestic Aviation - Aviation Gasoline	<i>CO₂</i>	0.011	20%	10%	0.224	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year 1990
		kt CO ₂ eq.	%	%	%	
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	20%	10%	0.224	0.000
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	20%	60%	0.632	0.000
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	20%	60%	0.632	0.000
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.0001	20%	70%	0.728	0.000
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.0005	20%	70%	0.728	0.000
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	5%	10%	0.112	0.000
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	5%	10%	0.112	0.000
1.A.3.b Road Transportation - LPG	CO ₂	37.148	5%	10%	0.112	0.000
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	10%	10%	0.141	0.000
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	5%	10%	0.112	0.000
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	5%	30%	0.304	0.000
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	5%	30%	0.304	0.000
1.A.3.b Road Transportation - LPG	CH ₄	0.181	5%	50%	0.502	0.000
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	10%	30%	0.316	0.000
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	5%	50%	0.502	0.000
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	5%	50%	0.502	0.000
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	5%	50%	0.502	0.000
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	5%	50%	0.502	0.000
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	10%	50%	0.510	0.000
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	5%	50%	0.502	0.000
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	5%	10%	0.112	0.000
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	5%	50%	0.502	0.000
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	5%	50%	0.502	0.000
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	20%	10%	0.224	0.000
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	20%	10%	0.224	0.000

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		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	20%	50%	0.539	0.000
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	20%	50%	0.539	0.000
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	20%	50%	0.539	0.000
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	20%	50%	0.539	0.000
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	2%	10%	0.102	0.000
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	2%	3%	0.036	0.000
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	2%	5%	0.054	0.000
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	2%	10%	0.102	0.000
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	5%	50%	0.502	0.000
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	5%	50%	0.502	0.000
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	2%	50%	0.500	0.000
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	2%	10%	0.102	0.000
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	2%	3%	0.036	0.000
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	2%	5%	0.054	0.000
1.A.4.b Residential - Peat	CO ₂	42.549	2%	10%	0.102	0.000
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	2%	50%	0.500	0.000
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	2%	50%	0.500	0.000
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	2%	50%	0.500	0.000

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		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	5%	10%	0.112	0.000
1.A.4.b Residential - Peat	CH ₄	3.188	2%	50%	0.500	0.000
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	2%	50%	0.500	0.000
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	2%	50%	0.500	0.000
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	2%	50%	0.500	0.000
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	5%	30%	0.304	0.000
1.A.4.b Residential - Peat	N ₂ O	0.186	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	2%	10%	0.102	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	2%	3%	0.036	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	2%	5%	0.054	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	2%	10%	0.102	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	5%	50%	0.502	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	5%	50%	0.502	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	2%	50%	0.500	0.000
1.B.2.b Natural Gas	CO ₂	0.009	35%	35%	0.495	0.000
1.B.2.b Natural Gas	CH ₄	177.238	35%	35%	0.495	0.000
1.B.2.c Venting and Flaring	CO ₂	0.003	10%	10%	0.141	0.000
1.B.2.c Venting and Flaring	CH ₄	70.344	10%	10%	0.141	0.000

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		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
2.A.1. Cement Production	CO ₂	345.783	8%	8%	0.045	0.000
2.A.2. Lime Production	CO ₂	121.915	2%	8%	0.020	0.000
2.A.3. Glass production	CO ₂	0.356	2%	3%	0.020	0.000
2.A.4. Other process uses of carbonates	CO ₂	69.185	8%	8%	0.030	0.000
2.C.1 Iron and Steel Production	CO ₂	69.555	5%	5%	0.100	0.000
2.C.1 Iron and Steel Production	CH ₄	0.069	5%	5%	0.100	0.000
2.D.1 Lubricant Use	CO ₂	23.301	2%	2%	0.500	0.000
2.D.3.b Road paving with asphalt	CO ₂	0.001	20%	20%	0.500	0.000
2.D.3.c Asphalt roofing	CO ₂	0.003	20%	20%	0.500	0.000
2.D.3. Solvent Use	CO ₂	20.973	25%	25%	0.100	0.000
2.G.3. N ₂ O from product uses	N ₂ O	4.838	2%	100%	1.000	0.000
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	2%	20%	0.201	0.001
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	2%	50%	0.500	0.000
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	2%	20%	0.201	0.000
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	2%	50%	0.500	0.000
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	25%	20%	0.320	0.000
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	25%	20%	0.320	0.000
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	25%	30%	0.391	0.000
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	25%	30%	0.391	0.000
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	25%	20%	0.320	0.000
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	25%	20%	0.320	0.000
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	25%	30%	0.391	0.000
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	25%	30%	0.391	0.000
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	25%	50%	0.559	0.000
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	25%	50%	0.559	0.004

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		kt CO ₂ eq.	%	%	%	
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	2%	50%	0.500	0.000
3.G. Liming	CO ₂	357.133	5%	50%	0.502	0.000
3.H. Urea Application	CO ₂	7.709	50%	50%	0.707	0.000
4.A.1 Forest Land remaining Forest Land – Carbon stock change, living biomass	CO ₂	-17804.089	2%	11%	0.115	0.023
4.A.1 Forest Land remaining Forest Land – Carbon stock change, dead wood	CO ₂	-539.448	2%	4%	0.042	0.000
4.A.1 Forest Land remaining Forest Land – Carbon stock change, organic soil	CO ₂	772.156	6%	296%	2.961	0.028
4.A.2 Land converted to Forest Land – Carbon stock change, living biomass	CO ₂	-0.755	27%	16%	0.317	0.000
4.A.2 Land Converted to Forest Land – Carbon stock change, dead wood	CO ₂	-6.793	27%	4%	0.274	0.000
4.A.2 Land Converted to Forest Land – Carbon stock change, litter	CO ₂	-6.449	27%	23%	0.356	0.000
4.A.1 Forest land remaining forest land – Controlled burning	CH ₄	22.635	93%	72%	1.173	0.000
4.A.1 Forest land remaining forest land – Controlled burning	N ₂ O	2.654	93%		0.926	0.000
4.A.1 Forest land remaining forest land – wildfires	CO ₂	24.350	37%	12%	0.393	0.000
4.A.1 Forest land remaining forest land – wildfires	CH ₄	2.396	37%	72%	0.811	0.000
4.A.1 Forest land remaining forest land – wildfires	N ₂ O	0.281	37%		0.374	0.000
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CH ₄	90.462	6%	68%	0.685	0.000
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	N ₂ O	531.006	6%	119%	1.193	0.002
4.B.1 Cropland remaining Cropland – Carbon stock change, living biomass	CO ₂	-6.458	2%	135%	1.353	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year 1990
		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
4.B.1 Cropland remaining Cropland – Carbon stock change, dead organic matter	CO ₂	-1.240	2%	4%	0.045	0.000
4.B.1 Cropland remaining Cropland – Carbon stock change, organic soil	CO ₂	2371.344	11%	13%	0.170	0.001
4.B.2 Land converted to Cropland – Carbon stock change, organic soil	CO ₂	6.838	272%	13%	2.723	0.000
4.B. Cropland 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.774	11%	71%	0.720	0.000
4.C.1 Grassland remaining Grassland – Carbon stock change, living biomass	CO ₂	-20.226	5%	56%	0.559	0.000
4.C.1 Grassland remaining Grassland – Carbon stock change, dead organic matter	CO ₂	-3.884	5%	4%	0.064	0.000
4.C.1 Grassland remaining Grassland – Carbon stock change, organic soil	CO ₂	958.698	16%	40%	0.429	0.001
4.C.2 Land converted to Grassland – Carbon stock change, organic soil	CO ₂	8.219	1120%	40%	11.203	0.000
4.C. Grassland – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.741	19%	91%	0.928	0.000
4.C.1 Grassland remaining Grassland – wildfires	CH ₄	0.050	10%	78%	0.786	0.000
4.C.1 Grassland remaining Grassland – wildfires	N ₂ O	0.054	10%	96%	0.965	0.000
4.D.1 Wetlands remaining Wetlands – Carbon stock change, living biomass	CO ₂	-68.172	6%	110%	1.098	0.000
4.D.1 Wetlands remaining Wetlands – Carbon stock change, dead organic matter	CO ₂	-13.091	6%	4%	0.074	0.000
4.D.1 Wetlands remaining Wetlands – Carbon stock change, organic soils	CO ₂	211.968	18%	55%	0.582	0.000
4.D.2 Land Converted to Wetland - Carbon stock change, organic soils	CO ₂	0.125	1136%	246%	11.625	0.000
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils,	CO ₂	855.360	5%		0.050	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year 1990
		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
Peat extraction from lands, drained organic soils						
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CH ₄	44.523	18%	62%	0.651	0.000
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	N ₂ O	9.815	18%	107%	1.087	0.000
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CO ₂	0.558	18%	246%	2.470	0.000
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CH ₄	1.480	18%	198%	1.988	0.000
4.E.1 Settlements remaining Settlements – Carbon stock change, living biomass	CO ₂	-50.035	7%	84%	0.839	0.000
4.E.1 Settlements remaining Settlements – Carbon stock change, dead organic matter	CO ₂	-5.815	7%	4%	0.081	0.000
4.E.2 Land converted to Settlements – Carbon stock change, living biomass	CO ₂	70.353	78%	84%	1.143	0.000
4.E.2 Land converted to Settlements – Carbon stock change, organic soils	CO ₂	10.644	272%	18%	2.726	0.000
4.E.2 Lands converted to settlements – Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	2.237	78%	151%	1.697	0.000
4.G. Harvested wood products	CO ₂	-166.113	15%	0%	0.150	0.000
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	6%	52%	0.523	0.000
5.B.1. Composting	CH ₄	16.689	28%	100%	1.039	0.000
5.B.1. Composting	N ₂ O	11.936	28%	90%	0.943	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year 1990
		<i>kt CO₂ eq.</i>	%	%	%	
5.C.1 Waste Incineration	CO ₂	0.575	47%	40%	0.619	0.000
5.C.1 Waste Incineration	N ₂ O	0.012	47%	100%	1.106	0.000
5.D.1 Domestic Wastewater	CH ₄	198.300	8%	30%	0.310	0.000
5.D.1 Domestic Wastewater	N ₂ O	50.413	13%	30%	0.327	0.000
5.D.2 Industrial Wastewater	CH ₄	137.076	78%	30%	0.836	0.000
5.D.2 Industrial Wastewater	N ₂ O	2.341	7%	30%	0.308	0.000
Total		13567.405				0.063
Total Uncertainties					Uncertainty in total inventory %:	25%

A.2.2 APPROACH 1 UNCERTAINTY ANALYSIS FOR 1990 EXCLUDING LULUCF

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x
		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	2%	10%	0.102	0.000
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	2%	3%	0.036	0.000
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	2%	5%	0.054	0.000
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	2%	10%	0.102	0.000
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	2%	20%	0.201	0.000
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	5%	50%	0.502	0.000
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	5%	50%	0.502	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x
		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	2%	50%	0.500	0.000
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	2%	10%	0.102	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	2%	5%	0.054	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2%	10%	0.102	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	2%	50%	0.500	0.000
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	2%	10%	0.102	0.000
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	2%	5%	0.054	0.000
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	2%	20%	0.201	0.000
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	2%	50%	0.500	0.000
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	2%	50%	0.500	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x
		<i>kt CO₂ eq.</i>	%	%	%	
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	2%	50%	0.500	0.000
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	2%	10%	0.102	0.000
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	2%	5%	0.054	0.000
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	2%	50%	0.500	0.000
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	2%	50%	0.500	0.000
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	2%	50%	0.500	0.000
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	2%	10%	0.102	0.000
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	2%	3%	0.036	0.000
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	2%	5%	0.054	0.000
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	2%	50%	0.500	0.000
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	2%	10%	0.102	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	2%	3%	0.036	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	2%	5%	0.054	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CH ₄	0.267	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco -	CH ₄	0.079	2%	50%	0.500	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x
		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
Gaseous Fuels						
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	5%	50%	0.502	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	2%	50%	0.500	0.000
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	5%	50%	0.502	0.000
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	2%	10%	0.102	0.000
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	2%	3%	0.036	0.000
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	2%	5%	0.054	0.000
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	5%	50%	0.502	0.000
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	2%	50%	0.500	0.000
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	5%	50%	0.502	0.000
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	2%	10%	0.102	0.000
1.A.2.g Other - Solid Fuels	CO ₂	26.667	2%	3%	0.036	0.000
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	2%	5%	0.054	0.000
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	2%	50%	0.500	0.000
1.A.2.g Other - Solid Fuels	CH ₄	0.069	2%	50%	0.500	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x
		<i>kt CO₂ eq.</i>	%	%	%	
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	2%	50%	0.500	0.000
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	5%	50%	0.502	0.000
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	2%	50%	0.500	0.000
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	2%	50%	0.500	0.000
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	2%	50%	0.500	0.000
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	5%	50%	0.502	0.000
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	20%	10%	0.224	0.000
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	20%	10%	0.224	0.000
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000002	20%	60%	0.632	0.000
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.00001	20%	60%	0.632	0.000
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.0001	20%	70%	0.728	0.000
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.0005	20%	70%	0.728	0.000
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	5%	10%	0.112	0.000
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	5%	10%	0.112	0.000
1.A.3.b Road Transportation - LPG	CO ₂	37.148	5%	10%	0.112	0.000
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	10%	10%	0.141	0.000
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	5%	10%	0.112	0.000
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	5%	30%	0.304	0.000
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	5%	30%	0.304	0.000
1.A.3.b Road Transportation - LPG	CH ₄	0.181	5%	50%	0.502	0.000
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	10%	30%	0.316	0.000
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	5%	50%	0.502	0.000
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	5%	50%	0.502	0.000
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	5%	50%	0.502	0.000
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	5%	50%	0.502	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x
		<i>kt CO₂ eq.</i>	%	%	%	
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	10%	50%	0.510	0.000
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	5%	50%	0.502	0.000
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	5%	10%	0.112	0.000
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	5%	50%	0.502	0.000
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	5%	50%	0.502	0.000
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	20%	10%	0.224	0.000
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	20%	10%	0.224	0.000
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	20%	50%	0.539	0.000
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	20%	50%	0.539	0.000
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.0002	20%	50%	0.539	0.000
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	20%	50%	0.539	0.000
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	2%	10%	0.102	0.000
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	2%	3%	0.036	0.000
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	2%	5%	0.054	0.000
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	2%	10%	0.102	0.000
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	5%	50%	0.502	0.000
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	2%	50%	0.500	0.000
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	5%	50%	0.502	0.000
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	2%	50%	0.500	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x
		<i>kt CO₂ eq.</i>	%	%	%	
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	2%	10%	0.102	0.000
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	2%	3%	0.036	0.000
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	2%	5%	0.054	0.000
1.A.4.b Residential - Peat	CO ₂	42.549	2%	10%	0.102	0.000
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	2%	50%	0.500	0.000
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	2%	50%	0.500	0.000
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	2%	50%	0.500	0.000
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	5%	10%	0.112	0.000
1.A.4.b Residential - Peat	CH ₄	3.188	2%	50%	0.500	0.000
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	2%	50%	0.500	0.000
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	2%	50%	0.500	0.000
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	2%	50%	0.500	0.000
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	5%	30%	0.304	0.000
1.A.4.b Residential - Peat	N ₂ O	0.186	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	2%	10%	0.102	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	2%	3%	0.036	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	2%	5%	0.054	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	2%	10%	0.102	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	5%	50%	0.502	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	2%	50%	0.500	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x
		<i>kt CO₂ eq.</i>	%	%	%	
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	2%	50%	0.500	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	5%	50%	0.502	0.000
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	2%	50%	0.500	0.000
1.B.2.b Natural Gas	CO ₂	0.009	35%	35%	0.495	0.000
1.B.2.b Natural Gas	CH ₄	177.238	35%	35%	0.495	0.000
1.B.2.c Venting and Flaring	CO ₂	0.003	10%	10%	0.141	0.000
1.B.2.c Venting and Flaring	CH ₄	70.344	10%	10%	0.141	0.000
2.A.1. Cement Production	CO ₂	345.783	8%	8%	0.045	0.000
2.A.2. Lime Production	CO ₂	121.915	2%	8%	0.020	0.000
2.A.3. Glass production	CO ₂	0.356	2%	3%	0.020	0.000
2.A.4. Other process uses of carbonates	CO ₂	69.185	8%	8%	0.030	0.000
2.C.1 Iron and Steel Production	CO ₂	69.555	5%	5%	0.100	0.000
2.C.1 Iron and Steel Production	CH ₄	0.069	5%	5%	0.100	0.000
2.D.1 Lubricant Use	CO ₂	23.301	2%	2%	0.500	0.000
2.D.3.b Road paving with asphalt	CO ₂	0.001	20%	20%	0.500	0.000
2.D.3.c Asphalt roofing	CO ₂	0.003	20%	20%	0.500	0.000
2.D.3. Solvent Use	CO ₂	20.973	25%	25%	0.100	0.000
2.G.3. N ₂ O from product uses	N ₂ O	4.838	2%	100%	1.000	0.000
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	2%	20%	0.201	0.000
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	2%	50%	0.500	0.000
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	2%	20%	0.201	0.000
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	2%	50%	0.500	0.000
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	25%	20%	0.320	0.000
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	25%	20%	0.320	0.000
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	25%	30%	0.391	0.000

IPCC category	Gas	Year 1990 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x
		<i>kt CO₂ eq.</i>	<i>%</i>	<i>%</i>	<i>%</i>	
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	25%	30%	0.391	0.000
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	25%	20%	0.320	0.000
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	25%	20%	0.320	0.000
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	25%	30%	0.391	0.000
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	25%	30%	0.391	0.000
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	25%	50%	0.559	0.000
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	25%	50%	0.559	0.001
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	2%	50%	0.500	0.000
3.G. Liming	CO ₂	357.133	5%	50%	0.502	0.000
3.H. Urea Application	CO ₂	7.709	50%	50%	0.707	0.000
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	6%	52%	0.523	0.000
5.B.1. Composting	CH ₄	16.689	28%	100%	1.039	0.000
5.B.1. Composting	N ₂ O	11.936	28%	90%	0.943	0.000
5.C.1 Waste Incineration	CO ₂	0.575	47%	40%	0.619	0.000
5.C.1 Waste Incineration	N ₂ O	0.012	47%	100%	1.106	0.000
5.D.1 Domestic Wastewater	CH ₄	198.300	8%	30%	0.310	0.000
5.D.1 Domestic Wastewater	N ₂ O	50.413	13%	30%	0.327	0.000
5.D.2 Industrial Wastewater	CH ₄	137.076	78%	30%	0.836	0.000
5.D.2 Industrial Wastewater	N ₂ O	2.341	7%	30%	0.308	0.000
Total		25868.252				0.002
Total Uncertainties					Uncertainty in total inventory %:	4%

A.2.3 APPROACH 1 UNCERTAINTY ANALYSIS FOR 2020 INCLUDING LULUCF

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	4.079	2%	10%	0.102	0.000	0.185	0.000	0.018	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	3.379	2%	3%	0.036	0.000	0.012	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	1272.807	2%	5%	0.054	0.000	0.066	0.094	0.003	0.003	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	0.106	2%	10%	0.102	0.000	0.009	0.000	0.001	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2, pg. 2.38
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	0.000	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.001	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	0.574	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	14.420	1%	50%	0.500	0.000	0.001	0.001	0.001	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	0.009	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	0.016	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	0.684	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	22.897	1%	50%	0.500	0.000	0.002	0.002	0.001	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	18.762	2%	10%	0.102	0.000	0.000	0.001	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.c Manufacture of Solid Fuels and Other Energy	CO ₂	0.000	0.000	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Industries - Solid Fuels													Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	27.343	2%	5%	0.054	0.000	0.004	0.002	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2.332	2%	10%	0.102	0.000	0.004	0.000	0.000	0.000	0.000	AD -AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.019	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Solid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.012	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	CH ₄	0.000	0.245	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.001	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.045	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Solid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.015	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	N ₂ O	0.000	0.390	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.010	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	0.000	2%	10%	0.102	0.000	0.006	0.000	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.a Iron and Steel - Solid Fuels	CO ₂	0.000	0.000	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.38
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	0.388	2%	5%	0.054	0.000	0.014	0.000	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.a Iron and Steel - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	0.000	2%	20%	0.201	0.000	0.004	0.000	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.a Iron and Steel - Solid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Biomass Fuels	CH ₄	0.000	0.000	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Solid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Biomass Fuels	N ₂ O	0.000	0.000	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													combustion, Table 2.12
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Liquid Fuels	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.b Non-Ferrous Metals - Solid Fuels	CO ₂	0.000	0.000	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CO ₂	0.000	0.776	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.b Non-Ferrous Metals -	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Peat													Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.b Non-Ferrous Metals - Liquid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Solid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.b Non-Ferrous Metals - Biomass Fuels	CH ₄	0.000	0.000	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Liquid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Solid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Biomass Fuels	N ₂ O	0.000	0.000	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals -	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Peat													Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	10.417	2%	10%	0.102	0.000	0.015	0.001	0.002	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.c Chemicals - Solid Fuels	CO ₂	0.000	0.097	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	"AD -CSP; EF-""Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia"" , Riga, 2017"
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	13.366	2%	5%	0.054	0.000	0.000	0.001	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.38
1.A.2.c Chemicals - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Solid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.006	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Stationary combustion, Table 2.12
1.A.2.c Chemicals - Biomass Fuels	CH ₄	0.000	0.150	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.005	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Solid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.007	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Biomass Fuels	N ₂ O	0.000	0.239	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.2.c Chemicals - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	0.251	2%	10%	0.102	0.000	0.001	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	0.000	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.2.d. Pulp, Paper and Print -	CO ₂	150.166	4.382	2%	5%	0.054	0.000	0.009	0.000	0.000	0.000	0.000	AD -CSP;

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Gaseous Fuels													EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.d. Pulp, Paper and Print - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print -	CH ₄	0.068	0.002	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP;

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Gaseous Fuels													EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	CH ₄	0.000	0.015	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.002	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	N ₂ O	0.000	0.024	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	9.083	2%	10%	0.102	0.000	0.033	0.001	0.003	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	1.641	2%	3%	0.036	0.000	0.006	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	77.148	2%	5%	0.054	0.000	0.005	0.006	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.e Food Processing, Beverages and Tobacco - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.e Food Processing, Beverages and Tobacco - Other Fossil Fuels	CO ₂	0.000	0.000	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.005	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Solid	CH ₄	0.267	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Fuels													Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.035	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.447	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Other Fossil Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	0.008	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.008	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco -	N ₂ O	0.095	0.041	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Gaseous Fuels													Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.710	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.e Food Processing, Beverages and Tobacco - Other Fossil Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	5.913	2%	10%	0.102	0.000	0.016	0.000	0.002	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	75.594	2%	3%	0.036	0.000	0.005	0.006	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	71.214	2%	5%	0.054	0.000	0.014	0.005	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.f Non-metallic Minerals - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CO ₂	0.000	139.412	2%	2%	0.028	0.000	0.010	0.010	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.005	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.196	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.032	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	1.321	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CH ₄	0.000	1.216	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.011	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.350	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.038	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	2.099	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	N ₂ O	0.000	1.933	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	129.528	2%	10%	0.102	0.000	0.055	0.010	0.005	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.2.g Other - Solid Fuels	CO ₂	26.667	0.676	2%	3%	0.036	0.000	0.002	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	67.165	2%	5%	0.054	0.000	0.027	0.005	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.g Other - Peat	CO ₂	0.000	0.831	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.g Other - Other Fossil Fuels	CO ₂	0.000	0.000	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	0.191	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.002	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.030	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	11.498	1%	50%	0.500	0.000	0.001	0.001	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Peat	CH ₄	0.000	0.001	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.g Other - Other Fossil Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	13.504	2%	50%	0.500	0.000	0.002	0.001	0.001	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.003	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.036	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	18.275	1%	50%	0.500	0.000	0.001	0.001	0.001	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Peat	N ₂ O	0.000	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Other Fossil Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2 Stationary combustion, Table 2.12
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.560	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.930	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000	0.000	2%	60%	0.600	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.000	0.000	2%	60%	0.600	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.000	0.005	2%	70%	0.700	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.000	0.008	2%	70%	0.700	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	499.711	2%	2%	0.028	0.000	0.067	0.037	0.001	0.001	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	2352.479	2%	2%	0.028	0.000	0.136	0.173	0.003	0.005	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation -	CO ₂	37.148	115.021	2%	5%	0.054	0.000	0.006	0.008	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines,

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
LPG													Volume 2, pp.3.29
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	4.946	10%	5%	0.112	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	1.214	2%	5%	0.054	0.000	0.001	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Other fossil fuel (please specify)	CO ₂	0.000	5.240	10%	5%	0.112	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSB; EF - 2006 IPCC Guidelines, Volume 2, chapter 3, section 'CO ₂ emissions from biofuels', pp 3.17
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	1.347	2%	30%	0.301	0.000	0.001	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	0.967	2%	30%	0.301	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.469	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.006	10%	30%	0.316	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.051	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation -	CH ₄	0.000	0.117	2%	30%	0.301	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Biomass													IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	1.678	2%	50%	0.500	0.000	0.001	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	22.431	2%	50%	0.500	0.000	0.001	0.002	0.001	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	1.168	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.038	10%	50%	0.510	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.020	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Biomass	N ₂ O	0.000	1.160	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	80.954	2%	2%	0.028	0.000	0.026	0.006	0.001	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46
1.A.3.c Railways - Other Fuels (please specify)	CO ₂	0.000	0.168	10%	5%	0.112	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSB; EF - 2006 IPCC Guidelines, Volume 2, chapter 3, section 'CO ₂ emissions from biofuels', pp 3.17

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.112	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46
1.A.3.c. Railway Biomass Fuels	CH ₄	0.000	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	9.230	2%	50%	0.500	0.000	0.003	0.001	0.002	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46
1.A.3.c. Railway Biomass Fuels	N ₂ O	0.000	0.339	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.347	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	7.027	2%	5%	0.054	0.000	0.000	0.001	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.006	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.009	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines,

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.840	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	109.534	2%	10%	0.102	0.000	0.053	0.008	0.005	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	6.565	2%	3%	0.036	0.000	0.082	0.000	0.002	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	280.529	2%	5%	0.054	0.000	0.004	0.021	0.000	0.001	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.a Commercial/Institutional	CO ₂	66.886	1.992	2%	10%	0.102	0.000	0.004	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
- Peat													2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CO ₂	0.000	0.220	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	0.251	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	0.017	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.632	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	21.411	1%	50%	0.500	0.000	0.001	0.002	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.005	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CH ₄	0.000	0.023	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	10.553	2%	50%	0.500	0.000	0.003	0.001	0.002	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	0.030	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional	N ₂ O	0.149	0.151	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP;

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
- Gaseous Fuels													EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	3.414	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Peat	N ₂ O	0.296	0.009	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.4.a Commercial/Institutional - Other Fossil Fuels	N ₂ O	0.000	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	158.482	2%	10%	0.102	0.000	0.008	0.012	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	5.310	2%	3%	0.036	0.000	0.035	0.000	0.001	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	255.016	2%	5%	0.054	0.000	0.005	0.019	0.000	0.001	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2, pg. 2.38
1.A.4.b Residential - Peat	CO ₂	42.549	0.000	2%	10%	0.102	0.000	0.003	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.b Residential - Other Fossil Fuels	CO ₂	0.000	0.000	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.966	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	0.413	2%	50%	0.500	0.000	0.003	0.000	0.001	0.000	0.000	AD -CSP;

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.575	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	110.521	5%	10%	0.112	0.000	0.001	0.008	0.000	0.001	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Peat	CH ₄	3.188	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Other Fossil Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	11.715	2%	50%	0.500	0.000	0.000	0.001	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	0.025	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													combustion, Table 2.12
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.137	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.458	5%	30%	0.304	0.000	0.000	0.001	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Peat	N ₂ O	0.186	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Other Fossil Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	458.525	2%	10%	0.102	0.000	0.008	0.034	0.001	0.001	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	0.000	2%	3%	0.036	0.000	0.006	0.000	0.000	0.000	0.000	AD -CSP; EF"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	22.573	2%	5%	0.054	0.000	0.045	0.002	0.002	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.38
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CO ₂	0.000	0.660	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	0.732	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	0.051	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	7.731	1%	50%	0.500	0.000	0.000	0.001	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CH ₄	0.000	0.068	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	49.270	2%	50%	0.500	0.000	0.001	0.004	0.001	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c	N ₂ O	0.423	0.012	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP;

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Agriculture/Forestry/Fisheries - Gaseous Fuels													EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.254	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	N ₂ O	0.000	0.011	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.5.b Mobile - Liquid Fuels	CO ₂	0.000	14.723	2%	50%	0.500	0.000	0.001	0.001	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.5.b Mobile - Liquid Fuels	CH ₄	0.000	0.033	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.5.b Mobile - Liquid Fuels	N ₂ O	0.000	0.119	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.B.2.b Natural Gas	CO ₂	0.009	0.008	35%	35%	0.495	0.000	0.000	0.000	0.000	0.000	0.000	AD - Latvijas Gāze
1.B.2.b Natural Gas	CH ₄	177.238	82.983	35%	35%	0.495	0.000	0.005	0.006	0.002	0.003	0.000	AD - Latvijas Gāze

