

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 tonnes 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, 1950-2021

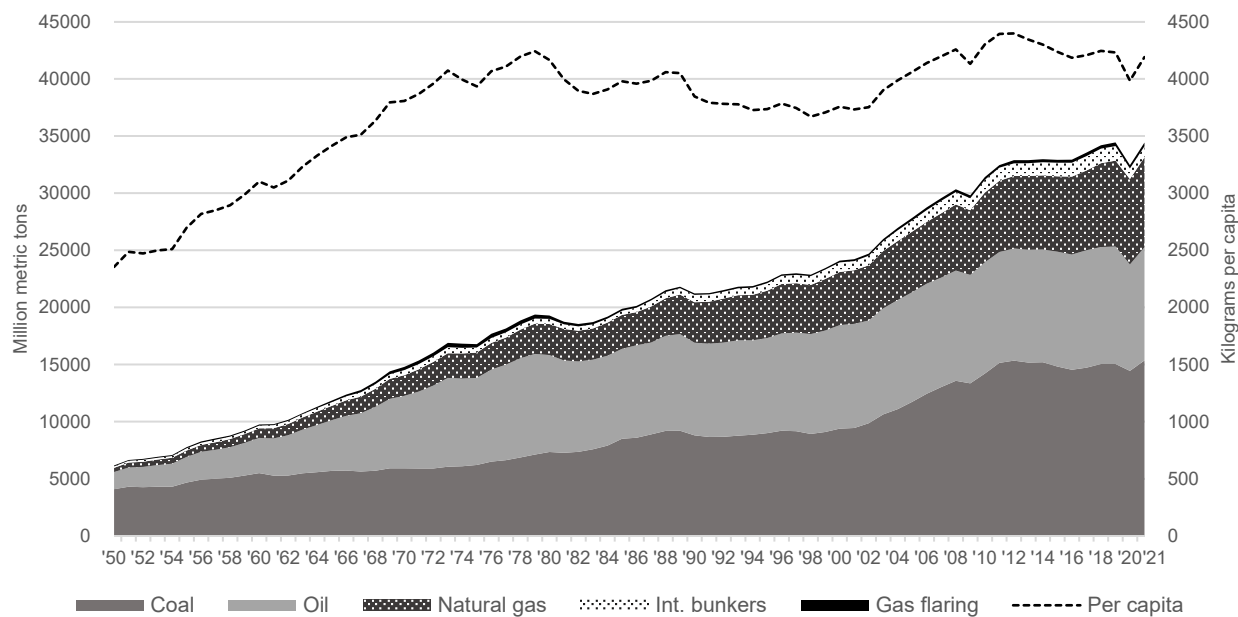


Figure 12: CO₂ emissions from fossil fuel combustion by region, 1990

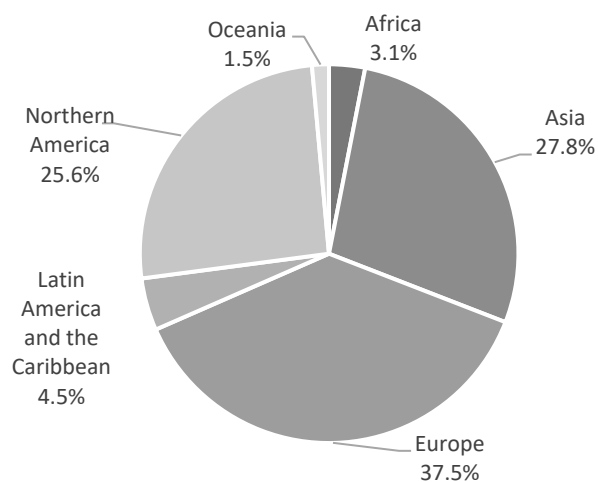


Figure 13: CO₂ emissions from fossil fuel combustion by region, 2021

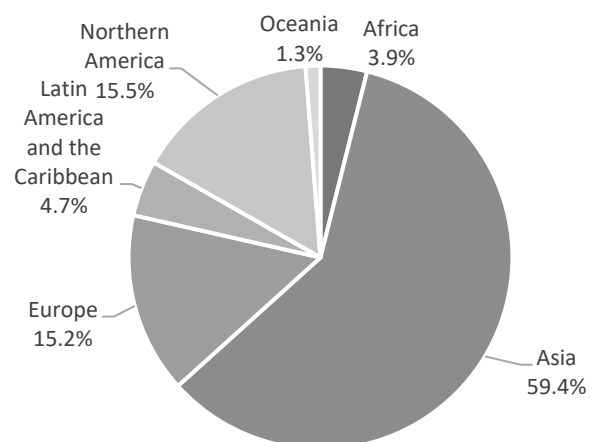


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Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
World	2018	15,042,053	10,247,959	7,326,202	32,616,214	4,245	1,274,538	305,135
	2019	15,046,470	10,276,069	7,529,816	32,852,354	4,231	1,272,741	321,565
	2020	14,448,873	9,308,173	7,481,997	31,239,043	3,984	919,423	300,899
	2021	15,368,277	9,905,258	7,873,493	33,147,028	4,191	964,828	318,798
Africa	2018	435,641	527,677	296,082	1,259,399	973	44,060	51,401
	2019	477,765	563,421	300,361	1,341,546	1,011	44,418	45,528
	2020	448,211	495,780	281,204	1,225,195	901	32,147	40,521
	2021	438,015	554,877	305,895	1,298,787	933	32,955	46,202
Algeria	2018	1,826	52,708	81,870	136,405	3,253	*2,041	5,733
	2019	1,501	56,452	86,100	144,053	3,373	*1,201	5,398
	2020	679	50,678	82,233	133,590	3,074	*1,406	6,285
	2021	1,384	53,847	90,744	145,975	3,304	*1,416	5,477
Angola	2018	..	15,271	1,650	16,921	541	1,714	8,275
	2019	..	14,027	2,494	16,521	511	1,773	5,516
	2020	..	9,238	*2,552	11,789	353	808	4,531
	2021	..	11,989	*2,533	14,522	421	821	4,137
Benin	2018	0	5,322	37	5,359	449	94	..
	2019	248	4,581	111	4,940	402	68	..
	2020	269	4,603	326	5,198	411	51	..
	2021	307	4,765	362	5,434	418	55	..
Botswana	2018	4,833	3,077	..	7,910	3,227	45	..
	2019	4,033	2,923	..	6,956	2,783	49	..
	2020	3,060	2,676	..	5,737	2,253	12	..
	2021	3,438	2,768	..	6,206	2,398	17	..
Burkina Faso	2018	..	4,468	..	4,468	219	94	..
	2019	..	4,626	..	4,626	221	96	..
	2020	..	*4,597	..	*4,597	*214	57	..
	2021	..	*5,185	..	*5,185	*235	92	..
Burundi	2018	19	640	..	659	57	15	..
	2019	49	*653	..	*702	*59	16	..
	2020	*26	*725	..	*751	*61	7	..
	2021	45	*737	..	*781	*62	8	..
Cabo Verde	2018	..	*584	..	*584	*1,023	*392	..
	2019	..	*645	..	*645	*1,118	*372	..
	2020	..	*531	..	*531	*911	*249	..
	2021	..	*560	..	*560	*952	*249	..
Cameroon	2018	..	5,352	1,497	6,849	273	50	..
	2019	..	5,322	1,362	6,684	259	52	..
	2020	..	5,084	1,746	6,830	258	23	..
	2021	..	5,078	1,439	6,517	240	29	..
Central African Rep.	2018	..	*226	..	*226	*44	54	..
	2019	..	*232	..	*232	*45	*54	..
	2020	..	*245	..	*245	*46	*57	..
	2021	..	*248	..	*248	*45	*60	..
Chad	2018	..	1,861	..	1,861	119	87	..
	2019	..	1,842	..	1,842	114	84	..
	2020	..	*1,945	..	*1,945	*117	*86	..
	2021	..	*2,155	..	*2,155	*125	*86	..
Comoros	2018	..	*294	..	*294	*379	*18	..
	2019	..	*320	..	*320	*404	*21	..
	2020	..	*380	..	*380	*472	*18	..
	2021	..	*511	..	*511	*622	*21	..

