

Table 4**CO₂ emissions from fossil fuels**

Thousand metric tons and kilograms per capita

Table Notes

This table displays estimates of carbon dioxide (CO₂) emissions from the combustion of fossil fuels based on information from the UN Energy Statistics Database, including country-specific net calorific values (NCVs), where applicable. No estimates for other greenhouse gases are provided, not even in CO₂-equivalent terms. One thousand metric tons are equivalent to one Gigagram, the S.I. unit employed by the IPCC.

To arrive at estimates of carbon dioxide emissions, default IPCC emission factors (kg of CO₂ per TJ of fuel combusted) are applied. To obtain figures in TJ per fuel, like in other tables of this Yearbook, country-specific NCVs are used where applicable and available, and default NCVs are used where applicable but country-specific data are unavailable.

Total is approximately equivalent to the IPCC Reference approach for the energy sector plus the IPCC source/sink category “Industrial Processes and Product Use” (IPPU)¹. In other words, it is based on the total energy supply of fossil fuels as in an energy balance, minus the non-energy use of fuels.

Total is broken down in **Coal**, **Oil** and **Gas** depending on the emission source, whether from solid, liquid, or gaseous fossil fuels, respectively. **Per capita** figures are calculated by dividing **Total** by population.

The emission estimates in this table exclude those from the combustion of non-renewable waste, which is a deviation from the IPCC guidelines (including the reference approach). On the other hand, such emissions are minor compared with those from fossil fuels and may be added in future versions of this table.

The table also provides estimates for emissions coming from **International bunkers** (marine and aviation combined) and natural **Gas flaring**. In the IPCC methodology, emissions from **International bunkers** are excluded from national emission inventories and therefore are not included in **Total**. For the world inventories, **International bunkers** should be added to **Total**. Emissions from natural **Gas flaring**, although part of the energy sector, are not accounted for as combustion², but rather as fugitive emissions, likewise being excluded from **Total**. In this table, only flaring occurred in the extraction (production) of natural gas is accounted for as flaring, and data may be missing for some countries and/or years.

¹ Please refer to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories available from <https://www.ipcc.ch/report/2006-ipcc-guidelines-for-national-greenhouse-gas-inventories/>

² For inventory purposes, the IPCC defines fuel combustion as the intentional oxidation of materials within an apparatus that is designed to provide heat or mechanical work to a process, or for use away from the apparatus. Information about fossil fuel combustion tends to be much more accurate than information about fugitive emissions (which are not directly observable), and the separation between these categories preserves the accuracy of the emission estimates from combustion.