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	10%	10%	0.141	0.000	0.000	0.000	0.000	0.000	0.000	AD - Latvijas Gāze
1.B.2.c Venting and Flaring	CH ₄	70.344	17.549	10%	10%	0.141	0.000	0.003	0.001	0.000	0.000	0.000	AD - Latvijas Gāze
2.A.1. Cement Production	CO ₂	345.783	550.832	8%	8%	0.045	0.000	0.020	0.041	0.002	0.005	0.000	AD - Cement Production plant's GHG report under EU ETS; EF - 2006 IPCC Guidelines, Volume 3, Chapter 2, page 2.7 Table 2.3
2.A.2. Lime Production	CO ₂	121.915	0.000	8%	8%	0.020	0.000	0.007	0.000	0.001	0.000	0.000	AD - Lime Production plant's GHG report under EU ETS; EF - 2006 IPCC Guidelines, Volume 3, Chapter 2, page 2.25 Table 2.5
2.A.3. Glass production	CO ₂	0.356	0.684	3%	3%	0.020	0.000	0.000	0.000	0.000	0.000	0.000	AD - Glass Production plant's GHG report under EU ETS; EF - 2006 IPCC Guidelines, Volume 3, Chapter 2, page 2.31
2.A.4. Other process uses of carbonates	CO ₂	69.185	8.858	8%	8%	0.030	0.000	0.004	0.001	0.000	0.000	0.000	AD - Bricks Production plant's GHG report under EU ETS; EF - Expert

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													<i>judgment</i>
2.A.4.b Other Use of soda ash	CO ₂	0.000	0.191	8%	3%	0.030	0.000	0.000	0.000	0.000	0.000	0.000	AD - Glass Production plant's GHG report under EU ETS; EF - Expert judgment
2.C.1 Iron and Steel Production	CO ₂	69.555	0.000	5%	5%	0.100	0.000	0.004	0.000	0.000	0.000	0.000	AD - Steel Production plant's GHG report under EU ETS; EF - 2006 IPCC Guidelines, Volume 3, Chapter 4, Table 4.4
2.C.1 Iron and Steel Production	CH ₄	0.069	0.000	5%	5%	0.100	0.000	0.000	0.000	0.000	0.000	0.000	AD - Steel Production plant's GHG report under EU ETS; EF - Expert judgment
2.D.1 Lubricant Use	CO ₂	23.301	12.291	2%	2%	0.500	0.000	0.000	0.001	0.000	0.000	0.000	AD - CSB; EF - 2006 IPCC Guidelines, Volume 3, Chapter 5, page 5.10
2.D.2 Paraffin wax use	CO ₂	0.000	5.056	2%	2%	1.000	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSB; EF - 2006 IPCC Guidelines, Volume 3, Chapter 5, page 5.13
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.060	20%	20%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment
2.D.3.c Asphalt roofing	CO ₂	0.003	0.054	20%	20%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment

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		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
2.D.3. Solvent Use	CO ₂	20.973	24.382	25%	25%	0.100	0.000	0.001	0.002	0.000	0.001	0.000	AD, EF - 2006 IPCC Guidelines, Volume 3, Chapter 5, pp.5.17
2.D.3.d Urea Use	CO ₂	0.000	1.267	20%	20%	0.100	0.000	0.000	0.000	0.000	0.000	0.000	Volume 2: Energy pp 3.12
2.F.1. Refrigeration and air conditioning	HFCs	0.000	242.553	50%	30%	0.409	0.000	0.018	0.018	0.005	0.013	0.000	AD, EF - Expert judgment
2.F.2 Foam blowing agents	HFCs	0.000	0.285	50%	50%	0.707	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment
2.F.3. Fire Protection	HFCs	0.000	0.003	50%	50%	0.707	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment
2.F.4. Aerosols	HFCs	0.000	6.070	50%	50%	0.707	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment
2.G.1. Electrical equipment	SF ₆	0.000	11.937	2%	25%	0.251	0.000	0.001	0.001	0.000	0.000	0.000	AD, EF - 2006 IPCC Guidelines, Volume 3, Chapter 8, page 8.21, Table 8.5
2.G.3. N ₂ O from product uses	N ₂ O	4.838	3.624	2%	100%	1.000	0.000	0.000	0.000	0.000	0.000	0.000	AD - State Agency of Medicines of Latvia, EF - Belgium National Inventory Report, 2014
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	811.767	2%	20%	0.201	0.000	0.068	0.060	0.014	0.002	0.000	AD - Central Statistical Bureau EF - IPCC
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	18.380	2%	50%	0.500	0.000	0.001	0.001	0.000	0.000	0.000	AD - Central Statistical Bureau EF - IPCC

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		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	11.505	2%	20%	0.201	0.000	0.002	0.001	0.000	0.000	0.000	AD - Central Statistical Bureau EF - IPCC
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	14.376	2%	50%	0.500	0.000	0.000	0.001	0.000	0.000	0.000	AD - Central Statistical Bureau EF - IPCC
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	66.487	25%	20%	0.320	0.000	0.002	0.005	0.000	0.002	0.000	AD, EF - IPCC
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	34.476	25%	20%	0.320	0.000	0.005	0.003	0.001	0.001	0.000	AD, EF - IPCC
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.437	25%	30%	0.391	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - IPCC
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	2.028	25%	30%	0.391	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - IPCC
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	16.783	25%	20%	0.320	0.000	0.003	0.001	0.001	0.000	0.000	AD, EF - IPCC
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	3.897	25%	20%	0.320	0.000	0.002	0.000	0.000	0.000	0.000	AD, EF - IPCC
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	5.119	25%	30%	0.391	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - IPCC
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	6.637	25%	30%	0.391	0.000	0.001	0.000	0.000	0.000	0.000	AD, EF - IPCC
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	27.183	25%	50%	0.559	0.000	0.004	0.002	0.002	0.001	0.000	AD - IPCC, EF - Expert judgment
3.D.1. Direct N ₂ O emissions from	N ₂ O	1615.023	981.740	25%	50%	0.559	0.002	0.025	0.072	0.012	0.026	0.001	AD - IPCC, EF -

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		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
managed soils													Expert judgment
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	179.093	2%	50%	0.500	0.000	0.006	0.013	0.003	0.000	0.000	
3.G. Liming	CO ₂	357.133	61.871	5%	50%	0.502	0.000	0.017	0.005	0.008	0.000	0.000	AD - Expert judgment, EF - IPCC
3.H. Urea Application	CO ₂	7.709	9.103	2%	50%	0.500	0.000	0.000	0.001	0.000	0.000	0.000	AD - Central Statistical Bureau, EF - IPCC
4.A.1 Forest Land remaining Forest Land – Carbon stock change, living biomass	CO ₂	-17804.089	-2837.623	2%	11%	0.115	0.001	0.875	0.209	0.100	0.005	0.010	AD - NFI, EF - NFI; J. Liepiņš et al. 2015, 2016
4.A.1 Forest Land remaining Forest Land – Carbon stock change, dead wood	CO ₂	-539.448	-1340.699	2%	4%	0.042	0.000	0.066	0.099	0.003	0.002	0.000	AD - NFI, EF - NFI
4.A.1 Forest Land remaining Forest Land – Carbon stock change, organic soil	CO ₂	772.156	727.047	5%	296%	2.960	0.038	0.007	0.054	0.021	0.004	0.000	AD - NFI, EF - Lupikis A. & Lazdins A. (2017)
4.A.2 Land converted to Forest Land – Carbon stock change, living biomass	CO ₂	-0.755	-115.114	8%	16%	0.182	0.000	0.008	0.008	0.001	0.001	0.000	AD - NFI, EF - NFI; J. Liepiņš et al. 2015, 2016
4.A.2 Land Converted to Forest Land – Carbon stock change, dead wood	CO ₂	-6.793	-34.414	8%	4%	0.089	0.000	0.002	0.003	0.000	0.000	0.000	AD - NFI, EF - NFI
4.A.2 Land Converted to Forest Land – Carbon stock change,	CO ₂	-6.449	-40.130	8%	23%	0.244	0.000	0.003	0.003	0.001	0.000	0.000	AD - NFI, EF - Forest soil monitoring

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
litter													project BioSoil
4.A.2 Land converted to Forest Land – Carbon stock change, organic soil	CO ₂	0.000	0.863	44%	296%	2.992	0.000	0.000	0.000	0.000	0.000	0.000	AD - NFI, EF - Lupikis A. & Lazdins A. (2017)
4.A.1 Forest land remaining forest land – Controlled burning	CH ₄	22.635	7.245	93%	0.72	1.173	0.000	0.001	0.001	0.001	0.001	0.000	AD - 2006 IPCC Guidelines, Table 2.6; expert judgement, EF - 2006 IPCC Guidelines, Table 2.5
4.A.1 Forest land remaining forest land – Controlled burning	N ₂ O	2.654	0.849	93%		0.926	0.000	0.000	0.000	0.000	0.000	0.000	AD - 2006 IPCC Guidelines, Table 2.6; expert judgement, EF - NO (2006 IPCC Guidelines, Table 2.5)
4.A.1 Forest land remaining forest land – wildfires	CO ₂	24.350	43.168	37%	12%	0.393	0.000	0.002	0.003	0.000	0.002	0.000	AD - 2006 IPCC Guidelines, Table 2.6; expert judgement, EF - 2006 IPCC Guidelines, Table 2.5
4.A.1 Forest land remaining forest land – wildfires	CH ₄	2.396	4.247	37%	0.72	0.811	0.000	0.000	0.000	0.000	0.000	0.000	AD - 2006 IPCC Guidelines, Table 2.6; expert judgement, EF -

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2006 IPCC Guidelines, Table 2.5
4.A.1 Forest land remaining forest land – wildfires	N ₂ O	0.281	0.498	37%		0.374	0.000	0.000	0.000	0.000	0.000	0.000	AD - 2006 IPCC Guidelines, Table 2.6; expert judgement, EF - NO (2006 IPCC Guidelines, Table 2.5)
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CO ₂	0.000	106.131	5%	246%	2.464	0.001	0.008	0.008	0.019	0.001	0.000	AD - NFI, EF - 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 3.1, and Table 3.2
4.A. Forest land – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils	CH ₄	90.462	366.937	44%	153%	1.593	0.003	0.022	0.027	0.033	0.017	0.001	AD - NFI, EF - 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 2.3 and Table 2.4, and Table 3.3
4.A. Forest land – 4(II) Emissions	N ₂ O	531.006	500.773	44%	119%	1.269	0.003	0.005	0.037	0.006	0.023	0.001	AD - NFI, EF - 2013

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
and removals from drainage and rewetting and other management of organic and mineral soils, total organic soils													Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 2.5
4.B.1 Cropland remaining Cropland – Carbon stock change, living biomass	CO ₂	-6.458	-43.076	3%	135%	1.353	0.000	0.003	0.003	0.004	0.000	0.000	AD - NFI, EF - NFI; J. Liepiņš et al. 2015, 2016
4.B.1 Cropland remaining Cropland – Carbon stock change, dead organic matter	CO ₂	-1.240	1.812	3%	4%	0.047	0.000	0.000	0.000	0.000	0.000	0.000	AD - NFI, EF - NFI
4.B.1 Cropland remaining Cropland – Carbon stock change, organic soil	CO ₂	2371.344	1180.924	13%	13%	0.188	0.000	0.056	0.087	0.007	0.016	0.000	AD - NFI, EF - Licite I., Lupikis A. 2020.
4.B.2 Land converted to Cropland – Carbon stock change, forest land converted to cropland, living biomass	CO ₂	0.000	5.869	53%	135%	1.454	0.000	0.000	0.000	0.001	0.000	0.000	AD - NFI, EF - NFI; J. Liepiņš et al. 2015, 2016
4.B.1 Land converted to Cropland – Carbon stock change, forest land converted to cropland, dead organic matter	CO ₂	0.000	52.141	53%	23%	0.583	0.000	0.004	0.004	0.001	0.003	0.000	AD - NFI, EF - NFI; forest soil monitoring project BioSoil
4.B.2 Land converted to Cropland	CO ₂	0.000	2.471	65%	22%	0.682	0.000	0.000	0.000	0.000	0.000	0.000	AD - NFI, EF - Forest soil monitoring

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
– Carbon stock change, forest land converted to cropland, mineral soil													project BioSoil; 2006 IPCC Guidelines, Table 5.5
4.B.2 Land converted to Cropland – Carbon stock change, organic soil	CO ₂	6.838	209.061	114%	13%	1.147	0.000	0.015	0.015	0.002	0.025	0.001	AD - NFI, EF - Licite I., Lupikis A. 2020.
4.B. Cropland 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.774	115.009	115%	71%	1.350	0.000	0.003	0.008	0.002	0.014	0.000	AD - NFI, EF - 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 2.4
4.B.2 Land converted to cropland – 4(III) Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/ immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	0.000	0.210	65%	151%	1.639	0.000	0.000	0.000	0.000	0.000	0.000	AD - NFI, EF - 2006 IPCC Guidelines, Table 11.1 and Equation 11.8
4.C.1 Grassland remaining Grassland – Carbon stock change, living biomass	CO ₂	-20.226	-144.422	5%	56%	0.559	0.000	0.009	0.011	0.005	0.001	0.000	AD - NFI, EF - NFI; J. Liepiņš et al. 2015, 2016

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
4.C.1 Grassland remaining Grassland – Carbon stock change, dead organic matter	CO ₂	-3.884	-21.347	5%	4%	0.064	0.000	0.001	0.002	0.000	0.000	0.000	AD - NFI, EF - NFI
4.C.1 Grassland remaining Grassland – Carbon stock change, organic soil	CO ₂	958.698	576.097	26%	40%	0.473	0.001	0.015	0.042	0.006	0.015	0.000	AD - NFI, EF - Licite I., Lupikis A. 2020.
4.C.2 Land converted to Grassland – Carbon stock change, forest land converted to grassland, living biomass	CO ₂	0.000	72.142	10%	56%	0.564	0.000	0.005	0.005	0.003	0.001	0.000	AD - NFI, EF - NFI; J. Liepiņš et al. 2015, 2016
4.C.2 Land converted to Grassland – Carbon stock change, forest land converted to grassland, dead organic matter	CO ₂	0.000	202.123	10%	23%	0.253	0.000	0.015	0.015	0.003	0.002	0.000	AD - NFI, EF - NFI; forest soil monitoring project BioSoil
4.C.2 Land converted to Grassland – Carbon stock change, wetlands converted to grassland, living biomass	CO ₂	0.000	-2.635	10%	75%	0.756	0.000	0.000	0.000	0.000	0.000	0.000	
4.C.2 Land converted to Grassland – Carbon stock change, settlements converted to grassland, living biomass	CO ₂	0.000	-4.899	10%	75%	0.756	0.000	0.000	0.000	0.000	0.000	0.000	
4.C.2 Land converted to	CO ₂	8.219	491.498	55%	40%	0.679	0.001	0.036	0.036	0.014	0.028	0.001	AD - NFI, EF - Licite I., Lupikis A. 2020.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Grassland – Carbon stock change, organic soil													
4.C. Grassland – 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils	CH ₄	196.741	196.576	61%	91%	1.094	0.000	0.003	0.014	0.002	0.012	0.000	AD - NFI, EF - Licite I., Lupikis A. 2020; 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 2.4
4.C.1 Grassland remaining Grassland – wildfires	CH ₄	0.050	0.084	10%	78%	0.786	0.000	0.000	0.000	0.000	0.000	0.000	AD - Rural Support Service, EF - 2006 IPCC Guidelines, Table 2.5
4.C.1 Grassland remaining Grassland – wildfires	N ₂ O	0.054	0.091	10%	96%	0.965	0.000	0.000	0.000	0.000	0.000	0.000	AD - Rural Support Service, EF - 2006 IPCC Guidelines, Table 2.5
4.D.1 Wetlands remaining Wetlands – Carbon stock change, living biomass	CO ₂	-68.172	5.633	6%	110%	1.098	0.000	0.005	0.000	0.005	0.000	0.000	AD - NFI, EF - NFI; J. Liepiņš et al. 2015, 2016
4.D.1 Wetlands remaining Wetlands – Carbon stock change, dead organic matter	CO ₂	-13.091	50.858	6%	4%	0.071	0.000	0.005	0.004	0.000	0.000	0.000	AD - NFI, EF - NFI
4.D.1 Wetlands remaining Wetlands – Carbon stock change,	CO ₂	211.968	142.995	6%	55%	0.557	0.000	0.002	0.011	0.001	0.001	0.000	AD - NFI; project Restore, EF - Lazdiņš A., Lupikis

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
organic soils													A. 2019
4.D.2 Land Converted to Wetland - Carbon stock change, organic soils	CO ₂	0.125	19.702	13%	2.463	2.467	0.000	0.001	0.001	0.004	0.000	0.000	AD - NFI, EF - 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 3.1 and Table 3.2
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CO ₂	855.360	1152.360	5%		0.050	0.000	0.033	0.085	0.000	0.006	0.000	AD - CSB, EF - NO
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, drained organic soils	CH ₄	44.523	30.036	6%	63%	0.630	0.000	0.000	0.002	0.000	0.000	0.000	AD - NFI; project Restore, EF - Lazdīņš A., Lupiķis A. 2019
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and	N ₂ O	9.815	6.621	6%	107%	1.073	0.000	0.000	0.000	0.000	0.000	0.000	AD - NFI; project Restore, EF - Lazdīņš A., Lupiķis A. 2019

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
mineral soils, Peat extraction from lands, drained organic soils													
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CO ₂	0.558	23.424	6%	246%	2.464	0.000	0.002	0.002	0.004	0.000	0.000	AD - NFI; project Restore, EF - 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 3.1 and Table 3.2
4.D. Wetlands 4(II) Emissions and removals from drainage and rewetting and other management of organic and mineral soils, Peat extraction from lands, rewetted organic soils	CH ₄	1.480	62.157	6%	198%	1.981	0.000	0.004	0.005	0.009	0.000	0.000	AD - NFI; project Restore, EF - 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 3.3
4.E.1 Settlements remaining Settlements – Carbon stock change, living biomass	CO ₂	-50.035	-173.877	9%	84%	0.841	0.000	0.010	0.013	0.008	0.002	0.000	AD - NFI, EF - NFI; J. Liepiņš et al. 2015, 2016
4.E.1 Settlements remaining Settlements – Carbon stock change, dead organic matter	CO ₂	-5.815	-20.625	9%	4%	0.095	0.000	0.001	0.002	0.000	0.000	0.000	AD - NFI, EF - NFI
4.E.1 Settlements remaining	CO ₂	0.000	34.778	9%	18%	0.204	0.000	0.003	0.003	0.000	0.000	0.000	AD - NFI, EF - 2013

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Settlements – Carbon stock change, organic soils													Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 2.1
4.E.2 Land converted to Settlements – Carbon stock change, living biomass	CO ₂	70.353	108.503	20%	84%	0.858	0.000	0.004	0.008	0.003	0.002	0.000	AD - NFI, EF - NFI; J. Liepiņš et al. 2015, 2016
4.E.2 Land converted to Settlements – Carbon stock change, dead organic matter	CO ₂	0.000	150.770	20%	23%	0.305	0.000	0.011	0.011	0.003	0.003	0.000	AD - NFI, EF - NFI; forest soil monitoring project BioSoil
4.E.2 Land converted to Settlements – Carbon stock change, mineral soils	CO ₂	0.000	130.459	22%	13%	0.256	0.000	0.010	0.010	0.001	0.003	0.000	AD - NFI, EF - 2006 IPCC Guidelines, Table 5.5; Forest soil monitoring project BioSoil
4.E.2 Land converted to Settlements – Carbon stock change, organic soils	CO ₂	10.644	255.373	47%	18%	0.505	0.000	0.018	0.019	0.003	0.013	0.000	AD - NFI, EF - 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 2.1
4.E.2 Lands converted to settlements – Direct nitrous	N ₂ O	2.237	104.188	20%	151%	1.520	0.000	0.008	0.008	0.011	0.002	0.000	AD - NFI, EF - 2006 IPCC Guidelines, Table 11.1 and

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils													Equation 11.8
4.E.1 Settlements remaining Settlements – 4 (III) Direct nitrous oxide (N ₂ O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils	N ₂ O	0.000	7.309	9%	38%	0.387	0.000	0.001	0.001	0.000	0.000	0.000	AD - NFI, EF - 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Table 2.5
4. G. Harvested wood products	CO ₂	-166.113	-1726.145	15%	0%	0.150	0.001	0.117	0.127	0.000	0.027	0.001	AD - expert judgement, EF - NO
4 (IV) Indirect nitrous oxide (N ₂ O) emissions from managed soils	N ₂ O	0.000	2.546	42%	212%	2.157	0.000	0.000	0.000	0.000	0.000	0.000	AD - NFI, EF - 2006 IPCC Guidelines, Table 11.3 and Equation 11.8
5.A.1. Managed Waste Disposal on Land	CH ₄	0.000	262.997	6%	52%	0.523	0.000	0.019	0.019	0.010	0.002	0.000	AD uncertainty calculated using trend line and measured data; EF -

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2006 IPCC Guidelines
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	116.102	6%	52%	0.523	0.000	0.010	0.009	0.005	0.001	0.000	AD uncertainty calculated using trend line and measured data; EF - 2006 IPCC Guidelines
5.B.1. Composting	CH ₄	16.689	26.931	28%	100%	1.040	0.000	0.001	0.002	0.001	0.001	0.000	AD uncertainty calculated using trend line and measured data; EF - 2006 IPCC Guidelines
5.B.1. Composting	N ₂ O	11.936	19.261	28%	90%	0.944	0.000	0.001	0.001	0.001	0.001	0.000	AD uncertainty calculated using trend line and measured data; EF - 2006 IPCC Guidelines
5.B.2. Anaerobic digestion at biogas facilities	CH ₄	0.000	17.232	20%	100%	1.020	0.000	0.001	0.001	0.001	0.000	0.000	AD - Expert judgment, EF - IPCC
5.C.1 Waste Incineration	CO ₂	0.575	0.039	50%	40%	0.637	0.000	0.000	0.000	0.000	0.000	0.000	AD uncertainty calculated using trend line and measured data; EF - 2006 IPCC Guidelines
5.C.1 Waste Incineration	N ₂ O	0.012	0.001	50%	100%	1.116	0.000	0.000	0.000	0.000	0.000	0.000	AD uncertainty calculated using

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													trend line and measured data; EF - 2006 IPCC Guidelines
5.D.1 Domestic Wastewater	CH ₄	198.300	69.385	7%	30%	0.308	0.000	0.007	0.005	0.002	0.001	0.000	AD - calculated, EF - 2006 IPCC Guidelines, Volume 5, Chapter 6, pp. 6.17
5.D.1 Domestic Wastewater	N ₂ O	50.413	32.081	6%	30%	0.306	0.000	0.001	0.002	0.000	0.000	0.000	AD - calculated, EF - 2006 IPCC Guidelines, Volume 5, Chapter 6, pp. 6.27
5.D.2 Industrial Wastewater	CH ₄	137.076	3.073	46%	30%	0.549	0.000	0.008	0.000	0.002	0.000	0.000	AD - calculated, EF - 2006 IPCC Guidelines, Volume 5, Chapter 6, pp. 6.23
5.D.2 Industrial Wastewater	N ₂ O	2.341	0.145	19%	30%	0.355	0.000	0.000	0.000	0.000	0.000	0.000	AD - calculated, EF - 2006 IPCC Guidelines, Volume 5, Chapter 6, pp. 6.27
Total		13567.405	11093.197				0.053					0.019	
Total Uncertainties						Uncertainty in total inventory %:	23%				Trend uncertainty %:	14%	

A.2.4 APPROACH 1 UNCERTAINTY ANALYSIS FOR 2020 EXCLUDING LULUCF

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CO ₂	3078.955	4.079	2%	10%	0.102	0.000	0.048	0.000	0.005	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CO ₂	211.145	3.379	2%	3%	0.036	0.000	0.003	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CO ₂	2657.607	1272.807	2%	5%	0.054	0.000	0.008	0.049	0.000	0.001	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.a Public Electricity and Heat Production - Peat	CO ₂	145.786	0.106	2%	10%	0.102	0.000	0.002	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CO ₂	3.079	0.000	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	CH ₄	3.005	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Solid Fuels	CH ₄	0.058	0.001	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	CH ₄	1.205	0.574	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	CH ₄	0.327	14.420	1%	50%	0.500	0.000	0.001	0.001	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Peat	CH ₄	0.034	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	CH ₄	0.032	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Liquid Fuels	N ₂ O	7.163	0.009	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.1.a Public Electricity and Heat Production - Solid Fuels	N ₂ O	1.030	0.016	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Gaseous Fuels	N ₂ O	1.437	0.684	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Biomass Fuels	N ₂ O	0.520	22.897	1%	50%	0.500	0.000	0.001	0.001	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Peat	N ₂ O	0.616	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.a Public Electricity and Heat Production - Other fossil fuels	N ₂ O	0.050	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CO ₂	25.015	18.762	2%	10%	0.102	0.000	0.000	0.001	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Solid Fuels	CO ₂	0.000	0.000	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CO ₂	104.785	27.343	2%	5%	0.054	0.000	0.001	0.001	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CO ₂	75.346	2.332	2%	10%	0.102	0.000	0.001	0.000	0.000	0.000	0.000	AD -AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	CH ₄	0.023	0.019	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Solid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	CH ₄	0.048	0.012	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	CH ₄	0.000	0.245	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	CH ₄	0.018	0.001	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Liquid Fuels	N ₂ O	0.054	0.045	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Solid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Gaseous Fuels	N ₂ O	0.057	0.015	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Biomass Fuels	N ₂ O	0.000	0.390	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.1.c Manufacture of Solid Fuels and Other Energy Industries - Peat	N ₂ O	0.318	0.010	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													combustion, Table 2.12
1.A.2.a Iron and Steel - Liquid Fuels	CO ₂	92.154	0.000	2%	10%	0.102	0.000	0.001	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.a Iron and Steel - Solid Fuels	CO ₂	0.000	0.000	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.a Iron and Steel - Gaseous Fuels	CO ₂	235.643	0.388	2%	5%	0.054	0.000	0.004	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.a Iron and Steel - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.a Iron and Steel - Other fossil fuels	CO ₂	61.352	0.000	2%	20%	0.201	0.000	0.001	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.a Iron and Steel - Liquid Fuels	CH ₄	0.089	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Solid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Gaseous Fuels	CH ₄	0.107	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Biomass Fuels	CH ₄	0.000	0.000	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.2.a Iron and Steel - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Other fossil fuels	CH ₄	0.628	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Liquid Fuels	N ₂ O	0.213	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Solid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Gaseous Fuels	N ₂ O	0.127	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Biomass Fuels	N ₂ O	0.000	0.000	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Stationary combustion, Table 2.12
1.A.2.a Iron and Steel - Other fossil fuels	N ₂ O	0.998	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Liquid Fuels	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.b Non-Ferrous Metals - Solid Fuels	CO ₂	0.000	0.000	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CO ₂	0.000	0.776	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.b Non-Ferrous Metals - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.b Non-Ferrous Metals - Liquid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Solid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Biomass Fuels	CH ₄	0.000	0.000	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Liquid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Solid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Gaseous Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Biomass Fuels	N ₂ O	0.000	0.000	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.b Non-Ferrous Metals - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.2.c Chemicals - Liquid Fuels	CO ₂	269.980	10.417	2%	10%	0.102	0.000	0.004	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.c Chemicals - Solid Fuels	CO ₂	0.000	0.097	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-""Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia"", Riga, 2017
1.A.2.c Chemicals - Gaseous Fuels	CO ₂	23.542	13.366	2%	5%	0.054	0.000	0.000	0.001	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.c Chemicals - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.c Chemicals - Liquid Fuels	CH ₄	0.264	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP;

