

California Greenhouse Gas Inventory for 2000-2015 — by IPCC Category

million tonnes of CO₂ equivalent - (based upon IPCC Fourth Assessment Report's 100-yr Global Warming Potentials)

Inventory Emissions

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1 - Energy	408.9	423.8	420.6	419.6	427.7	418.9	414.3	419.0	415.5	388.4	379.1	370.6	375.0	372.7	367.7	365.6
1A - Fuel Combustion Activities	401.83	416.69	413.15	412.36	420.32	411.14	406.32	411.26	407.78	380.47	371.19	362.43	367.26	364.58	359.34	356.88
1A1 - Energy Industries	159.12	175.95	161.56	167.81	172.76	163.91	157.64	165.74	171.53	154.35	144.85	137.10	144.24	141.87	139.95	132.93
1A1a - Main Activity Electricity and Heat Production	116.37	132.29	119.12	122.23	127.49	119.41	115.87	124.33	129.70	113.42	102.69	98.70	105.80	100.40	97.51	92.05
1A1ai - Electricity Generation	84.804	103.488	86.517	92.858	98.058	91.186	88.839	98.216	104.626	84.201	75.849	72.105	81.077	75.019	72.533	69.650
1A1aii - Combined Heat and Power Generation (CHP)	31.565	28.804	32.600	29.375	29.427	28.227	27.034	26.115	25.072	29.215	26.842	26.597	24.727	25.383	24.979	22.399
1A1b - Petroleum Refining	24.67	25.23	25.33	26.03	25.31	25.93	25.57	25.06	24.28	24.59	26.54	22.85	22.80	23.85	23.95	22.35
1A1c - Manufacture of Solid Fuels and Other Energy Industries	18.09	18.43	17.11	19.55	19.96	18.56	16.19	16.35	17.56	16.35	15.61	15.54	15.64	17.62	18.48	18.53
1A1cii - Other Energy Industries	18.085	18.429	17.109	19.545	19.964	18.563	16.192	16.353	17.557	16.350	15.610	15.544	15.636	17.621	18.485	18.529
1A2 - Manufacturing Industries and Construction	22.75	21.58	22.90	19.28	19.52	18.63	18.71	17.01	18.11	16.62	18.72	19.54	19.78	20.29	20.22	19.98
1A2c - Chemicals	4.55	4.08	3.97	2.60	3.22	3.81	3.79	3.13	3.91	3.82	5.36	6.32	5.71	5.67	6.47	6.02
1A2d - Pulp, Paper and Print	1.05	0.94	1.01	0.92	0.94	0.62	0.64	0.55	0.46	0.40	0.40	0.44	0.44	0.43	0.41	0.44
1A2e - Food Processing, Beverages and Tobacco	3.89	3.51	3.80	3.12	3.16	3.02	3.31	3.32	3.18	3.12	3.08	3.16	3.26	3.27	3.30	3.32
1A2f - Non-Metallic Minerals	5.42	5.28	5.47	5.29	5.27	5.32	5.32	4.78	4.34	2.94	2.90	2.86	3.07	3.05	3.12	3.20
1A2g - Transport Equipment	0.46	0.48	0.52	0.31	0.27	0.27	0.26	0.28	0.29	0.25	0.25	0.24	0.24	0.28	0.27	0.27
1A2h - Machinery	1.75	1.27	1.33	0.98	1.01	1.02	1.04	0.99	0.93	0.82	0.80	0.82	0.81	0.79	0.77	0.76