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	2018	..	1,964	1,379	3,343	614	100	3,119
	2019	..	1,986	1,935	3,922	704	100	3,300
	2020	..	2,126	2,021	4,147	727	88	3,524
	2021	..	2,220	2,088	4,308	738	91	2,999
Côte d'Ivoire	2018	..	6,322	4,098	10,420	409	731	3
	2019	..	6,164	4,370	10,534	403	816	2
	2020	..	6,568	4,482	11,050	412	467	2
	2021	..	9,078	4,675	13,753	501	620	1
Dem. Rep. of the Congo	2018	..	3,024	..	3,024	35	388	..
	2019	..	3,242	..	3,242	36	420	..
	2020	..	3,430	..	3,430	37	311	..
	2021	..	3,287	..	3,287	34	380	..
Djibouti	2018	..	*393	..	*393	*372	*305	..
	2019	..	*452	..	*452	*421	*315	..
	2020	..	378	..	378	347	*293	..
	2021	..	*397	..	*397	*359	*301	..
Egypt	2018	13,644	108,749	104,973	227,366	2,192	2,250	4,468
	2019	10,523	104,348	111,167	226,039	2,140	2,705	4,573
	2020	5,817	90,429	107,228	203,474	1,893	2,642	4,649
	2021	9,286	105,338	113,026	227,651	2,084	2,578	4,103
Equatorial Guinea	2018	..	1,136	5,490	6,626	4,412	143	4,692
	2019	..	1,164	3,985	5,149	3,315	145	3,775
	2020	..	1,040	4,726	5,766	3,612	96	3,647
	2021	..	1,047	5,781	6,828	4,178	91	*3,940
Eritrea	2018	..	564	..	564	164	111	..
	2019	..	588	..	588	168	98	..
	2020	..	597	..	597	168	63	..
	2021	..	629	..	629	174	55	..
Eswatini	2018	149	890	..	1,038	895	5	..
	2019	185	*942	..	*1,127	*964	5	..
	2020	*182	*944	..	*1,125	*953	*5	..
	2021	*182	*829	..	*1,011	*848	*5	..
Ethiopia	2018	1,025	11,337	..	12,362	111	2,305	..
	2019	1,110	12,711	..	13,820	121	2,586	..
	2020	822	11,546	..	12,368	106	1,195	..
	2021	874	11,892	..	12,766	106	1,553	..
Gabon	2018	..	1,858	1,009	2,867	1,308	549	*1,666
	2019	..	1,528	883	2,411	1,075	641	*1,666
	2020	..	1,749	956	2,704	1,180	573	*1,666
	2021	..	1,986	864	2,850	1,217	534	*1,717
Gambia	2018	..	665	..	665	272	*61	..
	2019	..	*730	..	*730	*291	*63	..
	2020	..	*718	..	*718	*279	*55	..
	2021	..	*745	..	*745	*282	*60	..
Ghana	2018	..	11,569	3,468	15,038	487	582	0
	2019	..	12,147	4,213	16,359	519	692	0
	2020	..	12,395	6,371	18,766	583	396	1
	2021	..	13,024	6,741	19,765	602	624	1
Guinea	2018	..	3,239	..	3,239	258	*94	..
	2019	..	4,009	..	4,009	311	*131	..
	2020	..	4,601	..	4,601	348	*82	..
	2021	..	*4,225	..	*4,225	*312	*102	..

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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	2018	..	*323	..	*323	*168	*40	..
	2019	..	*332	..	*332	*168	*41	..
	2020	..	*309	..	*309	*153	*40	..
	2021	..	*311	..	*311	*151	*40	..
Kenya	2018	1,691	14,314	..	16,006	320	2,279	..
	2019	1,494	15,490	..	16,983	333	2,265	..
	2020	2,006	16,423	..	18,429	355	1,256	..
	2021	2,329	15,483	..	17,812	336	1,675	..
Lesotho	2018	*1,547	698	..	*2,245	*1,021	*1	..
	2019	*1,538	730	..	*2,268	*1,019	1	..
	2020	*1,414	645	..	*2,059	*913	0	..
	2021	*2,506	711	..	*3,217	*1,410	*1	..
Liberia	2018	..	*494	..	*494	*101	*30	..
	2019	..	812	..	812	163	*30	..
	2020	..	630	..	630	124	*29	..
	2021	..	589	..	589	113	*30	..
Libya	2018	..	25,902	28,884	54,786	8,457	1,024	7,112
	2019	..	44,542	20,843	65,385	9,953	1,066	7,231
	2020	..	21,952	6,417	28,369	4,263	356	4,874
	2021	..	30,660	12,877	43,537	6,464	1,081	11,818
Madagascar	2018	1,169	2,508	..	3,678	137	149	..
	2019	1,316	2,927	..	4,243	154	158	..
	2020	*1,289	2,617	..	3,907	138	*84	..
	2021	*1,328	3,064	..	4,392	152	*103	..
Malawi	2018	214	1,413	..	1,627	89	*24	..
	2019	220	1,404	..	1,625	86	*11	..
	2020	202	1,330	..	1,532	79	*3	..
	2021	78	1,516	..	1,595	80	*9	..
Mali	2018	..	4,935	..	4,935	248	215	..
	2019	..	5,368	..	5,368	261	196	..
	2020	..	5,931	..	5,931	279	192	..
	2021	..	*6,329	..	*6,329	*289	*196	..
Mauritania	2018	..	4,581	..	4,581	1,073	71	..
	2019	..	4,759	..	4,759	1,086	64	..
	2020	..	4,927	..	4,927	1,095	38	..
	2021	..	*4,637	..	*4,637	*1,005	53	..
Mauritius	2018	1,772	2,809	..	4,581	3,536	2,321	..
	2019	1,630	3,016	..	4,646	3,584	2,539	..
	2020	1,622	2,284	..	3,906	3,010	2,187	..
	2021	1,809	2,270	..	4,079	3,140	2,037	..
Morocco	2018	20,397	36,480	2,171	59,048	1,620	2,745	..
	2019	26,398	37,182	2,055	65,635	1,781	2,875	..
	2020	26,495	33,728	1,599	61,822	1,660	1,310	..
	2021	27,789	37,666	1,597	67,051	1,781	1,616	..
Mozambique	2018	66	4,509	1,660	6,235	212	105	*30
	2019	48	4,396	1,776	6,220	205	111	*59
	2020	80	3,651	1,704	5,436	174	61	*99
	2021	27	5,009	1,849	6,885	215	72	*177
Namibia	2018	*102	3,718	..	3,819	1,588	177	..
	2019	*137	3,674	..	3,811	1,558	173	..
	2020	*152	3,304	..	3,455	1,388	*81	..
	2021	*129	3,355	..	3,484	1,377	98	..