Figure 11: CO₂ emissions from fossil fuel combustion, 1990-2022

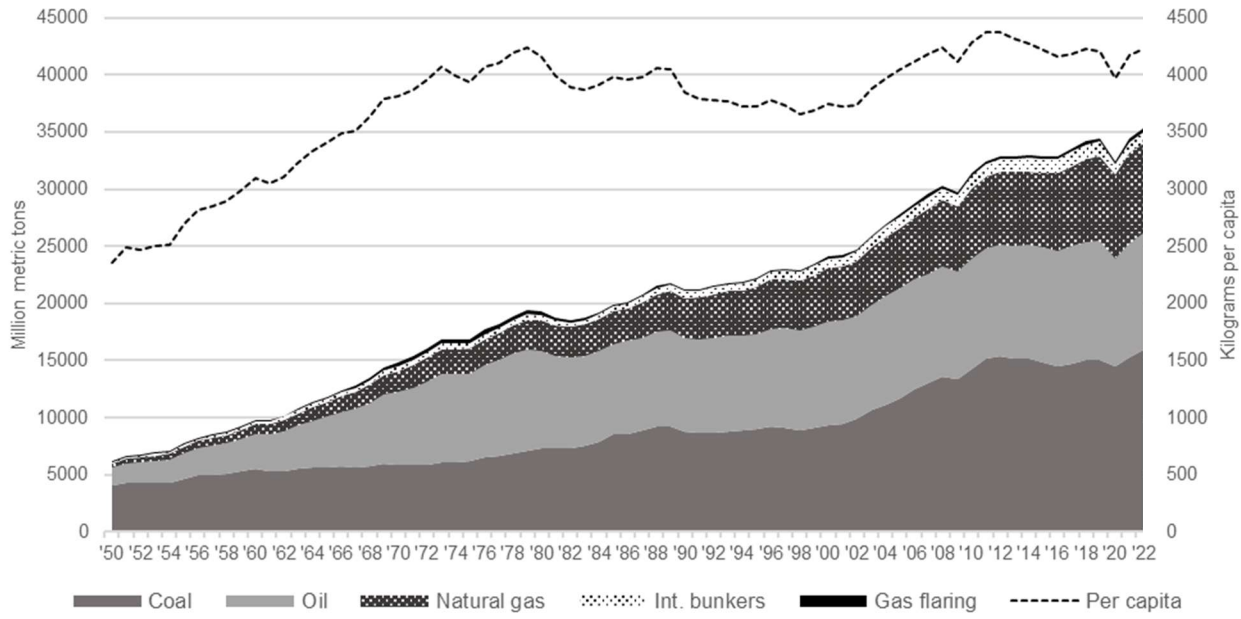


Figure 12: CO₂ emissions from fossil fuel combustion by region, 1990

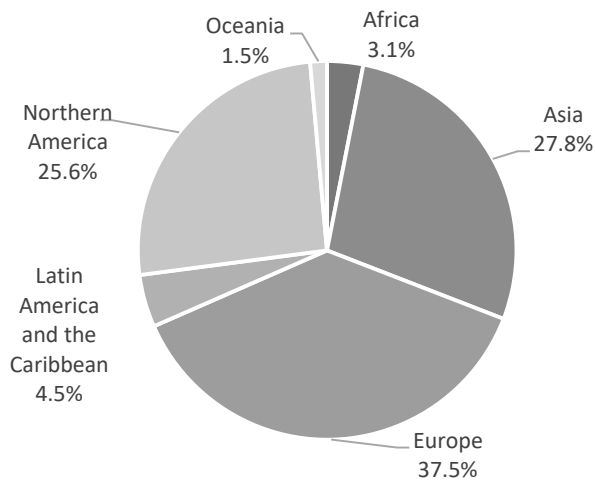


Figure 13: CO₂ emissions from fossil fuel combustion by region, 2022

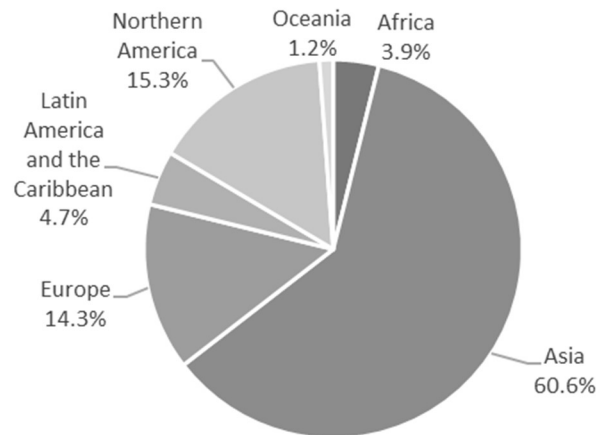


Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
World	2019	15,055,040	10,363,796	7,451,730	32,870,566	4,208	1,291,560	273,267
	2020	14,441,417	9,400,473	7,432,409	31,274,298	3,966	910,218	249,343
	2021	15,267,954	9,995,504	7,900,811	33,164,269	4,170	964,643	270,493
	2022	15,946,515	10,235,972	7,762,545	33,945,032	4,232	1,061,036	264,197
Africa	2019	485,920	531,558	298,665	1,316,143	978	45,172	46,198
	2020	446,914	507,014	283,003	1,236,931	897	30,468	41,174
	2021	449,159	575,579	304,660	1,329,398	941	33,044	48,489
	2022	442,494	578,482	296,720	1,317,696	912	36,241	45,199
Algeria	2019	1,501	56,452	86,100	144,053	3,327	*1,201	5,398
	2020	679	50,961	82,233	133,873	3,040	*1,406	6,285
	2021	1,384	54,346	90,744	146,475	3,272	*1,416	5,477
	2022	895	58,160	96,134	155,190	3,412	1,720	5,083
Angola	2019	..	14,027	2,494	16,521	510	1,773	5,516
	2020	..	9,218	*2,552	11,770	352	808	4,531
	2021	..	12,140	*2,533	14,673	425	821	4,137
	2022	..	14,671	1,978	16,649	467	1,219	3,940
Benin	2019	248	4,581	111	4,940	388	68	..
	2020	269	4,603	326	5,198	398	51	..
	2021	307	4,760	362	5,429	405	55	..
	2022	364	5,006	313	5,684	413	112	..
Botswana	2019	4,033	3,689	..	7,722	3,311	49	..
	2020	3,060	3,318	..	6,378	2,696	12	..
	2021	3,438	3,450	..	6,888	2,868	17	..
	2022	4,548	3,088	..	7,636	3,130	31	..
Burkina Faso	2019	..	4,626	..	4,626	221	96	..
	2020	..	*4,603	..	*4,603	*214	57	..
	2021	..	*5,239	..	*5,239	*238	92	..
	2022	..	*5,383	..	*5,383	*239	*92	..
Burundi	2019	49	*653	..	*702	*57	16	..
	2020	26	*725	..	*751	*60	7	..
	2021	47	*737	..	*784	*60	8	..
	2022	46	*843	..	*889	*67	17	..
Cabo Verde	2019	..	*645	..	*645	*1,255	*372	..
	2020	..	*531	..	*531	*1,031	*249	..
	2021	..	*604	..	*604	*1,168	*249	..
	2022	..	*608	..	*608	*1,169	*262	..
Cameroon	2019	..	5,322	1,362	6,684	262	52	2,058
	2020	..	5,084	1,746	6,829	261	23	1,774
	2021	..	5,234	1,420	6,654	247	36	1,538
	2022	..	5,423	1,247	6,670	241	46	1,470
Central African Rep.	2019	..	320	..	320	65	23	..
	2020	..	343	..	343	68	12	..
	2021	..	376	..	376	74	13	..
	2022	..	*386	..	*386	*76	*13	..
Chad	2019	..	1,842	..	1,842	110	84	..
	2020	..	*1,945	..	*1,945	*113	*86	..
	2021	..	*2,155	..	*2,155	*121	*86	..
	2022	..	*2,159	..	*2,159	*117	*80	..
Comoros	2019	..	*320	..	*320	*407	*21	..
	2020	..	*380	..	*380	*474	*18	..
	2021	..	*511	..	*511	*624	*21	..
	2022	..	*542	..	*542	*650	*25	..

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Congo	2019	..	1,986	1,935	3,922	698	100	3,300
	2020	..	2,126	2,021	4,147	721	88	3,524
	2021	..	2,220	2,088	4,308	731	91	2,999
	2022	..	2,348	2,650	4,997	828	97	3,585
Côte d'Ivoire	2019	..	6,164	4,370	10,534	374	816	2
	2020	..	6,568	4,482	11,050	382	467	2
	2021	..	9,078	4,675	13,753	464	620	1
	2022	..	9,452	5,113	14,564	479	758	1
Dem. Rep. of the Congo	2019	..	3,242	..	3,242	35	420	..
	2020	..	3,430	..	3,430	36	311	..
	2021	..	3,287	..	3,287	33	380	..
	2022	..	4,738	..	4,738	46	252	..
Djibouti	2019	..	*452	..	*452	*415	*315	..
	2020	..	378	..	378	342	*293	..
	2021	..	*418	..	*418	*373	*353	..
	2022	..	*369	..	*369	*324	*325	..
Egypt	2019	10,523	75,843	111,167	197,533	1,837	3,288	4,573
	2020	5,817	98,077	107,228	211,122	1,931	2,160	4,649
	2021	9,286	104,772	113,026	227,085	2,047	2,094	4,103
	2022	8,202	109,459	96,806	214,468	1,904	1,945	3,880
Equatorial Guinea	2019	..	1,146	3,985	5,131	3,072	145	1,182
	2020	..	1,016	4,726	5,742	3,345	96	1,300
	2021	..	1,013	5,781	6,794	3,863	87	946
	2022	..	*993	6,292	7,285	4,039	109	965
Eritrea	2019	..	588	..	588	181	98	..
	2020	..	596	..	596	181	63	..
	2021	..	629	..	629	188	55	..
	2022	..	666	..	666	195	78	..
Eswatini	2019	185	*942	..	*1,127	*955	5	..
	2020	148	866	..	1,014	850	2	..
	2021	167	846	..	1,013	840	1	..
	2022	187	862	..	1,049	861	3	..
Ethiopia	2019	1,562	12,715	..	14,277	123	2,586	..
	2020	1,775	11,590	..	13,364	112	1,195	..
	2021	2,412	12,288	..	14,700	120	2,601	..
	2022	2,566	11,914	..	14,480	115	2,978	..
Gabon	2019	..	1,810	883	2,693	1,188	641	2,871
	2020	..	1,749	956	2,704	1,164	573	2,892
	2021	..	1,986	864	2,850	1,199	534	2,637
	2022	..	1,756	1,198	2,953	1,215	632	2,763
Gambia	2019	..	*730	..	*730	*297	*63	..
	2020	..	*718	..	*718	*285	*55	..
	2021	..	*745	..	*745	*289	*60	..
	2022	..	*825	..	*825	*313	*63	..
Ghana	2019	..	12,147	4,213	16,359	523	692	0
	2020	..	12,395	6,371	18,766	589	396	1
	2021	..	13,024	6,741	19,765	608	624	1
	2022	..	12,759	7,340	20,099	606	611	*1
Guinea	2019	..	4,201	..	4,201	322	*131	..
	2020	..	4,533	..	4,533	339	*82	..
	2021	..	4,162	..	4,162	304	*130	..
	2022	..	4,146	..	4,146	295	*139	..

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Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Guinea-Bissau	2019	..	264	..	264	134	0	..
	2020	..	*321	..	*321	*159	0	..
	2021	..	*349	..	*349	*170	0	..
	2022	..	*352	..	*352	*167	*3	..
Kenya	2019	1,494	15,490	..	16,983	332	2,265	..
	2020	2,006	16,423	..	18,429	353	1,256	..
	2021	2,329	15,483	..	17,812	335	1,675	..
	2022	2,851	14,395	..	17,246	318	1,732	..
Lesotho	2019	*1,538	730	..	*2,268	*1,026	1	..
	2020	*1,414	645	..	*2,059	*921	0	..
	2021	*2,506	711	..	*3,217	*1,422	*1	..
	2022	1,711	928	..	2,639	1,154	0	..
Liberia	2019	..	812	..	812	161	*30	..
	2020	..	630	..	630	122	*29	..
	2021	..	589	..	589	112	*30	..
	2022	..	690	..	690	128	*32	..
Libya	2019	..	44,520	18,391	62,911	9,051	1,066	7,231
	2020	..	21,954	8,300	30,254	4,294	358	4,874
	2021	..	30,640	12,890	43,530	6,101	1,083	11,818
	2022	..	32,612	14,619	47,231	6,538	988	10,679
Madagascar	2019	1,316	2,927	..	4,243	150	158	..
	2020	*1,289	2,569	..	3,859	133	64	..
	2021	*1,328	3,003	..	4,331	146	48	..
	2022	1,194	3,036	..	4,229	139	93	..
Malawi	2019	220	1,404	..	1,625	85	*11	..
	2020	202	1,459	..	1,662	85	8	..
	2021	139	1,337	..	1,476	74	23	..
	2022	156	1,434	..	1,590	77	34	..
Mali	2019	..	5,336	..	5,336	253	215	..
	2020	..	5,890	..	5,890	271	163	..
	2021	..	6,904	..	6,904	308	267	..
	2022	..	6,437	..	6,437	279	198	..
Mauritania	2019	..	4,759	..	4,759	1,065	64	..
	2020	..	4,927	..	4,927	1,071	38	..
	2021	..	*4,637	..	*4,637	*979	53	..
	2022	..	5,397	..	5,397	1,107	56	..
Mauritius	2019	1,630	3,016	..	4,646	3,612	2,539	..
	2020	1,622	2,284	..	3,906	3,044	2,187	..
	2021	1,809	2,270	..	4,079	3,188	2,037	..
	2022	1,423	2,987	..	4,410	3,456	1,869	..
Morocco	2019	26,398	37,182	2,055	65,635	1,813	2,875	..
	2020	26,495	33,728	1,599	61,822	1,690	1,310	..
	2021	27,789	37,666	1,597	67,051	1,814	1,616	..
	2022	28,148	38,237	450	66,835	1,790	2,418	..
Mozambique	2019	48	4,396	1,776	6,220	208	111	*59
	2020	80	3,651	1,704	5,436	177	61	*99
	2021	27	4,983	1,849	6,858	216	72	*177
	2022	33	5,316	2,202	7,550	231	71	866
Namibia	2019	*137	3,157	..	3,294	1,243	258	..
	2020	*152	2,898	..	3,050	1,118	265	..
	2021	*129	3,053	..	3,182	1,132	296	..
	2022	31	2,995	..	3,026	1,047	309	..