1A2i - Mining (excluding fuels) and Quarrying	0.86	0.31	0.31	0.34	0.36	0.34	0.11	0.16	0.19	0.14	0.15	0.15	0.17	0.16	0.15	0.15
1A2j - Wood and Wood Products	0.40	0.31	0.19	0.16	0.11	0.11	0.11	0.08	0.07	0.05	0.05	0.04	0.03	0.03	0.04	0.04
1A2k - Construction	0.41	0.60	0.62	0.62	0.75	0.72	0.60	0.48	0.42	0.41	0.48	0.47	0.64	1.26	0.71	0.33
1A2l - Textile and Leather	0.56	0.54	0.59	0.45	0.44	0.43	0.39	0.35	0.31	0.23	0.24	0.23	0.22	0.22	0.21	0.20
1A2m - Non-specified Industry.	2.60	3.46	4.17	3.75	3.27	2.36	2.70	2.36	3.49	4.08	4.55	4.32	4.67	4.60	4.24	4.79
1A3 - Transport	175.29	175.57	182.58	180.03	181.67	183.47	183.47	183.40	172.24	165.52	162.07	158.79	158.62	157.27	159.13	163.64
1A3a - Civil Aviation	4.15	4.07	4.12	4.25	4.49	4.49	4.56	4.97	4.50	4.03	3.84	3.71	3.75	3.91	3.89	4.20
1A3aii - Domestic Aviation	3.885	3.829	3.848	3.983	4.254	4.281	4.360	4.755	4.318	3.883	3.717	3.613	3.601	3.774	3.718	4.016
1A3b - Road Transportation	162.35	162.70	168.72	165.43	166.56	167.36	166.91	167.00	157.39	152.85	149.03	145.92	145.67	143.86	144.98	149.42
1A3bi - Cars	66.046	64.501	65.669	61.366	59.783	58.245	57.425	56.907	53.771	53.633	52.271	51.055	51.809	51.893	52.776	55.741
1A3bii - Light-duty Trucks	59.325	61.305	64.905	65.968	66.956	68.040	68.052	67.845	64.517	63.155	61.190	59.661	59.351	58.207	57.947	59.896
1A3biii - Heavy-duty Trucks and Buses	36.626	36.447	37.650	37.552	39.243	40.165	40.448	41.172	37.968	34.880	34.366	33.958	33.267	32.635	32.905	32.407
1A3biv - Motorcycles	0.230	0.298	0.340	0.357	0.368	0.402	0.445	0.473	0.493	0.487	0.463	0.450	0.451	0.445	0.449	0.473
1A3c - Railways	1.88	1.89	2.50	2.86	2.91	3.34	3.53	3.17	2.38	1.95	2.31	2.64	2.47	2.40	2.75	2.42
1A3d - Water-borne Navigation	3.50	3.32	3.63	3.79	3.80	4.05	4.09	4.26	4.01	3.64	3.71	3.56	3.60	3.86	3.95	3.89
1A3di - International Water-borne Navigation (International Bunkers)	1.128	1.184	1.243	1.304	1.369	1.436	1.487	1.573	1.458	1.216	1.367	1.329	1.290	1.478	1.532	1.519
1A3dii - Domestic Water-borne Navigation	2.376	2.138	2.390	2.490	2.432	2.612	2.607	2.684	2.551	2.422	2.344	2.233	2.314	2.385	2.418	2.368
1A3e - Other Transportation	2.63	2.79	2.77	2.84	3.03	3.22	3.32	3.18	2.82	2.25	2.03	2.13	2.23	2.33	2.43	2.53
1A3eii - Off-road	2.631	2.790	2.768	2.843	3.029	3.217	3.315	3.176	2.819	2.246	2.033	2.133	2.234	2.334	2.434	2.533