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
Niger	2018	339	1,383	..	1,722	76	*141	..
	2019	342	2,044	75	2,461	105	*146	..
	2020	373	1,923	80	2,376	98	132	..
	2021	*375	*2,166	*75	*2,617	*104	*161	..
Nigeria	2018	6,570	48,892	32,219	87,680	442	3,092	15,722
	2019	6,645	68,540	32,938	108,123	532	3,136	13,515
	2020	5,739	64,979	33,113	103,831	498	1,766	10,777
	2021	6,116	67,135	35,472	108,723	509	2,111	11,289
Rwanda	2018	*16	1,066	*96	1,178	94	*95	..
	2019	*23	1,134	*94	1,251	97	*77	..
	2020	*14	1,130	*91	1,235	94	*50	..
	2021	*22	1,353	*93	1,469	109	*76	..
Sao Tome and Principe	2018	..	142	..	142	673	*15	..
	2019	..	149	..	149	696	*11	..
	2020	..	*143	..	*143	*652	*11	..
	2021	..	*147	..	*147	*661	*12	..
Senegal	2018	2,361	7,044	23	9,429	605	1,051	..
	2019	2,182	8,082	28	10,292	643	1,221	..
	2020	1,410	6,801	28	8,239	501	1,178	..
	2021	2,061	7,528	14	9,604	569	1,062	..
Seychelles	2018	..	611	..	611	5,931	*539	..
	2019	..	604	..	604	5,785	*490	..
	2020	..	*611	..	*611	*5,790	*371	..
	2021	..	*624	..	*624	*5,858	*340	..
Sierra Leone	2018	..	1,049	..	1,049	133	16	..
	2019	..	1,023	..	1,023	127	12	..
	2020	..	1,048	..	1,048	127	5	..
	2021	..	1,283	..	1,283	152	9	..
Somalia	2018	..	*655	..	*655	*42	225	..
	2019	..	*655	..	*655	*41	225	..
	2020	..	*614	..	*614	*37	*178	..
	2021	..	*636	..	*636	*37	*213	..
South Africa	2018	367,020	65,427	9,361	441,808	7,705	14,526	..
	2019	407,966	55,693	9,344	473,003	8,143	14,228	..
	2020	387,337	46,099	9,899	443,335	7,539	12,376	..
	2021	368,065	57,514	8,606	434,184	7,310	9,965	..
South Sudan	2018	..	1,790	..	1,790	172	234	..
	2019	..	1,832	..	1,832	175	263	..
	2020	..	1,742	..	1,742	164	171	..
	2021	..	1,798	..	1,798	167	231	..
St. Helena and Depend.	2018	..	13	..	13	2,302	..	..
	2019	..	14	..	14	2,596	..	..
	2020	..	11	..	11	2,027	..	..
	2021	..	*12	..	*12	*2,190	..	..
Sudan	2018	..	18,574	..	18,574	442	483	..
	2019	..	*19,871	..	*19,871	*460	290	..
	2020	..	19,460	..	19,460	438	168	..
	2021	..	*20,557	..	*20,557	*450	*461	..
Togo	2018	..	1,347	58	1,404	175	208	..
	2019	..	1,299	127	1,426	173	183	..
	2020	..	1,457	144	1,601	190	177	..
	2021	..	1,532	253	1,784	206	234	..

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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	2018	..	13,907	12,914	26,821	2,248	927	576
	2019	..	13,298	12,978	26,276	2,181	977	486
	2020	..	12,615	12,377	24,992	2,055	340	460
	2021	..	13,633	13,267	26,900	2,194	436	537
Uganda	2018	0	5,275	..	5,275	127	341	..
	2019	0	5,413	..	5,413	126	335	..
	2020	*1	5,117	..	5,118	115	178	..
	2021	*1	5,657	..	5,658	123	264	..
United Rep. of Tanzania	2018	1,227	8,366	3,225	12,818	221	509	*6
	2019	1,446	9,091	3,480	14,017	234	540	*6
	2020	1,407	9,353	3,113	13,873	225	256	*5
	2021	1,909	10,434	3,540	15,883	250	327	*6
Zambia	2018	2,895	3,682	..	6,577	369	91	..
	2019	2,480	4,536	..	7,015	382	91	..
	2020	2,721	4,594	..	7,314	386	55	..
	2021	2,061	4,911	..	6,972	358	73	..
Zimbabwe	2018	6,757	4,257	..	11,014	732	159	..
	2019	6,252	3,879	..	10,130	660	160	..
	2020	5,093	3,135	..	8,228	525	57	..
	2021	5,892	3,816	..	9,708	607	118	..
Asia	2018	11,310,462	4,519,672	2,719,343	18,549,477	4,041	597,155	152,384
	2019	11,616,211	4,607,495	2,851,546	19,075,252	4,121	610,401	154,557
	2020	11,498,772	4,252,963	2,929,836	18,681,571	4,005	469,195	153,542
	2021	12,176,446	4,419,005	3,096,630	19,692,081	4,195	478,694	172,629
Afghanistan	2018	3,380	6,645	302	10,327	281	*170	..
	2019	3,429	6,863	254	10,545	279	*30	..
	2020	*3,803	7,290	158	11,251	289	*36	..
	2021	*3,131	*6,720	*161	*10,013	*250	*39	..
Armenia	2018	5	838	4,801	5,644	1,990	195	..
	2019	11	1,055	5,017	6,083	2,157	217	..
	2020	30	1,468	5,029	6,527	2,326	117	..
	2021	46	1,536	5,496	7,078	2,536	*164	..
Azerbaijan	2018	3	11,482	21,773	33,258	3,276	479	2,734
	2019	3	11,599	23,694	35,297	3,449	1,084	2,802
	2020	3	9,738	23,922	33,663	3,273	1,160	2,361
	2021	1	10,383	24,844	35,228	3,416	1,409	*2,649
Bahrain	2018	..	2,960	26,051	29,011	19,505	1,523	150
	2019	..	2,993	30,814	33,807	22,625	1,602	336
	2020	..	2,934	30,778	33,712	22,817	905	465
	2021	..	2,569	29,730	32,300	22,074	1,015	267
Bangladesh	2018	8,548	24,876	51,644	85,067	520	1,635	20
	2019	9,070	25,707	57,716	92,493	559	1,735	28
	2020	11,025	24,152	58,336	93,512	559	1,472	29
	2021	13,501	32,676	59,076	105,252	621	1,183	51
Bhutan	2018	675	582	..	1,256	1,648	*12	..
	2019	564	590	..	1,154	1,503	*13	..
	2020	530	417	..	946	1,225	*4	..
	2021	770	423	..	1,193	1,534	*3	..
Brunei Darussalam	2018	..	1,921	5,780	7,701	17,733	255	573
	2019	633	3,624	5,027	9,284	21,194	341	536
	2020	2,227	3,587	4,262	10,076	22,811	135	501
	2021	2,867	3,374	4,486	10,727	24,086	56	577