Table 4

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Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Niger	2019	342	2,044	75	2,461	107	*146	..
	2020	373	2,526	80	2,979	126	*153	..
	2021	159	2,204	119	2,483	101	*161	..
	2022	329	*2,687	*100	*3,115	*123	*228	..
Nigeria	2019	1,326	68,540	32,938	102,804	491	3,136	13,515
	2020	1,568	64,979	33,113	99,660	466	1,766	10,777
	2021	3,187	83,538	35,472	122,196	559	2,111	14,112
	2022	3,344	69,474	35,437	108,254	485	2,368	11,407
Rwanda	2019	*68	1,134	*94	1,296	101	*77	..
	2020	*41	1,130	*91	1,262	97	*50	..
	2021	*67	1,353	*93	1,513	113	*76	..
	2022	*211	*1,388	*93	*1,692	*124	*79	..
Sao Tome and Principe	2019	..	149	..	149	700	*11	..
	2020	..	*146	..	*146	*673	*11	..
	2021	..	*147	..	*147	*664	*12	..
	2022	..	*138	..	*138	*608	*12	..
Senegal	2019	2,182	8,082	28	10,292	629	1,221	..
	2020	1,410	6,801	28	8,239	491	1,178	..
	2021	2,061	7,528	14	9,604	558	1,062	..
	2022	2,183	9,088	10	11,281	639	976	..
Seychelles	2019	..	604	..	604	5,132	*490	..
	2020	..	*611	..	*611	*5,080	*371	..
	2021	..	*624	..	*624	*5,072	*340	..
	2022	..	*639	..	*639	*5,094	*395	..
Sierra Leone	2019	..	1,140	..	1,140	147	12	..
	2020	..	1,212	..	1,212	153	5	..
	2021	..	1,511	..	1,511	187	9	..
	2022	..	1,475	..	1,475	178	17	..
Somalia	2019	..	*1,095	..	*1,095	*68	*340	..
	2020	..	*1,167	..	*1,167	*70	*318	..
	2021	..	*1,182	..	*1,182	*68	*353	..
	2022	..	*1,302	..	*1,302	*73	*366	..
South Africa	2019	419,806	50,696	10,101	480,603	8,065	14,010	..
	2020	387,467	47,301	9,814	444,581	7,341	10,834	..
	2021	379,470	61,043	7,293	447,806	7,281	9,071	..
	2022	369,621	60,403	7,114	437,139	7,008	9,560	..
South Sudan	2019	..	1,823	..	1,823	175	231	..
	2020	..	1,760	..	1,760	165	153	..
	2021	..	1,789	..	1,789	165	231	..
	2022	..	1,680	..	1,680	152	231	..
St. Helena and Depend.	2019	..	14	..	14	2,591	..	..
	2020	..	11	..	11	2,026	..	..
	2021	..	9	..	9	1,727	..	..
	2022	..	11	..	11	2,033	..	..
Sudan	2019	..	*20,242	..	*20,242	*444	*564	..
	2020	..	19,656	..	19,656	420	*319	..
	2021	..	19,090	..	19,090	397	*456	..
	2022	..	17,386	..	17,386	352	*490	..
Togo	2019	..	1,344	127	1,471	174	183	..
	2020	..	1,771	144	1,915	221	177	..
	2021	..	1,432	292	1,724	194	297	..
	2022	..	1,480	339	1,820	200	311	..

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Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Tunisia	2019	..	13,298	12,978	26,276	2,213	977	486
	2020	..	12,615	12,377	24,992	2,087	340	460
	2021	..	13,651	13,267	26,917	2,234	436	537
	2022	..	13,561	12,975	26,536	2,190	693	550
Uganda	2019	0	5,413	..	5,413	126	335	..
	2020	*1	5,117	..	5,118	115	178	..
	2021	0	5,657	..	5,657	123	264	..
	2022	0	5,543	..	5,543	117	390	..
United Rep. of Tanzania	2019	1,446	9,091	3,480	14,017	237	540	*6
	2020	1,287	9,353	3,113	13,753	226	256	*5
	2021	1,537	10,433	3,540	15,510	247	328	*6
	2022	1,788	11,018	4,311	17,117	265	427	*7
Zambia	2019	3,615	4,536	..	8,151	440	91	..
	2020	4,639	4,594	..	9,233	484	55	..
	2021	3,687	4,911	..	8,598	439	73	..
	2022	5,326	5,086	..	10,413	517	102	..
Zimbabwe	2019	6,252	3,879	..	10,130	663	160	..
	2020	5,093	3,135	..	8,228	530	57	..
	2021	5,892	3,831	..	9,723	615	118	..
	2022	7,336	4,752	..	12,088	752	182	..
Asia	2019	11,610,020	4,652,057	2,852,957	19,115,034	4,109	601,075	114,044
	2020	11,491,216	4,292,650	2,933,917	18,717,783	3,993	461,082	112,084
	2021	12,047,892	4,441,523	3,148,156	19,637,571	4,162	477,880	117,941
	2022	12,869,240	4,623,837	3,094,298	20,587,375	4,336	482,250	108,209
Afghanistan	2019	3,429	6,863	254	10,545	279	*30	..
	2020	*3,803	7,290	158	11,251	288	*36	..
	2021	*3,131	*6,720	*161	*10,013	*250	*39	..
	2022	*3,645	*6,510	*146	*10,301	*254	*19	..
Armenia	2019	11	1,055	5,017	6,083	2,095	217	..
	2020	30	1,468	5,029	6,527	2,258	117	..
	2021	46	1,536	5,496	7,078	2,466	*164	..
	2022	45	1,532	5,701	7,279	2,527	309	..
Azerbaijan	2019	3	11,599	23,694	35,297	3,491	1,084	2,802
	2020	3	9,791	23,922	33,717	3,311	1,160	2,361
	2021	1	10,383	24,844	35,228	3,442	1,409	*2,649
	2022	1	12,007	26,032	38,040	3,695	1,389	*3,447
Bahrain	2019	..	2,993	30,814	33,807	22,755	1,602	336
	2020	..	2,934	30,778	33,712	22,731	905	465
	2021	..	2,569	29,730	32,300	21,508	1,015	267
	2022	..	3,913	29,766	33,678	21,962	1,636	185
Bangladesh	2019	9,070	25,707	57,716	92,493	561	1,735	28
	2020	11,025	24,152	58,620	93,797	564	1,472	29
	2021	14,857	23,081	57,440	95,378	569	1,202	51
	2022	16,876	25,749	56,969	99,594	588	1,126	41
Bhutan	2019	564	590	..	1,154	1,508	13	..
	2020	530	417	..	946	1,229	4	..
	2021	770	423	..	1,193	1,538	3	..
	2022	828	487	..	1,315	1,684	6	..
Brunei Darussalam	2019	633	2,447	5,027	8,107	18,313	341	536
	2020	2,227	3,587	4,262	10,076	22,521	135	501
	2021	2,867	3,375	4,486	10,728	23,749	56	577
	2022	2,807	3,802	4,937	11,546	25,356	116	*273

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Cambodia	2019	4,685	9,350	..	14,035	852	491	..
	2020	6,726	9,423	..	16,149	966	137	..
	2021	5,955	9,378	..	15,333	903	65	..
	2022	5,683	9,531	..	15,214	884	120	..
China	2019	7,566,960	1,524,025	626,002	9,716,986	6,826	66,271	4,023
	2020	7,700,466	1,477,433	672,652	9,850,550	6,907	49,783	5,418
	2021	8,051,976	1,470,381	763,937	10,286,295	7,211	52,489	5,044
	2022	8,462,273	1,482,715	765,952	10,710,939	7,516	2,527	4,902
China, Hong Kong SAR	2019	24,430	11,962	6,453	42,845	5,723	50,336	..
	2020	13,008	11,378	9,679	34,065	4,548	33,397	..
	2021	14,454	10,175	9,672	34,301	4,583	29,931	..
	2022	14,214	7,513	9,443	31,170	4,175	26,610	..
China, Macao SAR	2019	..	844	263	1,108	1,651	140	..
	2020	..	778	143	920	1,348	13	..
	2021	..	746	168	914	1,317	10	..
	2022	..	698	231	928	1,318	6	..
Cyprus	2019	68	6,195	..	6,263	4,867	1,814	..
	2020	55	5,689	..	5,744	4,411	1,159	..
	2021	162	5,660	..	5,822	4,420	1,272	..
	2022	129	5,816	..	5,944	4,465	1,702	..
Georgia	2019	1,068	3,645	5,086	9,798	2,581	325	0
	2020	936	3,524	5,104	9,564	2,520	186	1
	2021	951	3,753	5,335	10,039	2,650	307	0
	2022	992	3,783	6,425	11,200	2,952	428	0
India	2019	1,739,782	*661,370	*82,613	2,483,765	1,788	*17,940	2,572
	2020	1,576,927	*560,506	*73,421	2,210,855	1,576	*8,648	2,941
	2021	1,764,631	*597,841	*79,092	2,441,564	1,726	10,643	2,904
	2022	2,018,629	690,554	*76,081	2,785,264	1,954	*15,319	3,064
Indonesia	2019	372,641	227,692	75,722	676,055	2,481	3,585	15,015
	2020	354,066	209,252	71,006	634,324	2,308	2,500	12,387
	2021	347,122	212,799	73,301	633,222	2,288	1,500	12,341
	2022	530,786	238,309	73,840	842,935	3,023	1,613	3,315
Iran (Islamic Rep. of)	2019	4,618	213,233	407,700	625,552	7,186	5,694	27,209
	2020	5,359	190,877	441,272	637,508	7,267	3,900	26,121
	2021	6,123	214,984	465,517	686,624	7,762	6,231	34,055
	2022	6,309	194,808	473,177	674,294	7,532	6,961	33,928
Iraq	2019	..	114,663	33,146	147,809	3,588	1,611	35,294
	2020	..	93,293	35,262	128,555	3,052	988	34,229
	2021	..	111,957	36,295	148,252	3,442	1,118	35,250
	2022	..	134,588	37,010	171,598	3,894	1,284	35,272
Israel	2019	18,840	21,879	18,086	58,805	6,792	4,610	*2
	2020	17,885	18,400	22,757	59,042	6,709	2,535	*2
	2021	14,998	19,957	23,697	58,653	6,559	2,937	1
	2022	15,202	22,198	24,523	61,923	6,802	4,531	18
Japan	2019	454,270	391,751	215,573	1,061,594	8,379	35,464	..
	2020	401,085	364,672	215,929	981,685	7,772	23,553	..
	2021	429,745	371,198	203,148	1,004,091	7,989	26,827	..
	2022	429,326	381,758	193,925	1,005,009	8,040	29,141	..
Jordan	2019	850	14,669	8,066	23,585	2,210	*386	..
	2020	647	11,410	7,555	19,612	1,805	268	..
	2021	671	12,041	7,327	20,038	1,811	332	..
	2022	894	12,443	7,658	20,995	1,865	*296	..