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Solid Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Gaseous Fuels	CH ₄	0.011	0.006	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Biomass Fuels	CH ₄	0.000	0.150	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.c Chemicals - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Liquid Fuels	N ₂ O	0.629	0.005	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Solid Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Gaseous Fuels	N ₂ O	0.013	0.007	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.2.c Chemicals - Biomass Fuels	N ₂ O	0.000	0.239	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.c Chemicals - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CO ₂	15.704	0.251	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CO ₂	2.607	0.000	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CO ₂	150.166	4.382	2%	5%	0.054	0.000	0.002	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.d. Pulp, Paper and Print - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	CH ₄	0.015	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.d. Pulp, Paper and Print - Solid Fuels	CH ₄	0.007	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	CH ₄	0.068	0.002	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	CH ₄	0.000	0.015	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.41 EF- IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Liquid Fuels	N ₂ O	0.036	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Solid Fuels	N ₂ O	0.013	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Gaseous Fuels	N ₂ O	0.081	0.002	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Biomass Fuels	N ₂ O	0.000	0.024	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.d. Pulp, Paper and Print - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CO ₂	564.767	9.083	2%	10%	0.102	0.000	0.008	0.000	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	CO ₂	100.342	1.641	2%	3%	0.036	0.000	0.002	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Latvia", Riga, 2017
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CO ₂	175.098	77.148	2%	5%	0.054	0.000	0.000	0.003	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.e Food Processing, Beverages and Tobacco - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.e Food Processing, Beverages and Tobacco - Other Fossil Fuels	CO ₂	0.000	0.000	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	CH ₄	0.547	0.005	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Solid	CH ₄	0.267	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Fuels													2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	CH ₄	0.079	0.035	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	CH ₄	0.171	0.447	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Other Fossil Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Liquid Fuels	N ₂ O	1.302	0.008	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Solid Fuels	N ₂ O	0.478	0.008	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Gaseous Fuels	N ₂ O	0.095	0.041	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.e Food Processing, Beverages and Tobacco - Biomass Fuels	N ₂ O	0.272	0.710	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.e Food Processing, Beverages and Tobacco - Other Fossil Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.2.f Non-metallic Minerals - Liquid Fuels	CO ₂	266.754	5.913	2%	10%	0.102	0.000	0.004	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.f Non-metallic Minerals - Solid Fuels	CO ₂	16.004	75.594	2%	3%	0.036	0.000	0.003	0.003	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CO ₂	316.064	71.214	2%	5%	0.054	0.000	0.002	0.003	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.f Non-metallic Minerals - Peat	CO ₂	0.000	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CO ₂	0.000	139.412	2%	2%	0.028	0.000	0.005	0.005	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2, pg. 2.38
1.A.2.f Non-metallic Minerals - Liquid Fuels	CH ₄	0.259	0.005	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Solid Fuels	CH ₄	0.043	0.196	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Gaseous Fuels	CH ₄	0.143	0.032	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Biomass Fuels	CH ₄	0.005	1.321	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Peat	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	CH ₄	0.000	1.216	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Liquid Fuels	N ₂ O	0.618	0.011	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Solid Fuels	N ₂ O	0.076	0.350	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Gaseous Fuels	N ₂ O	0.171	0.038	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Biomass Fuels	N ₂ O	0.008	2.099	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Peat	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.f Non-metallic Minerals - Other Fossil Fuels	N ₂ O	0.000	1.933	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Liquid Fuels	CO ₂	1066.131	129.528	2%	10%	0.102	0.000	0.012	0.005	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.2.g Other - Solid Fuels	CO ₂	26.667	0.676	2%	3%	0.036	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.2.g Other - Gaseous Fuels	CO ₂	526.803	67.165	2%	5%	0.054	0.000	0.006	0.003	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.38
1.A.2.g Other - Peat	CO ₂	0.000	0.831	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.g Other - Other Fossil Fuels	CO ₂	0.000	0.000	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.2.g Other - Liquid Fuels	CH ₄	2.688	0.191	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.2.g Other - Solid Fuels	CH ₄	0.069	0.002	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Stationary combustion, Table 2.12
1.A.2.g Other - Gaseous Fuels	CH ₄	0.239	0.030	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Biomass Fuels	CH ₄	0.287	11.498	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Peat	CH ₄	0.000	0.001	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Stationary combustion, Table 2.12
1.A.2.g Other - Other Fossil Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Liquid Fuels	N ₂ O	48.931	13.504	2%	50%	0.500	0.000	0.000	0.001	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.2.g Other - Solid Fuels	N ₂ O	0.124	0.003	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Gaseous Fuels	N ₂ O	0.285	0.036	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													combustion, Table 2.12
1.A.2.g Other - Biomass Fuels	N ₂ O	0.455	18.275	1%	50%	0.500	0.000	0.001	0.001	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Peat	N ₂ O	0.000	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.2.g Other - Other Fossil Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													combustion, Table 2.12
1.A.3.a Domestic Aviation - Aviation Gasoline	CO ₂	0.011	0.560	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Jet kerosene	CO ₂	0.054	0.930	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Aviation Gasoline	CH ₄	0.000	0.000	2%	60%	0.600	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Jet kerosene	CH ₄	0.000	0.000	2%	60%	0.600	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Aviation Gasoline	N ₂ O	0.000	0.005	2%	70%	0.700	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.a Domestic Aviation - Jet kerosene	N ₂ O	0.000	0.008	2%	70%	0.700	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.69
1.A.3.b Road Transportation - Gasoline	CO ₂	1722.391	499.711	2%	2%	0.028	0.000	0.008	0.019	0.000	0.001	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Diesel Oil	CO ₂	622.514	2352.479	2%	2%	0.028	0.000	0.081	0.091	0.002	0.003	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - LPG	CO ₂	37.148	115.021	2%	5%	0.054	0.000	0.004	0.004	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Lubricants	CO ₂	3.218	4.946	10%	5%	0.112	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.3.b Road Transportation - Gaseous Fuels	CO ₂	16.836	1.214	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Other fossil fuel (please specify)	CO ₂	0.000	5.240	10%	5%	0.112	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSB; EF - 2006 IPCC Guidelines, Volume 2, chapter 3, section 'CO ₂ emissions from biofuels', pp 3.17
1.A.3.b Road Transportation - Gasoline	CH ₄	16.265	1.347	2%	30%	0.301	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Diesel Oil	CH ₄	1.697	0.967	2%	30%	0.301	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - LPG	CH ₄	0.181	0.469	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Lubricants	CH ₄	0.030	0.006	10%	30%	0.316	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Gaseous Fuels	CH ₄	0.702	0.051	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Biomass	CH ₄	0.000	0.117	2%	30%	0.301	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Gasoline	N ₂ O	12.226	1.678	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Diesel Oil	N ₂ O	6.796	22.431	2%	50%	0.500	0.000	0.001	0.001	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines,

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Volume 2, pp.3.29
1.A.3.b Road Transportation - LPG	N ₂ O	0.198	1.168	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Lubricants	N ₂ O	0.025	0.038	10%	50%	0.510	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Gaseous Fuels	N ₂ O	0.273	0.020	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.b Road Transportation - Biomass	N ₂ O	0.000	1.160	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.29
1.A.3.c Railways - Liquid Fuels	CO ₂	536.766	80.954	2%	2%	0.028	0.000	0.005	0.003	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46
1.A.3.c Railways - Other Fuels (please specify)	CO ₂	0.000	0.168	10%	5%	0.112	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, chapter 3, section 'CO ₂ emissions from biofuels', pp 3.17
1.A.3.c Railways - Liquid Fuels	CH ₄	0.745	0.112	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46
1.A.3.c. Railway Biomass Fuels	CH ₄	0.000	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.3.c Railways - Liquid Fuels	N ₂ O	61.201	9.230	2%	50%	0.500	0.000	0.001	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46
1.A.3.c. Railway Biomass Fuels	N ₂ O	0.000	0.339	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.43&3.46
1.A.3.d Domestic Navigation - Gasoline	CO ₂	0.173	0.347	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Diesel Oil	CO ₂	0.842	7.027	2%	5%	0.054	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Gasoline	CH ₄	0.003	0.006	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Diesel Oil	CH ₄	0.001	0.009	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Gasoline	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.3.d Domestic Navigation - Diesel Oil	N ₂ O	0.101	0.840	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD – CSB; EF - 2006 IPCC Guidelines, Volume 2, pp.3.54
1.A.4.a Commercial/Institutional - Liquid Fuels	CO ₂	1017.269	109.534	2%	10%	0.102	0.000	0.012	0.004	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38; 2006 IPCC Guidelines, Volume

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		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.a Commercial/Institutional - Solid Fuels	CO ₂	1366.092	6.565	2%	3%	0.036	0.000	0.021	0.000	0.001	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.4.a Commercial/Institutional - Gaseous Fuels	CO ₂	275.826	280.529	2%	5%	0.054	0.000	0.007	0.011	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.a Commercial/Institutional - Peat	CO ₂	66.886	1.992	2%	10%	0.102	0.000	0.001	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CO ₂	0.000	0.220	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.4.a Commercial/Institutional - Liquid Fuels	CH ₄	2.320	0.251	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.a Commercial/Institutional - Solid Fuels	CH ₄	3.728	0.017	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Gaseous Fuels	CH ₄	0.626	0.632	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Biomass Fuels	CH ₄	39.135	21.411	1%	50%	0.500	0.000	0.000	0.001	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC

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		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Peat	CH ₄	0.168	0.005	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Other Fossil Fuels	CH ₄	0.000	0.023	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Liquid Fuels	N ₂ O	69.454	10.553	2%	50%	0.500	0.000	0.001	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume

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		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.a Commercial/Institutional - Solid Fuels	N ₂ O	6.666	0.030	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Gaseous Fuels	N ₂ O	0.149	0.151	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Biomass Fuels	N ₂ O	6.220	3.414	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional -	N ₂ O	0.296	0.009	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg.

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
Peat													1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.a Commercial/Institutional - Other Fossil Fuels	N ₂ O	0.000	0.004	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Liquid Fuels	CO ₂	332.334	158.482	2%	10%	0.102	0.000	0.001	0.006	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.b Residential - Solid Fuels	CO ₂	586.626	5.310	2%	3%	0.036	0.000	0.009	0.000	0.000	0.000	0.000	AD -CSP; EF-"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Used Fuel Types in Latvia", Riga, 2017
1.A.4.b Residential - Gaseous Fuels	CO ₂	220.705	255.016	2%	5%	0.054	0.000	0.006	0.010	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.b Residential - Peat	CO ₂	42.549	0.000	2%	10%	0.102	0.000	0.001	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.b Residential - Other Fossil Fuels	CO ₂	0.000	0.000	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.b Residential - Liquid Fuels	CH ₄	0.589	0.966	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													3.6.1.7
1.A.4.b Residential - Solid Fuels	CH ₄	48.030	0.413	2%	50%	0.500	0.000	0.001	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Gaseous Fuels	CH ₄	0.501	0.575	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Biomass Fuels	CH ₄	144.762	110.521	5%	10%	0.112	0.000	0.002	0.004	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Peat	CH ₄	3.188	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Other Fossil Fuels	CH ₄	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Liquid Fuels	N ₂ O	16.404	11.715	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.b Residential - Solid Fuels	N ₂ O	2.863	0.025	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2.12
1.A.4.b Residential - Gaseous Fuels	N ₂ O	0.119	0.137	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Biomass Fuels	N ₂ O	8.944	8.458	5%	30%	0.304	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.b Residential - Peat	N ₂ O	0.186	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													combustion, Table 2.12
1.A.4.b Residential - Other Fossil Fuels	N ₂ O	0.000	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CO ₂	700.654	458.525	2%	10%	0.102	0.000	0.007	0.018	0.001	0.001	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CO ₂	99.041	0.000	2%	3%	0.036	0.000	0.002	0.000	0.000	0.000	0.000	AD -CSP; EF"Determination of Carbon Content and Calculation of Carbon Dioxide Emission Factors for the Most Frequently Used Fuel Types in Latvia", Riga, 2017
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CO ₂	782.443	22.573	2%	5%	0.054	0.000	0.011	0.001	0.001	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CO ₂	3.023	0.000	2%	10%	0.102	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													2, Chapter 2, pg. 2.41 EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CO ₂	0.000	0.660	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.38
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	CH ₄	5.286	0.732	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	CH ₄	8.109	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	CH ₄	1.774	0.051	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	CH ₄	9.150	7.731	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Peat	CH ₄	0.233	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	CH ₄	0.000	0.068	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
1.A.4.c Agriculture/Forestry/Fisheries - Liquid Fuels	N ₂ O	43.267	49.270	2%	50%	0.500	0.000	0.001	0.002	0.001	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12; 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.4.c Agriculture/Forestry/Fisheries - Solid Fuels	N ₂ O	0.483	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Gaseous Fuels	N ₂ O	0.423	0.012	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Biomass Fuels	N ₂ O	1.454	1.254	1%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Peat	N ₂ O	0.014	0.000	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSP; 2006 IPCC Guidelines, Volume 2, Chapter 1, pg. 1.19; 2006 IPCC Guidelines, Volume 2, Chapter 2, pg. 2.41 EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.4.c Agriculture/Forestry/Fisheries - Other Fossil Fuels	N ₂ O	0.000	0.011	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 2 Stationary combustion, Table 2.12
1.A.5.b Mobile - Liquid Fuels	CO ₂	0.000	14.723	2%	50%	0.500	0.000	0.001	0.001	0.000	0.000	0.000	AD -CSP; EF-2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.5.b Mobile - Liquid Fuels	CH ₄	0.000	0.033	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.A.5.b Mobile - Liquid Fuels	N ₂ O	0.000	0.119	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD -CSP; EF- 2006 IPCC Guidelines, Volume 2, Chapter 3 Mobile combustion, Section 3.6.1.7
1.B.2.b Natural Gas	CO ₂	0.009	0.008	35%	35%	0.495	0.000	0.000	0.000	0.000	0.000	0.000	AD - Latvijas Gāze
1.B.2.b Natural Gas	CH ₄	177.238	82.983	35%	35%	0.495	0.000	0.000	0.003	0.000	0.002	0.000	AD - Latvijas Gāze
1.B.2.c Venting and Flaring	CO ₂	0.003	0.003	10%	10%	0.141	0.000	0.000	0.000	0.000	0.000	0.000	AD - Latvijas Gāze
1.B.2.c Venting and Flaring	CH ₄	70.344	17.549	10%	10%	0.141	0.000	0.000	0.001	0.000	0.000	0.000	AD - Latvijas Gāze
2.A.1. Cement Production	CO ₂	345.783	550.832	8%	8%	0.045	0.000	0.016	0.021	0.001	0.002	0.000	AD - Cement Production plant's GHG report under EU ETS; EF - 2006 IPCC Guidelines, Volume 3, Chapter 2, page 2.7 Table 2.3
2.A.2. Lime Production	CO ₂	121.915	0.000	8%	8%	0.020	0.000	0.002	0.000	0.000	0.000	0.000	AD - Lime Production plant's GHG report under EU ETS; EF - 2006 IPCC Guidelines, Volume 3, Chapter 2, page 2.25 Table 2.5
2.A.3. Glass production	CO ₂	0.356	0.684	3%	3%	0.020	0.000	0.000	0.000	0.000	0.000	0.000	AD - Glass Production plant's GHG report under EU

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													ETS; EF - 2006 IPCC Guidelines, Volume 3, Chapter 2, page 2.31
2.A.4. Other process uses of carbonates	CO ₂	69.185	8.858	8%	8%	0.030	0.000	0.001	0.000	0.000	0.000	0.000	AD - Bricks Production plant's GHG report under EU ETS; EF - Expert judgment
2.A.4.b Other Use of soda ash	CO ₂	0.000	0.191	8%	3%	0.030	0.000	0.000	0.000	0.000	0.000	0.000	AD - Glass Production plant's GHG report under EU ETS; EF - Expert judgment
2.C.1 Iron and Steel Production	CO ₂	69.555	0.000	5%	5%	0.100	0.000	0.001	0.000	0.000	0.000	0.000	AD - Steel Production plant's GHG report under EU ETS; EF - 2006 IPCC Guidelines, Volume 3, Chapter 4, Table 4.4
2.C.1 Iron and Steel Production	CH ₄	0.069	0.000	5%	5%	0.100	0.000	0.000	0.000	0.000	0.000	0.000	AD - Steel Production plant's GHG report under EU ETS; EF - Expert judgment
2.D.1 Lubricant Use	CO ₂	23.301	12.291	2%	2%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSB; EF - 2006 IPCC Guidelines, Volume 3, Chapter 5, page 5.10
2.D.2 Paraffin wax use	CO ₂	0.000	5.056	2%	2%	1.000	0.000	0.000	0.000	0.000	0.000	0.000	AD - CSB; EF - 2006 IPCC Guidelines, Volume 3, Chapter 5, page 5.13

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
2.D.3.b Road paving with asphalt	CO ₂	0.001	0.060	20%	20%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment
2.D.3.c Asphalt roofing	CO ₂	0.003	0.054	20%	20%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment
2.D.3. Solvent Use	CO ₂	20.973	24.382	25%	25%	0.100	0.000	0.001	0.001	0.000	0.000	0.000	AD, EF - 2006 IPCC Guidelines, Volume 3, Chapter 5, pp.5.17
2.D.3.d Urea Use	CO ₂	0.000	1.267	20%	20%	0.100	0.000	0.000	0.000	0.000	0.000	0.000	Volume 2: Energy pp 3.12
2.F.1. Refrigeration and air conditioning	HFCs	0.000	242.553	50%	30%	0.409	0.000	0.009	0.009	0.003	0.007	0.000	AD, EF - Expert judgment
2.F.2 Foam blowing agents	HFCs	0.000	0.285	50%	50%	0.707	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment
2.F.3. Fire Protection	HFCs	0.000	0.003	50%	50%	0.707	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment
2.F.4. Aerosols	HFCs	0.000	6.070	50%	50%	0.707	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - Expert judgment
2.G.1. Electrical equipment	SF ₆	0.000	11.937	2%	25%	0.251	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF - 2006 IPCC Guidelines, Volume 3, Chapter 8, page 8.21, Table 8.5
2.G.3. N ₂ O from product uses	N ₂ O	4.838	3.624	2%	100%	1.000	0.000	0.000	0.000	0.000	0.000	0.000	AD - State Agency of Medicines of Latvia, EF - Belgium National Inventory Report, 2014
3.A.1 Enteric Fermentation - Cattle	CH ₄	2117.989	811.767	2%	20%	0.201	0.000	0.002	0.031	0.000	0.001	0.000	AD - Central Statistical Bureau EF - IPCC
3.A.2 Enteric Fermentation - Sheep	CH ₄	32.920	18.380	2%	50%	0.500	0.000	0.000	0.001	0.000	0.000	0.000	AD - Central Statistical Bureau EF

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													-IPCC
3.A.3 Enteric Fermentation - Swine	CH ₄	52.541	11.505	2%	20%	0.201	0.000	0.000	0.000	0.000	0.000	0.000	AD - Central Statistical Bureau EF -IPCC
3.A.4 Enteric Fermentation - Other livestock	CH ₄	18.091	14.376	2%	50%	0.500	0.000	0.000	0.001	0.000	0.000	0.000	AD - Central Statistical Bureau EF -IPCC
3.B.1.1 Manure Management - Cattle	CH ₄	110.967	66.487	25%	20%	0.320	0.000	0.001	0.003	0.000	0.001	0.000	AD, EF -IPCC
3.B.2.1 Manure Management - Cattle	N ₂ O	120.666	34.476	25%	20%	0.320	0.000	0.001	0.001	0.000	0.000	0.000	AD, EF -IPCC
3.B.1.2 Manure Management - Sheep	CH ₄	0.782	0.437	25%	30%	0.391	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF -IPCC
3.B.2.2 Manure Management - Sheep	N ₂ O	4.652	2.028	25%	30%	0.391	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF -IPCC
3.B.1.3 Manure Management - Swaine	CH ₄	65.585	16.783	25%	20%	0.320	0.000	0.000	0.001	0.000	0.000	0.000	AD, EF -IPCC
3.B.2.3 Manure Management - Swaine	N ₂ O	40.269	3.897	25%	20%	0.320	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF -IPCC
3.B.1.4 Manure Management - Other livestock	CH ₄	12.485	5.119	25%	30%	0.391	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF -IPCC
3.B.2.4 Manure Management - Other livestock	N ₂ O	19.998	6.637	25%	30%	0.391	0.000	0.000	0.000	0.000	0.000	0.000	AD, EF -IPCC
3.B.5 Indirect N ₂ O emissions from Manure Management	N ₂ O	97.245	27.183	25%	50%	0.559	0.000	0.000	0.001	0.000	0.000	0.000	AD - IPCC, EF - Expert judgment
3.D.1. Direct N ₂ O emissions from managed soils	N ₂ O	1615.023	981.740	25%	50%	0.559	0.003	0.013	0.038	0.006	0.013	0.000	AD - IPCC, EF - Expert judgment

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
3.D.2 Indirect N ₂ O Emissions from managed soils	N ₂ O	311.748	179.093	2%	50%	0.500	0.000	0.002	0.007	0.001	0.000	0.000	
3.G. Liming	CO ₂	357.133	61.871	5%	50%	0.502	0.000	0.003	0.002	0.002	0.000	0.000	AD - Expert judgment, EF - IPCC
3.H. Urea Application	CO ₂	7.709	9.103	2%	50%	0.500	0.000	0.000	0.000	0.000	0.000	0.000	AD - Central Statistical Bureau, EF - IPCC
5.A.1. Managed Waste Disposal on Land	CH ₄	0.000	262.997	6%	52%	0.523	0.000	0.010	0.010	0.005	0.001	0.000	AD uncertainty calculated using trend line and measured data; EF - 2006 IPCC Guidelines
5.A.2. Unmanaged Waste Disposal Sites	CH ₄	314.753	116.102	6%	52%	0.523	0.000	0.000	0.004	0.000	0.000	0.000	AD uncertainty calculated using trend line and measured data; EF - 2006 IPCC Guidelines
5.B.1. Composting	CH ₄	16.689	26.931	28%	100%	1.040	0.000	0.001	0.001	0.001	0.000	0.000	AD uncertainty calculated using trend line and measured data; EF - 2006 IPCC Guidelines
5.B.1. Composting	N ₂ O	11.936	19.261	28%	90%	0.944	0.000	0.001	0.001	0.001	0.000	0.000	AD uncertainty calculated using trend line and measured data; EF - 2006 IPCC Guidelines
5.B.2. Anaerobic digestion at biogas facilities	CH ₄	0.000	17.232	20%	100%	1.020	0.000	0.001	0.001	0.001	0.000	0.000	AD - Expert judgment, EF - IPCC
5.C.1 Waste Incineration	CO ₂	0.575	0.039	50%	40%	0.637	0.000	0.000	0.000	0.000	0.000	0.000	AD uncertainty calculated using

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		kt CO ₂ eq.	kt CO ₂ eq.	%	%	%		%	%	%	%	%	
													trend line and measured data; EF - 2006 IPCC Guidelines
5.C.1 Waste Incineration	N ₂ O	0.012	0.001	50%	100%	1.116	0.000	0.000	0.000	0.000	0.000	0.000	AD uncertainty calculated using trend line and measured data; EF - 2006 IPCC Guidelines
5.D.1 Domestic Wastewater	CH ₄	198.300	69.385	7%	30%	0.308	0.000	0.000	0.003	0.000	0.000	0.000	AD - calculated, EF - 2006 IPCC Guidelines, Volume 5, Chapter 6, pp. 6.17
5.D.1 Domestic Wastewater	N ₂ O	50.413	32.081	6%	30%	0.306	0.000	0.000	0.001	0.000	0.000	0.000	AD - calculated, EF - 2006 IPCC Guidelines, Volume 5, Chapter 6, pp. 6.27
5.D.2 Industrial Wastewater	CH ₄	137.076	3.073	46%	30%	0.549	0.000	0.002	0.000	0.001	0.000	0.000	AD - calculated, EF - 2006 IPCC Guidelines, Volume 5, Chapter 6, pp. 6.23
5.D.2 Industrial Wastewater	N ₂ O	2.341	0.145	19%	30%	0.355	0.000	0.000	0.000	0.000	0.000	0.000	AD - calculated, EF - 2006 IPCC Guidelines, Volume 5, Chapter 6, pp. 6.27
Total		25868.252	10446.626				0.0035					0.0004	
Total Uncertainties						Uncertainty in total	6%				Trend uncertainty %:	2%	

IPCC category	Gas	Base year emissions or removals	Year 2020 emissions or removals	Activity data uncertainty	Emission factor / estimation parameter uncertainty	Combined uncertainty	Contribution to variance by category in year x	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor / estimation parameter uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	Comments (optional)
		<i>kt CO₂ eq.</i>	<i>kt CO₂ eq.</i>	%	%	%		%	%	%	%	%	
						<i>inventory %:</i>							

ANNEX 3: OTHER DETAILED METHODOLOGICAL DESCRIPTIONS FOR INDIVIDUAL SOURCE OR SINK CATEGORIES, INCLUDING FOR KP-LULUCF ACTIVITIES

A.3.1 ENERGY (EXCLUDING TRANSPORT SECTOR)

Sulphur content and SO₂ emission factors by fuel type in Energy sector (excluding Transport)

Fuel	NCV	Sulphur content (%)													
		1990-95	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Diesel	42.49	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
RFO	40.60	2.00	2.08	1.23	0.91	0.97	0.94	0.80	0.84	0.79	0.66	0.60	0.51	0.64	0.87
Gasoline	43.97	0.015	0.015	0.015	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Jet fuel	43.21	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Other liquid fuel	41.86	0.65	0.56	0.50	0.44	0.42	0.41	0.40	0.39	0.40	0.42	0.45	0.41	0.64	0.34
LPG	45.54	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
Shale oil	39.35	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Coal	23.91	1.80	0.90	0.72	0.39	0.41	0.50	0.44	0.48	0.57	0.49	0.53	0.55	0.48	0.38
Coke	26.79	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Oil shale	9.20	1.60	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	10.05	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
RFO (marine)	40.60	2.00	1.50	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Wood	6.70	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
Natural gas	Changes annually	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029
		EF (kt/PJ)													
Diesel		0.094	0.094	0.094	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047
RFO		0.966	1.003	0.596	0.442	0.467	0.456	0.389	0.405	0.384	0.318	0.288	0.247	0.308	0.420
Gasoline		0.0068	0.0068	0.0068	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Jet fuel		0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046
Other liquid fuel		0.311	0.267	0.237	0.208	0.202	0.196	0.190	0.184	0.190	0.202	0.216	0.196	0.305	0.163
LPG		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Shale oil		0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407
Coal		1.138	0.567	0.498	0.266	0.280	0.342	0.328	0.359	0.431	0.370	0.398	0.406	0.352	0.352
Coke		0.410	0.410	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403
Oil shale		3.130	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat		0.508	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507
RFO (marine)		0.966	0.724	0.724	0.483	0.483	0.483	0.483	0.483	0.483	0.483	0.483	0.483	0.483	0.483
Wood		0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045
Natural gas		0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002

Sulphur content:

Gasoline, diesel oil – EU legislation

RFO – EU legislation, average value from database Nr.2-Air

Other liquids – average value from database Nr.2-Air

Coal – average value from database Nr.2-Air

Shale oil – Luik, H. "Coal, oil shale, natural bitumen, heavy oil and peat" Vol. II Chemicals and Other products from Shale Oil

Oil shale – Gavrilova, O., Randla, T., Vallner, L., Strandberg, M., Vilu, R. 2005. "Life Cycle Analysis of the Estonian Oil Shale Industry"

Peat, peat briquettes – Latvian Peat Producers Association

Wood – Zandersons, J., Žūriņš, A., Rižikovs, J., Dobeļe, G., Latvian Institute of Wood chemistry "Feasibility of processing and utilisation of used up railway sleepers"

Natural gas – allowed content of mercaptan (3 mg/m³)