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	2018	3,511	7,406	..	10,917	681	440	..
	2019	4,685	9,350	..	14,035	866	491	..
	2020	4,561	9,541	..	14,102	860	132	..
	2021	4,094	9,637	..	13,731	828	63	..
China	2018	7,370,990	1,466,126	570,817	9,407,934	6,639	65,829	3,572
	2019	7,566,704	1,524,025	626,002	9,716,731	6,834	66,271	4,023
	2020	7,699,968	1,477,433	672,652	9,850,052	6,913	49,783	5,418
	2021	8,190,403	1,470,381	763,937	10,424,722	7,311	52,489	5,044
China, Hong Kong SAR	2018	25,510	11,843	6,220	43,573	5,824	56,265	..
	2019	24,430	11,962	6,453	42,845	5,716	50,336	..
	2020	13,008	11,378	9,679	34,065	4,541	33,397	..
	2021	14,454	10,175	9,672	34,301	4,577	29,931	..
China, Macao SAR	2018	..	947	183	1,131	1,737	204	..
	2019	..	844	263	1,108	1,669	140	..
	2020	..	778	143	920	1,361	13	..
	2021	..	746	168	914	1,332	10	..
Cyprus	2018	55	6,257	..	6,312	5,179	1,829	..
	2019	68	6,195	..	6,263	5,097	1,814	..
	2020	55	5,689	..	5,744	4,642	1,159	..
	2021	162	5,660	..	5,822	4,680	1,272	..
Georgia	2018	1,321	3,478	4,466	9,265	2,456	328	-4
	2019	1,068	3,647	5,086	9,801	2,599	325	-5
	2020	936	3,522	5,104	9,562	2,539	186	-6
	2021	951	3,753	5,335	10,039	2,671	307	0
India	2018	1,761,197	651,654	81,532	2,494,383	1,822	*18,288	1,720
	2019	1,739,782	*661,370	*82,613	2,483,765	1,796	*17,940	*1,619
	2020	1,576,927	*560,506	*73,421	2,210,855	1,583	*8,648	*1,569
	2021	1,764,631	*597,841	*79,092	2,441,564	1,735	10,643	*1,788
Indonesia	2018	308,390	215,168	75,838	599,395	2,244	3,892	15,106
	2019	372,496	218,395	75,722	666,612	2,473	3,585	15,015
	2020	354,074	198,121	71,006	623,201	2,292	2,500	12,387
	2021	347,130	203,714	73,301	624,145	2,280	1,500	12,341
Iran (Islamic Rep. of)	2018	1,999	199,750	372,434	574,184	6,706	6,991	61,686
	2019	2,478	212,836	407,700	623,015	7,197	5,927	68,680
	2020	3,201	193,673	441,272	638,146	7,311	5,569	*68,956
	2021	2,758	198,214	451,427	652,399	7,420	5,943	*89,901
Iraq	2018	..	114,835	28,981	143,816	3,543	1,623	33,099
	2019	..	114,599	33,146	147,746	3,555	1,611	35,294
	2020	..	83,669	35,262	118,932	2,795	1,240	34,229
	2021	..	79,023	36,295	115,318	2,649	1,740	35,250
Israel	2018	18,965	22,833	18,139	59,937	7,088	4,400	0
	2019	18,840	21,879	18,086	58,805	6,832	4,610	*2
	2020	17,885	18,400	22,757	59,042	6,742	2,535	*2
	2021	14,998	19,957	23,697	58,653	6,590	2,937	1
Japan	2018	461,700	409,427	224,453	1,095,580	8,677	35,320	..
	2019	454,270	393,317	215,573	1,063,161	8,452	35,464	..
	2020	401,085	365,297	215,929	982,311	7,843	23,553	..
	2021	430,043	371,920	203,148	1,005,112	8,066	26,827	..
Jordan	2018	835	14,960	8,074	23,869	2,282	194	..
	2019	851	15,056	8,066	23,974	2,241	*386	..
	2020	838	11,791	7,555	20,184	1,847	268	..
	2021	768	12,707	6,225	19,700	1,767	332	..

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	2018	149,349	44,993	42,890	237,233	12,797	1,900	..
	2019	137,398	46,037	46,670	230,105	12,269	1,462	..
	2020	130,263	32,946	46,535	209,744	11,051	651	..
	2021	133,699	51,006	39,323	224,028	11,670	1,526	..
Korea, Dem.Ppl's.Rep.	2018	59,444	2,929	..	62,374	2,433	..	..
	2019	66,369	3,203	..	69,572	2,701	..	..
	2020	62,378	3,080	..	65,458	2,531	..	..
	2021	50,883	2,491	..	53,375	2,055	..	..
Korea, Republic of	2018	318,445	182,048	111,622	612,115	11,845	45,146	..
	2019	317,062	157,696	114,785	589,544	11,380	42,363	..
	2020	292,896	156,721	116,224	565,841	10,914	39,636	..
	2021	296,152	178,520	127,768	602,440	11,623	40,358	..
Kuwait	2018	..	51,457	43,898	95,355	22,087	6,136	1,715
	2019	..	50,274	47,486	97,760	22,013	6,100	1,440
	2020	..	32,362	53,050	85,412	19,588	4,329	1,456
	2021	..	29,965	55,525	85,489	20,115	4,402	1,340
Kyrgyzstan	2018	4,222	5,666	656	10,545	1,694	13	..
	2019	3,312	4,408	636	8,355	1,321	*16	..
	2020	3,315	3,693	667	7,675	1,195	*6	..
	2021	4,342	4,294	786	9,421	1,443	*13	..
Lao People's Dem. Rep.	2018	16,049	3,413	..	19,462	2,739	183	..
	2019	14,308	*3,444	..	17,752	2,461	*114	..
	2020	14,374	*3,374	..	17,748	2,425	*112	..
	2021	14,532	*3,382	..	17,914	2,413	*113	..
Lebanon	2018	*655	23,996	..	24,651	4,142	*925	..
	2019	*655	24,159	..	24,813	4,292	*947	..
	2020	*655	*22,829	..	*23,483	*4,147	*908	..
	2021	*655	*18,268	..	*18,922	*3,383	*740	..
Malaysia	2018	88,458	75,331	64,404	228,193	7,043	8,944	9,129
	2019	84,227	92,030	66,719	242,976	7,407	8,906	2,364
	2020	98,834	64,138	64,360	227,332	6,847	4,554	1,970
	2021	91,027	71,198	78,786	241,010	7,178	4,361	1,773
Maldives	2018	..	1,793	..	1,793	3,662	*247	..
	2019	..	2,059	..	2,059	4,081	*231	..
	2020	..	1,734	..	1,734	3,371	*199	..
	2021	..	2,033	..	2,033	3,898	*243	..
Mongolia	2018	42,780	4,060	..	46,840	14,804	117	..
	2019	43,633	5,125	..	48,758	15,084	136	..
	2020	32,997	5,085	..	38,082	11,560	56	..
	2021	38,105	4,921	..	43,026	12,852	80	..
Myanmar	2018	3,397	21,390	8,090	32,877	624	224	48
	2019	4,109	20,231	7,843	32,183	607	230	45
	2020	4,520	19,649	8,778	32,948	617	50	50
	2021	3,338	15,052	9,285	27,675	514	32	0
Nepal	2018	3,858	7,051	..	10,909	383	345	..
	2019	4,087	5,154	..	9,241	320	252	..
	2020	5,529	7,324	..	12,853	438	122	..
	2021	4,727	7,904	..	12,631	421	271	..
Oman	2018	..	8,766	48,755	57,521	12,502	1,452	4,720
	2019	..	-1,491	49,811	48,320	10,498	2,212	5,184
	2020	..	7,546	48,933	56,479	12,431	*1,115	4,959
	2021	..	6,073	54,552	60,625	13,411	616	4,876