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Kazakhstan	2019	137,398	46,037	46,670	230,105	11,979	1,462	..
	2020	130,263	32,946	46,535	209,744	10,766	651	..
	2021	133,699	51,006	39,323	224,028	11,347	1,526	..
	2022	133,391	46,469	42,012	221,872	11,074	1,394	..
Korea, Dem.Ppl's.Rep.	2019	66,369	3,203	..	69,572	2,672	..	..
	2020	62,378	3,080	..	65,458	2,504	..	..
	2021	50,883	2,491	..	53,375	2,035	..	..
	2022	52,999	2,601	..	55,600	2,112	..	..
Korea, Republic of	2019	329,103	157,696	113,184	599,984	11,590	42,363	..
	2020	294,980	156,721	111,801	563,501	10,866	39,703	..
	2021	298,519	178,520	123,747	600,786	11,587	40,418	..
	2022	269,468	155,718	123,495	548,681	10,596	45,625	..
Kuwait	2019	..	45,948	47,486	93,434	21,033	6,100	1,440
	2020	..	26,315	53,050	79,365	18,037	4,329	1,456
	2021	..	22,103	55,525	77,628	17,802	4,402	1,340
	2022	..	44,592	48,560	93,153	20,297	5,945	1,147
Kyrgyzstan	2019	3,312	4,408	636	8,355	1,287	*16	..
	2020	3,315	3,693	667	7,675	1,152	*6	..
	2021	4,342	4,294	786	9,421	1,381	*13	..
	2022	5,861	4,006	873	10,740	1,544	..	..
Lao People's Dem. Rep.	2019	14,265	2,767	..	17,032	2,353	*114	..
	2020	13,879	2,727	..	16,606	2,260	*35	..
	2021	14,271	2,747	..	17,018	2,283	*13	..
	2022	15,599	2,804	..	18,403	2,435	14	..
Lebanon	2019	114	24,159	..	24,273	4,189	947	..
	2020	*46	23,343	..	23,389	4,102	399	..
	2021	166	18,937	..	19,104	3,341	503	..
	2022	*55	14,627	..	14,681	2,556	809	..
Malaysia	2019	84,227	91,103	66,719	242,049	7,238	8,906	2,364
	2020	98,834	62,792	64,360	225,986	6,668	4,554	1,970
	2021	92,101	70,421	78,786	241,307	7,039	4,361	1,773
	2022	93,793	67,959	88,122	249,874	7,202	4,830	2,010
Maldives	2019	..	2,059	..	2,059	4,221	*234	..
	2020	..	1,734	..	1,734	3,454	*200	..
	2021	..	2,061	..	2,061	3,993	*215	..
	2022	..	2,275	..	2,275	4,340	*276	..
Mongolia	2019	43,501	5,125	..	48,626	15,045	136	..
	2020	38,649	5,085	..	43,734	13,290	56	..
	2021	31,962	4,921	..	36,883	11,044	80	..
	2022	36,242	5,238	..	41,480	12,250	*220	..
Myanmar	2019	4,109	20,231	7,843	32,183	611	230	45
	2020	4,520	19,649	8,778	32,948	621	50	50
	2021	3,010	15,052	9,285	27,346	512	32	41
	2022	3,056	16,820	9,261	29,137	542	66	26
Nepal	2019	4,087	5,154	..	9,241	325	252	..
	2020	5,529	7,324	..	12,853	444	122	..
	2021	4,727	7,658	..	12,385	420	271	..
	2022	7,484	8,236	..	15,720	529	320	..
Oman	2019	..	-1,491	49,811	48,320	10,524	2,212	5,184
	2020	..	7,948	51,851	59,799	13,223	*1,115	4,959
	2021	..	6,549	54,083	60,632	13,473	616	4,876
	2022	..	8,081	56,044	64,125	13,556	1,557	4,082

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Other Asia	2019	154,367	64,270	51,595	270,232	11,415	15,018	..
	2020	143,821	59,518	55,724	259,063	10,948	10,663	..
	2021	169,741	55,147	60,626	285,514	12,119	11,516	..
	2022	160,482	59,177	62,840	282,499	12,062	11,166	..
Pakistan	2019	46,768	62,451	61,170	170,388	738	*709	485
	2020	54,382	80,782	58,634	193,798	825	547	476
	2021	65,122	95,072	60,033	220,227	920	768	463
	2022	62,243	73,132	55,170	190,545	782	*799	473
Philippines	2019	71,351	56,394	8,686	136,431	1,231	5,347	..
	2020	71,485	47,144	7,877	126,506	1,129	2,142	..
	2021	77,122	50,349	6,755	134,227	1,187	1,941	..
	2022	78,292	57,808	6,258	142,359	1,249	4,206	..
Qatar	2019	..	-6,359	82,797	76,438	27,320	7,053	1,379
	2020	..	-5,507	82,108	76,601	27,325	4,666	2,167
	2021	..	-6,445	85,859	79,414	28,211	5,578	1,399
	2022	..	148	83,620	83,768	28,961	6,980	2,384
Saudi Arabia	2019	501	339,991	227,466	567,958	18,638	*21,134	*4,138
	2020	439	281,850	228,803	511,091	16,491	*12,008	*4,461
	2021	543	310,209	237,002	547,753	17,484	*12,642	*4,183
	2022	492	335,294	189,270	525,055	16,319	19,391	*3,665
Singapore	2019	1,814	55,667	21,440	78,921	13,920	175,225	..
	2020	1,715	57,788	21,673	81,176	14,444	162,263	..
	2021	1,838	57,611	22,120	81,570	14,707	162,839	..
	2022	2,326	62,111	21,889	86,325	15,279	171,231	..
Sri Lanka	2019	6,167	15,020	..	21,187	945	3,466	..
	2020	7,411	13,085	..	20,496	908	1,720	..
	2021	6,464	14,469	..	20,933	922	2,378	..
	2022	6,147	12,120	..	18,267	800	2,347	..
State of Palestine	2019	..	3,328	..	3,328	671	..	..
	2020	..	3,388	..	3,388	668	..	..
	2021	..	3,703	..	3,703	714	..	..
	2022	..	4,773	..	4,773	900	..	..
Syrian Arab Republic	2019	3	24,597	5,993	30,593	1,503	858	1,903
	2020	3	23,983	5,263	29,249	1,390	853	2,094
	2021	3	23,285	5,603	28,891	1,336	859	2,284
	2022	3	23,406	4,584	27,993	1,246	874	2,099
Tajikistan	2019	3,577	2,938	284	6,799	713	126	..
	2020	3,684	3,369	*456	7,509	770	77	..
	2021	3,835	3,145	477	7,457	748	52	..
	2022	4,381	3,706	484	8,572	842	192	..
Thailand	2019	51,341	112,721	95,295	259,358	3,626	*17,843	621
	2020	53,248	107,444	92,726	253,418	3,537	*7,933	636
	2021	62,654	95,645	93,329	251,628	3,508	6,882	524
	2022	56,985	104,962	84,365	246,312	3,434	*10,669	428
Timor-Leste	2019	..	624	0	624	479	*9	83
	2020	..	605	0	605	456	*10	70
	2021	..	592	0	592	438	*11	78
	2022	..	624	0	624	456	*12	54
Türkiye	2019	169,145	117,974	85,893	373,012	4,370	16,387	4
	2020	161,117	111,438	91,753	364,307	4,232	7,462	4
	2021	166,113	118,979	113,493	398,585	4,598	10,069	4
	2022	168,914	123,120	97,384	389,419	4,473	14,214	4