Fuel consumption in Energy sector (stationary combustion), TJ

1.A.1 Energy Industries

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1.A.1. Energy Industries																				
Total	95424	89290	74201	58345	53160	50516	51326	52637	54187	48325	42657	44355	43268	43796	40977	40412	41926	39412	38942	37912
Liquid Fuels	40437	33253	28441	27170	30859	20519	27333	17437	20662	17491	7900	5235	5033	3576	3055	2365	1511	1389	905	1194
Solid Fuels	2305	1736	1935	2106	1366	1395	740	541	455	398	371	398	285	209	210	183	105	341	446	472
Peat	2089	2343	2814	3007	2841	3432	2974	3083	2157	1275	2351	1230	1005	663	70	60	30	29	20	10
Gaseous Fuels	50115	51368	40338	25200	16770	24107	18644	28165	26802	25464	28803	33510	32497	34074	32371	33306	35181	32613	32650	31236
Biomass	436	590	673	862	1324	1063	1634	3412	4111	3697	3232	3940	4406	5245	5183	4469	5099	5040	4921	4971
Other Fossil Fuels	42	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	42	29	88	29	NO	NO	NO	29
1.A.1.a. Public Electricity and Heat Production																				
Total	92473	86689	71901	55946	51496	48590	48499	51233	50453	44329	39919	42931	41998	42183	39325	39066	40493	38390	37652	36795
Liquid Fuels	40098	33002	28190	26919	30426	20266	26110	17107	18116	14486	6350	5065	4821	3406	2843	2153	1299	1219	693	1031
Solid Fuels	2305	1736	1935	2106	1366	1395	740	541	427	370	371	398	285	209	210	183	105	341	446	472
Peat	1378	1703	1945	2437	2246	2703	2403	2600	1764	1046	1970	1125	995	653	60	40	20	20	20	10
Gaseous Fuels	48214	49658	39158	23622	16134	23163	17612	27599	26069	24831	27996	32633	31691	33199	31499	32434	34242	32043	31845	30739
Biomass	436	590	673	862	1324	1063	1634	3386	4077	3596	3232	3668	4164	4687	4625	4227	4827	4767	4648	4514
Other Fossil Fuels	42	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	42	29	88	29	NO	NO	NO	29
Shale oil	NO	NO	NO	NO	NO	39	NO	NO	NO	394	944	472	354	157	NO	NO	39	39	NO	NO
LPG	46	46	46	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	5524	5226	3824	935	382	85	42	297	85	85	127	42	42	42	42	42	42	43	43	16
RFO	32561	26147	23183	24563	30044	20016	25984	16768	17905	14007	5279	4425	4425	3207	2801	2111	1218	1137	650	1015
Other liquid	1967	1583	1137	1421	NO	126	84	42	126	NO	NO	126	NO	NO	NO	NO	NO	NO	NO	NO
Coal	2305	1736	1935	2106	1366	1395	740	541	427	370	371	398	285	209	210	183	105	341	446	472
Peat	1347	1688	1930	2422	2231	2626	2341	2523	1749	1046	1970	1125	995	653	60	40	20	20	20	10
Peat briquettes	31	15	15	15	15	77	62	77	15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	48214	49658	39158	23622	16134	23163	17612	27599	26069	24831	27996	32633	31691	33199	31499	32434	34242	32043	31845	30739
Wood	436	590	673	831	1300	1045	1595	3363	4060	3558	3191	3617	4097	4644	4570	4132	4740	4675	4556	4390
Straws	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Biofuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Landfill gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	9
Sludge gas	NO	NO	NO	31	24	18	39	23	17	38	41	51	67	43	55	95	87	92	92	115
Other biogas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Waste oils	42	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	42	29	88	29	NO	NO	NO	29
1.A.1.c. Manufacture of Solid Fuels and Other Energy Industries																				
Total	2951	2601	2300	2399	1664	1926	2826	1405	3734	3996	2738	1424	1270	1613	1652	1346	1433	1022	1290	1117
Liquid Fuels	339	251	251	251	433	253	1223	330	2546	3005	1550	170	212	170	212	212	212	170	212	163
Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	28	28	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	711	640	869	570	595	729	571	483	393	229	381	105	10	10	10	20	10	9	NO	NO
Gaseous Fuels	1901	1710	1180	1578	636	944	1032	566	733	633	807	877	806	875	872	872	939	570	805	497
Biomass	NO	NO	NO	NO	NO	NO	NO	26	34	101	NO	272	242	558	558	242	272	273	273	457
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	46	NO	NO	NO	182	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Jet fuel	NO	NO	NO	NO	NO	NO	NO	NO	216	346	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	212	170	170	170	170	212	127	127	127	212	127	170	212	170	212	212	212	170	212	163
RFO	81	81	81	81	81	41	1096	203	487	731	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	1716	1716	1423	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	NO	NO	NO	NO	NO	NO	NO	NO	28	28	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	711	640	869	570	595	729	571	483	393	229	381	105	10	10	10	20	10	9	NO	NO
Natural gas	1901	1710	1180	1578	636	944	1032	566	733	633	807	877	806	875	872	872	939	570	805	497
Wood	NO	NO	NO	NO	NO	NO	NO	26	34	101	NO	272	242	558	558	242	272	273	273	457

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1.A.1. Energy Industries											
Total	45623	42405	40447	46121	43893	46754	51075	48143	55231	54242	45365
Liquid Fuels	918	848	662	466	319	283	295	281	360	416	305
Solid Fuels	419	419	513	424	175	105	152	107	112	104	35
Peat	11	9	NO	40	NO	NO	NO	29	102	35	23
Gaseous Fuels	38687	35607	31872	33926	29870	31395	32108	26556	33211	31283	23442
Biomass	5559	5519	7400	11265	13529	14971	18520	21170	21446	22404	21560
Other Fossil Fuels	29	3	NO	NO	NO	NO	NO	NO	NO	NO	NO
1.A.1.a. Public Electricity and Heat Production											
Total	44302	40877	39071	44641	42383	45442	49929	46874	54053	52876	44272
Liquid Fuels	705	593	492	211	33	28	30	37	80	39	54
Solid Fuels	419	419	513	424	175	105	152	107	112	104	35
Peat	11	9	NO	40	NO	NO	NO	NO	85	NO	1
Gaseous Fuels	37812	34664	30895	32997	29040	30712	31595	26116	32691	30713	22949

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Biomass	5326	5189	7171	10969	13135	14597	18152	20614	21085	22020	21233
Other Fossil Fuels	29	3	NO	NO	NO	NO	NO	NO	NO	NO	NO
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	NO	NO	NO	4	1	1	1	1	1	2	6
Diesel oil	15	25	127	94	22	14	11	14	49	9	4
RFO	690	568	365	113	10	13	18	22	30	28	44
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	419	419	513	424	175	105	152	107	112	104	35
Peat	10	9	NO	40	NO	NO	NO	NO	85	NO	1
Peat briquettes	1	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	37812	34664	30895	32997	29040	30712	31595	26116	32691	30713	22949
Wood	5120	4635	5793	9198	11184	12286	15662	18003	18751	19948	19120
Straws	1	NO	NO	NO	NO	NO	NO	18	66	NO	37
Biofuel	8	52	39	NO	NO	NO	NO	NO	1	NO	NO
Landfill gas	18	22	22	14	16	13	13	14	14	14	13
Sludge gas	137	102	102	102	93	85	107	101	83	90	76
Other biogas	42	378	1215	1655	1842	2213	2370	2478	2170	1968	1987
Waste oils	29	3	NO	NO	NO	NO	NO	NO	NO	NO	NO
1.A.1.c. Manufacture of Solid Fuels and Other Energy Industries											
Total	1321	1528	1376	1480	1510	1312	1146	1269	1178	1366	1093
Liquid Fuels	213	255	170	255	286	255	265	244	280	377	251
Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	29	17	35	22
Gaseous Fuels	875	943	977	929	830	683	513	440	520	570	493
Biomass	233	330	229	296	394	374	368	556	361	384	327
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Jet fuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	213	255	170	255	286	255	265	244	280	377	251
RFO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	29	17	35	22
Natural gas	875	943	977	929	830	683	513	440	520	570	493
Wood	233	330	229	296	394	374	368	556	361	384	327

1.A.2 Manufacturing Industries and Construction

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1.A.2 Manufacturing Industries and Construction																				
Total	58640	45567	38083	32982	29888	29837	29430	28709	26228	24129	20526	20910	21411	21329	22992	24018	25618	24376	23172	22367
Liquid Fuels	29747	20311	17430	17082	16545	16745	16344	16010	12910	11400	7575	4681	3966	4417	4277	2866	4075	3843	3076	2936
Solid Fuels	1545	882	968	1639	1444	650	592	450	393	421	252	252	253	262	236	971	1394	1967	1993	1363
Peat	NO	20	10	NO	15	15	15	25	25	15	NO	NO	NO	NO	10	NO	NO	NO	NO	NO
Gaseous Fuels	25894	23752	19059	12482	9783	10014	9815	9484	9712	9080	9873	11583	12838	12729	13157	13680	13395	12881	11836	9261
Biomass	617	603	616	1779	2101	2414	2664	2740	3188	3186	2733	3926	3487	3391	4795	5588	6464	5415	5895	8675
Other Fossil Fuels	837	NO	NO	NO	NO	NO	NO	NO	NO	26	94	469	866	530	517	914	290	270	372	132
1.A.2.a. Iron and Steel																				
Total	6304	4622	4130	3651	3992	3065	3282	5079	5083	4991	5049	5142	4861	4932	5016	4777	5059	5081	4738	4187
Liquid Fuels	1192	989	705	731	885	705	785	1162	1088	1130	1145	1042	963	963	963	99	963	963	917	792
Solid Fuels	NO	NO	NO	28	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	27	27	5	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	4275	3633	3425	2892	3107	2360	2497	3917	3995	3861	3904	4058	3898	3969	4026	4125	4091	4118	3821	3395
Biomass	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other Fossil Fuels	837	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	NO	NO	NO	526	NO	NO	NO	NO
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	79	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	15	15	15	NO	15	NO	NO	NO	NO	NO	15	NO	NO	NO	NO	15	NO	NO	NO	NO
RFO	1177	974	690	284	284	203	325	325	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	122	81
Other liquid	NO	NO	NO	447	586	502	460	837	1088	1130	1130	963	963	963	963	84	963	963	795	711
Anthracite	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	NO	NO	NO	28	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coke	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	27	27	5	NO	NO	NO
Natural gas	4275	3633	3425	2892	3107	2360	2497	3917	3995	3861	3904	4058	3898	3969	4026	4125	4091	4118	3821	3395
Wood	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Waste oils	837	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	NO	NO	NO	526	NO	NO	NO	NO
1.A.2.b. Non-Ferrous Metals																				
Total	NO	NO	NO	NO	NO	NO	NO	NO	53	100	168	190	269	302	269	203	204	201	134	101
Liquid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	NO	NO	NO	NO	NO	NO	NO	NO	53	100	168	190	269	302	269	203	204	201	134	101

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Biomass	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	NO	NO	NO	NO	NO	NO	NO	NO	53	100	168	190	269	302	269	203	204	201	134	101
Biofuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1.A.2.c. Chemicals																				
Total	3943	2515	2013	3638	3935	5645	4160	3529	643	538	486	479	469	449	452	472	540	455	811	679
Liquid Fuels	3516	1932	1599	2963	3207	4547	3451	3207	325	122	122	164	162	122	NO	NO	NO	NO	81	31
Solid Fuels	NO	NO	NO	28	28	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	427	584	414	643	693	1090	696	302	298	362	317	269	278	308	405	442	480	381	513	518
Biomass	NO	NO	NO	4	7	7	13	20	20	54	47	46	29	19	47	30	60	74	188	130
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	29	NO
LPG	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other kerosene	389	389	259	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RFO	3127	1543	1340	2963	3207	4547	3451	3207	325	122	122	122	162	122	NO	NO	NO	NO	81	31
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	NO	NO	NO	NO	NO	NO	NO	NO
Coal	NO	NO	NO	28	28	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat briquettes	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	427	584	414	643	693	1090	696	302	298	362	317	269	278	308	405	442	480	381	513	518
Wood	NO	NO	NO	4	7	7	13	20	20	54	47	46	29	19	47	30	57	72	187	127
Biofuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	3	2	1	3
Other biogas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Waste oils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	29	NO
1.A.2.d. Pulp, Paper and Print																				
Total	2956	2827	2562	953	330	326	194	181	142	168	124	176	182	214	213	255	281	217	208	264
Liquid Fuels	203	162	122	122	41	81	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Solid Fuels	28	28	28	113	56	56	56	57	28	28	NO	28	28	26	26	26	26	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	2724	2637	2412	653	45	101	118	104	94	100	101	135	134	168	167	202	235	201	201	101
Biomass	NO	NO	NO	65	188	87	20	20	20	40	23	13	20	20	20	27	20	16	7	163

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RFO	203	162	122	122	41	81	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	28	28	28	113	56	56	56	57	28	28	NO	28	28	26	26	26	26	NO	NO	NO
Natural gas	2724	2637	2412	653	45	101	118	104	94	100	101	135	134	168	167	202	235	201	201	101
Wood	NO	NO	NO	65	188	87	20	20	20	40	23	13	20	20	20	27	20	16	7	163
1.A.2.e. Food Processing, Beverages and Tobacco																				
Total	11791	8021	7340	7910	7380	7842	8807	8002	7721	6747	5615	4899	5112	4423	4879	5019	4876	4037	3139	2874
Liquid Fuels	7318	4471	3944	3578	3654	4141	4919	4398	4516	3581	2418	1184	1102	694	533	615	661	456	208	374
Solid Fuels	1069	598	655	594	565	309	309	252	168	224	140	140	141	158	105	132	106	79	79	52
Peat	NO	NO	NO	NO	15	NO	NO	15	15	15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	3177	2722	2511	3500	2829	3065	3250	3013	2694	2578	2607	2775	2985	2764	3238	3149	3249	2684	2370	1930
Biomass	228	231	230	238	316	327	330	325	328	349	450	800	842	719	916	1035	772	701	394	488
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	88	88	88	88	117	88	30
Shale oil	NO	NO	NO	NO	NO	39	NO	NO	NO	NO	630	79	79	39	39	79	39	40	40	39
LPG	46	46	46	46	NO	NO	NO	46	46	46	NO	46	46	46	46	46	91	91	46	91
Jet fuel	NO	NO	NO	NO	NO	NO	43	86	43	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other kerosene	NO	NO	NO	NO	NO	NO	43	43	43	43	43	NO	NO	NO	NO	NO	NO	NO	NO	NO
RFO	7105	4425	3898	3532	3654	4060	4791	4223	4384	3492	1745	975	893	609	406	406	447	325	122	244
Other liquid	167	NO	NO	NO	NO	42	42	NO	NO	NO	NO	84	84	NO	42	84	84	NO	NO	NO
Coal	911	598	655	541	512	256	256	199	142	171	114	114	114	131	105	105	79	79	79	52
Coke	158	NO	NO	53	53	53	53	53	26	53	26	26	27	27	NO	27	27	NO	NO	NO
Peat briquettes	NO	NO	NO	NO	15	NO	NO	15	15	15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	3177	2722	2511	3500	2829	3065	3250	3013	2694	2578	2607	2775	2985	2764	3238	3149	3249	2684	2370	1930
Wood	228	231	230	238	316	327	330	325	328	349	450	800	842	719	916	1035	772	701	394	483
Straws	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Biofuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	5
Other biogas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Waste oils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	88	88	88	88	117	88	30
1.A.2.f. Non-metallic minerals																				
Total	9369	5784	5542	2920	3829	3968	3899	3103	2960	2986	2470	2755	3631	3861	3606	4016	4085	4357	4180	2566
Liquid Fuels	3458	1180	1259	1218	2888	2478	2477	2354	1827	2189	1479	440	316	1325	1167	509	708	252	80	165

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Solid Fuels	170	85	114	199	171	114	57	85	28	28	28	28	28	26	26	682	1127	1809	1888	1285
Peat	NO	NO	NO	NO	NO	NO	NO	10	10	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	5734	4513	4163	1476	750	1282	1345	634	1066	698	808	1821	2352	1884	1845	2381	1878	1979	1782	942
Biomass	7	6	6	27	20	94	20	20	29	44	61	82	111	184	139	144	170	165	175	101
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	26	94	385	824	442	429	300	202	153	255	73
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	118	748	236	118	118	79	39	39	39	39	NO
LPG	NO	NO	NO	NO	46	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other kerosene	43	43	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RFO	3289	1137	1259	1218	2842	2436	2477	2354	1827	2071	731	162	NO	NO	NO	41	NO	81	41	NO
Petroleum coke	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	198	956	1088	429	627	132	NO	165
Other liquid	126	NO	NO	NO	NO	42	NO	NO	NO	NO	NO	42	NO	251	NO	NO	42	NO	NO	NO
Coal	142	85	114	199	171	114	57	85	28	28	28	28	28	26	26	682	1127	1809	1888	1285
Oil shale	28	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	10	10	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	5734	4513	4163	1476	750	1282	1345	634	1066	698	808	1821	2352	1884	1845	2381	1878	1979	1782	942
Wood	7	6	6	27	20	94	20	20	29	34	24	12	17	102	50	95	136	139	77	67
Straws	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Biofuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Municipal wastes (biomass fraction)	NO	NO	NO	NO	NO	NO	NO	NO	NO	10	37	70	94	82	89	49	34	26	98	34
Municipal wastes (fossil fraction)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	80	29
Industrial wastes	NO	NO	NO	NO	NO	NO	NO	NO	NO	26	94	176	238	208	224	125	85	65	58	15
Waste oils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	209	586	234	205	175	117	88	117	29
1.A.2.g. Other																				
Total	24278	21798	16497	13910	10424	8992	9088	8814	9626	8599	6615	7269	6886	7148	8557	9276	10573	10028	9962	11697
Liquid Fuels	14061	11578	9802	8470	5871	4793	4712	4888	5154	4378	2411	1851	1423	1313	1615	1643	1743	2172	1790	1574
Solid Fuels	278	171	171	677	623	170	169	56	169	141	84	56	56	52	52	104	130	79	26	26
Peat	NO	20	10	NO	NO	15	15	NO	NO	NO	NO	NO	NO	NO	10	NO	NO	NO	NO	NO
Gaseous Fuels	9557	9664	6134	3318	2360	2115	1910	1515	1512	1380	1968	2335	2922	3334	3208	3177	3258	3318	3014	2275

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Biomass	382	366	380	1445	1570	1899	2281	2355	2791	2699	2152	2985	2485	2449	3673	4352	5442	4459	5132	7793
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	NO	NO	NO	NO	NO	NO	NO	29
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	39	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	NO	NO	NO	NO	NO	91	137	91	NO	46	46	NO	NO	NO	46	46	46	46	45	NO
Gasoline	880	220	220	220	132	44	132	88	88	44	44	44	69	44	88	88	88	88	88	44
Other kerosene	NO	NO	NO	86	43	86	43	86	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	5549	5591	4019	3779	1597	1485	1315	1740	1655	1527	1469	1357	1231	1187	1357	1385	1527	1997	1657	1530
RFO	7632	5766	5563	4385	4099	3086	3085	2883	3411	2761	813	366	123	82	82	82	82	41	NO	NO
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	84	NO	NO	42	42	NO	NO	NO	NO
Coal	199	171	171	625	597	170	169	56	169	141	84	56	56	52	52	104	130	79	26	26
Coke	79	NO	NO	52	26	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	20	10	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	10	NO	NO	NO	NO	NO
Peat briquettes	NO	NO	NO	NO	NO	15	15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	9557	9664	6134	3318	2360	2115	1910	1515	1512	1380	1968	2335	2922	3334	3208	3177	3258	3318	3014	2275
Wood	382	366	380	1445	1570	1899	2281	2355	2791	2699	2152	2985	2485	2449	3673	4352	5442	4459	5132	7793
Straws	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Biofuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Waste oils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	NO	NO	NO	NO	NO	NO	NO	29

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1.A.2 Manufacturing Industries and Construction											
Total	26693	25237	27823	26084	26820	26271	23655	24234	27505	26188	26707
Liquid Fuels	3500	2298	2649	2576	2254	2014	2193	2282	2326	2079	2128
Solid Fuels	1861	2229	2149	1406	1336	1014	727	974	1341	1213	808
Peat	14	2	2	24	24	11	34	NO	1	14	8
Gaseous Fuels	10537	7578	7952	6259	5258	5262	4755	4689	4936	4264	4227
Biomass	10319	12381	14194	14703	16670	16722	15034	15124	17319	17211	17914
Other Fossil Fuels	462	749	877	1115	1279	1248	913	1166	1582	1407	1621
1.A.2.a. Iron and Steel											
Total	4869	1207	1633	583	13	406	46	6	5	10	7
Liquid Fuels	1005	NO	NO	NO	NO	NO	NO	0	0	NO	NO

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Solid Fuels	26	27	184	32	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	3838	1180	1449	551	13	406	46	6	4	6	7
Biomass	NO	NO	NO	NO	NO	NO	NO	NO	1	4	NO
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	0	NO	NO	NO	NO	NO	NO	0	0	NO	NO
RFO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other liquid	1005	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anthracite	NO	NO	82	27	NO	NO	NO	NO	NO	NO	NO
Coal	26	27	102	5	NO	NO	NO	NO	NO	NO	NO
Coke	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	3838	1180	1449	551	13	406	46	6	4	6	7
Wood	NO	NO	NO	NO	NO	NO	NO	NO	1	4	NO
Waste oils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1.A.2.b. Non-Ferrous Metals											
Total	135	170	170	138	72	61	37	26	26	24	14
Liquid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Solid Fuels	NO	2	1	NO	NO	1	1	NO	1	1	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	135	168	168	138	72	60	36	26	25	23	14
Biomass	NO	NO	1	NO	NO	NO	NO	NO	NO	NO	NO
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	NO	2	1	NO	NO	1	1	NO	1	1	NO
Natural gas	135	168	168	138	72	60	36	26	25	23	14
Biofuel	NO	NO	1	NO	NO	NO	NO	NO	NO	NO	NO
1.A.2.c. Chemicals											
Total	803	621	737	756	780	720	718	810	816	618	609
Liquid Fuels	9	46	137	137	144	139	127	142	182	163	166
Solid Fuels	NO	1	NO	NO	NO	NO	NO	NO	2	NO	1
Peat	NO	NO	NO	20	11	NO	NO	NO	1	NO	NO
Gaseous Fuels	606	404	371	385	316	330	390	452	480	297	241
Biomass	188	170	229	214	309	251	201	216	151	158	201
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	NO	46	137	137	144	139	127	142	182	163	166
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
RFO	9	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	NO	1	NO	NO	NO	NO	NO	NO	2	NO	1
Peat	NO	NO	NO	20	10	NO	NO	NO	1	NO	NO
Peat briquettes	NO	NO	NO	NO	1	NO	NO	NO	NO	NO	NO
Natural gas	606	404	371	385	316	330	390	452	480	297	241
Wood	187	169	210	208	278	221	179	188	151	158	200
Biofuel	1	1	NO	NO	1	1	NO	6	NO	NO	1
Other biogas	NO	NO	19	6	30	29	22	22	NO	NO	NO
Waste oils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1.A.2.d. Pulp, Paper and Print											
Total	257	209	170	200	104	104	102	118	118	116	103
Liquid Fuels	NO	NO	NO	NO	4	4	4	4	3	4	4
Solid Fuels	NO	NO	NO	NO	NO	NO	1	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	101	101	68	103	97	95	86	105	107	95	79
Biomass	156	108	102	97	3	5	11	9	8	17	20
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	NO	NO	NO	NO	4	4	4	4	3	4	4
RFO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	NO	NO	NO	NO	NO	NO	1	NO	NO	NO	NO
Natural gas	101	101	68	103	97	95	86	105	107	95	79
Wood	156	108	102	97	3	5	11	9	8	17	20
1.A.2.e. Food Processing, Beverages and Tobacco											
Total	2738	2609	2790	2616	2477	2097	2144	1984	2086	2042	2143
Liquid Fuels	396	291	379	305	226	156	197	200	170	195	138
Solid Fuels	52	16	27	25	24	24	46	40	17	14	17
Peat	3	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	1919	1886	1819	1808	1729	1627	1476	1303	1378	1336	1391
Biomass	339	360	536	449	469	261	404	417	492	495	597
Other Fossil Fuels	29	56	29	29	29	29	21	24	29	2	NO
Shale oil	39	79	39	NO	NO	NO	NO	NO	8	9	1
LPG	72	91	137	182	160	148	190	191	153	141	109
Jet fuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RFO	285	121	203	81	31	8	7	9	9	45	28

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Other liquid	NO	NO	NO	42	35	NO	NO	NO	NO	NO	NO
Coal	52	16	27	25	24	24	46	40	17	14	17
Coke	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat briquettes	3	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	1919	1886	1819	1808	1729	1627	1476	1303	1378	1336	1391
Wood	333	360	535	449	467	230	361	371	442	445	553
Straws	NO	NO	NO	NO	NO	29	41	45	49	48	43
Biofuel	6	NO	1	NO	NO	NO	NO	NO	NO	NO	NO
Other biogas	NO	NO	NO	NO	2	2	2	1	1	2	1
Waste oils	29	56	29	29	29	29	21	24	29	2	NO
1.A.2.f. Non-metallic minerals											
Total	4318	4973	5282	4765	5125	4521	3686	4347	5570	5466	5515
Liquid Fuels	627	NO	NO	NO	NO	1	124	45	21	6	61
Solid Fuels	1757	2136	1910	1299	1254	957	650	899	1292	1183	783
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	1010	977	1280	1344	1353	1208	1186	1286	1239	1251	1284
Biomass	520	1196	1273	1035	1269	1136	835	976	1465	1621	1765
Other Fossil Fuels	404	664	819	1086	1250	1219	892	1142	1553	1405	1621
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	NO	NO	NO	NO	NO	1	NO	1	16	6	1
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RFO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Petroleum coke	627	NO	NO	NO	NO	NO	124	44	5	NO	60
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	1757	2136	1910	1299	1254	957	650	899	1292	1183	783
Oil shale	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	1010	977	1280	1344	1353	1208	1186	1286	1239	1251	1284
Wood	10	3	23	NO	NO	3	25	6	5	34	30
Straws	NO	NO	NO	NO	NO	NO	NO	NO	211	261	224
Biofuel	NO	NO	NO	NO	3	2	2	2	2	2	5
Municipal wastes (biomass fraction)	510	1193	1250	1035	1266	1131	808	968	1247	1324	1506
Municipal wastes (fossil fraction)	320	332	577	707	892	934	736	962	1215	1086	1270
Industrial wastes	84	331	242	379	358	284	155	180	338	320	351

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Waste oils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1.A.2.g. Other											
Total	13573	15448	17041	17026	18249	18362	16922	16943	18884	17912	18316
Liquid Fuels	1463	1961	2133	2134	1880	1714	1741	1891	1950	1711	1759
Solid Fuels	26	47	27	50	58	32	29	35	29	15	7
Peat	11	2	2	4	13	11	34	NO	NO	14	8
Gaseous Fuels	2928	2862	2797	1930	1678	1536	1535	1511	1703	1256	1211
Biomass	9116	10547	12053	12908	14620	15069	13583	13506	15202	14916	15331
Other Fossil Fuels	29	29	29	NO	NO	NO	NO	NO	NO	NO	NO
Shale oil	NO	NO	NO	NO	NO	NO	NO	1	NO	NO	NO
LPG	19	91	92	94	115	114	137	194	189	148	159
Gasoline	44	44	44	44	43	48	41	36	37	43	13
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	1359	1785	1997	1996	1722	1547	1560	1657	1722	1520	1587
RFO	41	41	NO	NO	NO	5	3	3	2	NO	NO
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	26	47	27	50	58	32	29	32	28	14	7
Coke	NO	NO	NO	NO	NO	NO	NO	3	1	1	NO
Peat	10	2	2	NO	10	10	34	NO	NO	NO	6
Peat briquettes	1	NO	NO	4	3	1	NO	NO	NO	14	2
Natural gas	2928	2862	2797	1930	1678	1536	1535	1511	1703	1256	1211
Wood	9115	10547	12051	12906	14620	15069	13583	13506	15202	14916	15321
Straws	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	10
Biofuel	1	NO	2	2	NO	NO	NO	NO	NO	NO	NO
Waste oils	29	29	29	NO	NO	NO	NO	NO	NO	NO	NO

1.A.4 Other Sectors

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1.A.4 Other Sectors																				
Total	101006	107881	83180	76877	64625	60095	61217	56087	52424	51957	49115	54027	53754	57204	59271	58976	58737	59294	55356	58765
Liquid Fuels	27829	32499	24223	21319	14008	8731	8715	7674	6901	7307	6886	7360	6844	7817	7779	7728	8334	7849	7067	7720
Solid Fuels	22398	19894	15853	13347	9363	5180	5521	4639	3330	2817	2162	2988	2390	2203	2150	2045	1940	1940	1783	1574
Peat	1128	880	1030	617	515	390	506	357	266	66	41	15	NO	10	NO	20	40	61	31	16
Gaseous Fuels	23203	23548	11201	8384	7002	7150	6732	5434	5670	5865	6218	7061	8098	8795	9651	9632	9983	11027	10959	10241
Biomass	26448	31060	30873	33210	33737	38643	39743	37983	36257	35902	33808	36561	36295	38321	39574	39523	38382	38388	35487	39215

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	126	58	117	29	58	29	29	NO
1.A.4.a. Commercial/Institutional																				
Total	39260	39062	33600	26832	17464	16430	16535	14620	12251	12993	11354	12363	13105	13786	14985	14213	14844	15946	13201	12520
Liquid Fuels	13453	16642	11910	10556	5308	2804	2712	2285	1971	2214	1713	1926	1743	2138	2010	1781	2167	1863	1549	1528
Solid Fuels	14913	11413	10872	7854	4297	2903	3272	2732	2419	2049	1565	1536	1423	1338	1285	1049	1075	1075	918	735
Peat	672	517	620	288	326	113	250	163	71	15	31	15	NO	10	NO	20	40	61	31	16
Gaseous Fuels	5004	5328	4916	2625	1903	2328	2271	1805	2175	2536	3054	3347	4103	4278	4680	4598	4851	5676	5679	5415
Biomass	5218	5162	5282	5508	5630	8282	8029	7636	5615	6179	4991	5497	5709	5965	6894	6737	6652	7242	4995	4826
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	126	58	117	29	58	29	29	NO
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	79	NO	NO	NO	NO	39	NO	NO	NO	NO
LPG	46	NO	NO	182	137	91	137	182	410	91	NO	91	46	182	137	137	137	137	91	91
Gasoline	44	44	44	44	220	NO	85	87	41	86	86	75	46	39	41	42	38	43	39	43
Other kerosene	43	130	86	173	173	346	43	43	43	86	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	8116	11515	7436	7478	1529	1189	1147	552	340	935	1020	1190	1242	1465	1546	1198	1627	1643	1339	1344
RFO	4953	4953	4344	2679	3248	1177	1300	1421	1137	974	528	528	325	284	244	365	365	40	80	50
Other liquid	251	NO	NO	NO	NO	NO	NO	NO	NO	42	NO	42	84	167	42	NO	NO	NO	NO	NO
Anthracite	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	14913	11413	10872	7854	4297	2903	3272	2732	2419	2049	1565	1536	1423	1338	1285	1049	1075	1075	918	735
Peat	161	161	171	40	171	51	110	70	40	NO	NO	NO	NO	10	NO	20	40	60	30	10
Peat briquettes	511	356	449	248	155	62	139	93	31	15	31	15	NO	NO	NO	NO	NO	1	1	6
Natural gas	5004	5328	4916	2625	1903	2328	2271	1805	2175	2536	3054	3347	4103	4278	4680	4598	4851	5676	5679	5415
Wood	5218	5162	5282	5508	5630	8282	8029	7636	5615	6179	4991	5497	5663	5803	6652	6485	6382	6955	4691	4482
Straws	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	11	16	14	29
Biofuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Landfill gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	46	162	242	251	259	271	290	314
Other biogas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Waste oils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	42	126	58	117	29	58	29	29	NO
1.A.4.b. Residential																				
Total	35751	42489	39047	40790	38562	37659	38588	36043	35336	34027	32851	36298	35666	37702	38261	38948	37955	37271	37067	40809
Liquid Fuels	4908	5671	5003	4010	2848	1402	1272	1363	1454	1406	1443	1441	1441	1398	1443	1577	1621	1438	1393	2025
Solid Fuels	6404	7542	4440	5037	4411	1821	1964	1708	797	683	512	1338	854	787	787	944	813	813	813	813
Peat	425	332	379	258	144	252	241	179	195	51	10	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	4004	4275	4905	5089	4359	4181	3762	3063	2896	2829	2659	3001	3293	3667	3958	4193	4326	4587	4693	4304
Biomass	20010	24669	24320	26396	26800	30003	31349	29730	29994	29058	28227	30518	30078	31850	32073	32234	31195	30433	30168	33667
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	2869	2823	2368	2140	1913	1275	1230	1321	1412	1321	1184	1139	1139	1139	1184	1230	1230	1047	1002	911