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	2018	155,229	67,338	52,378	274,946	11,588	14,237	..
	2019	154,367	64,270	51,595	270,232	11,365	15,018	..
	2020	143,821	59,518	55,724	259,063	10,875	10,663	..
	2021	169,741	55,147	60,626	285,514	11,966	11,516	..
Pakistan	2018	49,292	67,680	73,584	190,556	867	*788	602
	2019	52,849	62,490	72,406	187,745	841	*882	485
	2020	64,642	80,993	62,904	208,540	918	547	476
	2021	66,227	96,241	62,158	224,625	971	768	463
Philippines	2018	66,333	58,348	8,626	133,307	1,228	5,463	..
	2019	71,351	56,394	8,686	136,431	1,236	5,347	..
	2020	71,485	47,144	7,877	126,506	1,128	2,142	..
	2021	77,122	50,349	6,755	134,227	1,179	1,941	..
Qatar	2018	..	-7,397	82,882	75,485	27,283	13,660	1,182
	2019	..	-959	83,146	82,187	29,277	14,515	1,379
	2020	..	-3,255	82,108	78,853	28,566	9,696	2,167
	2021	..	-6,343	85,942	79,599	29,610	5,578	1,399
Saudi Arabia	2018	484	270,120	224,693	495,297	14,144	*21,788	*4,545
	2019	501	292,587	227,466	520,553	14,529	*21,134	*4,138
	2020	439	245,845	228,803	475,087	13,198	*12,008	*4,461
	2021	543	311,626	237,002	549,170	15,276	*12,642	*4,183
Singapore	2018	1,891	46,017	21,126	69,034	11,873	181,660	..
	2019	1,814	55,667	21,440	78,921	13,453	175,225	..
	2020	1,715	57,788	21,673	81,176	13,736	162,263	..
	2021	1,838	57,611	22,120	81,570	13,730	162,838	..
Sri Lanka	2018	5,778	13,648	..	19,426	900	3,617	..
	2019	6,167	14,207	..	20,374	941	3,466	..
	2020	7,411	12,646	..	20,057	924	1,720	..
	2021	7,404	14,630	..	22,035	1,012	2,217	..
State of Palestine	2018	..	3,010	..	3,010	626	..	..
	2019	..	3,328	..	3,328	678	..	..
	2020	..	3,388	..	3,388	675	..	..
	2021	..	3,703	..	3,703	721	..	..
Syrian Arab Republic	2018	3	20,461	6,248	26,712	1,382	865	1,713
	2019	3	18,335	5,993	24,332	1,211	865	1,903
	2020	3	17,870	5,263	23,136	1,114	829	2,094
	2021	3	17,064	5,603	22,669	1,063	808	2,284
Tajikistan	2018	3,284	2,937	111	6,332	694	91	..
	2019	3,577	2,938	284	6,799	728	126	..
	2020	3,684	3,369	*456	7,509	787	77	..
	2021	3,835	3,145	477	7,457	765	52	..
Thailand	2018	63,334	97,022	78,658	239,015	3,360	19,418	642
	2019	65,318	101,353	81,428	248,099	3,479	19,157	621
	2020	61,800	102,553	83,919	248,272	3,474	8,576	636
	2021	53,375	100,225	83,842	237,442	3,316	7,279	524
Timor-Leste	2018	..	515	0	515	408	*11	139
	2019	..	624	0	624	487	*9	83
	2020	..	605	0	605	466	*10	70
	2021	..	592	0	592	448	*11	78
Türkiye	2018	165,003	119,648	94,246	378,898	4,576	14,589	2
	2019	169,145	117,974	85,893	373,012	4,468	16,387	4
	2020	161,117	111,438	91,753	364,307	4,330	7,462	4
	2021	166,113	118,979	113,493	398,585	4,702	10,069	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	2018	..	20,292	39,539	59,831	9,865	1,214	2,936
	2019	..	19,353	41,336	60,688	9,855	1,047	2,649
	2020	..	18,461	42,953	61,415	9,826	234	3,285
	2021	..	18,496	42,953	61,449	9,689	100	2,305
United Arab Emirates	2018	7,614	47,936	120,038	175,588	19,211	49,188	2,386
	2019	7,040	48,935	133,250	189,226	20,542	74,987	1,774
	2020	8,451	55,203	134,665	198,319	21,354	65,520	1,882
	2021	10,269	57,865	126,772	194,906	20,812	69,811	1,712
Uzbekistan	2018	10,103	11,205	77,670	98,979	3,050	*283	1,557
	2019	8,674	10,781	85,342	104,797	3,178	*418	1,228
	2020	12,046	12,250	79,801	104,097	3,105	*350	1,085
	2021	10,711	*10,410	93,647	114,769	3,367	289	924
Viet Nam	2018	128,090	64,537	17,535	210,162	2,214	4,454	1,439
	2019	200,575	71,706	17,896	290,178	3,030	4,599	1,522
	2020	225,975	69,223	15,863	311,061	3,218	2,245	1,317
	2021	180,835	65,003	12,720	258,558	2,653	1,863	1,042
Yemen	2018	285	9,471	202	9,958	323	323	973
	2019	289	9,278	202	9,769	310	327	1,408
	2020	264	8,061	263	8,588	266	300	1,718
	2021	262	7,748	405	8,415	255	297	1,853
Europe	2018	1,566,011	1,807,845	1,932,102	5,305,958	7,097	385,808	34,169
	2019	1,411,806	1,726,810	1,891,060	5,029,676	6,720	357,332	43,049
	2020	1,225,871	1,591,292	1,833,127	4,650,290	6,212	252,951	39,932
	2021	1,353,257	1,700,505	1,989,437	5,043,199	6,747	270,008	52,494
Albania	2018	491	3,391	76	3,957	1,375	117	..
	2019	337	3,500	135	3,973	1,382	126	..
	2020	597	2,750	104	3,451	1,204	149	..
	2021	894	2,905	104	3,903	1,367	142	..
Andorra	2018	0	512	4	516	6,883	*1	..
	2019	0	500	5	505	6,614	*1	..
	2020	0	384	5	389	5,007	0	..
	2021	0	418	7	425	5,383	0	..
Austria	2018	11,079	31,476	16,644	59,200	6,696	2,572	..
	2019	11,462	31,693	17,197	60,352	6,796	2,972	..
	2020	10,013	28,497	16,395	54,905	6,164	1,013	..
	2021	10,350	30,040	17,387	57,778	6,476	1,290	..
Belarus	2018	3,429	17,714	36,871	58,015	5,984	454	..
	2019	3,635	17,321	35,217	56,173	5,807	586	..
	2020	3,357	17,382	32,452	53,192	5,521	334	..
	2021	3,339	18,447	33,234	55,020	5,744	387	..
Belgium	2018	11,614	43,944	32,790	88,347	7,717	35,363	..
	2019	11,539	42,687	33,305	87,532	7,604	31,888	..
	2020	8,690	37,729	32,844	79,263	6,856	24,057	..
	2021	9,591	40,131	33,261	82,983	7,147	28,856	..
Bosnia and Herzegovina	2018	17,154	4,737	468	22,359	6,576	22	..
	2019	15,797	4,822	442	21,061	6,267	28	..
	2020	16,305	4,423	403	21,131	6,368	12	..
	2021	16,103	4,966	485	21,554	6,590	43	..
Bulgaria	2018	23,099	12,701	5,647	41,447	5,823	1,046	..
	2019	21,480	13,037	5,381	39,898	5,657	985	..
	2020	17,368	11,973	5,556	34,898	5,000	695	..
	2021	21,568	12,581	6,295	40,444	5,874	775	..