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Turkmenistan	2019	..	17,545	42,229	59,774	8,785	904	2,649
	2020	..	16,125	43,941	60,066	8,643	202	3,285
	2021	..	16,357	74,173	90,531	12,765	86	2,305
	2022	..	17,050	84,237	101,287	14,009	222	2,108
United Arab Emirates	2019	7,040	34,167	133,250	174,457	18,603	74,987	1,774
	2020	8,451	42,644	134,665	185,759	19,660	65,520	1,882
	2021	10,506	44,144	126,772	181,423	18,533	69,810	1,712
	2022	4,123	35,902	137,135	177,161	17,297	78,849	1,827
Uzbekistan	2019	8,674	10,781	85,342	104,797	3,179	*418	1,228
	2020	12,046	12,052	79,801	103,899	3,093	*350	1,085
	2021	10,711	*10,762	97,973	119,446	3,488	289	924
	2022	12,437	11,157	93,215	116,808	3,343	491	863
Viet Nam	2019	200,575	71,706	17,896	290,178	2,986	4,599	1,522
	2020	225,975	69,223	15,863	311,061	3,172	2,245	1,317
	2021	180,835	65,003	12,720	258,558	2,613	1,863	1,042
	2022	185,559	73,291	13,624	272,474	2,733	4,110	1,164
Yemen	2019	291	9,312	40	9,644	275	330	1,408
	2020	266	8,092	40	8,398	232	302	1,718
	2021	263	7,778	40	8,082	218	299	1,853
	2022	267	7,918	40	8,226	215	303	1,433
Europe	2019	1,411,223	1,775,355	1,812,929	4,999,507	6,651	384,233	43,018
	2020	1,225,302	1,606,450	1,776,928	4,608,680	6,131	253,393	39,881
	2021	1,357,354	1,704,720	1,958,951	5,021,024	6,687	270,612	52,473
	2022	1,321,464	1,743,905	1,786,028	4,851,397	6,476	332,025	58,668
Albania	2019	472	3,474	135	4,082	1,415	165	..
	2020	597	2,924	97	3,617	1,259	149	..
	2021	899	2,897	104	3,901	1,369	142	..
	2022	568	2,974	90	3,632	1,284	210	..
Andorra	2019	0	500	5	505	6,602	*1	..
	2020	0	384	5	389	5,027	0	..
	2021	0	418	7	425	5,430	0	..
	2022	0	426	7	434	5,445	*1	..
Austria	2019	11,462	31,693	17,197	60,352	6,796	2,972	..
	2020	10,013	28,497	16,395	54,905	6,154	1,013	..
	2021	10,342	29,870	17,387	57,599	6,423	1,291	..
	2022	9,878	29,098	15,493	54,469	6,009	1,933	..
Belarus	2019	3,635	17,321	35,217	56,173	5,953	586	..
	2020	3,357	17,382	32,452	53,192	5,688	334	..
	2021	3,339	18,447	33,234	55,020	5,947	387	..
	2022	3,628	17,564	31,964	53,156	5,795	369	..
Belgium	2019	11,539	42,687	33,305	87,532	7,618	31,888	..
	2020	8,690	37,729	32,844	79,263	6,868	24,057	..
	2021	9,571	40,107	33,261	82,940	7,168	28,856	..
	2022	10,159	38,845	28,429	77,433	6,651	29,815	..
Bosnia and Herzegovina	2019	15,797	4,822	442	21,061	6,295	28	..
	2020	16,305	4,423	403	21,131	6,405	12	..
	2021	16,103	4,966	485	21,554	6,643	43	..
	2022	15,744	4,822	473	21,039	6,565	92	..
Bulgaria	2019	20,831	13,053	5,381	39,265	5,629	970	..
	2020	16,937	11,978	5,556	34,472	4,972	690	..
	2021	21,477	12,584	6,295	40,356	5,868	773	..
	2022	25,611	13,380	5,160	44,152	6,468	888	..

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Croatia	2019	1,682	9,001	4,678	15,362	3,854	678	9
	2020	1,443	8,029	5,003	14,475	3,661	226	13
	2021	1,656	8,339	5,085	15,081	3,843	370	3
	2022	1,622	9,182	4,888	15,692	4,016	618	1
Czechia	2019	57,164	21,193	16,585	94,942	8,995	1,277	..
	2020	49,276	19,708	16,866	85,850	8,137	347	..
	2021	51,682	21,067	18,119	90,869	8,629	467	..
	2022	54,302	21,526	14,750	90,579	8,487	807	..
Denmark	2019	3,604	17,612	5,941	27,157	4,670	5,520	157
	2020	3,104	16,397	4,961	24,463	4,195	2,768	92
	2021	4,365	16,616	4,541	25,522	4,358	2,793	90
	2022	4,272	17,598	3,380	25,250	4,278	3,908	89
Estonia	2019	13,521	-365	893	14,049	10,588	790	..
	2020	10,895	-589	818	11,124	8,366	1,010	..
	2021	11,879	-820	926	11,985	8,999	1,095	..
	2022	12,943	20	688	13,651	10,111	1,137	..
Faeroe Islands	2019	..	*762	..	*762	*14,706	143	..
	2020	..	*783	..	*783	*14,888	169	..
	2021	..	*810	..	*810	*15,194	179	..
	2022	..	*742	..	*742	*13,729	187	..
Finland	2019	14,589	19,172	4,957	38,718	7,012	3,638	..
	2020	12,016	18,315	4,922	35,254	6,375	1,853	..
	2021	12,591	17,188	4,880	34,658	6,255	1,739	..
	2022	12,428	17,893	2,460	32,781	5,886	2,693	..
France	2019	28,421	181,498	85,576	295,496	4,348	24,674	..
	2020	20,326	156,123	79,610	256,060	3,758	11,377	..
	2021	34,044	166,207	84,528	284,779	4,168	11,781	..
	2022	29,755	168,869	75,997	274,621	4,008	18,438	..
Germany	2019	226,711	250,151	169,558	646,419	7,736	34,394	27
	2020	179,209	233,056	168,531	580,796	6,945	18,124	25
	2021	216,910	216,453	174,508	607,871	7,263	23,023	20
	2022	221,321	222,997	151,631	595,949	7,087	32,265	18
Gibraltar	2019	..	686	37	723	20,364	13,444	..
	2020	..	535	108	643	17,786	13,644	..
	2021	..	533	113	646	17,514	13,317	..
	2022	..	533	106	640	17,007	14,867	..
Greece	2019	13,149	30,790	9,539	53,478	4,989	11,656	..
	2020	7,525	26,576	10,695	44,796	4,187	6,364	..
	2021	7,027	27,246	12,083	46,355	4,382	8,008	..
	2022	6,528	31,091	10,293	47,912	4,601	9,874	..
Hungary	2019	7,390	18,656	18,716	44,763	4,582	851	..
	2020	6,765	16,865	19,296	42,925	4,403	309	..
	2021	5,481	18,122	20,575	44,177	4,551	375	..
	2022	5,008	18,825	17,801	41,634	4,299	788	..
Iceland	2019	-12	1,691	..	1,679	4,654	1,161	..
	2020	-34	1,507	..	1,473	4,018	339	..
	2021	60	1,596	..	1,656	4,444	536	..
	2022	12	1,730	..	1,742	4,580	1,121	..
Ireland	2019	4,463	18,667	10,711	33,841	6,859	3,763	..
	2020	4,357	17,237	10,698	32,293	6,481	1,658	..
	2021	5,198	18,169	10,280	33,648	6,692	1,847	..
	2022	4,380	18,170	10,474	33,024	6,463	3,393	..