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million tonnes of CO₂ equivalent - (based upon IPCC Fourth Assessment Report's 100-yr Global Warming Potentials)

<i>Inventory Emissions</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
1A4 - Other Sectors	44.67	43.60	46.11	45.23	46.37	45.14	46.50	45.11	45.90	43.97	45.55	47.01	44.62	45.14	40.05	40.33
1A4a - Commercial/Institutional	11.47	11.31	13.11	12.84	12.70	12.55	12.83	12.82	12.99	12.89	13.58	13.71	13.41	13.30	12.51	12.77
1A4b - Residential	29.38	28.47	28.62	28.14	29.17	27.98	28.36	28.50	28.82	28.47	29.19	29.64	27.34	28.14	22.87	23.17
1A4c - Agriculture/Forestry/Fishing/Fish Farms	3.81	3.82	4.38	4.25	4.50	4.60	5.30	3.78	4.09	2.61	2.77	3.65	3.88	3.71	4.66	4.39
1B - Fugitive Emissions from Fuels	7.05	7.14	7.49	7.27	7.36	7.73	7.93	7.74	7.76	7.96	7.87	8.18	7.70	8.16	8.39	8.68
1B1 - Solid Fuels	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.01
1B2 - Oil and Natural Gas	5.78	5.88	6.24	6.03	6.10	6.46	6.68	6.48	6.54	6.52	6.68	6.88	6.83	7.21	7.44	7.51
1B2a - Oil	0.48	0.46	0.47	0.46	0.44	0.46	0.48	0.47	0.46	0.45	0.49	0.52	0.47	0.61	0.64	0.54
1B2ai - Venting	0.067	0.069	0.069	0.071	0.069	0.071	0.073	0.072	0.071	0.066	0.053	0.072	0.061	0.160	0.214	0.151
1B2aii - Flaring	0.057	0.058	0.058	0.059	0.058	0.060	0.061	0.061	0.060	0.055	0.055	0.128	0.106	0.104	0.093	0.085
1B2aiii - All Other	0.358	0.331	0.338	0.330	0.315	0.334	0.341	0.338	0.330	0.324	0.377	0.322	0.305	0.343	0.337	0.303
1B2b - Natural Gas [1]	3.64	3.70	4.03	3.78	3.85	3.89	4.03	4.00	4.08	4.12	4.08	4.07	3.98	3.98	4.00	4.06
1B3 - Geothermal Energy Production	1.13	1.11	1.11	1.10	1.12	1.12	1.10	1.11	1.09	1.31	1.10	1.22	0.83	0.93	0.92	1.15
1B4 - Pollution control devices	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.06	0.05	0.02	0.00	0.00	0.00
2 - Industrial Processes and Product Use	19.6	19.1	19.9	20.4	21.3	22.0	23.0	23.7	23.9	22.2	23.5	28.4	29.6	29.3	30.8	32.5
2A - Mineral Industry	5.60	5.35	5.88	5.93	6.11	6.04	5.88	5.71	5.33	3.63	3.49	4.11	4.69	4.97	5.32	5.23
2A1 - Cement Production	5.52	5.28	5.82	5.87	6.03	5.96	5.81	5.66	5.28	3.60	3.46	4.08	4.65	4.93	5.27	5.17
2A2 - Lime Production	0.07	0.07	0.06	0.06	0.08	0.07	0.07	0.05	0.04	0.03	0.03	0.04	0.04	0.04	0.05	0.06
2B - Chemical Industry	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.04	0.05	0.03	0.05	0.05	0.01	0.03
2B2 - Nitric Acid Production	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.04	0.05	0.03	0.05	0.05	0.01	0.03
2C - Metal Industry	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.06	0.07	0.06	0.05
2C5 - Lead Production	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.06	0.07	0.06	0.05
2D - Non-Energy Products from Fuels and Solvent Use	2.46	2.26	2.20	2.07	2.06	2.04	2.00	2.05	1.92	1.74	1.91	1.81	1.68	1.70	1.83	1.90
2D1 - Lubricant Use	2.09	1.92	1.89	1.75	1.77	1.77	1.72	1.78	1.65	1.48	1.65	1.56	1.44	1.52	1.59	1.73
2D3 - Solvent Use	0.37	0.35	0.30	0.31	0.28	0.28	0.28	0.28	0.27	0.26	0.27	0.25	0.24	0.18	0.24	0.17
2E - Electronics Industry	0.52	0.35	0.35	0.35	0.35	0.30	0.36	0.35	0.23	0.20	0.20	0.28	0.26	0.26	0.26	0.26
2F - Product Uses as Substitutes for Ozone Depleting Substances	6.10	6.23	6.52	7.20	7.95	8.75	9.64	10.43	11.27	11.96	13.20	14.21	15.25	16.38	17.42	18.37
2G - Other Product Manufacture and Use	1.52	1.42	1.45	1.38	1.39	1.37	1.39	1.39	1.38	1.28	1.20	1.16	1.12	1.14	1.17	1.39
2G1 - Electrical Equipment	0.51	0.49	0.44	0.42	0.40	0.37	0.33	0.29	0.30	0.27	0.24	0.25	0.24	0.18	0.14	0.42
2G1b - Use of Electrical Equipment	0.51	0.49	0.44	0.42	0.40	0.37	0.33	0.29	0.30	0.27	0.24	0.25	0.24	0.18	0.14	0.42
2G4 - CO ₂ , Limestone or Soda Ash consumption	1.01	0.93	1.00	0.96	0.99	1.00	1.06	1.10	1.08	1.01	0.96	0.91	0.88	0.95	1.03	0.97