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	2018	1,460	9,348	4,553	15,361	3,692	619	44
	2019	1,682	9,001	4,678	15,362	3,720	678	9
	2020	1,443	8,029	5,003	14,475	3,533	226	13
	2021	1,656	8,339	5,085	15,081	3,714	370	3
Czechia	2018	63,387	21,070	15,807	100,264	9,518	1,249	..
	2019	57,164	21,193	16,585	94,942	9,010	1,277	..
	2020	49,276	19,708	16,866	85,850	8,152	347	..
	2021	51,680	21,159	18,119	90,958	8,654	375	..
Denmark	2018	6,923	17,910	6,282	31,115	5,396	4,980	193
	2019	3,604	17,612	5,941	27,157	4,686	5,520	157
	2020	3,104	16,397	4,961	24,463	4,199	2,768	92
	2021	4,365	16,616	4,541	25,522	4,360	2,793	90
Estonia	2018	18,672	-84	971	19,559	14,793	1,151	..
	2019	13,521	-365	893	14,049	10,587	790	..
	2020	10,895	-589	818	11,124	8,367	1,010	..
	2021	11,879	-820	926	11,985	9,020	1,095	..
Faeroe Islands	2018	..	*747	..	*747	*14,654	124	..
	2019	..	*762	..	*762	*14,752	143	..
	2020	..	*783	..	*783	*14,936	169	..
	2021	..	*810	..	*810	*15,312	179	..
Finland	2018	17,433	20,045	5,060	42,538	7,713	3,422	..
	2019	14,589	19,172	4,957	38,718	7,012	3,638	..
	2020	12,016	18,315	4,922	35,254	6,376	1,853	..
	2021	12,582	17,188	4,892	34,662	6,261	1,739	..
France	2018	35,267	180,597	83,699	299,562	4,499	24,499	..
	2019	28,421	181,571	85,392	295,385	4,426	24,602	..
	2020	20,326	156,175	79,532	256,033	3,831	11,320	..
	2021	34,044	166,587	84,326	284,957	4,259	11,747	..
Germany	2018	277,618	243,489	165,695	686,801	8,285	35,711	19
	2019	226,711	250,151	169,558	646,419	7,774	34,394	27
	2020	179,209	233,056	168,531	580,796	6,970	18,124	25
	2021	214,159	209,335	176,673	600,167	7,196	23,023	20
Gibraltar	2018	..	695	..	695	21,295	13,092	..
	2019	..	686	37	723	22,113	13,444	..
	2020	..	535	108	643	19,670	13,644	..
	2021	..	533	118	651	19,915	13,317	..
Greece	2018	18,778	29,993	8,531	57,303	5,389	10,447	..
	2019	13,149	30,790	9,539	53,478	5,058	11,656	..
	2020	7,525	26,576	10,695	44,796	4,261	6,364	..
	2021	7,027	27,246	12,083	46,355	4,438	8,008	..
Hungary	2018	9,121	17,958	18,288	45,368	4,641	842	..
	2019	7,390	18,656	18,716	44,763	4,581	851	..
	2020	6,765	16,853	19,296	42,914	4,401	309	..
	2021	5,481	18,115	20,575	44,171	4,549	375	..
Iceland	2018	11	1,625	..	1,636	4,636	1,526	..
	2019	-12	1,691	..	1,679	4,653	1,161	..
	2020	-34	1,507	..	1,473	4,017	339	..
	2021	60	1,596	..	1,656	4,471	536	..
Ireland	2018	6,041	18,652	10,540	35,233	7,288	3,820	..
	2019	4,463	18,710	10,711	33,884	6,921	3,763	..
	2020	4,357	17,203	10,698	32,258	6,522	1,664	..
	2021	5,198	18,215	10,280	33,693	6,757	1,858	..

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	2018	..	..	234	234	2,798	..	..
	2019	..	..	275	275	3,281	..	..
	2020	..	..	267	267	3,175	..	..
	2021	..	..	183	183	2,175	..	..
Italy	2018	33,936	135,376	138,338	307,650	5,135	20,600	..
	2019	25,777	133,037	141,647	300,461	5,028	20,786	..
	2020	20,271	112,808	135,367	268,446	4,509	12,484	..
	2021	22,077	134,428	145,077	301,582	5,088	12,708	..
Kosovo	2018	5,914	2,218	..	8,132	4,756	9	..
	2019	6,205	2,301	..	8,507	5,043	8	..
	2020	6,365	2,244	..	8,610	5,153	7	..
	2021	6,461	2,515	..	8,976	5,401	7	..
Latvia	2018	191	4,090	2,746	7,027	3,630	589	0
	2019	161	3,983	2,591	6,735	3,514	1,401	0
	2020	94	3,846	2,138	6,078	3,204	828	0
	2021	73	3,951	2,265	6,288	3,356	891	0
Liechtenstein	2018	..	..	50	50	1,303	..	..
	2019	..	..	50	50	1,310	..	..
	2020	..	..	49	49	1,254	..	..
	2021	..	..	54	54	1,388	..	..
Lithuania	2018	829	8,134	2,156	11,120	3,866	1,032	..
	2019	776	7,985	2,127	10,888	3,822	1,002	..
	2020	605	7,717	2,504	10,827	3,839	750	..
	2021	719	7,882	2,552	11,154	4,003	789	..
Luxembourg	2018	166	7,125	1,606	8,897	14,635	1,880	..
	2019	182	7,288	1,607	9,077	14,641	1,840	..
	2020	153	5,763	1,459	7,375	11,699	1,674	..
	2021	168	6,059	1,573	7,800	12,200	1,910	..
Malta	2018	..	870	688	1,558	3,169	7,642	..
	2019	..	945	719	1,664	3,304	7,844	..
	2020	..	867	747	1,615	3,133	7,267	..
	2021	..	873	750	1,623	3,081	6,518	..
Montenegro	2018	1,487	1,008	..	2,494	3,950	83	..
	2019	1,519	1,053	..	2,572	4,080	67	..
	2020	1,579	916	..	2,496	3,968	15	..
	2021	1,386	1,116	..	2,502	3,984	38	..
Netherlands (Kingd. of the)	2018	32,602	49,140	66,568	148,310	8,580	47,817	50
	2019	25,250	49,232	69,066	143,548	8,267	48,124	40
	2020	16,073	43,020	68,011	127,104	7,290	43,708	35
	2021	22,384	45,789	64,563	132,736	7,584	43,117	153
North Macedonia	2018	4,297	3,179	441	7,918	3,746	0	..
	2019	4,229	3,185	516	7,930	3,751	..	..
	2020	3,611	3,012	591	7,213	3,417	..	..
	2021	2,661	3,297	750	6,709	3,190	..	..
Norway	2018	3,155	23,038	11,881	38,074	7,167	2,819	792
	2019	3,088	20,031	10,475	33,595	6,281	2,676	707
	2020	3,183	20,819	9,509	33,511	6,229	1,451	611
	2021	3,220	20,349	10,764	34,333	6,354	1,460	547
Poland	2018	197,048	78,589	33,176	308,813	8,017	3,935	60
	2019	175,594	79,544	33,721	288,859	7,504	4,168	27
	2020	163,150	75,785	35,362	274,297	7,138	2,348	44
	2021	181,177	82,431	38,223	301,831	7,879	2,823	30