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Gasoline	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	132	132	132	132	132	220	264	264	264	264
Other kerosene	86	86	43	43	43	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	1912	2762	2592	1827	892	127	42	42	42	85	127	170	170	127	127	127	127	127	127	850
RFO	41	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	6404	7542	4440	5037	4411	1821	1964	1708	797	683	512	1338	854	787	787	944	813	813	813	813
Peat	131	131	131	10	20	20	40	40	40	20	10	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat briquettes	294	201	248	248	124	232	201	139	155	31	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	4004	4275	4905	5089	4359	4181	3762	3063	2896	2829	2659	3001	3293	3667	3958	4193	4326	4587	4693	4304
Wood	20010	24669	24320	26396	26800	30003	31349	29730	29994	29058	28227	30518	30078	31850	32043	32174	31165	30388	30108	33607
Charcoal	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	30	60	30	45	60	60
Straws	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1.A.4.c. Agriculture/Forestry/Fisheries																				
Total	25995	26331	10533	9255	8599	6005	6094	5424	4837	4937	4910	5365	4983	5716	6025	5815	5939	6077	5088	5436
Liquid Fuels	9468	10186	7310	6752	5852	4526	4731	4027	3476	3687	3730	3994	3660	4282	4326	4370	4546	4548	4125	4167
Solid Fuels	1081	939	541	456	655	456	285	199	114	85	85	113	113	78	78	52	52	52	52	26
Peat	31	31	31	71	45	25	15	15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	14195	13945	1380	670	739	641	699	566	599	500	505	712	702	850	1014	841	806	764	587	521
Biomass	1220	1229	1271	1306	1307	358	365	617	648	665	590	546	508	506	607	552	535	713	324	722
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	46	46	NO	91	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	46	45
Gasoline	1628	132	132	132	132	88	88	88	44	44	44	11	17	44	44	44	44	44	NO	NO
Other kerosene	86	86	43	43	43	NO	43	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	6161	8583	6161	5269	4419	3951	3909	3654	3229	3399	3442	3739	3399	3994	4079	4164	4461	4504	4079	4122
RFO	1421	1339	974	1217	1258	487	691	285	203	244	244	244	244	244	203	162	41	NO	NO	NO
Other liquid	126	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	1081	939	541	456	655	456	285	199	114	85	85	113	113	78	78	52	52	52	52	26
Peat	NO	NO	NO	40	30	10	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat briquettes	31	31	31	31	15	15	15	15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	14195	13945	1380	670	739	641	699	566	599	500	505	712	702	850	1014	841	806	764	587	521
Wood	1220	1229	1271	1306	1307	358	365	617	648	665	590	546	508	506	607	552	535	713	324	722
Straws	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Biofuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other biogas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Waste oils	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1.A.4 Other Sectors											
Total	52858	51546	53990	50171	49303	44409	44492	47841	48529	46901	44452
Liquid Fuels	8230	8269	8268	8413	8648	8775	8504	9140	9041	9033	9892
Solid Fuels	2098	1861	983	1075	962	831	799	608	441	327	123
Peat	21	32	32	NO	11	NO	NO	11	32	23	20
Gaseous Fuels	11819	10343	10477	9809	9670	9101	9888	9948	10345	10131	10063
Biomass	30682	31042	34230	30874	30012	25701	25297	28132	28666	27383	24342
Other Fossil Fuels	8	NO	NO	NO	NO	NO	4	3	4	11	12
1.A.4.a. Commercial/Institutional											
Total	13247	11743	13020	12833	12495	12380	11863	11967	11535	10582	10618
Liquid Fuels	1515	1315	1777	1876	2024	2131	1451	1405	1346	904	1502
Solid Fuels	1023	891	354	519	407	323	292	197	165	132	68
Peat	1	32	32	NO	11	NO	NO	11	31	23	20
Gaseous Fuels	5623	5055	4952	4477	4401	4166	4514	4651	4837	5027	5058
Biomass	5077	4451	5905	5961	5652	5759	5604	5701	5152	4501	3967
Other Fossil Fuels	8	NO	NO	NO	NO	NO	2	3	4	2	3
Shale oil	NO	NO	NO	NO	NO	NO	7	NO	NO	NO	NO
LPG	99	54	98	96	161	144	249	332	281	218	218
Gasoline	44	88	44	88	44	44	33	43	36	29	27
Other kerosene	NO	NO	NO	NO	NO	NO	6	4	4	1	NO
Diesel oil	1331	1171	1635	1692	1819	1942	1152	1022	1023	654	1250
RFO	41	2	NO	NO	NO	1	4	4	2	2	2
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	5
Anthracite	NO	NO	NO	NO	NO	NO	27	7	NO	NO	NO
Coal	1023	891	354	519	407	323	265	190	165	132	68
Peat	NO	29	28	NO	10	NO	NO	NO	16	19	5
Peat briquettes	1	3	4	NO	1	NO	NO	11	15	4	15
Natural gas	5623	5055	4952	4477	4401	4166	4514	4651	4837	5021	5058
Wood	4679	3997	5163	5087	4603	4512	4455	4509	3876	3333	2815
Straws	57	43	24	44	53	30	15	10	23	24	21
Biofuel	4	31	34	54	12	15	NO	NO	NO	NO	NO
Landfill gas	314	327	325	357	353	407	396	408	391	352	351
Other biogas	23	53	359	419	631	795	738	774	862	792	780
Waste oils	8	NO	NO	NO	NO	NO	2	3	4	2	3
1.A.4.b. Residential											
Total	33561	33797	35117	31228	30846	25862	26012	28556	30002	28432	25883

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Liquid Fuels	2237	2229	2236	2237	2283	2055	2140	2314	2277	2218	2236
Solid Fuels	1049	944	577	530	531	501	498	410	276	195	55
Peat	20	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	5219	4480	4481	4266	4252	4116	4510	4673	4998	4647	4598
Biomass	25036	26144	27823	24195	23780	19190	18864	21159	22451	21372	18994
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LPG	911	903	911	911	957	773	766	794	679	621	656
Gasoline	264	264	263	264	264	220	220	220	220	220	220
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	1062	1062	1062	1062	1062	1062	1154	1300	1378	1377	1360
RFO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	1049	944	577	530	531	501	498	410	276	195	55
Peat	20	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat briquettes	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	5219	4480	4481	4266	4252	4116	4510	4673	4998	4647	4598
Wood	24974	26084	27764	24105	23690	19130	18799	21093	22383	21285	18904
Charcoal	60	60	59	90	90	60	65	66	68	87	90
Straws	2	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1.A.4.c. Agriculture/Forestry/Fisheries											
Total	6050	6006	5853	6110	5962	6167	6617	7318	6992	7887	7951
Liquid Fuels	4478	4725	4255	4300	4341	4589	4913	5421	5418	5911	6154
Solid Fuels	26	26	52	26	24	7	9	1	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	1	NO	NO
Gaseous Fuels	977	808	1044	1066	1017	819	864	624	510	457	407
Biomass	569	447	502	718	580	752	829	1272	1063	1510	1381
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	2	NO	NO	9	9
LPG	13	45	46	48	47	92	109	127	76	101	104
Gasoline	NO	88	88	88	46	25	82	22	27	29	28
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel oil	4462	4589	4121	4164	4248	4472	4722	5272	5223	5761	6022
RFO	3	3	NO	NO	NO	NO	NO	NO	92	20	NO
Other liquid	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	26	26	52	26	24	7	9	1	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat briquettes	NO	NO	NO	NO	NO	NO	NO	NO	1	NO	NO
Natural gas	977	808	1044	1066	1017	819	864	624	510	457	407

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wood	568	361	299	460	292	401	462	877	710	1093	931
Straws	NO	NO	14	14	46	76	105	150	65	124	91
Biofuel	1	48	56	54	59	75	66	57	79	85	166
Other biogas	NO	38	133	190	183	200	196	188	209	208	193
Waste oils	NO	NO	NO	NO	NO	NO	2	NO	NO	9	9

1.A.5 Other

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1.A.5 Other (Not elsewhere specified)																				
Total	NO	NO	NO	NO	NO	86	46	174	46	132	2	2	92	87	157	104	122	39	47	73
Liquid Fuels	NO	NO	NO	NO	NO	86	46	174	46	132	2	2	92	87	157	104	122	39	47	73
Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Biomass	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gasoline	NO	NO	NO	NO	NO	NO	3	1	3	2	2	2	NO	5	3	2	6	1	5	1
Jet fuel	NO	NO	NO	NO	NO	86	43	173	43	130	NO	NO	17	17	43	24	43	24	21	23
Diesel oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	75	65	111	77	73	14	21	49

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1.A.5 Other (Not elsewhere specified)											
Total	107	98	100	88	128	130	155	178	269	322	199
Liquid Fuels	107	98	100	88	128	130	155	178	269	322	199
Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Peat	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gaseous Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Biomass	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other Fossil Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gasoline	0,2	NO	NO	NO	NO	NO	NO	0,04	1	1	1
Jet fuel	20	18	21	24	23	18	34	10	35	57	12
Diesel oil	87	80	79	63	105	112	121	168	233	264	186

Energy losses, statistical differences, transfers and secondary production of products in Energy sector, TJ

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Statistical differences																				
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1102	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gasoline	NO	NO	NO	NO	NO	NO	NO	NO	NO	6380	2508	2464	2948	747	528	264	440	NO	NO	132
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	346	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel	NO	NO	NO	255	2082	2719	425	1360	1232	2209	5141	1785	3569	3909	3782	4589	5949	5355	4334	7649
RFO	NO	1177	162	41	NO	NO	NO	NO	NO	650	974	NO	1421	325	284	NO	NO	NO	NO	NO
Other liquid fuels	167	122	122	81	84	42	126	167	126	42	42	42	NO	84	42	42	NO	NO	NO	NO
Natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	101	438	NO	NO	NO	NO	NO	NO	NO	NO
Transfer																				
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	669	1102	826	79
Jet fuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	2636	4623	43	NO	NO	NO
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	130	86	43	129	216	NO
Diesel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	340	127	127	212	NO
RFO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	8120	11815	853	1218	893	122
Other liquid fuels	167	122	122	81	84	42	126	167	126	42	42	42	NO	84	42	42	42	42	42	42
Losses																				
LPG	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	46	46	46	46	46	NO	NO	NO	NO	NO
Diesel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	127	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gasoline	44	44	44	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	114	114	114	57	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	26	NO
Peat	70	20	10	30	NO	NO	NO	NO	10	10	60	NO	NO	241	10	NO	NO	NO	40	10
Natural gas	136	1625	1481	1434	1004	977	999	1032	1032	999	673	472	572	740	536	167	268	335	336	639
Wood	80	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	36	18	45	NO	NO
Secondary Production																				
Other liquid fuels	NO	NO	NO	NO	NO	NO	1088	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other fossil fuels	42	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	419	292	88	292	205	234	263	88

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Statistical differences											
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gasoline	835	883	510	309	352	264	438	446	345	220	NO
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel	9634	5781	1360	2228	383	3824	3833	850	426	1712	846
RFO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other liquid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Natural gas	NO	NO	NO	275	NO	NO	NO	NO	NO	NO	NO
Transfer											
Shale oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Jet fuel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other kerosene	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RFO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other liquid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Losses											
LPG	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Diesel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Gasoline	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Coal	NO	NO	NO	1	NO	NO	NO	NO	NO	NO	NO
Peat	60	NO	NO	20	NO	NO	1	NO	NO	NO	NO
Natural gas	269	505	505	275	588	338	458	477	530	624	453
Wood	NO	7	7	NO	NO	NO	NO	NO	NO	NO	NO
Secondary Production											
Other liquid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other fossil fuels	66	29	29	29	29	29	29	27	45	38	26

A.3.2 ENERGY: CO₂ REFERENCE APPROACH AND COMPARISON WITH SECTORAL APPROACH

Table 1 Reference Approach estimations (TABLE 1.A(b))

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY

CO₂ from fuel combustion activities - reference approach (IPCC worksheet fuel combustion activities)

Inventory 2020

Submission 2022 v2

LATVIA

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor (TJ/Unit) ₁	NCV/GCV ⁽²⁾	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (kt)	Carbon stored[C excluded] (kt C)	Net carbon emissions (kt C)	Fraction of carbon oxidized	Actual CO ₂ emissions (kt CO ₂)
Liquid fossil	Primary fuels	Crude oil	TJ	NO	NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Orimulsion	TJ	NO	NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Natural gas liquids	TJ	NO	NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
	Secondary fuels	Gasoline	TJ		8155.00	726.00	NO	112.00	7317.00	1.00	NCV	7317.00	18.91	138.34	NO	138.34	1.00	507.23
		Jet kerosene	TJ		2541.00	NO	2443.00	85.00	13.00	1.00	NCV	13.00	19.71	0.26	NO	0.26	1.00	0.94
		Other kerosene	TJ		1.00	1.00	NO	NO	0.00	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Shale oil	TJ		1.00	NO		NO	1.00	1.00	NCV	1.00	21.05	0.02	NO	0.02	1.00	0.08
		Gas/diesel oil	TJ		61911.00	6192.00	8541.00	4712.00	42466.00	1.00	NCV	42466.00	20.40	866.31	NO	866.31	1.00	3176.47
		Residual fuel oil	TJ		175.00	NO	128.00	-27.00	74.00	1.00	NCV	74.00	21.11	1.56	NO	1.56	1.00	5.73
		Liquefied petroleum gases (LPG)	TJ		6540.00	3254.00		30.00	3256.00	1.00	NCV	3256.00	17.13	55.76	NO	55.76	1.00	204.46
		Ethane	TJ		NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Naphtha	TJ		NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Bitumen	TJ		2911.00	188.00		-16.00	2739.00	1.00	NCV	2739.00	22.00	60.26	60.26	0.00	1.00	0.00
		Lubricants	TJ		1744.00	1858.00	NO	-1019	905.00	1.00	NCV	905.00	20.00	18.10	16.77	1.33	1.00	4.87
		Petroleum coke	TJ		NO	3.00		-63.00	60.00	1.00	NCV	60.00	26.60	1.60	NO	1.60	1.00	5.85
		Refinery feedstocks	TJ		NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor (TJ/Unit ₁)	NCV/GCV ⁽²⁾	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (kt)	Carbon stored[C excluded] (kt C)	Net carbon emissions ((kt) C)	Fraction of carbon oxidized	Actual CO ₂ emissions ((kt) CO ₂)
		Other oil	TJ		538.00	90.00		42.00	406.00	1.00	NCV	406.00	20.00	8.12	8.02	0.10	1.00	0.37
Other liquid fossil												NO		NO	NO	NO		NO
Liquid fossil totals												57237.00		1150.32	85.05	1065.27		3905.99
Solid fossil	Primary fuels	Anthracite ⁽³⁾	TJ	NO	NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Coking coal	TJ	NO	NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Other bituminous coal	TJ	NO	975.00	110.00	NO	-101.00	966.00	1.00	NCV	966.00	26.35	25.45	NO	25.45	1.00	93.33
		Sub-bituminous coal	TJ	NO	NO	NO	NO	NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Lignite	TJ	NO	NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Oil shale and tar sand	TJ	NO	NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
	Secondary fuels	BKB ⁽⁴⁾ and patent fuel	TJ		NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Coke oven/gas coke	TJ		NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
		Coal tar	TJ		NO	NO		NO	NO	NO	NCV	NO	NO	NO	NO	NO	NO	NO
Other solid fossil											NO		NO	NO	NO	NO		NO
Solid fossil totals											966.00		25.45	NO	25.45		93.33	
Gaseous fossil		Natural gas (dry)	TJ	NO	38245.00	NO		38.00	38207.00	1.00	NCV	38207.00	15.14	578.32	NO	578.32	1.00	2120.52
Other gaseous fossil												NO		NO	NO	NO		NO
Gaseous fossil totals												38207		578.32	NO	578.32		2120.52
Waste (non-biomass fraction)			TJ	NO	IE	IE	NO	IE	NO,IE	IE	NCV	NO,IE	IE	NO,IE	IE	NO,IE	IE	NO,IE

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor (TJ/Unit) ₁	NCV/GCV ⁽²⁾	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (kt)	Carbon stored[C excluded] (kt C)	Net carbon emissions ((kt) C)	Fraction of carbon oxidized	Actual CO ₂ emissions ((kt) CO ₂)
Other fossil fuels												1633		38.29	NO	38.29		140.39
		Waste oils	TJ	26.00	1.00	23.00		-8.00	12.00	1.00	NCV	12.00	20.01	0.24	NO	0.24	1.00	0.88
		Municipal waste	TJ	NO	1284.26	11.58		2.60	1270.08	1.00	NCV	1270.08	23.46	29.80	NO	29.80	1.00	109.26
		Industrial waste	TJ	NO	369.46	NO		18.24	351.22	1.00	NCV	351.22	23.49	8.25	NO	8.25	1.00	30.25
Peat ^(5,6)			TJ	28.00	NO	16.00	NO	-39.00	51.00	1.00	NCV	51.00	27.89	1.42	NO	1.42	1.00	5.22
Total												98094.30		1793.81	85.05	1708.76		6265.45
Biomass total												65608.00		1800.43	NO	1800.43		6601.57
		Solid biomass	TJ	95554.00	22440.0	53523.00		5831.00	58640.00	1.00	NCV	58640.00	28.86	1692.39	NO	1692.39	1.00	6205.45
		Liquid biomass	TJ	3263.00	1404.00	2796.00		-189.00	2060.00	1.00	NCV	2060.00	19.30	39.76	NO	39.76	1.00	145.78
		Gas biomass	TJ	3400.96	NO	NO		NO	3400.96	1.00	NCV	3400.96	14.90	50.67	NO	50.67	1.00	185.81
		Other non-fossil fuels (biogenic waste)	TJ	NO	1563.16	10.01		46.00	1507.14	1.00	NCV	1507.14	11.68	17.60	NO	17.60	1.00	64.54

⁽¹⁾ If consumption data are not reported in physical units, please report net calorific values in a similar level of disaggregation as fuel types in the national inventory report (NIR) and indicate in the documentation box where this information is reported.

⁽³⁾ If data for anthracite are not available separately, include with Other Bituminous Coal.

⁽⁴⁾ BKB: Brown coal briquettes.

⁽⁵⁾ Although peat is not strictly speaking a fossil fuel, the carbon dioxide (CO₂) emissions from combustion of peat are included in the national emissions as for fossil fuels. See the 2006 IPCC Guidelines, chapter 1 of energy volume, page 1.15.

⁽⁶⁾ Include peat briquettes here.

Table 2 Comparison of CO₂ emissions from fuel combustion (1.A(c))**TABLE 1.A(c) COMPARISON OF CO₂ EMISSIONS FROM FUEL COMBUSTION****Comparison of CO₂ emissions from fuel combustion**Inventory 2020
Submission 2022
v2

LATVIA

FUEL TYPES	REFERENCE APPROACH			SECTORAL APPROACH ⁽¹⁾		DIFFERENCE ⁽²⁾	
	Apparent energy consumption ⁽³⁾ (PJ)	Apparent energy consumption (excluding non-energy use, reductants and feedstocks) ⁽⁴⁾ (PJ)	CO ₂ emissions (kt)	Energy consumption (PJ)	CO ₂ emissions ⁽⁵⁾ (kt)	Energy consumption (%)	CO ₂ emissions ⁽⁶⁾ (%)
Liquid fuels (excluding international bunkers)	57.24	53.20	3905.99	54.12	3981.27	-1.70	-1.89
Solid fuels (excluding international bunkers)	0.97	0.97	93.33	0.97	93.26	0.00	0.07
Gaseous fuels	38.21	38.21	2120.52	37.75	2093.92	1.20	1.27
Other fossil fuels	1.63	1.63	140.39	1.70	145.70	-4.20	-3.64
Peat	0.05	0.05	5.22	0.05	5.26	0.00	-0.87
Total⁽⁵⁾	98.09	94.06	6265.45	94.59	6319.41	-0.57	-0.85

⁽¹⁾ "Sectoral approach" is used to indicate the approach (if different from the reference approach) used by the Party to estimate carbon dioxide (CO₂) emissions from fuel combustion as reported in table 1.A(a), sheets 1-4.

⁽²⁾ Difference in CO₂ emissions estimated by the reference approach (RA) and the sectoral approach (SA) (difference = 100% x ((RA-SA)/SA)). For calculating the difference in energy consumption between the two approaches, data as reported in the column "Apparent energy consumption (excluding non-energy use, reductants and feedstocks)" are used for the reference approach.

⁽³⁾ Apparent energy consumption data shown in this column are as in table 1.A(b).

⁽⁴⁾ For the purposes of comparing apparent energy consumption in the reference approach with energy consumption in the sectoral approach, data in this column come from table 1.A(d).

⁽⁵⁾ For the sectoral approach gross emissions (without accounting for CO₂ captured) are included in the comparison.

⁽⁶⁾ In the case of discrepancies between the approaches (of more than 2 per cent), investigate and document the reasons for such discrepancies.

A.3.3 REPORTING CONSISTENCY WITH ENERGY DATA

FUEL TYPES			Apparent consumption reported in GHG inventory (TJ) (3)	Apparent consumption using data reported pursuant to Regulation (EC) No 1099/2008 (TJ) (3)	Absolute difference (1) (TJ) (3)	Relative difference (2) % (3)	Explanations for differences
Liquid fossil	Primary fuels	Crude oil	NO	NO	0.0	0.0%	
		Orimulsion	NO	NO	0.0	0.0%	
		Natural gas liquids	NO	NO	0.0	0.0%	
	Secondary fuels	Gasoline	7317.0	7309.1	7.9	0.1%	
		Jet kerosene	13.0	2456.0	-2443.0	-18792.1%	In GHG inventory Reference approach amount of jet fuel used in international aviation is not taken into account to ensure consistency between Reference approach and Sectoral approach.
		Other kerosene	NO	0.5	-0.5	-100.0%	In GHG inventory fuel consumption is taken from CSB online database with values rounded up to 1 TJ, while in AQ values are given in kilotons which need to be transformed into TJ using NCVs.
		Shale oil	1.0	0.9	0.1	7.6%	In GHG inventory fuel consumption is taken from CSB online database with values rounded up to 1 TJ, while in AQ values are given in kilotons which need to be transformed into TJ using NCVs.
		Gas/diesel oil	42466.0	43313.2	-847.2	-2.0%	In Reference approach it is impossible to input such data as statistical differences. These amounts are taken into account in Energy balance, hence the Sectoral approach.
		Residual fuel oil	74.0	73.5	0.5	0.6%	
		Liquefied petroleum gases (LPG)	3256.0	3256.2	-0.2	0.0%	
		Ethane	NO	NO	0.0	0.0%	
		Naptha	NO	NO	0.0	0.0%	
		Bitumen	2739.0	2739.3	-0.3	0.0%	
		Lubricants	905.0	905.0	0.0	0.0%	
		Petroleum coke	NO	NO	0.0	0.0%	
		Refinery	NO	NO	0.0	0.0%	

FUEL TYPES			Apparent consumption reported in GHG inventory (TJ) (3)	Apparent consumption using data reported pursuant to Regulation (EC) No 1099/2008 (TJ) (3)	Absolute difference (1) (TJ) (3)	Relative difference (2) % (3)	Explanations for differences
		<i>feedstocks</i>					
		<i>Other oil</i>	406.0	418.1	-12.1	-3.0%	<i>In GHG inventory fuel consumption is taken from CSB online database with values rounded up to 1 TJ, while in AQ values are given in kilotons which need to be transformed into TJ using NCVs.</i>
	<i>Other liquid fossil</i>		NO	18.3	-18.3	-100.0%	<i>See the explanation under "Other oil" and "Other fossil fuel".</i>
	<i>Liquid fossil total</i>		57177.0	60490.1	-3313.1	-5.8%	<i>See the explanations above.</i>
Solid fossil	<i>Primary fuels</i>	<i>Anthracite</i>	NO	NO	0.0	0.0%	
		<i>Coking coal</i>	NO	NO	0.0	0.0%	
		<i>Other bituminous coal</i>	966.0	966.9	-0.9	-0.1%	
		<i>Sub-bituminous coal</i>	NO	NO	0.0	0.0%	
		<i>Lignite</i>	NO	NO	0.0	0.0%	
		<i>Oil shale and tar sand</i>	NO	NO	0.0	0.0%	
	<i>Secondary fuels</i>	<i>BKB and patent fuel</i>	NO	NO	0.0	0.0%	
		<i>Coke oven/gas coke</i>	NO	NO	0.0	0.0%	
		<i>Coal tar</i>	NO	NO	0.0	0.0%	
	<i>Other solid fossil</i>		NO	NO	0.0	0.0%	
	<i>Solid fossil totals</i>		966.0	966.9	-0.9	-0.1%	
Gaseous fossil		<i>Natural gas (dry)</i>	38207.0	38207.8	-0.8	0.0%	
Other gaseous fossil			NO	NO	0.0	0.0%	
Gaseous fossil totals			38207.0	38207.8	-0.8	0.0%	
	<i>Waste (non-</i>		IE	2203.1	-2203.1	100.0%	<i>To ensure consistency between Reference and Sectoral</i>

FUEL TYPES			Apparent consumption reported in GHG inventory (TJ) (3)	Apparent consumption using data reported pursuant to Regulation (EC) No 1099/2008 (TJ) (3)	Absolute difference (1) (TJ) (3)	Relative difference (2) % (3)	Explanations for differences
	<i>biomass fraction)</i>						<i>Approach, the amounts of waste consumed are reported under category "Other fossil fuels", because in Sectoral approach there is no category "Waste".</i>
Other fossil fuels			1633.3	NO	1633.3	100.0%	<i>Waste oils in Annual Questionnaires are included in other liquid fuels. As for waste, in GHG inventory data are taken from EU ETS reports and biomass part (at least 50% from all mun.waste) subtracted from totals and reported under biomass.</i>
Peat			51.0	51.4	-0.4	-0.8%	
Total			98034.3	101919.2	-3884.9	-4.0%	<i>See the explanations above.</i>

(1) Apparent consumption reported in GHG inventory minus apparent consumption using data reported pursuant to Regulation (EC) No 1099/2008

(2) Absolute difference divided by apparent consumption reported in GHG inventory

(3) Data to be reported up to one decimal point for kt and % values

A.3.4 REPORTING CONSISTENCY OF REPORTED EMISSIONS WITH DATA FROM THE EMISSIONS TRADING SYSTEM

Category(1)		Greenhouse gas inventory emissions [kt CO ₂ eq](3)	Verified emissions under Directive 2003/87/EC [kt CO ₂ eq](3)	Ratio in % (Verified emissions/ inventory emissions)(3)	Comment(2)
1.A Fuel combustion activities, total	CO ₂	6679.8	NA	NA	
1.A Fuel combustion activities. stationary combustion [4]	CO ₂	3556.3	1436.1	40%	
1.A.1 Energy industries	CO ₂	1368.2	1100.6	80%	
1.A.1.a Public electricity and heat production	CO ₂	1319	1074.5	81%	
1.A.1.b Petroleum refining	CO ₂	NO	NO	0%	
1.A.1.c Manufacture of solid fuels and other energy industries	CO ₂	49.2	26.1	53%	
Iron and steel total (1.A.2, 1.B, 2.C.1) [5]	CO ₂	0.4	0.0	0%	
1.A.2. Manufacturing industries and construction	CO ₂	660.3	317.9	48%	
1.A.2.a Iron and steel	CO ₂	0.4	0.0	0%	
1.A.2.b Non-ferrous metals	CO ₂	0.8	NO	0%	
1.A.2.c Chemicals	CO ₂	24.3	11.1	46%	
1.A.2.d Pulp. paper and print	CO ₂	4.7	NO	0%	
1.A.2.e Food processing. beverages and tobacco	CO ₂	89.1	7.0	8%	
1.A.2.f Non-metallic minerals	CO ₂	299.3	281.1	94%	
1.A.2.g Other	CO ₂	241.7	18.7	8%	
1.A.3. Transport	CO ₂	3108.6	NO	0%	
1.A.3.e Other transportation (pipeline transport)	CO ₂	NO	NO		
1.A.4 Other sectors	CO ₂	1527.8	17.6	1%	
1.A.4.a Commercial / Institutional	CO ₂	435.3	17.6	4%	
1.A.4.c Agriculture/ Forestry / Fisheries	CO ₂	540.9	NO	0%	
1.B Fugitive emissions from Fuels	CO ₂	100.5	NO	0%	
1.C CO ₂ Transport and storage	CO ₂	NO	NO		
1.C.1 Transport of CO ₂	CO ₂	NO	NO		
1.C.2 Injection and storage	CO ₂	NO	NO		
1.C.3 Other 2.A Mineral products	CO ₂	NO	NO		
2.A Mineral products	CO ₂	560.4	585.8		

Category(1)		Greenhouse gas inventory emissions [kt CO ₂ eq](3)	Verified emissions under Directive 2003/87/EC [kt CO ₂ eq](3)	Ratio in % (Verified emissions/ inventory emissions)(3)	Comment(2)
2.A.1 Cement Production	CO ₂	550.8	576.0	105%	<i>Difference is caused due to different methodologies used in emission calculation from cement production. There is only one cement plant in Latvia which uses Tier 1 method in ETS reporting (According to Monitoring reporting regulation - MRR). For inventory Tier 2 method from 2006 IPCC Guidelines is used.</i>
2.A.2. Lime production	CO ₂	NO	NO	0%	
2.A.3. Glass production	CO ₂	0.7	0.9	129%	<i>Difference is caused because under EU ETS soda use in wastewater neutralization is reported under 2.A.3 Glass production, but in GHG inventory soda use in wastewater neutralization in glass fibre production company is reported in separate subsector 2.A.4.b Other use of soda ash.</i>
2.A.4. Other process uses of carbonates (Ceramics)	CO ₂	8.9	8.9	100%	
2.B Chemical industry	CO ₂	NO			
2.B.1. Ammonia production	CO ₂	NO			
2.B.3. Adipic acid production (CO ₂)	CO ₂	NO			
2.B.4. Caprolactam, glyoxal and glyoxylic acid production	CO ₂	NO			
2.B.5. Carbide production	CO ₂	NO			
2.B.6 Titanium dioxide production	CO ₂	NO			
2.B.7 Soda ash production	CO ₂	NO			
2.B.8 Petrochemical and carbon black production	CO ₂	NO			
2.C Metal production	CO ₂				
2.C.1. Iron and steel production	CO ₂	NO	NO	0%	

Category(1)		Greenhouse gas inventory emissions [kt CO ₂ eq](3)	Verified emissions under Directive 2003/87/EC [kt CO ₂ eq](3)	Ratio in % (Verified emissions/ inventory emissions)(3)	Comment(2)
2.C.2 Ferroalloys production	CO ₂	NO			
2.C.3 Aluminium production	CO ₂	NO			
2.C.4 Magnesium production	CO ₂	NO			
2.C.5 Lead production	CO ₂	NO			
2.C.6 Zinc production	CO ₂	NO			
2.C.7 Other metal production	CO ₂	NO			

(1) The allocation of verified emissions to disaggregated inventory categories at four digit level must be reported where such allocation of verified emissions is possible and emissions occur. The following notation keys should be used: NO = not occurring IE = included elsewhere C = confidential negligible = small amount of verified emissions may occur in respective CRF category, but amount is < 5% of the category

(2) The column comment should be used to give a brief summary of the checks performed and if a Member State wants to provide additional explanations with regard to the allocation reported. Member States should add a short explanation when using IE or other notation keys to ensure transparency.