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Isle of Man	2019	..	..	275	275	3,280	..	..
	2020	..	..	267	267	3,174	..	..
	2021	..	..	183	183	2,179	..	..
	2022	..	..	249	249	2,963	..	..
Italy	2019	25,777	133,037	141,647	300,461	4,994	20,786	..
	2020	20,271	112,808	135,367	268,446	4,478	12,484	..
	2021	22,077	133,992	145,077	301,146	5,039	13,144	..
	2022	29,309	131,994	130,485	291,788	4,891	16,710	..
Kosovo	2019	6,205	2,301	..	8,507	4,847	8	..
	2020	6,365	2,244	..	8,610	4,916	7	..
	2021	6,461	2,515	..	8,976	5,154	7	..
	2022	6,321	2,343	..	8,664	5,043	11	..
Latvia	2019	161	3,983	2,591	6,735	3,518	1,401	0
	2020	94	3,846	2,138	6,078	3,197	828	0
	2021	75	3,951	2,265	6,290	3,336	891	0
	2022	53	3,956	1,625	5,634	2,995	783	0
Liechtenstein	2019	..	..	50	50	1,311	..	..
	2020	..	..	49	49	1,253	..	..
	2021	..	..	54	54	1,388	..	..
	2022	..	..	46	46	1,158	..	..
Lithuania	2019	776	7,985	2,127	10,888	3,896	1,002	..
	2020	605	7,717	2,504	10,827	3,873	750	..
	2021	719	7,882	2,552	11,154	3,991	789	..
	2022	714	8,074	1,887	10,676	3,790	804	..
Luxembourg	2019	182	7,288	1,607	9,077	14,637	1,840	..
	2020	153	5,763	1,459	7,375	11,695	1,674	..
	2021	157	6,061	1,573	7,791	12,168	1,910	..
	2022	164	5,279	1,235	6,678	10,222	1,983	..
Malta	2019	..	945	719	1,664	3,302	7,844	..
	2020	..	867	747	1,615	3,116	7,267	..
	2021	..	873	750	1,623	3,095	6,518	..
	2022	..	1,031	758	1,789	3,388	7,268	..
Montenegro	2019	1,519	1,053	..	2,572	4,205	67	..
	2020	1,579	916	..	2,496	4,105	15	..
	2021	1,386	1,116	..	2,502	4,143	38	..
	2022	1,472	1,120	..	2,592	4,217	55	..
Netherlands (Kingd. of the)	2019	25,259	49,262	69,093	143,614	8,189	48,129	40
	2020	16,069	42,987	68,034	127,091	7,206	43,718	35
	2021	22,049	45,732	64,589	132,370	7,466	43,098	153
	2022	21,844	44,926	51,043	117,813	6,580	45,073	126
North Macedonia	2019	4,229	3,100	573	7,903	4,164	85	..
	2020	3,611	2,964	656	7,231	3,863	48	..
	2021	2,661	3,247	833	6,741	3,642	51	..
	2022	3,470	3,555	563	7,588	4,124	82	..
Norway	2019	3,088	20,031	10,475	33,595	6,282	2,676	707
	2020	3,183	20,819	9,509	33,511	6,230	1,451	611
	2021	3,220	20,349	10,764	34,333	6,348	1,460	547
	2022	3,167	15,547	8,570	27,285	5,000	2,340	6,779
Poland	2019	175,594	79,544	33,721	288,859	7,557	4,168	27
	2020	163,150	75,785	35,362	274,297	7,186	2,348	44
	2021	181,178	82,435	38,223	301,835	7,935	2,823	30
	2022	168,583	84,655	31,343	284,581	7,414	3,856	28

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Portugal	2019	4,967	25,193	12,410	42,570	4,116	7,567	..
	2020	2,752	22,273	12,046	37,071	3,575	3,828	..
	2021	936	22,214	11,508	34,657	3,335	4,177	..
	2022	30	24,403	11,160	35,593	3,417	6,538	..
Republic of Moldova	2019	384	2,820	1,780	4,983	1,601	151	..
	2020	299	2,660	1,811	4,771	1,554	53	..
	2021	352	2,966	2,074	5,392	1,783	128	..
	2022	246	3,152	1,478	4,876	1,604	142	..
Romania	2019	20,572	28,366	20,643	69,582	3,568	519	..
	2020	14,399	27,491	21,454	63,344	3,266	264	..
	2021	16,815	30,089	22,198	69,103	3,590	333	..
	2022	14,681	30,791	19,350	64,822	3,382	303	..
Russian Federation	2019	507,963	311,726	796,859	1,616,548	11,032	52,123	39,513
	2020	467,771	301,852	793,708	1,563,331	10,681	36,248	37,127
	2021	519,289	331,449	933,022	1,783,760	12,231	36,619	50,052
	2022	519,294	348,760	890,404	1,758,459	12,079	36,316	50,229
Serbia	2019	31,168	9,224	4,364	44,756	6,425	485	..
	2020	32,568	8,572	4,321	45,461	6,581	292	..
	2021	28,871	9,603	5,375	43,849	6,415	385	0
	2022	28,493	10,758	5,438	44,689	6,580	480	1
Slovakia	2019	10,714	9,116	8,746	28,576	5,243	139	2
	2020	9,080	8,514	8,690	26,284	4,818	88	2
	2021	11,130	8,910	9,735	29,775	5,471	69	2
	2022	9,447	9,337	8,142	26,927	4,920	104	2
Slovenia	2019	4,399	6,784	1,715	12,897	6,190	689	..
	2020	4,226	5,789	1,715	11,731	5,580	403	..
	2021	3,747	6,334	1,807	11,888	5,625	309	..
	2022	3,146	6,983	1,593	11,722	5,542	67	..
Spain	2019	20,166	141,645	71,475	233,286	4,918	37,667	..
	2020	12,082	117,276	64,552	193,910	4,067	25,017	..
	2021	12,354	131,569	68,173	212,097	4,443	28,787	..
	2022	14,603	139,427	65,088	219,118	4,581	38,519	..
Sweden	2019	7,964	23,463	1,418	32,845	3,195	9,210	..
	2020	6,219	20,542	2,063	28,823	2,784	9,146	..
	2021	6,904	22,357	1,523	30,784	2,955	9,144	..
	2022	5,982	22,391	1,122	29,495	2,812	8,612	..
Switzerland	2019	373	25,351	6,879	32,602	3,801	5,724	..
	2020	360	23,406	6,694	30,461	3,525	2,103	..
	2021	364	22,716	7,279	30,359	3,487	2,379	..
	2022	378	22,213	5,987	28,578	3,250	4,237	..
Ukraine	2019	101,939	38,755	51,440	192,134	4,274	..	..
	2020	87,957	39,695	47,861	175,513	3,928	..	..
	2021	81,552	42,541	49,149	173,242	3,911	..	..
	2022	52,049	37,608	33,814	123,471	3,008	..	..
United Kingdom	2019	23,405	161,318	153,447	338,171	5,039	43,352	2,536
	2020	21,724	133,804	146,658	302,186	4,487	20,916	1,933
	2021	22,432	145,005	153,832	321,269	4,748	20,530	1,576
	2022	19,855	149,315	140,563	309,732	4,543	34,340	1,395
Latin America & Carib.	2019	182,462	968,558	444,425	1,595,444	2,488	73,177	36,918
	2020	155,637	852,999	421,943	1,430,578	2,216	45,036	34,272
	2021	164,159	955,364	473,406	1,592,929	2,453	53,421	32,283
	2022	152,381	987,277	444,906	1,584,565	2,425	68,363	33,506

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Anguilla	2019	..	147	..	147	9,925	*36	..
	2020	..	139	..	139	9,386	*23	..
	2021	..	143	..	143	9,885	*38	..
	2022	..	144	..	144	10,179	*41	..
Antigua and Barbuda	2019	..	*650	..	*650	*7,118	*383	..
	2020	..	*628	..	*628	*6,839	*367	..
	2021	..	*646	..	*646	*6,996	*380	..
	2022	..	*649	..	*649	*6,993	*380	..
Argentina	2019	2,238	73,512	95,812	171,562	3,815	4,215	0
	2020	3,371	62,425	91,432	157,227	3,479	2,277	0
	2021	4,714	81,784	95,525	182,024	4,017	1,639	0
	2022	4,944	82,214	91,983	179,141	3,945	3,963	0
Aruba	2019	..	*843	..	*843	*7,873	*298	..
	2020	..	*834	..	*834	*7,766	*284	..
	2021	..	*874	..	*874	*8,129	*307	..
	2022	..	*897	..	*897	*8,319	*318	..
Bahamas	2019	*4	2,574	..	2,578	6,533	*1,359	..
	2020	*4	2,100	..	2,104	5,315	*1,284	..
	2021	*4	2,793	..	2,797	7,057	*1,890	..
	2022	*4	3,014	..	3,018	7,591	*1,356	..
Barbados	2019	..	1,262	45	1,307	4,649	396	*4
	2020	..	1,165	31	1,196	4,245	195	*2
	2021	..	1,076	27	1,104	3,911	167	*2
	2022	..	1,195	32	1,227	4,345	336	*2
Belize	2019	..	782	1	784	2,031	*63	*2
	2020	..	657	1	658	1,684	*66	2
	2021	..	697	..	697	1,763	*70	1
	2022	..	727	..	727	1,805	73	2
Bolivia (Plur. State of)	2019	21	12,849	7,718	20,588	1,764	203	109
	2020	9	10,285	6,720	17,014	1,440	82	87
	2021	23	12,703	7,401	20,127	1,686	91	70
	2022	22	13,688	7,628	21,338	1,767	163	*70
Bonaire, St Eustatius, Saba	2019	..	*143	..	*143	*5,583	*61	..
	2020	..	*137	..	*137	*5,164	*40	..
	2021	..	*143	..	*143	*5,239	*45	..
	2022	..	*149	..	*149	*5,192	*47	..
Brazil	2019	61,640	287,603	67,064	416,307	2,007	18,106	3,438
	2020	55,823	275,652	61,774	393,248	1,885	15,105	2,724
	2021	68,288	292,720	85,778	446,786	2,132	12,758	2,364
	2022	57,680	294,599	63,459	415,739	1,977	15,709	2,502
British Virgin Islands	2019	..	*187	..	*187	*5,143	..	..
	2020	..	*184	..	*184	*4,948	..	..
	2021	..	*187	..	*187	*4,959	..	..
	2022	..	*190	..	*190	*4,967	..	..
Cayman Islands	2019	..	706	..	706	10,491	106	..
	2020	..	642	..	642	9,351	47	..
	2021	..	651	..	651	9,292	24	..
	2022	..	664	..	664	9,272	82	..
Chile	2019	32,404	50,120	10,507	93,031	4,846	2,594	*1
	2020	26,288	44,835	9,946	81,069	4,185	1,318	11
	2021	25,166	48,421	11,063	84,651	4,351	1,584	8
	2022	20,733	53,027	12,384	86,145	4,406	2,286	8