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	2018	10,682	24,955	11,797	47,434	4,610	6,809	..
	2019	4,967	25,193	12,410	42,570	4,137	7,567	..
	2020	2,752	22,273	12,046	37,071	3,600	3,828	..
	2021	936	22,233	11,508	34,676	3,370	4,158	..
Republic of Moldova	2018	308	2,735	1,927	4,969	1,582	170	..
	2019	384	2,820	1,780	4,983	1,603	151	..
	2020	299	2,660	1,811	4,771	1,546	53	..
	2021	352	2,966	2,074	5,392	1,761	128	..
Romania	2018	20,996	28,236	22,253	71,486	3,646	432	..
	2019	20,572	28,366	20,643	69,582	3,564	519	..
	2020	14,399	27,491	21,454	63,344	3,258	264	..
	2021	16,815	30,100	22,202	69,117	3,576	333	..
Russian Federation	2018	487,878	337,677	926,677	1,752,231	12,030	*54,682	30,312
	2019	507,963	264,488	875,130	1,647,581	11,305	25,375	39,513
	2020	467,771	288,125	851,955	1,607,850	11,042	36,248	37,127
	2021	517,033	332,419	961,713	1,811,166	12,482	36,619	50,052
Serbia	2018	31,196	8,939	4,638	44,773	6,023	481	..
	2019	31,168	9,224	4,364	44,756	6,047	485	..
	2020	32,568	8,572	4,321	45,461	6,178	292	..
	2021	28,871	9,605	5,375	43,851	6,010	385	0
Slovakia	2018	13,336	9,233	8,517	31,086	5,707	145	2
	2019	10,714	9,116	8,746	28,576	5,240	139	2
	2020	9,080	8,514	8,690	26,284	4,817	88	2
	2021	11,130	8,910	9,735	29,775	5,466	69	2
Slovenia	2018	4,640	7,046	1,689	13,375	6,351	826	..
	2019	4,399	6,784	1,715	12,897	6,104	689	..
	2020	4,226	5,789	1,715	11,731	5,539	403	..
	2021	3,747	6,334	1,807	11,888	5,609	309	..
Spain	2018	43,860	146,196	62,518	252,575	5,398	36,801	..
	2019	20,166	141,645	71,475	233,286	4,950	37,667	..
	2020	12,082	117,276	64,552	193,910	4,094	25,017	..
	2021	12,354	131,569	68,173	212,097	4,466	28,787	..
Sweden	2018	8,786	26,790	1,539	37,116	3,652	8,557	..
	2019	7,964	23,463	1,418	32,845	3,199	9,210	..
	2020	6,111	20,542	2,063	28,715	2,769	9,146	..
	2021	6,730	22,729	1,523	30,982	2,960	9,144	..
Switzerland	2018	417	24,214	6,705	31,336	3,680	5,669	..
	2019	373	25,351	6,879	32,602	3,802	5,724	..
	2020	360	23,406	6,694	30,461	3,526	2,103	..
	2021	364	22,716	7,279	30,359	3,493	2,379	..
Ukraine	2018	110,011	37,448	58,176	205,635	4,627	..	..
	2019	101,939	38,755	51,440	192,134	4,346	..	..
	2020	87,957	39,695	47,861	175,513	3,997	..	..
	2021	81,563	42,688	49,149	173,400	3,983	..	..
United Kingdom	2018	32,697	165,089	155,857	353,643	5,323	43,772	2,698
	2019	23,483	159,829	153,576	336,889	5,045	43,383	2,566
	2020	21,966	132,465	144,772	299,203	4,462	20,577	1,983
	2021	23,059	145,138	153,753	321,950	4,785	20,527	1,597
Latin America & Carib.	2018	173,491	940,715	456,998	1,571,204	2,454	70,249	30,670
	2019	175,272	967,403	444,095	1,586,770	2,457	72,979	36,929
	2020	152,231	852,195	421,429	1,425,855	2,191	45,114	34,274
	2021	155,244	939,136	463,659	1,558,039	2,379	53,599	22,982