(3) Data to be reported up to one decimal point for kt and % values

(4) 1.A Fuel combustion, stationary combustion should include the sum total of the relevant rows below for 1.A (without double counting) plus the addition of other stationary combustion emissions not explicitly included in any of the rows below.

(5) To be filled on the basis of combined CRF categories pertaining to 'Iron and Steel' , to be determined individually by each Member State; e.g. (1.A.2.a+ 2.C.1 + 1.A.1.c and other relevant CRF categories that include emissions from iron and steel (e.g. 1A1a, 1B1))

A.3.5 TRANSPORT

Distribution of road transport fleet by subsectors and layers, year 2020

Category	Fuel	Segment	Euro Standard	Population	Average mileage per car
Passenger Cars	Petrol	Small	Euro 1	213	5 163
Passenger Cars	Petrol	Small	Euro 2	3 754	6 871
Passenger Cars	Petrol	Small	Euro 3	8 457	8 499
Passenger Cars	Petrol	Small	Euro 4	11 000	10 367
Passenger Cars	Petrol	Small	Euro 5	7 849	12 491
Passenger Cars	Petrol	Small	Euro 6 a/b/c	9 327	11 111
Passenger Cars	Petrol	Small	Euro 6 d-temp	6 226	11 111
Passenger Cars	Petrol	Medium	Euro 1	9 189	6 483
Passenger Cars	Petrol	Medium	Euro 2	34 946	8 932
Passenger Cars	Petrol	Medium	Euro 3	23 157	10 907
Passenger Cars	Petrol	Medium	Euro 4	25 923	12 846
Passenger Cars	Petrol	Medium	Euro 5	11 996	13 950
Passenger Cars	Petrol	Medium	Euro 6 a/b/c	9 542	11 974
Passenger Cars	Petrol	Medium	Euro 6 d-temp	6 931	11 974
Passenger Cars	Petrol	Large-SUV-Executive	Euro 1	650	7 839
Passenger Cars	Petrol	Large-SUV-Executive	Euro 2	5 573	9 762
Passenger Cars	Petrol	Large-SUV-Executive	Euro 3	7 793	12 801
Passenger Cars	Petrol	Large-SUV-Executive	Euro 4	7 517	13 583
Passenger Cars	Petrol	Large-SUV-Executive	Euro 5	2 657	15 909
Passenger Cars	Petrol	Large-SUV-Executive	Euro 6 a/b/c	1 946	15 226
Passenger Cars	Petrol	Large-SUV-Executive	Euro 6 d-temp	1 830	15 244
Passenger Cars	Diesel	Small	Euro 2	42	7 098
Passenger Cars	Diesel	Small	Euro 3	1 991	6 257
Passenger Cars	Diesel	Small	Euro 4	2 191	8 371
Passenger Cars	Diesel	Small	Euro 5	2 548	7 989
Passenger Cars	Diesel	Small	Euro 6 a/b/c	998	11 866
Passenger Cars	Diesel	Small	Euro 6 d-temp	465	11 866
Passenger Cars	Diesel	Medium	Euro 1	16 821	9 245
Passenger Cars	Diesel	Medium	Euro 2	28 236	11 104
Passenger Cars	Diesel	Medium	Euro 3	85 289	9 510
Passenger Cars	Diesel	Medium	Euro 4	66 884	11 752
Passenger Cars	Diesel	Medium	Euro 5	38 830	11 573
Passenger Cars	Diesel	Medium	Euro 6 a/b/c	19 890	16 468
Passenger Cars	Diesel	Medium	Euro 6 d-temp	8 997	16 510
Passenger Cars	Diesel	Large-SUV-Executive	Euro 1	8 699	11 067
Passenger Cars	Diesel	Large-SUV-Executive	Euro 2	15 112	11 884
Passenger Cars	Diesel	Large-SUV-Executive	Euro 3	77 010	9 832
Passenger Cars	Diesel	Large-SUV-Executive	Euro 4	33 874	13 603
Passenger Cars	Diesel	Large-SUV-Executive	Euro 5	24 261	12 228
Passenger Cars	Diesel	Large-SUV-Executive	Euro 6 a/b/c	4 573	17 260
Passenger Cars	Diesel	Large-SUV-Executive	Euro 6 d-temp	1 365	17 260
Passenger Cars	LPG Bifuel	Small	Conventional	338	7 223
Passenger Cars	LPG Bifuel	Small	Euro 1	7 460	10 318
Passenger Cars	LPG Bifuel	Small	Euro 2	9 018	12 381
Passenger Cars	LPG Bifuel	Small	Euro 3	9 894	14 445
Passenger Cars	LPG Bifuel	Small	Euro 4	10 452	16 509
Passenger Cars	LPG Bifuel	Small	Euro 5	3 700	17 540
Passenger Cars	LPG Bifuel	Small	Euro 6 a/b/c	617	17 540

Category	Fuel	Segment	Euro Standard	Population	Average mileage per car
<i>Passenger Cars</i>	<i>CNG Bifuel</i>	<i>Small</i>	<i>Euro 4</i>	14	9 362
<i>Passenger Cars</i>	<i>CNG Bifuel</i>	<i>Small</i>	<i>Euro 5</i>	38	9 362
<i>Passenger Cars</i>	<i>CNG Bifuel</i>	<i>Small</i>	<i>Euro 6 a/b/c</i>	63	9 362
<i>Passenger Cars</i>	<i>BEV</i>	<i>Medium</i>		1205	12 000
<i>Passenger Cars</i>	<i>Petrol PHEV</i>	<i>Medium</i>		194	12 980
<i>Light Commercial Vehicles</i>	<i>Petrol</i>	<i>N1-II</i>	<i>Conventional</i>	2	11 018
<i>Light Commercial Vehicles</i>	<i>Petrol</i>	<i>N1-II</i>	<i>Euro 1</i>	102	12 093
<i>Light Commercial Vehicles</i>	<i>Petrol</i>	<i>N1-II</i>	<i>Euro 2</i>	150	14 768
<i>Light Commercial Vehicles</i>	<i>Petrol</i>	<i>N1-II</i>	<i>Euro 3</i>	291	16 612
<i>Light Commercial Vehicles</i>	<i>Petrol</i>	<i>N1-II</i>	<i>Euro 4</i>	466	19 286
<i>Light Commercial Vehicles</i>	<i>Petrol</i>	<i>N1-II</i>	<i>Euro 5</i>	401	21 478
<i>Light Commercial Vehicles</i>	<i>Petrol</i>	<i>N1-II</i>	<i>Euro 6 a/b/c</i>	201	23 375
<i>Light Commercial Vehicles</i>	<i>Diesel</i>	<i>N1-II</i>	<i>Conventional</i>	105	11 803
<i>Light Commercial Vehicles</i>	<i>Diesel</i>	<i>N1-II</i>	<i>Euro 1</i>	1 135	12 027
<i>Light Commercial Vehicles</i>	<i>Diesel</i>	<i>N1-II</i>	<i>Euro 2</i>	3 999	12 681
<i>Light Commercial Vehicles</i>	<i>Diesel</i>	<i>N1-II</i>	<i>Euro 3</i>	10 784	15 936
<i>Light Commercial Vehicles</i>	<i>Diesel</i>	<i>N1-II</i>	<i>Euro 4</i>	15 414	20 863
<i>Light Commercial Vehicles</i>	<i>Diesel</i>	<i>N1-II</i>	<i>Euro 5</i>	13 563	23 722
<i>Light Commercial Vehicles</i>	<i>Diesel</i>	<i>N1-II</i>	<i>Euro 6 a/b/c</i>	6 688	24 099
<i>Light Commercial Vehicles</i>	<i>LPG Bifuel</i>	<i>Large-SUV-Executive</i>	<i>Euro 1</i>	171	17 367
<i>Light Commercial Vehicles</i>	<i>LPG Bifuel</i>	<i>Large-SUV-Executive</i>	<i>Euro 2</i>	268	19 147
<i>Light Commercial Vehicles</i>	<i>LPG Bifuel</i>	<i>Large-SUV-Executive</i>	<i>Euro 3</i>	220	20 786
<i>Light Commercial Vehicles</i>	<i>LPG Bifuel</i>	<i>Large-SUV-Executive</i>	<i>Euro 4</i>	290	25 466
<i>Light Commercial Vehicles</i>	<i>LPG Bifuel</i>	<i>Large-SUV-Executive</i>	<i>Euro 5</i>	206	27 714
<i>Light Commercial Vehicles</i>	<i>LPG Bifuel</i>	<i>Large-SUV-Executive</i>	<i>Euro 6 a/b/c</i>	49	30 185
<i>Light Commercial Vehicles</i>	<i>CNG Bifuel</i>	<i>Medium</i>	<i>Euro 4</i>	5	14 043
<i>Light Commercial Vehicles</i>	<i>CNG Bifuel</i>	<i>Medium</i>	<i>Euro 5</i>	15	14 043
<i>Light Commercial Vehicles</i>	<i>CNG Bifuel</i>	<i>Medium</i>	<i>Euro 6 a/b/c</i>	35	14 043
<i>Light Commercial</i>	<i>BEV</i>	<i>Medium</i>		35	14 000

Category	Fuel	Segment	Euro Standard	Population	Average mileage per car
<i>Vehicles</i>					
<i>Heavy Duty Trucks</i>	<i>Petrol</i>	<i>>3,5 t</i>	<i>Conventional</i>	<i>618</i>	<i>29 318</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid <=7,5 t</i>	<i>Euro I</i>	<i>526</i>	<i>13 215</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid <=7,5 t</i>	<i>Euro II</i>	<i>538</i>	<i>14 974</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid <=7,5 t</i>	<i>Euro III</i>	<i>571</i>	<i>18 664</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid <=7,5 t</i>	<i>Euro IV</i>	<i>616</i>	<i>21 537</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid <=7,5 t</i>	<i>Euro V</i>	<i>645</i>	<i>24 613</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid <=7,5 t</i>	<i>Euro VI A/B/C</i>	<i>361</i>	<i>28 039</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 7,5 - 12 t</i>	<i>Euro I</i>	<i>111</i>	<i>20 715</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 7,5 - 12 t</i>	<i>Euro II</i>	<i>245</i>	<i>22 939</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 7,5 - 12 t</i>	<i>Euro III</i>	<i>470</i>	<i>26 175</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 7,5 - 12 t</i>	<i>Euro IV</i>	<i>548</i>	<i>27 508</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 7,5 - 12 t</i>	<i>Euro V</i>	<i>292</i>	<i>29 890</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 7,5 - 12 t</i>	<i>Euro VI A/B/C</i>	<i>223</i>	<i>31 502</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 12 - 14 t</i>	<i>Euro I</i>	<i>60</i>	<i>13 215</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 12 - 14 t</i>	<i>Euro II</i>	<i>39</i>	<i>14 974</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 12 - 14 t</i>	<i>Euro III</i>	<i>100</i>	<i>18 664</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 12 - 14 t</i>	<i>Euro IV</i>	<i>140</i>	<i>21 537</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 12 - 14 t</i>	<i>Euro V</i>	<i>38</i>	<i>24 613</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 12 - 14 t</i>	<i>Euro VI A/B/C</i>	<i>27</i>	<i>28 039</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 14 - 20 t</i>	<i>Euro I</i>	<i>697</i>	<i>25 663</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 14 - 20 t</i>	<i>Euro II</i>	<i>543</i>	<i>28 536</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 14 - 20 t</i>	<i>Euro III</i>	<i>697</i>	<i>38 612</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 14 - 20 t</i>	<i>Euro IV</i>	<i>782</i>	<i>42 111</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 14 - 20 t</i>	<i>Euro V</i>	<i>670</i>	<i>44 137</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 14 - 20 t</i>	<i>Euro VI A/B/C</i>	<i>415</i>	<i>45 537</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 20 - 26 t</i>	<i>Euro I</i>	<i>445</i>	<i>29 098</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 20 - 26 t</i>	<i>Euro II</i>	<i>611</i>	<i>39 597</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 20 - 26 t</i>	<i>Euro III</i>	<i>582</i>	<i>42 107</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 20 - 26 t</i>	<i>Euro IV</i>	<i>660</i>	<i>45 607</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 20 - 26 t</i>	<i>Euro V</i>	<i>710</i>	<i>56 227</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 20 - 26 t</i>	<i>Euro VI A/B/C</i>	<i>443</i>	<i>60 426</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 26 - 28 t</i>	<i>Euro I</i>	<i>50</i>	<i>29 098</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 26 - 28 t</i>	<i>Euro II</i>	<i>79</i>	<i>39 597</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 26 - 28 t</i>	<i>Euro III</i>	<i>247</i>	<i>42 107</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 26 - 28 t</i>	<i>Euro IV</i>	<i>87</i>	<i>45 607</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 26 - 28 t</i>	<i>Euro V</i>	<i>182</i>	<i>56 227</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 26 - 28 t</i>	<i>Euro VI A/B/C</i>	<i>175</i>	<i>60 426</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 28 - 32 t</i>	<i>Euro I</i>	<i>38</i>	<i>29 098</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 28 - 32 t</i>	<i>Euro II</i>	<i>124</i>	<i>39 597</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 28 - 32 t</i>	<i>Euro III</i>	<i>227</i>	<i>42 107</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 28 - 32 t</i>	<i>Euro IV</i>	<i>157</i>	<i>45 607</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 28 - 32 t</i>	<i>Euro V</i>	<i>248</i>	<i>56 227</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid 28 - 32 t</i>	<i>Euro VI A/B/C</i>	<i>243</i>	<i>60 426</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid >32 t</i>	<i>Euro I</i>	<i>22</i>	<i>29 098</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid >32 t</i>	<i>Euro II</i>	<i>68</i>	<i>39 597</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid >32 t</i>	<i>Euro III</i>	<i>225</i>	<i>42 107</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid >32 t</i>	<i>Euro IV</i>	<i>204</i>	<i>45 607</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid >32 t</i>	<i>Euro V</i>	<i>110</i>	<i>56 227</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Rigid >32 t</i>	<i>Euro VI A/B/C</i>	<i>72</i>	<i>60 426</i>
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 14 - 20 t</i>	<i>Euro I</i>	<i>70</i>	<i>31 861</i>

Category	Fuel	Segment	Euro Standard	Population	Average mileage per car
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 14 - 20 t</i>	<i>Euro II</i>	549	41 868
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 14 - 20 t</i>	<i>Euro III</i>	1 625	46 140
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 14 - 20 t</i>	<i>Euro IV</i>	1 654	56 837
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 14 - 20 t</i>	<i>Euro V</i>	4 101	62 242
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 14 - 20 t</i>	<i>Euro VI A/B/C</i>	3 177	67 948
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 20 - 28 t</i>	<i>Euro I</i>	4	31 861
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 20 - 28 t</i>	<i>Euro II</i>	53	41 868
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 20 - 28 t</i>	<i>Euro III</i>	235	46 140
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 20 - 28 t</i>	<i>Euro IV</i>	154	56 837
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 20 - 28 t</i>	<i>Euro V</i>	1 227	62 242
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 20 - 28 t</i>	<i>Euro VI A/B/C</i>	1 093	67 948
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 28 - 34 t</i>	<i>Euro II</i>	4	41 868
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 28 - 34 t</i>	<i>Euro III</i>	22	46 140
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 28 - 34 t</i>	<i>Euro IV</i>	12	56 837
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 28 - 34 t</i>	<i>Euro V</i>	18	62 242
<i>Heavy Duty Trucks</i>	<i>Diesel</i>	<i>Articulated 28 - 34 t</i>	<i>Euro VI A/B/C</i>	34	67 948
<i>Heavy Duty Trucks</i>	<i>CNG Bifuel</i>	<i>Large-SUV-Executive</i>	<i>Euro 4</i>	8	23 404
<i>Heavy Duty Trucks</i>	<i>CNG Bifuel</i>	<i>Large-SUV-Executive</i>	<i>Euro 5</i>	20	23 404
<i>Heavy Duty Trucks</i>	<i>CNG Bifuel</i>	<i>Large-SUV-Executive</i>	<i>Euro 6 a/b/c</i>	20	23 404
<i>Buses</i>	<i>Petrol</i>	<i>N1-III</i>	<i>Euro 2</i>	6	22 957
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Midi <=15 t</i>	<i>Euro II</i>	53	18 884
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Midi <=15 t</i>	<i>Euro III</i>	274	19 897
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Midi <=15 t</i>	<i>Euro IV</i>	117	29 314
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Midi <=15 t</i>	<i>Euro V</i>	27	34 418
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Midi <=15 t</i>	<i>Euro VI A/B/C</i>	187	34 418
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Standard 15 - 18 t</i>	<i>Euro II</i>	28	18 884
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Standard 15 - 18 t</i>	<i>Euro III</i>	145	19 897
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Standard 15 - 18 t</i>	<i>Euro IV</i>	62	29 314
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Standard 15 - 18 t</i>	<i>Euro V</i>	21	34 418
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Standard 15 - 18 t</i>	<i>Euro VI A/B/C</i>	99	34 418
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Articulated >18 t</i>	<i>Euro I</i>	3	18 884
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Articulated >18 t</i>	<i>Euro II</i>	75	18 884
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Articulated >18 t</i>	<i>Euro III</i>	386	19 897
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Articulated >18 t</i>	<i>Euro IV</i>	165	29 314
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Articulated >18 t</i>	<i>Euro V</i>	58	34 418
<i>Buses</i>	<i>Diesel</i>	<i>Urban Buses Articulated >18 t</i>	<i>Euro VI A/B/C</i>	264	34 418
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Standard <=18 t</i>	<i>Euro I</i>	68	21 092
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Standard <=18 t</i>	<i>Euro II</i>	131	21 534
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Standard <=18 t</i>	<i>Euro III</i>	250	31 181
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Standard <=18 t</i>	<i>Euro IV</i>	67	35 023
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Standard <=18 t</i>	<i>Euro V</i>	178	44 232

Category	Fuel	Segment	Euro Standard	Population	Average mileage per car
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Standard <=18 t</i>	<i>Euro VI A/B/C</i>	72	44 232
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Articulated >18 t</i>	<i>Euro I</i>	33	21 092
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Articulated >18 t</i>	<i>Euro II</i>	90	21 534
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Articulated >18 t</i>	<i>Euro III</i>	366	31 181
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Articulated >18 t</i>	<i>Euro IV</i>	119	35 023
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Articulated >18 t</i>	<i>Euro V</i>	30	44 232
<i>Buses</i>	<i>Diesel</i>	<i>Coaches Articulated >18 t</i>	<i>Euro VI A/B/C</i>	220	44 232
<i>Buses</i>	<i>CNG</i>	<i>Urban CNG Buses</i>	<i>EEV</i>	7	29 094
<i>Buses</i>	<i>BEV</i>	<i>Medium</i>		8	16 000
<i>L-Category</i>	<i>Petrol</i>	<i>Mopeds 2-stroke <50 cm³</i>	<i>Euro 1</i>	185	953.1846
<i>L-Category</i>	<i>Petrol</i>	<i>Mopeds 2-stroke <50 cm³</i>	<i>Euro 2</i>	4 475	1 130
<i>L-Category</i>	<i>Petrol</i>	<i>Mopeds 2-stroke <50 cm³</i>	<i>Euro 3</i>	10 850	1 198
<i>L-Category</i>	<i>Petrol</i>	<i>Mopeds 2-stroke <50 cm³</i>	<i>Euro 4</i>	2 446	1 198
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 2-stroke >50 cm³</i>	<i>Conventional</i>	880	875.158
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 2-stroke >50 cm³</i>	<i>Euro 1</i>	903	1021.99
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 2-stroke >50 cm³</i>	<i>Euro 2</i>	848	1 126
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 2-stroke >50 cm³</i>	<i>Euro 3</i>	2 063	1 303
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 2-stroke >50 cm³</i>	<i>Euro 4</i>	1483	1 393
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke 250 - 750 cm³</i>	<i>Conventional</i>	1 700	1 148
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke 250 - 750 cm³</i>	<i>Euro 1</i>	1 613	1 310
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke 250 - 750 cm³</i>	<i>Euro 2</i>	1 407	1 633
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke 250 - 750 cm³</i>	<i>Euro 3</i>	1 993	2 191
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke 250 - 750 cm³</i>	<i>Euro 4</i>	1381	2 838
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke >750 cm³</i>	<i>Conventional</i>	1 652	1 148
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke >750 cm³</i>	<i>Euro 1</i>	2 130	1 310
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke >750 cm³</i>	<i>Euro 2</i>	2 026	1 633
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke >750 cm³</i>	<i>Euro 3</i>	2 900	2 191
<i>L-Category</i>	<i>Petrol</i>	<i>Motorcycles 4-stroke >750 cm³</i>	<i>Euro 4</i>	1759	2 883
<i>L-Category</i>	<i>Petrol</i>	<i>Quad & ATVs</i>	<i>Euro 4</i>	1137	321

A.3.6 AGRICULTURE

Manure Management Systems distribution (MMS), 1990-2020, %

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Dairy cows																																
Pasture/Range /Paddock	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.1	0.1	0.1	0.1	0.1	0.1	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	
Solid storage	0.83	0.83	0.82	0.82	0.81	0.81	0.8	0.79	0.78	0.77	0.76	0.72	0.72	0.71	0.7	0.7	0.69	0.67	0.64	0.62	0.6	0.58	0.56	0.54	0.53	0.48	0.46	0.44	0.44	0.42	0.41	
Liquid/ Slurry	0.054	0.06	0.07	0.07	0.08	0.08	0.09	0.1	0.11	0.12	0.13	0.18	0.19	0.19	0.2	0.21	0.22	0.24	0.27	0.29	0.27	0.28	0.25	0.24	0.27	0.33	0.35	0.36	0.31	0.36	0.32	
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.04	0.05	0.11	0.14	0.13	0.13	0.13	0.14	0.19	0.16	0.22	
Sheep																																
Pasture/Range /Paddock	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.24	0.26	0.29	0.32	0.35	0.38		
Solid storage	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.77	0.74	0.71	0.68	0.65	0.62	
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Goats																																
Pasture/Range /Paddock	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	
Solid storage	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.90	0.90	0.90	0.90	
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Horses																																
Pasture/Range /Paddock	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.14	0.18	0.21	0.25	0.30	0.35	

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Solid storage	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.86	0.82	0.79	0.75	0.70	0.65	
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Sows and boars																															
Pasture/Range /Paddock	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Solid storage	0.72	0.71	0.69	0.68	0.66	0.64	0.62	0.6	0.57	0.55	0.53	0.48	0.44	0.4	0.37	0.33	0.3	0.28	0.25	0.23	0.21	0.18	0.16	0.14	0.12	0.10	0.09	0.08	0.05	0.05	0.04
Liquid/ Slurry	0.28	0.29	0.31	0.32	0.34	0.36	0.38	0.41	0.43	0.45	0.47	0.52	0.56	0.6	0.63	0.67	0.7	0.72	0.75	0.77	0.71	0.71	0.61	0.56	0.52	0.60	0.60	0.56	0.56	0.50	0.46
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.08	0.11	0.24	0.3	0.36	0.31	0.32	0.36	0.39	0.45	0.50
Piglets																															
Pasture/Range /Paddock	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Solid storage	0.72	0.71	0.7	0.68	0.67	0.65	0.63	0.6	0.58	0.56	0.53	0.49	0.45	0.41	0.37	0.34	0.31	0.28	0.26	0.23	0.21	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.05	0.05	0.04
Liquid/ Slurry	0.28	0.29	0.3	0.32	0.33	0.35	0.38	0.4	0.42	0.45	0.47	0.51	0.55	0.59	0.63	0.67	0.69	0.72	0.74	0.77	0.71	0.71	0.60	0.56	0.52	0.59	0.60	0.56	0.56	0.50	0.46
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.08	0.11	0.23	0.3	0.36	0.31	0.32	0.36	0.39	0.45	0.50
Fattening and young breeding pigs																															
Pasture/Range /Paddock	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Solid storage	0.71	0.7	0.68	0.67	0.65	0.63	0.61	0.58	0.56	0.54	0.52	0.47	0.43	0.39	0.35	0.32	0.29	0.27	0.24	0.22	0.20	0.17	0.15	0.13	0.11	0.09	0.08	0.07	0.05	0.05	0.04
Liquid/ Slurry	0.29	0.3	0.32	0.33	0.35	0.37	0.39	0.42	0.44	0.46	0.49	0.53	0.57	0.61	0.65	0.68	0.71	0.73	0.76	0.78	0.72	0.72	0.61	0.56	0.52	0.60	0.60	0.57	0.56	0.50	0.47
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.09	0.11	0.24	0.31	0.36	0.31	0.32	0.36	0.39	0.45	0.50
Laying hens																															
Pasture/Range /Paddock	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
Solid storage	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.97	0.97	0.87	0.84	0.71	0.63	0.46	0.61	0.55	0.27	0.16	0.20	0.36