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Colombia	2019	23,728	46,208	24,531	94,468	1,893	4,591	947
	2020	20,051	43,358	24,301	87,710	1,732	2,238	607
	2021	19,181	57,065	22,024	98,269	1,920	3,094	645
	2022	17,126	44,171	21,763	83,060	1,605	5,049	480
Costa Rica	2019	1	7,346	..	7,347	1,469	706	..
	2020	0	6,512	..	6,513	1,294	306	..
	2021	54	7,349	..	7,403	1,463	542	..
	2022	61	7,608	..	7,669	1,509	752	..
Cuba	2019	0	20,283	1,874	22,157	1,978	*1,549	32
	2020	5	19,361	1,763	21,129	1,891	*1,507	28
	2021	13	20,737	1,701	22,451	2,019	*1,526	76
	2022	6	21,446	1,662	23,113	2,090	*1,122	90
Curaçao	2019	..	2,458	0	2,458	12,968	6,497	..
	2020	..	2,060	..	2,060	11,132	5,174	..
	2021	..	2,195	..	2,195	11,844	5,443	..
	2022	..	2,266	..	2,266	12,228	5,880	..
Dominica	2019	..	*177	..	*177	*2,615	*5	..
	2020	..	*162	..	*162	*2,391	*5	..
	2021	..	*163	..	*163	*2,432	*5	..
	2022	..	*168	..	*168	*2,510	*5	..
Dominican Republic	2019	4,657	19,424	2,865	26,946	2,473	1,596	..
	2020	6,812	15,077	3,020	24,909	2,263	654	..
	2021	6,425	17,446	3,707	27,579	2,479	1,119	..
	2022	7,765	18,302	2,865	28,931	2,576	1,575	..
Ecuador	2019	..	35,368	1,244	36,612	2,111	2,612	1,298
	2020	..	27,814	1,057	28,870	1,645	899	1,209
	2021	..	33,088	1,115	34,203	1,934	3,390	1,173
	2022	..	36,742	1,028	37,770	2,119	3,776	1,349
El Salvador	2019	2	7,239	..	7,241	1,164	552	..
	2020	1	5,837	..	5,838	936	215	..
	2021	2	6,664	0	6,666	1,066	401	..
	2022	1	7,143	410	7,555	1,203	466	..
Falkland Is. (Malvinas)	2019	*5	37	..	42	11,931	..	..
	2020	3	39	..	42	11,842	..	..
	2021	3	38	..	40	11,534	..	..
	2022	*3	*38	..	*41	*11,667	..	..
Grenada	2019	..	343	..	343	2,955	30	..
	2020	..	296	..	296	2,541	26	..
	2021	..	318	..	318	2,729	27	..
	2022	..	350	..	350	2,990	30	..
Guatemala	2019	4,712	13,746	..	18,458	1,079	1,667	..
	2020	3,043	13,068	..	16,110	928	1,393	..
	2021	3,895	14,871	..	18,765	1,066	1,758	..
	2022	1,487	15,904	..	17,390	974	1,781	..
Guyana	2019	1	2,705	1	2,707	3,352	53	..
	2020	0	2,629	2	2,632	3,259	15	..
	2021	1	2,744	2	2,747	3,368	24	..
	2022	1	4,164	3	4,168	5,073	29	..
Haiti	2019	..	3,082	..	3,082	277	70	..
	2020	..	3,229	..	3,229	287	31	..
	2021	..	3,472	..	3,472	305	35	..
	2022	..	2,803	..	2,803	244	66	..

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Honduras	2019	..	10,376	..	10,376	1,043	..	..
	2020	..	9,503	..	9,503	939	..	..
	2021	..	10,528	..	10,528	1,023	..	..
	2022	..	11,130	..	11,130	1,064	..	..
Jamaica	2019	288	8,368	577	9,233	3,270	918	..
	2020	288	4,871	1,420	6,579	2,324	474	..
	2021	288	5,251	1,465	7,004	2,468	530	..
	2022	231	6,153	1,197	7,581	2,670	793	..
Mexico	2019	47,561	236,994	160,540	445,095	3,539	14,974	0
	2020	35,383	202,828	164,587	402,798	3,177	6,070	0
	2021	30,859	221,030	169,818	421,707	3,304	10,179	0
	2022	36,951	233,064	163,546	433,561	3,371	14,522	0
Montserrat	2019	..	25	..	25	5,473	*3	..
	2020	..	24	..	24	5,377	*3	..
	2021	..	*24	..	*24	*5,431	*3	..
	2022	..	25	..	25	5,538	*2	..
Nicaragua	2019	..	5,077	..	5,077	783	51	..
	2020	..	4,523	..	4,523	689	20	..
	2021	..	5,014	..	5,014	755	28	..
	2022	..	4,974	..	4,974	739	48	..
Panama	2019	2,189	8,301	1,708	12,198	2,881	1,882	..
	2020	2,355	3,180	921	6,456	1,504	656	..
	2021	2,243	6,555	1,100	9,898	2,278	1,037	..
	2022	2,186	8,652	520	11,358	2,581	1,999	..
Paraguay	2019	5	8,023	..	8,028	1,232	224	..
	2020	2	7,295	..	7,297	1,105	80	..
	2021	2	8,039	..	8,041	1,203	107	..
	2022	2	7,334	..	7,335	1,085	143	..
Peru	2019	2,709	34,731	16,090	53,530	1,650	3,510	226
	2020	1,990	28,470	13,520	43,980	1,339	1,545	139
	2021	2,788	33,873	17,834	54,494	1,644	2,237	*128
	2022	2,952	35,394	20,333	58,679	1,753	2,252	*236
Puerto Rico	2019	..	..	3,743	3,743	1,138	..	..
	2020	..	..	2,758	2,758	842	..	..
	2021	..	..	3,940	3,940	1,211	..	..
	2022	..	..	2,789	2,789	861	..	..
Saint Barthélemy	2019	..	*110	..	*110	*10,699	*31	..
	2020	..	*111	..	*111	*10,548	*31	..
	2021	..	*113	..	*113	*10,499	*31	..
	2022	..	*123	..	*123	*11,236	*31	..
Saint Martin (French Part)	2019	..	*419	..	*419	*12,224	*258	..
	2020	..	*418	..	*418	*13,157	*242	..
	2021	..	*419	..	*419	*13,980	*241	..
	2022	..	*417	..	*417	*14,444	*250	..
Sint Maarten (Dutch part)	2019	..	*705	..	*705	*17,461	*667	..
	2020	..	*670	..	*670	*16,346	*587	..
	2021	..	*701	..	*701	*16,852	*646	..
	2022	..	*712	..	*712	*16,898	*707	..
St. Kitts-Nevis	2019	..	*266	..	*266	*5,673	*17	..
	2020	..	*248	..	*248	*5,291	*16	..
	2021	..	*243	..	*243	*5,188	*16	..
	2022	..	*256	..	*256	*5,485	*17	..