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2H - Other	3.31	3.35	3.39	3.33	3.31	3.34	3.58	3.67	3.67	3.27	3.36	6.68	6.54	4.69	4.73	5.26
2H3 - Hydrogen Production	3.31	3.35	3.39	3.33	3.31	3.34	3.58	3.67	3.67	3.27	3.36	6.68	6.54	4.69	4.73	5.26
3 - Agriculture, Forestry and Other Land Use	29.4	29.4	31.0	31.4	30.7	31.2	31.7	33.6	33.3	32.6	33.2	33.0	33.9	32.6	32.8	31.7
3A - Livestock	19.62	19.89	21.17	21.61	20.81	21.46	21.81	24.13	24.13	23.41	24.00	23.84	24.47	23.49	23.81	23.25
3A1 - Enteric Fermentation	10.36	10.25	10.91	11.00	10.77	11.08	11.13	12.31	12.04	11.65	12.13	11.98	12.10	11.78	11.85	11.54
3A1a - Cattle	10.01	9.89	10.54	10.60	10.34	10.60	10.66	11.84	11.57	11.17	11.65	11.49	11.61	11.29	11.36	11.05
3A1ai - Dairy Cows	6.743	6.665	7.331	7.417	7.217	7.392	7.547	8.461	8.360	7.995	8.496	8.436	8.488	8.225	8.240	8.081
3A1aii - Other Cattle	3.264	3.221	3.210	3.185	3.125	3.212	3.110	3.376	3.210	3.173	3.154	3.054	3.121	3.070	3.124	2.971
3A1c - Sheep	0.16	0.16	0.15	0.15	0.14	0.14	0.13	0.12	0.12	0.13	0.12	0.12	0.12	0.12	0.12	0.12
3A1d - Goats	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3A1f - Horses	0.18	0.19	0.20	0.24	0.27	0.31	0.32	0.32	0.32	0.33	0.34	0.35	0.35	0.35	0.35	0.35
3A1h - Swine	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3A2 - Manure Management	9.26	9.64	10.25	10.60	10.04	10.39	10.68	11.82	12.09	11.75	11.86	11.86	12.38	11.71	11.96	11.71
3A2a - Cattle	8.88	9.28	9.88	10.24	9.69	10.02	10.33	11.46	11.77	11.41	11.53	11.52	12.04	11.40	11.67	11.42
3A2ai - Dairy Cows	8.541	8.931	9.504	9.837	9.308	9.625	9.907	11.033	11.354	11.016	11.142	11.140	11.644	11.003	11.244	10.994
3A2aii - Other Cattle	0.342	0.345	0.372	0.399	0.381	0.398	0.418	0.424	0.414	0.396	0.385	0.382	0.396	0.395	0.426	0.426
3A2c - Sheep	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03
3A2d - Goats	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3A2f - Horses	0.06	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09
3A2h - Swine	0.06	0.05	0.06	0.06	0.06	0.06	0.06	0.07	0.04	0.05	0.04	0.05	0.05	0.04	0.05	0.04
3A2i - Poultry	0.21	0.21	0.20	0.19	0.17	0.17	0.17	0.18	0.17	0.17	0.17	0.17	0.17	0.14	0.12	0.13
3C - Aggregate Sources and Non-CO2 Emissions Sources on Land	9.76	9.49	9.88	9.82	9.84	9.77	9.91	9.44	9.18	9.16	9.23	9.16	9.45	9.13	8.96	8.42
3C1 - Emissions from Biomass Burning	0.08	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
3C1b - Biomass Burning in Croplands	0.08	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
3C2 - Liming	0.27	0.16	0.23	0.24	0.24	0.30	0.48	0.26	0.17	0.17	0.18	0.17	0.23	0.22	0.21	0.19
3C4 - Direct N2O Emissions from Managed Soils	6.42	6.45	6.59	6.57	6.44	6.42	6.39	6.15	6.01	5.92	5.99	5.85	6.08	5.78	5.91	5.49
3C5 - Indirect N2O Emissions from Managed Soils	1.81	1.79	1.83	1.85	1.82	1.84	1.84	1.81	1.80	1.80	1.79	1.80	1.85	1.83	1.81	1.75
3C7 - Rice Cultivations	1.19	1.02	1.15	1.10	1.28	1.14	1.13	1.15	1.12	1.20	1.20	1.26	1.22	1.22	0.96	0.91
4 - Waste	9.3	9.4	9.4	9.5	9.5	9.7	9.8	9.9	10.0	10.2	10.3	10.4	10.4	10.5	10.5	10.6
4A - Solid Waste Disposal	7.22	7.36	7.31	7.43	7.42	7.59	7.65	7.71	7.88	8.02	8.11	8.19	8.20	8.22	8.28	8.40
4A1 - Managed Waste Disposal Sites	7.22	7.36	7.31	7.43	7.42	7.59	7.65	7.71	7.88	8.02	8.11	8.19	8.20	8.22	8.28	8.40
4B - Biological Treatment of Solid Waste	0.13	0.15	0.16	0.17	0.18	0.20	0.21	0.22	0.24	0.25	0.26	0.27	0.29	0.30	0.31	0.33