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.10	0.13	0.26	0.35	0.51	0.36	0.42	0.70	0.80	0.77	0.61
Broilers																															
Pasture/Range /Paddock	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Solid storage	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Turkeys																															
Pasture/Range /Paddock	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.17	0.20	0.22	0.25	0.26	0.30	
Solid storage	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.83	0.81	0.78	0.75	0.74	0.70	
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Ducks																															
Pasture/Range /Paddock	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.19	0.21	0.24	0.26	0.29	0.32	
Solid storage	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.81	0.79	0.76	0.74	0.71	0.69	
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Geese																															
Pasture/Range /Paddock	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.18	0.19	0.22	0.24	0.27	0.29	
Solid storage	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.83	0.81	0.78	0.76	0.73	0.71	

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Rabbits																															
Pasture/Range /Paddock	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Solid storage	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Fur animals																															
Pasture/Range /Paddock	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Solid storage	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Deer																															
Pasture/Range /Paddock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Solid storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Dairy cattle calves under 1 year																															
Pasture/Range /Paddock	0.117	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.09	0.09	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.06
Solid storage	0.883	0.88	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.91	0.91	0.88	0.88	0.84	0.81	0.82	0.83	0.83	0.82	0.78	0.81	0.76
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.03	0.04	0.08	0.11	0.10	0.10	0.10	0.11	0.15	0.13	0.18
Beef cattle calves under 1 year																															
Pasture/Range /Paddock	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	
Solid storage	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Dairy cow young cattle, aged 1-2 years																															
Pasture/Range /Paddock	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.09	0.09	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.06
Solid storage	0.88	0.88	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.91	0.91	0.88	0.88	0.84	0.81	0.82	0.83	0.83	0.82	0.78	0.81	0.76
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.03	0.04	0.08	0.11	0.01	0.10	0.10	0.11	0.15	0.13	0.18
Beef young cattle, aged 1-2 years																															
Pasture/Range /Paddock	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Solid storage	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bulls over 2 year																															
Pasture/Range /Paddock	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Solid storage	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
digester																															
Heifers over 2 years																															
Pasture/Range /Paddock	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	
Solid storage	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Other cows over 2 year																															
Pasture/Range /Paddock	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	
Solid storage	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	
Liquid/ Slurry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Anaerobic digester	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ANNEX 4: NATIONAL ENERGY BALANCE OF LATVIA IN 2020 (TJ)

	Oil products - total	Shale oil	Liquefied petroleum gas	Motor and aviation petrol	Petrol type jet fuel	Kerosene type jet fuel	Kerosene	Diesel oil	Residual (heavy) fuel oils	White spirit	Lubricants	Oil bitumen	Paraffin waxes	Petroleum coke	Other oil products	Used oils	Coal	Peat	Peat briquettes	Coke oven coke	Oil shale	Natural gas	Firewood	Wood wastes	Wood chips	Wood briquettes	Pelleted wood	Used rubber tyres and other rubber products	Municipal waste for heating	Charcoal	Bioethanol	Biodiesel	Landfill gas	Sewage sludge gas	Other biogas	Straw
Production	1024	-	-	-	-	-	-	-	-	-	1024	-	-	-	-	-	-	-	28	-	-	-	23264	2600	28942	910	39702	-	-	-	-	3263	321	76	2961	136
Recycled products	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	167	911	-	-	-	-	-	-	97
Imports	75858	1	6540	8155	-	2541	1	53370	56	61	1744	2911	386	0	91	1	975	-	-	0	-	38245	669	8037	5689	345	7434	251	2188	139	526	878	-	-	-	127
Imported for bunkering	8660	-	-	-	-	-	-	8541	119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exports	12335	-	3254	726	-	-	1	6192	-	6	1858	188	0	3	84	23	110	6	10	-	-	-	2726	2383	7515	220	40410	-	-	269	0	2796	-	-	-	-
Bunkering	8669	-	-	-	-	-	-	8541	128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Interproduct transfers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stock changes	-4872	0	-30	-112	-	-85	0	-4712	27	1	-5	16	-41	63	-2	8	101	40	-1	0	-	-38	592	-771	-1341	-425	-3924	-	174	-28	8	181	-	-	-	66
Statistical difference	846	-	-	-	-	-	-	846	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gross energy consumption	60538	1	3256	7317	-	2456	0	43312	74	56	905	2739	345	60	5	12	966	34	17	0	-	38207	21799	7483	25775	610	2802	418	3273	-158	534	1526	321	76	2961	426
Transformation	-63	0	-12	-	-	-	-	-7	-44	-	-	-	-	-	-	-	-58	-23	-	-	-	-23707	-970	-306	-19449	-1	-209	-	-	248	-	-	-195	-76	-2767	-55
Electricity plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Public CHP	-1	-	-	-	-	-	-	-1	-	-	-	-	-	-	-	-	-	-1	-	-	-	-20808	-	-275	-11806	-	-14	-	-	-	-	-	-24	-76	-1987	-37
Autoproducer CHP	-3	-	-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-222	-	-	-230	-	-	-	-	-	-	-	-171	-	-780	-
Public Heat Plants	-53	0	-6	-	-	-	-	-3	-44	-	-	-	-	-	-	-	-35	-	-	-	-	-2141	-128	-15	-6745	-1	-136	-	-	-	-	-	-	-	-	
Autoproducer Heat Plants	-6	-	-3	-	-	-	-	-3	-	-	-	-	-	-	-	-	-23	-	-	-	-	-536	-268	-16	-668	0	-59	-	-	-	-	-	-	-	-18	
Production of peat briquettes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Charcoal Production	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-574	-	-	-	-	-	-	-	248	-	-	-	-	-	
Energy sector	251	-	-	-	-	-	-	251	-	-	-	-	-	-	-	-	-	-	-	-	-	493	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Losses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	453	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	Oil products - total	Shale oil	Liquefied petroleum gas	Motor and aviation petrol	Petrol type jet fuel	Kerosene type jet fuel	Kerosene	Diesel oil	Residual (heavy) fuel oils	White spirit	Lubricants	Oil bitumen	Paraffin waxes	Petroleum coke	Other oil products	Used oils	Coal	Peat	Peat briquettes	Coke oven coke	Oil shale	Natural gas	Firewood	Wood wastes	Wood chips	Wood briquettes	Pelleted wood	Used rubber tyres and other rubber products	Municipal waste for heating	Charcoal	Bioethanol	Biodiesel	Landfill gas	Sewage sludge gas	Other biogas	Straw
Final consumption	60224	1	3244	7317	-	2456	0	43054	30	56	905	2739	345	60	5	12	908	11	17	-	-	13554	20829	7177	6326	609	2592	418	3273	90	534	1526	126	-	194	371
Transport	44830	-	1833	7028	-	2456	-	32652	-	-	861	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	534	1354	-	-	-	-
International air transport	2443	-	-	-	-	2443	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Domestic air transport	21	-	-	8	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Road transport	41170	-	1833	7015	-	-	-	31475	-	-	847	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	534	1312	-	-	-	-
Rail transport	1097	-	-	-	-	-	-	1083	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	-	-	-	-	
Inland shipping	99	-	-	5	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Industry and construction	5268	1	439	13	-	-	0	1587	28	56	-	2739	345	60	-	0	808	6	2	-	-	4061	3250	6307	5957	136	199	418	3273	-	-	6	-	-	1	277
Manufacture of metals	0	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manufacture of chemicals and chemical products	235	-	166	0	-	-	-	13	-	56	-	-	-	-	-	-	1	-	-	-	-	241	40	0	159	0	1	-	-	-	-	1	-	-	-	-
Manufacture of other fabricated metal products	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manufacture of other non-metallic mineral products	389	-	1	0	-	-	0	328	-	-	-	-	-	60	-	-	783	-	-	-	-	1283	11	0	18	-	1	418	3273	-	-	5	-	-	-	224
Manufacture of transport equipment	25	-	5	0	-	-	0	20	-	-	-	-	-	-	-	-	0	-	-	-	-	31	0	-	-	0	1	-	-	-	-	-	-	-	-	-
Machinery	30	-	16	0	-	-	0	14	-	-	-	-	-	-	-	-	0	-	-	-	-	152	20	16	32	0	19	-	-	-	-	-	-	-	-	-
Mining and quarrying	528	-	19	0	-	-	-	365	-	-	-	144	-	-	-	-	-	-	-	-	-	38	10	-	2	-	11	-	-	-	-	-	-	-	-	-

	Oil products - total	Shale oil	Liquefied petroleum gas	Motor and aviation petrol	Petrol type jet fuel	Kerosene type jet fuel	Kerosene	Diesel oil	Residual (heavy) fuel oils	White spirit	Lubricants	Oil bitumen	Paraffin waxes	Petroleum coke	Other oil products	Used oils	Coal	Peat	Peat briquettes	Coke oven coke	Oil shale	Natural gas	Firewood	Wood wastes	Wood chips	Wood briquettes	Pelleted wood	Used rubber tyres and other rubber products	Municipal waste for heating	Charcoal	Bioethanol	Biodiesel	Landfill gas	Sewage sludge gas	Other biogas	Straw
Manufacture of food products, beverages and tobacco	215	1	109	0	-	-	-	77	28	-	-	-	-	-	-	0	17	-	-	-	-	1315	67	165	211	6	58	-	-	-	-	-	-	-	1	43
Manufacture of paper and paper products	4	-	4	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	79	1	-	17	0	2	-	-	-	-	-	-	-	-	-
Manufacture of wood and of products of wood and cork	685	-	30	4	-	-	-	383	-	-	-	-	268	-	-	-	-	6	2	-	-	377	2848	5966	5505	114	56	-	-	-	-	-	-	-	-	10
Construction	3062	-	84	9	-	-	-	374	-	-	-	2595	-	-	-	-	5	-	-	-	-	325	40	0	2	14	39	-	-	-	-	-	-	-	-	-
Manufacture of textiles	4	-	3	0	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	152	1	-	-	0	6	-	-	-	-	-	-	-	-	-
Manufacture of other products	91	-	2	0	-	-	-	12	-	-	-	-	77	-	-	-	2	-	-	-	-	47	212	160	11	2	5	-	-	-	-	-	-	-	-	-
Other sectors	10126	-	972	276	-	-	0	8815	2	-	44	-	-	-	5	12	100	5	15	-	-	9471	17579	870	369	473	2393	-	-	90	-	166	126	-	193	94
Other consumers - commercial and public sector	1686	-	215	28	-	-	0	1433	2	-	-	-	-	-	5	3	45	5	15	-	-	4669	1023	14	282	30	513	-	-	-	-	-	126	-	-	5
Households	2236	-	656	220	-	-	-	1360	-	-	-	-	-	-	-	-	55	-	-	-	-	4598	16328	298	-	443	1835	-	-	90	-	-	-	-	-	-
Crop and animal production, hunting and related service activities; forestry and logging	6000	-	100	26	-	-	-	5822	-	-	43	-	-	-	-	9	0	-	-	-	-	201	226	558	87	0	45	-	-	-	-	166	-	-	193	89
Fishing	204	-	1	2	-	-	-	200	-	-	1	-	-	-	-	-	-	-	-	-	-	3	2	-	-	-	-	-	-	-	-	0	-	-	-	-

ANNEX 5: DESCRIPTION OF MODELLING APPROACH USED IN THE CONSTRUCTION OF LATVIA'S FOREST MANAGEMENT REFERENCE LEVEL

Following information contains description of approaches, methods and models, including quantitative information, used in the construction of Latvia's FMRL.

Methods applied to calculate carbon stock changes and GHG emissions in forest lands are available in the 2022 National GHG inventory report (Chapter 6.4.2).

Description of the general approach as applied for estimating the forest management reference level

Latvia's FMRL is the expected average annual net removals of greenhouse gases in 2013-2020, based on simulations of the carbon stocks and GHG emissions on managed forest land starting from 2009 assuming the continuation of forest management practices as observed 2000-2008.

In the calculations, the same sample plots from the National forest inventory (NFI) as in the reporting of the LULUCF sector to the EU and the UNFCCC have been used.

Latvia's FMRL comprise all carbon pools currently reported to the EU and the UNFCCC (above-ground and below-ground living biomass, dead wood, litter and soil organic carbon), as well as other emissions associated to forest land included in these reports (emissions from ameliorated and rewetted organic soils and biomass burning).

Development of carbon stocks are simulated on plot level using national AGM (in Latvian - Augšanas gaitas modelis) model developed by LSFRI Silava and verified by European Forestry Dynamics Model (EFDm) model and by recalculation of historical data. GHG emissions from ameliorated organic soils are estimated using Tier 2 emission factors and country specific activity data assuming that the area of ameliorated organic soils is reducing due to rewetting during the reporting period. Other emissions are based on average emissions in 2000-2008 and the state of forests and areas at the beginning of 2010.

The development of carbon stocks has been simulated using the documented forest management practice in 2000-2008, including measures in forestry and environmental protection measures aimed at preserving biological diversity. The harvest level in the simulation is set to the intensities of felling by species in 2000-2008. On forest land formally set-aside for nature conservation no harvest is forecasted.

Area of forest land remaining forest land according to GHG projections for 2013-2020 in Latvia is 3180 kha; all of the forest areas are assumed as productive forests; 92 kha of productive forests are protected in a way which prohibits regular supply of wood resources. About 50% of productive forests are managed by Joint Stock Company "Latvia's state forests", the rest are managed by private companies, municipalities and individuals.

Documentation of data sources as applied for estimating the forest management reference level

The assumptions in Latvia's FMRL are based on the forest management variables provided by the NFI and Stand-wise forest inventory. Considering that the NFI started in 2004, the situation in Latvian forests is extrapolated to 2000 using the Stand-wise inventory,

particularly, area of clear-felling, share of selective felling in final felling and area of commercial and pre-commercial thinning, as well as area of salvage logging is taken from the Stand-wise inventory and extrapolated to growing stock in mature stands and intensities of thinning identified during the 1st (2004-2008) cycle.

During the 1st cycle of the NFI all fresh (up to 5 years old) stumps were measured in all NFI plots in forest land providing opportunity to estimate intensity of commercial thinning and volumes extracted in different types of harvests. Country specific conversion factors were elaborated to recalculate stump diameter to diameter of trees at 1.3 m height (Liepins & Liepins, 2015). After calculation of diameter the standard NFI methodology was applied to estimate extracted volume. An important factor, which had to be determined in recalculation of historical data, was dominant species and stand age in previous generation of trees, if the final felling was done between 2000 and the 1st visit to the NFI plot in 2004-2008. In the most cases it was possible using stump measurement data; however, in some cases dominant species or age of stand or both parameters could not be identified. In such cases probability of distribution of dominant species in forest regeneration described in further chapters was used and the most common final felling age of the selected species was assumed. Harvested stock were extrapolated using the average values of growing stock at certain age decade depending from site type, site index and dominant species.

Different approach was used to estimate harvested stock in the period between 2004 and 2008. NFI data from the 2nd cycle (mortality and harvesting in NFI plots) were used to estimate volume of recently died and extracted trees. It was assumed that the half of the harvesting events observed in the NFI plots measured 1st time in 2004 and 2nd time – in 2009 took place before middle of 2006 and the rest – in the second half of 2006, 2007 and 2008.

After application of the harvesting estimates growing stock and other parameters of the stand in all NFI plots in forest lands were recalculated to 2000. The mortality rates were developed according to data obtained in comparison of the 1st and 2nd NFI plots. The mortality equations are dominant species, age, site index and basal area specific, respectively, changes in any of these parameters will affect mortality rate.

All forests are divided into 2 primary groups (strata) in the projections according to ownership structure – state and other forests, respectively it is assumed that ownership structure remains intact between 2010 and 2020. Calculations with AGM model are done at a single NFI plot level (about 8000 plots in total) using ownership structure dependant probabilities of forest management measures, e.g. selection of natural regeneration or planting, early thinning and commercial thinning. Forest management data are summarized before entering into EPIM model, which is doing calculations at the national level. Modelling framework elaborated for calculation of Latvia's FMRL is provided in Figure 1.

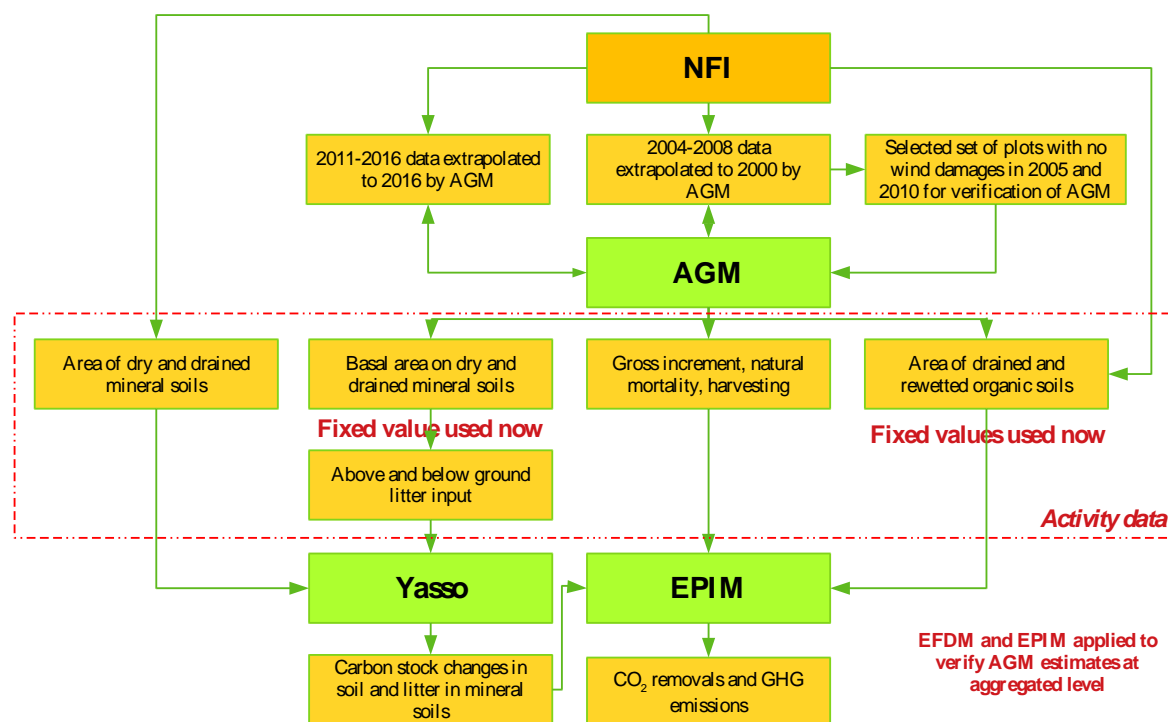


Figure 1 Modelling framework in calculation of FMRL

Documentation of stratification of the managed forest land

Ownership based stratification is used in the Latvia's National GHG inventory for LULUCF sector for the forest management projections, additionally stand type and management restrictions based correction factors are added to the probabilities. After calculation of stock changes in living and dead biomass, sample plots are categorized according to soil parent material and water regime to calculate soil carbon stock changes using Yasso07 model or fixed emission factors (in organic soils). All management assumptions are based on forest statistics in 2000-2008.

Documentation of sustainable forest management practices as applied in the estimation of the forest management reference level

In modelling of Latvia's FMRL the harvest level is set to species specific average of annual available stock on managed forest lands for wood supply. In productive forests that are left for nature conservation no harvesting is allowed therefore in modelling their development is projected as continuous cover forestry without management activities. The harvests outside final felling are calculated as a proportion of those harvests by volume in comparison to final felling in 2000-2008 according to the State forest service data. More detailed information of forest practices is provided in following chapter. Considered measures and probabilities are summarized in Figure 2. Directly age structure dependant forest management measures are regenerative felling and sanitary harvest probabilities; other measures depend from stand type, dominant species, basal area and tree height. In spite there is correlation between forest age and different types of thinning, these values differs by up to 3 decades depending from stand type and management history. For instance, the 1st commercial thinning in spruce stands can take place in 30-60 years, depending from management history (regeneration method, early tending and pre-commercial thinning). Use of averaged, age decade linked

assumptions for early tending, pre-commercial and commercial thinning would lead to significant underestimation or overestimation of GHG emissions in calculation of the FMRL in comparison to stand characteristics dependant modelling approach.

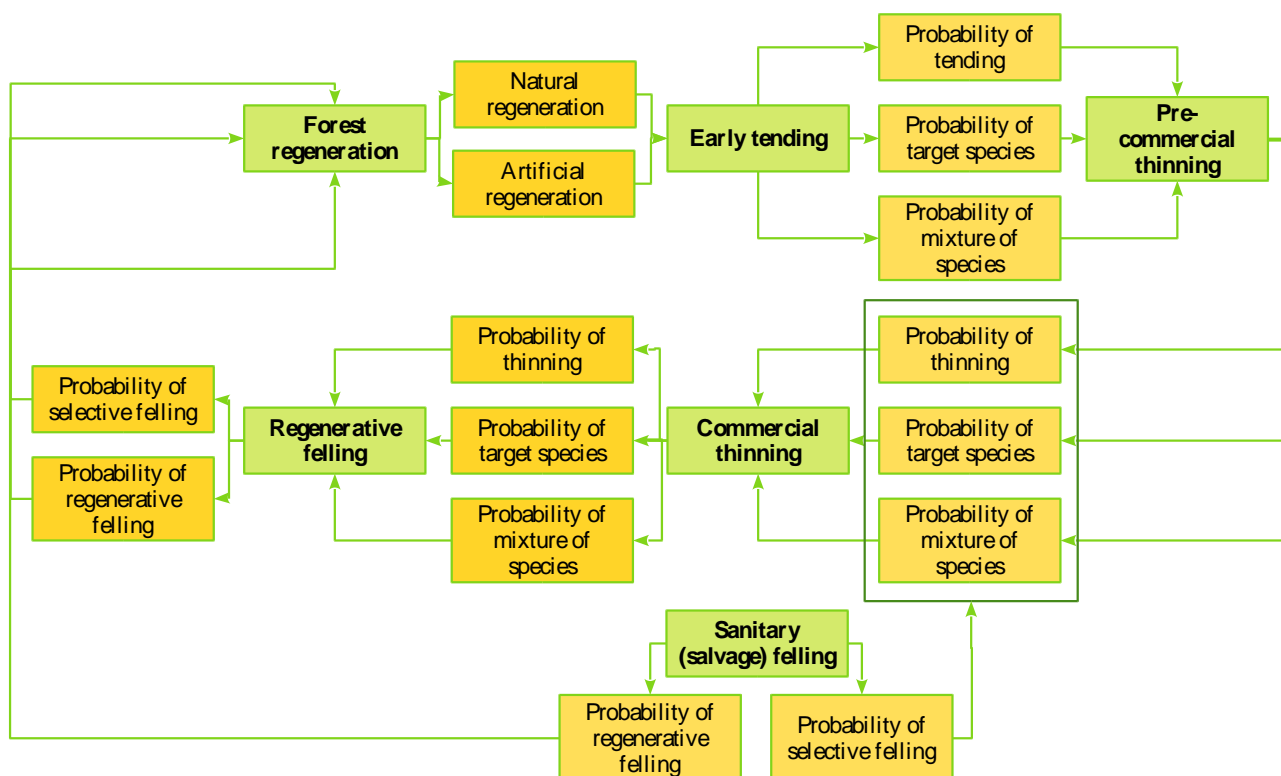


Figure 2 Forest management measures

Detailed description of the modelling framework as applied in the estimation of the forest management reference level

Latvia's FMRL is elaborated using AGM model providing projections of growing stock, mortality, increment and harvests in forest land. The basic assumptions in AGM model are:

- probabilities of forest regeneration method and dominant species depending from stand type and ownership,
- probability of early tending and pre-commercial thinning and target species depending from stand type,
- forest regeneration method,
- dominant species during the regeneration stage and ownership,
- probability and intensity of commercial thinning depending from stand type, dominant species and ownership,
- probability final felling depending from above-mentioned parameters and probability and type of sanitary felling (determined by above-mentioned parameters and age of forest stand).

AGM is applied at a level of NFI plot or a sector (sector is part of a plot, if plot is split into pieces representing different land uses). Data on increments, mortality and harvests (5 years totals) obtained by AGM model are interpolated to annual values and feed into Emissions

projections and inventory model (EPIM) tool, which transforms these data into carbon stock changes and GHG emissions.

Forest regeneration

Species suitable for the forest regeneration and corresponding minimal permitted number of trees in regenerated stands according to the legal documents being in force in 2000 are shown in Table 1. These requirements apply, both to public and private forests.

Table 1 Tree species used in forest regeneration and corresponding minimal number of trees permitted in forest stands approved as regenerated

No	Species	Species ID	Minimal number of trees in regenerated stands
1.	Pine	1	3000
2.	Spruce	3	2000
3.	Birch	4	2000
4.	Alder	6	2000
5.	Aspen	8	2000
6.	Grey alder	9	2000
7.	Oak	10	1500
8.	Ash	11	1500
9.	Linden	12	2000
10.	Larch	13	2000
11.	Elm	16	1500
12.	Beech	17	1500
13.	Hornbeam	18	1500
14.	Poplar	19	2000
15.	Willow	20	2000
16.	Goat willow	21	2000
17.	Fir	23	2000
18.	Maple	24	1500
19.	Rowan	32	2000
20.	Cherry	56	2000

Forest stand types in Latvia follows to water regime (dry, drained or wet soils), soil material (mineral or organic soil) and soil fertility – edaphic range (Table 2).

The probability of artificial forest regeneration is modelled separately for state and other forests according to data provided by the State forest service for the period between 2000 and 2008¹ (Table 3). The AGM model assumes that artificial regeneration takes place after final felling of pine, spruce, birch and aspen. Probability of regeneration with each species is

¹Statistics of forests. Available: <http://www.vmd.gov.lv/valsts-meza-dienests/statiskas-lapas/publikacijas-un-statistika/meza-statistikas-cd?nid=1809#jump>

modelled separately for different forest owners' groups (state and other forests) according to data provided by the State forest service for the period between 2000 and 2008 (Table 4).

Table 2 Forest stand types in Latvian and Latin

Forest stand type in Latvian	Forest stand type in Latin	Code	Group of stand types	ID
Sils	Cladinoso-callunosa	Sl	Dry mineral soils	1
Mētrājs	Vacciniosa	Mr		2
Lāns	Myrtillosa	Ln		3
Damaksnis	Hylocomiosa	Dm		4
Vēris	Oxalidosa	Vr		5
Gārša	Aegipodiosa	Gr		6
Grīnis	Callunoso-sphagnosa	Gn	Wet mineral soils	7
Slapjais mētrājs	Vaccinioso-sphagnosa	Mrs		8
Slapjais damaksnis	Myrtilloso-sphagnosa	Dms		9
Slapjais vēris	Myrtillosoi-polytrichosa	Vrs		10
Slapjā gārša	Drypteriosa	Grs		11
Purvājs	Sphagnosa	Pv	Wet organic soils	12
Niedrājs	Caricoso-phragmitosa	Nd		14
Dumbrājs	Dryopterioso-caricosa	Db		15
Liekņa	Filipendulosa	Lk		16
Viršu ārenis	Callunosa mel.	Av	Ameliorated mineral soils	17
Mētru ārenis	Vacciniosa mel.	Am		18
Šaurlapju ārenis	Myrtillosa mel.	As		19
Platlapju ārenis	Mercurialosa mel.	Ap		21
Viršu kūdrenis	Callunosa turf. mel.	Kv	Ameliorated organic soils	22
Mētru kūdrenis	Vacciniosa turf. mel.	Km		23
Šaurlapju kūdrenis	Myrtillosa turf. mel.	Ks		24
Platlapju kūdrenis	Oxalidosa turf. mel.	Kp		25

Table 3 Probability of artificial forest regeneration depending from dominant tree species

No.	Forest type	Other forests	State forests
1.	Cladinoso-callunosa	0.6686	0.7942
2.	Cladinosa-callunosa	0.4945	0.7603
3.	Vacciniosa	0.4679	0.8374

No.	Forest type	Other forests	State forests
4.	Myrtillosa	0.2750	0.8867
5.	Hylocomiosa	0.1189	0.6437
6.	Oxalidosa	0.0596	0.2126
7.	Aegipodiosa	0.6860	0.5188
8.	Callunoso-sphagnosa	0.3580	0.7325
9.	Vaccinioso-sphagnosa	0.1434	0.6169
10.	Myrtilloso-sphagnosa	0.0609	0.3016
11.	Myrtillosoi-polytrichosa	0.0316	0.1173
12.	Drypteriosa	0.0500	0.0981
13.	Sphagnosa	0.0565	0.1002
14.	Caricoso-phragmitosa	0.0410	0.0628
15.	Dryopterioso-caricosa	0.0500	0.0474
16.	Filipendulosa	0.7823	0.9153
17.	Callunosa mel.	0.5945	0.8797
18.	Vacciniosa mel.	0.2427	0.8074
19.	Myrtillosa mel.	0.0959	0.4188
20.	Mercurialosa mel.	0.1510	0.4686
21.	Callunosa turf. mel.	0.2520	0.7044
22.	Vacciniosa turf. mel.	0.1422	0.5580
23.	Cladinosa-callunosa	0.0878	0.3542

Table 4 Probability of dominant trees species in case of artificial forest regeneration by sowing or planting by forest type

Forest type	State forests			Other forests			
	pine	spruce	birch	pine	spruce	birch	aspen
Cladinosa-callunosa	1			1			
Vacciniosa	1			1			
Myrtillosa	1			1			
Hylocomiosa	0.5026	0.4769	0.0205	0.2799	0.6752	0.0449	
Oxalidosa		0.9548	0.0452		0.9141	0.0571	0.0288
Aegipodiosa		0.8538	0.1462		0.8124	0.1155	0.0721
Callunoso-sphagnosa	1			1			
Vaccinioso-sphagnosa	1			1			
Myrtilloso-sphagnosa	0.5142	0.4502	0.0356	0.2438	0.6831	0.0731	
Myrtillosoi-polytrichosa	0.0142	0.8548	0.1310	0.0263	0.8956	0.0726	0.0055
Drypteriosa		0.9349	0.0651		1.0000		
Sphagnosa	1			1			
Caricoso-phragmitosa	0.5457	0.2530	0.2013	0.1860	0.5823	0.2317	

Forest type	State forests			Other forests			
	pine	spruce	birch	pine	spruce	birch	aspen
Dryopterioso-caricosa	0.0580	0.7191	0.2229	0.0239	0.7122	0.2639	
Filipendulosa		0.8113	0.1887	0.1139	0.8481	0.0380	
Callunosa mel.	1			1			
Vacciniosa mel.	1			1			
Myrtillosa mel.	0.4409	0.5162	0.0429	0.2845	0.6381	0.0774	
Mercurialosa mel.		0.9021	0.0979		0.7825	0.1792	0.0383
Callunosa turf. mel.	1			1			
Vacciniosa turf. mel.	1			1			
Myrtillosa turf. mel.	0.4521	0.4437	0.1042	0.1980	0.6322	0.1698	
Oxalidosa turf. mel.		0.7629	0.2371		0.7745	0.2060	0.0195

Forest thinning

The age and dominant tree height suitable for different types of thinning (tending, pre-commercial thinning and commercial thinning) are defined in the program for different species (Table 5). Ownership is not considered in this assumption, as this parameter is determined by regulations. The interval and intensity of thinning is also defined in the program using the NFI data.