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
St. Lucia	2019	..	514	..	514	2,893	*103	..
	2020	..	*499	..	*499	*2,802	*87	..
	2021	..	*519	..	*519	*2,908	*91	..
	2022	..	*528	..	*528	*2,954	*94	..
St. Vincent-Grenadines	2019	..	225	..	225	2,165	0	..
	2020	..	241	..	241	2,327	0	..
	2021	..	*240	..	*240	*2,330	0	..
	2022	..	*250	..	*250	*2,446	0	..
Suriname	2019	..	2,617	12	2,628	4,339	*243	2
	2020	..	2,914	14	2,927	4,781	*215	2
	2021	..	2,635	13	2,648	4,286	*241	2
	2022	..	2,796	14	2,810	4,509	*254	*2
Trinidad and Tobago	2019	..	3,673	14,537	18,210	12,263	732	2,876
	2020	..	3,374	12,157	15,530	10,486	506	2,742
	2021	..	3,086	11,808	14,894	10,011	547	2,323
	2022	..	4,023	12,862	16,885	11,287	*596	1,992
Turks and Caicos Islands	2019	..	*373	..	*373	*8,633	*78	..
	2020	..	*366	..	*366	*8,254	*77	..
	2021	..	*374	..	*374	*8,271	*79	..
	2022	..	*372	..	*372	*8,119	*78	..
Uruguay	2019	0	5,991	171	6,162	1,814	801	..
	2020	0	6,085	126	6,212	1,828	445	..
	2021	0	7,428	145	7,573	2,230	417	..
	2022	0	7,030	152	7,183	2,118	534	..
Venezuela (Bolivar. Rep.)	2019	298	51,974	35,384	87,655	3,029	936	27,982
	2020	208	38,255	26,393	64,857	2,280	433	26,718
	2021	210	40,300	38,940	79,450	2,814	636	25,491
	2022	227	51,781	40,276	92,284	3,271	757	26,772
Northern America	2019	1,165,129	2,278,809	1,957,626	5,401,563	14,377	164,419	32,641
	2020	939,760	1,986,152	1,923,219	4,849,130	12,837	103,627	21,569
	2021	1,075,757	2,167,735	1,924,926	5,168,418	13,646	122,575	18,953
	2022	1,000,859	2,147,997	2,055,247	5,204,103	13,678	131,772	18,219
Bermuda	2019	0	604	..	604	9,416	*78	..
	2020	0	443	..	444	6,890	*66	..
	2021	0	526	..	526	8,132	*73	..
	2022	0	*536	..	*537	*8,286	*75	..
Canada	2019	49,973	259,588	270,086	579,647	15,342	15,747	2,882
	2020	39,151	231,825	256,856	527,833	13,828	7,373	2,854
	2021	45,259	231,687	264,505	541,451	14,080	7,182	3,078
	2022	30,519	243,070	281,407	554,996	14,296	11,851	3,276
Greenland	2019	..	583	..	583	10,398	64	..
	2020	..	559	..	559	9,960	64	..
	2021	..	564	..	564	10,070	39	..
	2022	..	628	..	628	11,208	70	..
St. Pierre-Miquelon	2019	..	*67	..	*67	*11,477	*17	..
	2020	..	*64	..	*64	*10,927	*10	..
	2021	..	*57	..	*57	*9,868	*5	..
	2022	..	*55	..	*55	*9,564	*4	..
United States	2019	1,115,155	2,017,967	1,687,540	4,820,662	14,271	148,513	29,760
	2020	900,609	1,753,261	1,666,362	4,320,232	12,728	96,114	18,715
	2021	1,030,498	1,934,901	1,660,421	4,625,820	13,599	115,276	15,875
	2022	970,340	1,903,709	1,773,840	4,647,888	13,609	119,772	14,943

Table 4

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Oceania	2019	200,287	157,459	85,128	442,874	10,181	23,484	448
	2020	182,589	155,207	93,400	431,197	9,783	16,613	362
	2021	173,633	150,583	90,712	414,928	9,313	7,110	353
	2022	160,077	154,475	85,344	399,896	8,877	10,385	395
American Samoa	2019	..	*409	..	*409	*8,153	*79	..
	2020	..	*403	..	*403	*8,092	*73	..
	2021	..	*403	..	*403	*8,182	*73	..
	2022	..	*409	..	*409	*8,458	*73	..
Australia	2019	191,764	122,726	77,262	391,752	15,373	17,337	241
	2020	174,774	124,083	84,600	383,458	14,895	13,593	202
	2021	165,678	118,270	82,865	366,813	14,132	5,010	170
	2022	153,908	122,532	77,979	354,419	13,527	7,104	182
Cook Islands	2019	..	*82	..	*82	*5,055	*30	..
	2020	..	*69	..	*69	*4,417	*8	..
	2021	..	*75	..	*75	*4,954	*6	..
	2022	..	*79	..	*79	*5,386	*18	..
Fiji	2019	..	1,540	..	1,540	1,683	584	..
	2020	..	1,396	..	1,396	1,526	336	..
	2021	..	1,113	..	1,113	1,214	216	..
	2022	..	1,419	..	1,419	1,543	569	..
French Polynesia	2019	..	911	..	911	3,264	..	..
	2020	..	851	..	851	3,047	..	..
	2021	..	894	..	894	3,194	..	..
	2022	..	912	..	912	3,252	..	..
Kiribati	2019	..	*73	..	*73	*590	*2	..
	2020	..	*72	..	*72	*571	*2	..
	2021	..	*72	..	*72	*561	*2	..
	2022	..	*73	..	*73	*558	*2	..
Marshall Islands	2019	..	*152	..	*152	*3,457	*7	..
	2020	..	*150	..	*150	*3,518	*6	..
	2021	..	*150	..	*150	*3,618	*6	..
	2022	..	*152	..	*152	*3,789	*6	..
Micronesia (Fed. States of)	2019	..	*147	..	*147	*1,337	*32	..
	2020	..	*146	..	*146	*1,317	*30	..
	2021	..	*144	..	*144	*1,294	*30	..
	2022	..	*147	..	*147	*1,312	*30	..
Nauru	2019	..	*54	..	*54	*4,682	*24	..
	2020	..	*55	..	*55	*4,705	*22	..
	2021	..	*58	..	*58	*4,934	*23	..
	2022	..	*60	..	*60	*5,107	*23	..
New Caledonia	2019	2,337	2,658	..	4,995	17,612	114	..
	2020	2,115	2,419	..	4,535	15,957	65	..
	2021	1,728	2,261	..	3,989	13,987	73	..
	2022	2,069	2,368	..	4,437	15,454	108	..
New Zealand	2019	6,186	20,555	6,835	33,576	6,729	4,859	141
	2020	5,700	18,282	6,780	30,763	6,068	2,120	52
	2021	6,227	19,764	5,884	31,875	6,240	1,313	53
	2022	4,099	18,421	5,494	28,014	5,459	2,079	45
Niue	2019	..	*6	..	*6	*3,605	2	..
	2020	..	*6	..	*6	*3,571	*2	..
	2021	..	*7	..	*7	*3,597	*2	..
	2022	..	*7	..	*7	*3,686	*2	..

CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Northern Mariana Islands	2019	..	*388	..	*388	*8,053	68	..
	2020	..	*274	..	*274	*5,775	38	..
	2021	..	*312	..	*312	*6,640	47	..
	2022	..	*310	..	*310	*6,727	47	..
Palau	2019	..	*221	..	*221	*12,406	*22	..
	2020	..	*215	..	*215	*12,108	*19	..
	2021	..	*217	..	*217	*12,203	*19	..
	2022	..	*221	..	*221	*12,468	*19	..
Papua New Guinea	2019	..	6,591	1,031	7,622	793	*199	67
	2020	..	5,850	2,020	7,870	802	*208	108
	2021	..	5,864	1,964	7,827	782	*207	130
	2022	..	*6,452	*1,872	*8,324	*816	*214	167
Samoa	2019	..	268	..	268	1,277	*38	..
	2020	..	240	..	240	1,134	*11	..
	2021	..	274	..	274	1,284	*7	..
	2022	..	240	..	240	1,115	11	..
Solomon Islands	2019	..	*307	..	*307	*422	*30	..
	2020	..	*302	..	*302	*406	*25	..
	2021	..	*299	..	*299	*393	*24	..
	2022	..	*290	..	*290	*371	*23	..
Tonga	2019	..	165	..	165	1,558	0	..
	2020	..	143	..	143	1,349	1	..
	2021	..	144	..	144	1,363	0	..
	2022	..	149	..	149	1,418	0	..
Tuvalu	2019	..	*10	..	*10	*965	*1	..
	2020	..	*9	..	*9	*909	*1	..
	2021	..	*10	..	*10	*944	*1	..
	2022	..	*10	..	*10	*968	*1	..
Vanuatu	2019	..	169	..	169	580	*52	..
	2020	..	210	..	210	703	*49	..
	2021	..	224	..	224	732	*51	..
	2022	..	194	..	194	620	*53	..
Wallis and Futuna Is.	2019	..	27	..	27	2,287	4	..
	2020	..	*28	..	*28	*2,446	3	..
	2021	..	*29	..	*29	*2,506	2	..
	2022	..	*31	..	*31	*2,691	3	..