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4D - Wastewater Treatment and Discharge	1.93	1.90	1.93	1.91	1.91	1.90	1.91	1.92	1.90	1.88	1.93	1.96	1.96	1.95	1.95	1.90
4D1 - Domestic Wastewater Treatment and Discharge	1.60	1.59	1.59	1.59	1.59	1.58	1.58	1.59	1.58	1.57	1.62	1.64	1.64	1.64	1.63	1.63
4D2 - Industrial Wastewater Treatment and Discharge	0.33	0.31	0.34	0.32	0.32	0.32	0.33	0.34	0.32	0.31	0.31	0.32	0.32	0.31	0.31	0.27
Summary for Included Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Included Inventory Emissions	467.19	481.69	480.98	480.94	489.13	481.75	478.70	486.16	482.78	453.34	446.06	442.38	448.97	445.08	441.85	440.36

[1] The exceptional Aliso Canyon natural gas leak event released 1.96 MMTCO₂e of unanticipated emissions in calendar year 2015 and an additional 0.52 MMTCO₂e in 2016. These emissions will be mitigated in the future according to legal settlement and are presented alongside but tracked separately from routine inventory emissions.

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Excluded Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1 - Energy	55.3	48.9	53.6	48.0	51.8	54.7	56.9	59.6	55.9	55.4	57.0	54.8	53.9	55.0	57.7	60.2
1A - Fuel Combustion Activities	54.74	48.37	53.09	47.41	51.23	54.08	56.29	58.94	55.30	54.74	56.40	54.18	53.31	54.40	57.08	59.56
1A3 - Transport	50.93	44.01	48.96	43.25	47.35	50.67	53.18	56.01	52.53	52.04	53.30	51.50	50.01	51.51	53.53	56.57
1A3a - Civil Aviation	35.18	32.51	35.19	33.80	36.18	35.84	36.79	38.44	34.87	34.20	33.50	34.00	32.70	35.01	37.41	40.20
1A3ai - International Aviation (International Bunkers)	16.794	15.171	15.722	14.555	15.779	16.187	16.830	17.546	16.619	16.468	16.203	17.049	16.445	17.996	19.725	21.839
1A3aia - Domestic Aviation	18.389	17.334	19.467	19.245	20.396	19.650	19.958	20.899	18.250	17.733	17.297	16.948	16.253	17.016	17.685	18.365
1A3d - Water-borne Navigation	15.75	11.51	13.77	9.45	11.18	14.83	16.39	17.57	17.66	17.84	19.79	17.51	17.32	16.50	16.12	16.37
1A3di - International Water-borne Navigation (International Bunkers)	15.747	11.506	13.772	9.454	11.176	14.835	16.389	17.569	17.660	17.835	19.795	17.506	17.317	16.498	16.118	16.367
1A5 - Non-Specified	3.81	4.36	4.13	4.16	3.88	3.41	3.11	2.93	2.77	2.71	3.10	2.68	3.30	2.89	3.55	2.99
1A5b - Mobile	3.74	4.07	3.64	3.66	3.34	3.31	3.00	2.81	2.68	2.56	2.58	2.31	2.87	2.38	2.38	2.38
1A5bi - Mobile (Aviation Component)	3.736	4.069	3.640	3.661	3.338	3.313	3.004	2.807	2.682	2.562	2.584	2.308	2.874	2.379	2.379	2.379
1B - Fugitive Emissions from Fuels	2.75	2.74	2.75	2.75	2.76	2.77	2.79	2.82	2.82	2.81	2.80	2.80	2.80	2.77	2.79	2.79
1B2 - Oil and Natural Gas	2.75	2.74	2.75	2.75	2.76	2.77	2.79	2.82	2.82	2.81	2.80	2.80	2.80	2.77	2.79	2.79
Summary for Excluded Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
International and Interstate Emissions	57.5	51.1	55.8	50.2	54.0	56.9	59.1	61.8	58.1	57.6	59.2	57.0	56.1	57.2	59.9	62.4