Table 5 Threshold values limiting height of trees and age of stand limiting probability of different thinnings

Dominating tree species	Early tending				Pre-commercial thinning				Commercial thinning			
	H _{min}	H _{max}	A _{min}	A _{max}	H _{min}	H _{max}	A _{min}	A _{max}	H _{min}	H _{max}	A _{min}	A _{max}
Pine	0.1	1.9	1	5	2.0	11.9	6	40	12.0	-	-	80
Spruce	0.1	1.9	1	5	2.0	11.9	6	40	12.0	-	-	60
Birch	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	60
Alder	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	60
Aspen	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	30
Grey alder	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	30
Oak	0.1	1.9	1	5	2.0	11.9	6	40	12.0	-	-	80
Ash	0.1	1.9	1	5	2.0	11.9	6	40	12.0	-	-	60
Linden	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	60
Larch	0.1	1.9	1	5	2.0	11.9	6	40	12.0	-	-	80
Elm	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	60
Beech	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	60
Hornbeam	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	60
Poplar	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	30
Willow	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	30
Goat willow	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	30

Dominating tree species	Early tending				Pre-commercial thinning				Commercial thinning			
	H _{min}	H _{max}	A _{min}	A _{max}	H _{min}	H _{max}	A _{min}	A _{max}	H _{min}	H _{max}	A _{min}	A _{max}
Fir	0.1	1.9	1	5	2.0	11.9	6	40	12.0	-	-	60
Maple	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	60
Rowan	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	60
Cherry	0.1	1.9	1	5	2.0	11.9	6	20	12.0	-	-	60

Early tending

In addition to age and height restrictions (Table 5) it is possible to define how often the early tending is modelled sorting by property type (state and other forests), regeneration method (anthropogenically or naturally) and forest type (Table 6).

Table 6 Number of early tending by origin of the forest stand, ownership and forest stand type

Forest type	Naturally regenerated tree stands		Anthropogenically regenerated tree stands	
	state forests	other forests	state forests	other forests
Cladinoso-callunosa	2	0	3	2
Vacciniosa	2	0	3	2
Myrtillosa	2	0	3	2
Hylocomiosa	2	0	3	2
Oxalidosa	2	0	3	2
Aegipodiosa	2	0	3	2
Callunoso-sphagnosa	2	0	3	2
Vaccinioso-sphagnosa	2	0	3	2
Myrtilloso-sphagnosa	2	0	3	2
Myrtillosoi-polytrichosa	2	0	3	2
Drypteriosa	2	0	3	2
Sphagnosa	2	0	3	2
Caricoso-phragmitosa	2	0	3	2
Dryopterioso-caricosa	2	0	3	2
Filipendulosa	2	0	3	2
Callunosa mel.	2	0	3	2
Vacciniosa mel.	2	0	3	2
Myrtillosa mel.	2	0	3	2
Mercurialosa mel.	2	0	3	2
Callunosa turf. mel.	2	0	3	2
Vacciniosa turf. mel.	2	0	3	2
Myrtillosa turf. mel.	2	0	3	2
Oxalidosa turf. mel.	2	0	3	2

Pre-commercial thinning

It is possible to define what ranges of height and age of the dominating tree species of the 1st storey of the tree stand thinning is planned for (Table 5)².

It is possible to define at what stand density the thinning is modelled for and proportionally how many stands are going to be thinned in the current five-year period in accordance with the criteria (Table 7). The stand density at which pre-commercial thinning is planned is determined according to the Joint Stock Company "Latvia's state forests" guidelines for the forest thinning.

Table 7 Indicators for planning pre-commercial thinning

Type of property	Density ³ at which pre-commercial thinning is planned	Proportion of stands to be thinned in the five year period	Maximum number of pre-commercial thinning
State forest	0.90	0.60	2
Other forests	0.90	0.40	1

The program assumes that after thinning there will be 100-125% of trees in comparison to optimal number of trees⁴.

The program allows for defining tree species suitable for the forest type as well as order them in preferable order of priority, therefore pre-commercial thinning will be modelled so as to achieve pure stands of high priority tree species. All tree and bush species can be separated into 3 groups (Table 8):

- tree species which can form a forest stand and can be target tree species:
 - tree species (priority code 1-8) which are defined in the priority tree species list,
 - tree species (11) which are not defined in the priority tree species list, but can be target, tree species where they already are the dominating tree species, however, if they are not the dominating tree species they are left in quantities that do not interfere with the growth of target tree species trees,
 - tree species (9) which can be target tree species in cases where species of the two former groups cannot form a forest stand ($N < N_{\min}$),
- tree species (33) which cannot form a forest stand and cannot be target tree species, but are left in the forest stand in quantities that do not interfere with the growth of the target tree species,
- bush and tree species (22) which are removed completely in pre-commercial thinning.

² Cabinet of Ministers of Republic of Latvia (2006). Regulations regarding Tree Felling in Forest Lands. Available: <https://www.vestnesis.lv/ta/id/147116-noteikumi-par-koku-cirsanu-meza-zemes>

³ Number of trees in the First story in comparison to normal number of trees

⁴ AS "Latvijas valsts meži". (2008). Kopšanas ciršu rokasgrāmata. Available: https://www.lvm.lv/images/lvm/Petijumi_un_publicijas/KC-rokasgramata.pdf

Table 8 Target tree species priority groups⁵ by forest type

Tree species	Forest stand type																			
	Cladinoso-callunosa	Vacciniosa	Myrtilliosa	Hylcomiosa	Oxalidosa	Aegipodiosa	Callunoso-sphagnosa	Vaccinioso-sphagnosa	Myrtillioso-sphagnosa (9)	Myrtillioso-polytrichosa (10)	Drypteriosa (11)	Sphagnosa	Caricoso-phragmitosa	Dryopterioso-caricosa	Filipendulosa	Callunosa mel.	Vacciniosa mel.	Myrtilliosa mel.	Mercurialosa mel.	Callunosa turf. mel.
Pine	1	1	1	1	9	9	1	1	1	9	9	1	1	9	9	1	1	1	1	9
Spruce	9	9	9	2	1	1	9	9	2	1	1	9	3	9	9	9	9	2	1	9
Birch	9	9	9	3	3	3	9	9	3	3	3	2	2	1	2	9	9	3	2	9
Alder	9	9	9	9	4	4	9	9	9	4	4	9	9	2	1	9	9	4	4	9
Aspen	9	9	9	9	6	6	9	9	9	6	6	9	9	9	9	9	9	9	6	9
Grey alder	9	9	9	9	8	8	9	9	9	7	7	9	9	9	9	9	9	9	9	9
Oak	11	11	11	4	2	2	11	11	4	2	2	11	11	11	11	11	11	11	3	11
Ash	9	9	9	9	5	5	9	9	9	5	5	9	9	9	3	9	9	9	5	9
Linden	9	9	9	9	7	7	9	9	9	9	9	9	9	9	4	9	9	9	7	9
Elm	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Beech	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Hornbeam	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Poplar	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Willow	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Goat willow	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Cherry	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Maple	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Juniper	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Rowan	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Crab apple	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Hawthorn	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Other conifers	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Other broad leaved trees	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22

⁵1-9 – Order of target tree species (1 – highest priority, 9 – lowest priority); 11 – if the species is the dominating one, then it is the target species, if it is not, then it is left in quantities that do not interfere with the growth of the target species; 22 – tree and bush species which are removed completely in pre-commercial thinning; 33 – tree species which are left in quantities that do not interfere with the growth of the target species

Commercial thinning

It is defined in the program to which remaining stand density thinnings are modelled and what is proportion of stands conforming to criteria of stands suitable for thinning, which will be thinned during current 5 years period (Table 9).

Table 9 Indicators for planning of commercial thinning

Type of property	Density ⁶ at which thinning is planned	Proportion of stand thinned in current five year period	Maximum number of commercial thinning
State forests	0.85	0.60	3
Other forests	0.85	0.40	3

It is possible to define a range of basal area after thinning, in the default setting it is 100-125% of the minimum basal area listed in regulations⁷. The program allows to define various types of commercial thinning (NG; if neutral selection, then NG=1.0; if thinning from below, then NG>1.0; if thinning from top, then NG<1.0) and their proportion (Table 10). It is also possible to define the proportion of every type of thinning i.e. the area where every type of thinning is carried out on is proportional to the total area thinning is carried on. These indicators are sorted by type of property.

Table 10 Types and proportion of different types of commercial thinning

Type of property	Type of Commercial thinning	NG	Proportion
State forests	Top down	0.85	0.00
	Neutral	1.00	0.00
	Bottom up	1.15	1.00
Other forests	Top down	0.85	0.00
	Neutral	1.00	0.00
	Bottom up	1.15	1.00

It is possible to change the suitability of tree species to the forest type (Table 11), which directly impacts the proportion of species in the tree stand after commercial thinning.

Table 11 Priority group (suitability) of tree species according to forest type⁸

Forest type	Pine	Spruce	Birch	Alder	Aspen	Grey alder	Oak	Ash	Linden	Larch	Elm	Beech	Hornbeam	Poplar	Willow	Goat willow	Fir	Maple	Cherry	Other
Cladinoso-callunosa	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacciniosa	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

⁶The proportion of basal area to a normal basal area in the 1st storey

⁷ Cabinet of Ministers of Republic of Latvia (2006). Regulations regarding Tree Felling in Forest Lands. Available: <https://www.vestnesis.lv/ta/id/147116-noteikumi-par-koku-cirsanu-meza-zemes>

⁸1 – tree species suitable for forest type, 0 – tree species unsuitable for forest type

Forest type	Pine	Spruce	Birch	Alder	Aspen	Grey alder	Oak	Ash	Linden	Larch	Elm	Beech	Hornbeam	Poplar	Willow	Goat willow	Fir	Maple	Cherry	Other
Myrtillosa	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hylocomiosa	1	1	1	0	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	0
Oxalidosa	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0
Aegipodiosa	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0
Callunoso-sphagnosa	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vaccinioso-sphagnosa	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Myrtilloso-sphagnosa	1	1	1	0	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	0
Myrtillosoi-polytrichosa	0	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0	1	0	0	0
Drypteriosa	0	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0	1	0	0	0
Sphagnosa	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caricoso-phragmitosa	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
Dryopterioso-caricosa	0	1	1	1	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	0
Filipendulosa	0	1	1	1	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	0
Callunosa mel.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacciniosa mel.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Myrtillosa mel.	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
Mercurialosa mel.	0	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	1	0
Callunosa turf. mel.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacciniosa turf. mel.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Myrtillosa turf. mel.	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
Oxalidosa turf. mel.	0	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	1	0

Final felling

The program allows to define the final felling age and diameter. In the default setting the age and diameter at which final felling is carried out is set at values listed in current regulation (Table 12)⁹.

Table 12 Age and diameter of final felling

Tree species	Species ID	Final felling age (years) depending on site index			Final felling diameter (cm) depending on site index			
		0 and 1	2 and 3	4; 5 and 6	0	1	2	3
Pine	1	101	101	121	39	35	31	27
Spruce	3	81	81	81	31	29	29	27
Birch	4	71	71	51	31	27	25	22
Alder	6	71	71	71	999	999	999	999
Aspen	8	41	41	41	999	999	999	999
Grey alder	9	31	31	31	999	999	999	999
Oak	10	101	121	121	999	999	999	999
Ash	11	81	81	81	999	999	999	999
Linden	12	81	81	81	999	999	999	999
Larch	13	101	101	121	999	999	999	999
Other pines	14	101	101	121	999	999	999	999
Other spruces	15	81	81	81	999	999	999	999
Elm	16	81	81	81	999	999	999	999
Beech	17	81	81	81	999	999	999	999
Hornbeam	18	81	81	81	999	999	999	999
Poplar	19	41	41	41	999	999	999	999
Willow	20	31	31	31	999	999	999	999
Goat willow	21	31	31	31	999	999	999	999
Fir	23	81	81	81	999	999	999	999
Maple	24	81	81	81	999	999	999	999
Rowan	32	31	31	31	999	999	999	999
Cherry	56	81	81	81	999	999	999	999

The proportion of regenerative felling area is in accordance with the average values in 2000-2008¹⁰ (Table 13). Intensity (actually extracted volume in comparison to resources available for final felling) is estimated using average rates in 2000-2008.

⁹ Cabinet of Ministers of Republic of Latvia (2006). Regulations regarding Tree Felling in Forest Lands. Available: <https://www.vestnesis.lv/ta/id/147116-noteikumi-par-koku-cirsanu-meza-zemes>; Parliament of the Republic of Latvia. (2000). Meža likums. Available: <https://likumi.lv/doc.php?id=2825>

¹⁰ State forest service statistics CD 2001-2008

Table 13 Proportion of final felling area sorted by type of property and type of final felling

Type of felling	Other forests	State forest
Selective felling	0.1719	0.0647
Regenerative felling	0.8281	0.9353

Salvage (sanitary) felling

Due to windthrow in 2005 the share of salvage logging in the first half of the reference period is considerably bigger in comparison to the following period (2006-2008). To avoid overestimation of harvesting due to natural disturbances 2005 is excluded from calculation of projections of sanitary fellings.

Probability of sanitary felling in the tree stand is defined depending on the trees species and its decimal age group (Table 14). The program defines a proportion of selective and sanitary clear felling depending on the dominating tree species in the tree stand which in the default setting is in accordance with the last three years¹¹ (Table 15).

Table 14 Probability of sanitary felling depending on the dominating tree species in the tree stand and its decimal age group

Decimal age group	Pine	Spruce	Birch	Alder	Aspen	Ash	Other species
1	0	0	0	0	0	0	0
2	0.0002	0.0008	0.0004	0.0003	0.0004	0	0
3	0.0010	0.0067	0.0022	0.0010	0.0011	0	0
4	0.0033	0.0200	0.0053	0.0020	0.0020	0	0
5	0.0068	0.0347	0.0083	0.0028	0.0026	0	0
6	0.0108	0.0424	0.0098	0.0032	0.0028	0.0008	0
7	0.0143	0.0407	0.0095	0.0031	0.0026	0.0117	0
8	0.0165	0.0328	0.0079	0.0026	0.0022	0.0478	0
9	0.0173	0.0231	0.0059	0.0020	0.0017	0.0744	0
10	0.0167	0.0147	0.0041	0.0015	0.0013	0.0554	0
11	0.0151	0.0085	0.0026	0.0010	0.0009	0.0231	0
12	0.0129	0.0046	0.0016	0.0007	0.0006	0.0060	0
13	0.0105	0.0024	0.0009	0.0004	0.0004	0.0011	0
14	0.0083	0.0011	0.0005	0.0003	0.0003	0.0001	0
15	0.0063	0.0005	0.0003	0.0002	0.0002	0	0
16	0.0047	0.0002	0.0001	0.0001	-	0	0
17	0.0034	0.0001	0.0001	0.0001	-	0	0
18	0.0024	0	0	0	-	0	0
19	0.0016	0	0	0	-	0	0
20	0.0011	0	0	0	-	0	0

¹¹State forest service statistics CD 2001-2008, excluding 2006

Decimal age group	Pine	Spruce	Birch	Alder	Aspen	Ash	Other species
21	0.0007	0	0	0	-	0	0
22	0.0005	0	0	0	-	0	0
23	0.0003	0	0	0	-	0	0
24	0.0002	0	0	0	-	0	0
25	0.0001	0	0	0	-	0	0
26	0.0001	0	0	0	-	0	0
27	0.0001	0	0	0	-	0	0
28	0	0	0	0	-	0	0
29	0	0	0	0	-	0	0
30	0	0	0	0	-	0	0

Table 15 Proportion of selective and clear sanitary felling depending on the dominating tree species in the tree stand

Dominating tree species	Clear sanitary felling	Selective sanitary felling
Pine	0.0290	0.9710
Spruce	0.0545	0.9455
Birch	0.0590	0.9410
Alder	0.0718	0.9282
Aspen	0.0785	0.9215
Ash	0.3193	0.6807

ANNEX 6: OTHER

Additional information on CSB Integrated Statistical Data Management System (ISDMS).

ISDMS contents:

Following business application software modules are covering and supporting all phases of the statistical data processing:

Core metadata base module – the key part of the system ensures metadata collection and storage, defines all entire system processes starting from data collection and ending with output reports preparation. All System software modules are linked with the Core Metadata module.

Registers module – ensure system users with the full range of respondents data.

Data entry and validation module – generates data entry and validation applications, executes validation and data editing processes and storage clean data sets in the Micro Data Base.

Web based data collection module – ensures electronic data collection via Web.

Data aggregation module – ensures data aggregation on different conditions and storage of the aggregated data sets in the Macro Data Base.

Data analysis module – via micro data export to MS Excel and/or Access ensures data analysis processes, MS OLAP tools are available for data analysis as well.

Data dissemination module – ensures data storage for publication at CSB web.

User's administration module – administrates user roles and rights.

ISDMS advantages:

- Standardized data entry, processing and storage procedures => process oriented data processing.
- Centralized processing and storage of all types of statistical data, including metadata, by using data warehouse technologies and OLAP tools.
- The system is connected to Business Register => direct respondent basic data retrieval and updating.
- Special import and export procedure is created for data exchange with other systems.

A link with PC Axis is created for electronic data dissemination.

ANNEX 7: SUPPLEMENTARY INFORMATION UNDER ARTICLE 6., 12., 17

In 2020 there are no Joint Implementation Project (Article 6) and no Clean Development Mechanism (Article 12) projects in Latvia.

There are no specific limitation rules for the Operators and/or Person accounts in Latvia holding of Kyoto protocol units with exception of AAUs that could be held only in the National Holding Account.

The list given below includes the legal entities that have active accounts in Latvia's ETR at the end of 2020 and doesn't include accounts that were closed after the compliance period 30/04/2020.

Legal entities authorized to participate in the mechanisms under Articles 6, 12 and 17 of the Kyoto Protocol

Legal entities authorized to participate in the mechanisms under Article 6, 12 and 17 of the Kyoto Protocol)	Account ID	Role
A/S "Olaines udens un siltums"	LV-HOLDING_ACCOUNT-5012073-0-4	Latvia's ETR operator (obligatory participation)
Pasvaldibas SIA "Ventspils siltums"	LV-HOLDING_ACCOUNT-5012074-0-96	Latvia's ETR operator (obligatory participation)
Pasvaldibas SIA "Ventspils siltums"	LV-HOLDING_ACCOUNT-5012075-0-91	Latvia's ETR operator (obligatory participation)
AS "Latvenergo" TEC-1	LV-HOLDING_ACCOUNT-5012078-0-76	Latvia's ETR operator (obligatory participation)
AS "Latvenergo" TEC-2	LV-HOLDING_ACCOUNT-5012079-0-71	Latvia's ETR operator (obligatory participation)
SIA „Gren Jelgava”	LV-HOLDING_ACCOUNT-5012080-0-66	Latvia's ETR operator (obligatory participation)
SIA "Aizkraukles siltums"	LV-HOLDING_ACCOUNT-5012085-0-41	Latvia's ETR operator (obligatory participation)
A/S "Rigas siltums" katlu maja Gobas iela 33a	LV-HOLDING_ACCOUNT-5012086-0-36	Latvia's ETR operator (obligatory participation)
A/S "Rigas siltums" siltumcentrale Daugavgriva	LV-HOLDING_ACCOUNT-5012087-0-31	Latvia's ETR operator (obligatory participation)
A/S "Rigas siltums" siltumcentrale Vecmilgravis	LV-HOLDING_ACCOUNT-5012088-0-26	Latvia's ETR operator (obligatory participation)
A/S "Rigas siltums" siltumcentrale Ziepniekkalns	LV-HOLDING_ACCOUNT-5012089-0-21	Latvia's ETR operator (obligatory participation)
A/S "Rigas siltums" iecirknis Zasulauks	LV-HOLDING_ACCOUNT-5012090-0-16	Latvia's ETR operator (obligatory participation)
A/S "Rigas siltums" siltumcentrale Imanta	LV-HOLDING_ACCOUNT-5012091-0-11	Latvia's ETR operator (obligatory participation)
Ogres novada PA "Ogres namsaimnieks"	LV-HOLDING_ACCOUNT-5012093-0-98	Latvia's ETR operator (obligatory participation)
SIA „Adven Sigulda”	LV-HOLDING_ACCOUNT-5012094-0-93	Latvia's ETR operator (obligatory participation)
SIA “Jurmālas siltums” Dubulti	LV-HOLDING_ACCOUNT-5012096-0-83	Latvia's ETR operator (obligatory participation)
SIA “Jurmālas siltums” Kauguri	LV-HOLDING_ACCOUNT-5012097-0-78	Latvia's ETR operator (obligatory participation)
A/S “Cesvaines piens”	LV-HOLDING_ACCOUNT-5012100-0-63	Latvia's ETR operator (obligatory participation)
SIA “Rigas laku un krasu rupnīca”	LV-HOLDING_ACCOUNT-5012101-0-58	Latvia's ETR operator (obligatory participation)
A/S “Rigas kugu buvetava”	LV-HOLDING_ACCOUNT-5012103-0-48	Latvia's ETR operator (obligatory participation)
A/S “BLB Baltijas Terminals”	LV-HOLDING_ACCOUNT-5012104-0-43	Latvia's ETR operator (obligatory participation)
SIA „Kraslavas nami”	LV-HOLDING_ACCOUNT-5012106-0-33	Latvia's ETR operator (obligatory participation)
SIA “Cesu siltumtīkli”	LV-HOLDING_ACCOUNT-5012108-0-23	Latvia's ETR operator (obligatory participation)
PAS “Daugavpils siltumtīkli” SC3	LV-HOLDING_ACCOUNT-5012110-0-13	Latvia's ETR operator (obligatory participation)
PAS “Daugavpils siltumtīkli” SC1	LV-HOLDING_ACCOUNT-5012111-0-8	Latvia's ETR operator (obligatory participation)
PAS “Daugavpils siltumtīkli” SC2	LV-HOLDING_ACCOUNT-5012112-0-3	Latvia's ETR operator (obligatory participation)
SIA “Jekabpils siltums”	LV-HOLDING_ACCOUNT-5012114-0-90	Latvia's ETR operator (obligatory participation)
A/S “Valmieras piens”	LV-HOLDING_ACCOUNT-5012117-0-75	Latvia's ETR operator (obligatory participation)
SIA “Lauma Fabrics”	LV-HOLDING_ACCOUNT-5012119-0-65	Latvia's ETR operator (obligatory participation)
SIA “Liepājas enerģija”	LV-HOLDING_ACCOUNT-5012120-0-60	Latvia's ETR operator (obligatory participation)

Legal entities authorized to participate in the mechanisms under Article 6, 12 and 17 of the Kyoto Protocol)	Account ID	Role
SIA "Liepajas energija"	LV-HOLDING_ACCOUNT-5012121-0-55	Latvia's ETR operator (obligatory participation)
A/S "Preilu siers"	LV-HOLDING_ACCOUNT-5012122-0-50	Latvia's ETR operator (obligatory participation)
SIA "Gren Latvija" koģenerācijas stacija	LV-HOLDING_ACCOUNT-5023038-0-81	Latvia's ETR operator (obligatory participation)
SIA "Salaspils siltums"	LV-HOLDING_ACCOUNT-5012124-0-40	Latvia's ETR operator (obligatory participation)
A/S "Latvijas finieris" rupnica "Furniers"	LV-HOLDING_ACCOUNT-5012125-0-35	Latvia's ETR operator (obligatory participation)
A/S "Latvijas Finieris" rupnica "Lignums"	LV-HOLDING_ACCOUNT-5012126-0-30	Latvia's ETR operator (obligatory participation)
A/S "Ventbunkers"	LV-HOLDING_ACCOUNT-5012129-0-15	Latvia's ETR operator (obligatory participation)
SIA „Solum Estate"	LV-HOLDING_ACCOUNT-5012130-0-10	Latvia's ETR operator (obligatory participation)
SIA "Saulkalne S"	LV-HOLDING_ACCOUNT-5012131-0-5	Latvia's ETR operator (obligatory participation)
PILLAR 21, SIA	LV-HOLDING_ACCOUNT-5012132-0-97	Latvia's ETR operator (obligatory participation)
A/S "Valmieras stikla skiedra"	LV-HOLDING_ACCOUNT-5012133-0-92	Latvia's ETR operator (obligatory participation)
LODE SIA, Liepas plant	LV-HOLDING_ACCOUNT-5012135-0-82	Latvia's ETR operator (obligatory participation)
A/S "KVV Liepajas metalurģs"	LV-HOLDING_ACCOUNT-5012137-0-72	Latvia's ETR operator (obligatory participation)
LODE SIA, Ane plant	LV-HOLDING_ACCOUNT-5012141-0-52	Latvia's ETR operator (obligatory participation)
SIA "Olaines kimiska rupnica "BIOLARS"	LV-HOLDING_ACCOUNT-5012154-0-84	Latvia's ETR operator (obligatory participation)
SIA "KRONOSPAN Rīga"	LV-HOLDING_ACCOUNT-5012166-0-24	Latvia's ETR operator (obligatory participation)
SIA "Juglas jauda"	LV-HOLDING_ACCOUNT-5012169-0-9	Latvia's ETR operator (obligatory participation)
A/S "Valmieras Energija" Rīgas iela 25	LV-HOLDING_ACCOUNT-5012171-0-96	Latvia's ETR operator (obligatory participation)
A/S "Valmieras Energija" Dzelzcela iela 7	LV-HOLDING_ACCOUNT-5012172-0-91	Latvia's ETR operator (obligatory participation)
A/S "Conexus Baltic Grid"	LV-HOLDING_ACCOUNT-5012173-0-86	Latvia's ETR operator (obligatory participation)
SIA "Gren Jelgava"	LV-HOLDING_ACCOUNT-5012175-0-76	Latvia's ETR operator (obligatory participation)
SIA "Rīgens"	LV-HOLDING_ACCOUNT-5012177-0-66	Latvia's ETR operator (obligatory participation)
A/S "Rezeknes Siltumtikli" Atbrivosanas aleja 155a	LV-HOLDING_ACCOUNT-5012180-0-51	Latvia's ETR operator (obligatory participation)
A/S "Rezeknes Siltumtikli" N.Rancana iela 5	LV-HOLDING_ACCOUNT-5012181-0-46	Latvia's ETR operator (obligatory participation)
A/S "Rezeknes Siltumtikli" Meza iela 1	LV-HOLDING_ACCOUNT-5012182-0-41	Latvia's ETR operator (obligatory participation)
SIA "Gamma - A"	LV-HOLDING_ACCOUNT-5012184-0-31	Latvia's ETR operator (obligatory participation)
SCHWENK Latvija, SIA	LV-HOLDING_ACCOUNT-5012185-0-26	Latvia's ETR operator (obligatory participation)
SIA "KNAUF"	LV-HOLDING_ACCOUNT-5020444-0-53	Latvia's ETR operator (obligatory participation)
A/S "Olainfarm"	LV-HOLDING_ACCOUNT-5023045-0-46	Latvia's ETR operator (obligatory participation)
SIA "Binders"	LV-HOLDING_ACCOUNT-5027232-0-63	Latvia's ETR operator (obligatory participation)
SIA "Energia Verde"	LV-HOLDING_ACCOUNT-5027119-0-46	Latvia's ETR operator (obligatory participation)