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<i>CO2 from biogenic materials</i>	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1 - Energy	16.6	16.8	15.2	18.2	19.8	19.4	19.1	19.0	19.2	21.1	23.3	24.7	24.6	30.0	29.7	28.1
1A - Fuel Combustion Activities	16.56	16.85	15.23	18.16	19.83	19.36	19.10	18.98	19.21	21.07	23.30	24.69	24.59	29.97	29.73	28.15
1A1 - Energy Industries	8.39	8.21	8.02	8.22	8.09	8.50	8.65	8.31	8.30	9.45	9.17	9.63	10.32	12.00	11.51	9.99
1A1a - Main Activity Electricity and Heat Production	8.39	8.21	8.02	8.22	8.09	8.50	8.65	8.31	8.30	9.45	9.17	9.63	10.32	12.00	11.51	9.99
1A1ai - Electricity Generation	5.249	4.790	5.687	5.638	5.414	5.530	5.670	5.343	5.513	7.180	7.143	6.973	7.669	9.164	8.951	7.748
1A1aii - Combined Heat and Power Generation (CHP)	3.137	3.419	2.338	2.581	2.679	2.966	2.983	2.968	2.783	2.266	2.023	2.654	2.655	2.834	2.555	2.237
1A1b - Petroleum Refining	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1A2 - Manufacturing Industries and Construction	3.78	4.26	2.64	2.60	2.65	2.91	2.66	2.71	2.42	2.24	2.35	2.54	2.56	2.48	2.22	2.15
1A2f - Non-Metallic Minerals	0.06	0.06	0.07	0.07	0.07	0.07	0.05	0.05	0.06	0.07	0.10	0.09	0.14	0.19	0.23	0.15
1A2k - Construction	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.03	0.03	0.04	0.08	0.05	0.02
1A2m - Non-specified Industry.	3.72	4.20	2.58	2.52	2.56	2.82	2.59	2.64	2.35	2.16	2.22	2.42	2.37	2.21	1.94	1.98
1A3 - Transport	0.34	0.46	0.57	3.14	4.79	5.11	5.24	5.18	5.41	5.38	8.23	8.88	8.32	10.95	11.45	11.50
1A3a - Civil Aviation	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
1A3b - Road Transportation	0.34	0.46	0.57	3.12	4.77	5.08	5.21	5.15	5.38	5.35	8.19	8.84	8.28	10.91	11.40	11.45
1A3bi - Cars	0.156	0.206	0.247	1.385	2.071	2.158	2.128	2.106	2.219	2.254	3.484	3.726	3.488	4.031	4.409	4.057
1A3bii - Light-duty Trucks	0.140	0.195	0.243	1.488	2.320	2.521	2.521	2.509	2.660	2.653	4.076	4.352	3.992	4.507	4.828	4.341
1A3biii - Heavy-duty Trucks and Buses	0.042	0.054	0.075	0.241	0.365	0.387	0.551	0.521	0.482	0.421	0.598	0.737	0.769	2.338	2.125	3.020
1A3biv - Motorcycles	0.001	0.001	0.001	0.007	0.012	0.014	0.015	0.016	0.019	0.019	0.028	0.030	0.028	0.031	0.034	0.031
1A3d - Water-borne Navigation	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.04	0.03	0.04	0.04	0.04	0.03
1A3dii - Domestic Water-borne Navigation	0.002	0.001	0.002	0.015	0.019	0.025	0.023	0.024	0.024	0.026	0.037	0.032	0.036	0.037	0.039	0.034
1A4 - Other Sectors	4.05	3.92	3.99	4.20	4.28	2.84	2.54	2.78	3.08	4.00	3.56	3.63	3.38	4.54	4.55	4.52
1A4a - Commercial/Institutional	0.58	0.59	0.60	0.63	0.61	0.39	0.36	0.39	0.41	0.50	0.49	0.47	0.42	0.48	0.48	0.48
1A4b - Residential	3.47	3.33	3.38	3.56	3.65	2.43	2.15	2.38	2.66	3.50	3.05	3.12	2.91	4.02	4.02	4.02
1A4c - Agriculture/Forestry/Fishing/Fish Farms	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.04	0.05	0.03	0.04	0.01
3 - Agriculture, Forestry and Other Land Use	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5
3C - Aggregate Sources and Non-CO2 Emissions Sources on Land	1.39	1.16	1.17	1.20	1.21	1.20	1.22	1.28	1.38	1.41	1.44	1.49	1.49	1.52	1.47	1.49
3C1 - Emissions from Biomass Burning	1.39	1.16	1.17	1.20	1.21	1.20	1.22	1.28	1.38	1.41	1.44	1.49	1.49	1.52	1.47	1.49
3C1b - Biomass Burning in Croplands	1.39	1.16	1.17	1.20	1.21	1.20	1.22	1.28	1.38	1.41	1.44	1.49	1.49	1.52	1.47	1.49
4 - Waste	7.1	7.5	7.8	7.9	8.0	8.3	8.5	8.7	8.9	9.1	9.3	9.4	9.6	9.7	9.8	10.0
4A - Solid Waste Disposal	6.28	6.62	6.88	6.86	6.90	7.08	7.28	7.39	7.47	7.57	7.68	7.73	7.87	7.91	7.95	8.00
4A1 - Managed Waste Disposal Sites	6.28	6.62	6.88	6.86	6.90	7.08	7.28	7.39	7.47	7.57	7.68	7.73	7.87	7.91	7.95	8.00
4B - Biological Treatment of Solid Waste	0.80	0.87	0.95	1.03	1.11	1.19	1.26	1.34	1.42	1.50	1.57	1.65	1.73	1.81	1.88	1.96

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	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
CO2 from biogenic materials																
Summary for CO2 from biogenic material	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Carbon dioxide from Biogenic sources	25.0	25.5	24.2	27.3	29.0	28.8	28.9	29.0	29.5	31.5	34.0	35.6	35.7	41.2	41.0	39.6

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2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

This section of the inventory is currently under development

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