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	2018	..	134	..	134	8,854	*30	..
	2019	..	147	..	147	9,566	*36	..
	2020	..	139	..	139	8,939	*23	..
	2021	..	143	..	143	9,083	*38	..
Antigua and Barbuda	2018	..	*626	..	*626	*6,837	*373	..
	2019	..	*650	..	*650	*7,059	*383	..
	2020	..	*628	..	*628	*6,778	*367	..
	2021	..	*646	..	*646	*6,930	*380	..
Argentina	2018	4,553	71,337	96,374	172,264	3,879	5,091	0
	2019	2,238	71,757	95,812	169,807	3,795	4,215	0
	2020	3,371	63,080	91,432	157,882	3,506	2,277	0
	2021	4,714	82,891	95,525	183,131	4,045	1,648	0
Aruba	2018	..	*883	..	*883	*8,332	*316	..
	2019	..	*843	..	*843	*7,920	*298	..
	2020	..	*834	..	*834	*7,825	*284	..
	2021	..	*874	..	*874	*8,207	*307	..
Bahamas	2018	*4	2,487	..	2,491	6,197	*1,288	..
	2019	*4	2,562	..	2,566	6,343	*1,359	..
	2020	*4	2,081	..	2,085	5,129	*1,284	..
	2021	*4	2,543	..	2,547	6,243	*1,890	..
Barbados	2018	..	1,331	51	1,382	4,940	*403	*20
	2019	..	1,288	45	1,333	4,757	*400	*18
	2020	..	1,139	31	1,169	4,166	*197	*10
	2021	..	1,052	27	1,079	3,838	*219	*10
Belize	2018	..	608	2	610	1,597	45	..
	2019	..	718	1	719	1,847	79	..
	2020	..	586	1	587	1,487	77	..
	2021	..	615	1	615	1,538	99	..
Bolivia (Plur. State of)	2018	19	12,225	8,315	20,559	1,771	201	97
	2019	21	12,849	7,718	20,588	1,748	203	109
	2020	9	10,285	6,720	17,014	1,425	82	82
	2021	23	12,703	7,401	20,127	1,666	91	*118
Bonaire, St Eustatius, Saba	2018	..	*102	..	*102	*4,102	*167	..
	2019	..	*112	..	*112	*4,366	*168	..
	2020	..	*115	..	*115	*4,412	*115	..
	2021	..	*113	..	*113	*4,237	*126	..
Brazil	2018	65,729	283,979	66,914	416,622	1,982	16,848	2,984
	2019	61,640	287,603	67,064	416,307	1,966	18,106	3,438
	2020	55,823	275,652	61,774	393,248	1,845	15,105	2,724
	2021	68,288	292,720	85,778	446,786	2,085	12,758	2,364
British Virgin Islands	2018	..	*164	..	*164	*5,395	..	..
	2019	..	*187	..	*187	*6,115	..	..
	2020	..	*184	..	*184	*5,944	..	..
	2021	..	*187	..	*187	*6,025	..	..
Cayman Islands	2018	..	623	..	623	9,604	115	..
	2019	..	706	..	706	10,680	106	..
	2020	..	642	..	642	9,542	47	..
	2021	..	651	..	651	9,561	24	..
Chile	2018	28,256	48,595	9,153	86,005	4,599	2,430	*7
	2019	32,404	50,120	10,507	93,031	4,886	2,594	*1
	2020	26,288	44,835	9,946	81,069	4,200	1,318	11
	2021	25,166	48,421	11,063	84,651	4,343	1,584	8

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
Colombia	2018	13,562	43,626	23,816	81,005	1,644	287	982
	2019	18,185	46,265	24,531	88,981	1,773	4,591	947
	2020	16,696	43,424	24,301	84,422	1,658	2,238	607
	2021	11,129	54,866	22,024	88,018	1,709	3,094	645
Costa Rica	2018	1	7,620	..	7,621	1,512	659	..
	2019	1	7,343	..	7,344	1,444	706	..
	2020	0	6,510	..	6,511	1,271	306	..
	2021	51	7,347	..	7,398	1,435	542	..
Cuba	2018	14	20,705	1,911	22,630	1,998	*1,595	28
	2019	0	20,283	1,874	22,157	1,958	*1,549	32
	2020	5	19,361	1,763	21,129	1,870	*1,507	28
	2021	13	20,737	1,701	22,451	1,995	*1,526	76
Curaçao	2018	..	4,237	*106	4,343	23,511	6,666	..
	2019	..	2,314	0	2,314	11,985	6,441	..
	2020	..	1,870	..	1,870	9,882	5,180	..
	2021	..	2,057	..	2,057	10,808	5,487	..
Dominica	2018	..	*169	..	*169	*2,384	*5	..
	2019	..	*177	..	*177	*2,485	*5	..
	2020	..	*162	..	*162	*2,244	*5	..
	2021	..	*163	..	*163	*2,257	*5	..
Dominican Republic	2018	3,023	17,947	2,242	23,212	2,156	1,775	..
	2019	3,002	20,271	2,535	25,809	2,372	1,521	..
	2020	6,812	14,949	2,506	24,267	2,206	796	..
	2021	6,425	17,522	3,707	27,654	2,487	1,232	..
Ecuador	2018	..	33,558	1,393	34,952	2,054	3,064	1,274
	2019	..	35,368	1,244	36,612	2,111	2,612	1,298
	2020	..	28,323	1,057	29,380	1,670	899	1,209
	2021	..	33,088	1,115	34,203	1,922	3,390	1,173
El Salvador	2018	2	5,911	..	5,913	942	549	..
	2019	2	7,115	..	7,117	1,133	579	..
	2020	1	6,249	..	6,250	993	215	..
	2021	2	7,219	4	7,225	1,144	401	..
Falkland Is. (Malvinas)	2018	*5	36	..	41	11,100	..	..
	2019	*5	37	..	42	11,311	..	..
	2020	3	39	..	42	11,080	..	..
	2021	3	38	..	40	10,719	..	..
Grenada	2018	..	317	..	317	2,603	24	..
	2019	..	343	..	343	2,793	30	..
	2020	..	296	..	296	2,390	26	..
	2021	..	318	..	318	2,555	27	..
Guatemala	2018	4,827	12,794	..	17,621	1,046	1,678	..
	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	..
Guyana	2018	5	2,373	0	2,379	3,028	54	..
	2019	9	2,625	1	2,635	3,298	53	..
	2020	5	2,734	2	2,741	3,438	15	..
	2021	*4	3,250	7	3,261	4,053	*24	..
Haiti	2018	..	3,370	..	3,370	306	71	..
	2019	..	3,082	..	3,082	276	70	..
	2020	..	3,192	..	3,192	282	68	..
	2021	..	3,440	..	3,440	301	67	..

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	2018	..	9,190	..	9,190	938	..	..
	2019	..	10,634	..	10,634	1,068	..	..
	2020	..	9,036	..	9,036	893	..	..
	2021	..	9,631	..	9,631	937	..	..
Jamaica	2018	212	7,443	191	7,846	2,790	802	..
	2019	288	8,368	577	9,233	3,282	918	..
	2020	288	4,871	1,420	6,579	2,333	474	..
	2021	288	5,251	1,465	7,004	2,477	530	..
Mexico	2018	49,674	227,627	169,196	446,497	3,600	14,558	0
	2019	47,561	236,994	160,540	445,095	3,558	14,974	0
	2020	35,383	202,828	164,587	402,798	3,197	6,070	0
	2021	30,859	221,027	169,818	421,704	3,328	10,182	0
Montserrat	2018	..	30	..	30	6,864	*4	..
	2019	..	25	..	25	5,516	*3	..
	2020	..	24	..	24	5,386	*3	..
	2021	..	*25	..	*25	*5,715	*3	..
Nicaragua	2018	..	5,016	..	5,016	763	51	..
	2019	..	5,076	..	5,076	762	50	..
	2020	..	4,528	..	4,528	670	16	..
	2021	..	5,015	..	5,015	732	29	..
Panama	2018	534	7,882	549	8,965	2,152	1,868	..
	2019	2,189	8,713	1,708	12,611	2,979	1,882	..
	2020	2,355	3,539	921	6,815	1,587	656	..
	2021	2,190	6,887	1,100	10,176	2,339	1,037	..
Paraguay	2018	15	8,292	..	8,306	1,289	226	..
	2019	5	8,023	..	8,028	1,229	224	..
	2020	2	7,295	..	7,297	1,102	80	..
	2021	2	8,038	..	8,040	1,199	107	..
Peru	2018	2,644	33,182	15,345	51,171	1,589	3,617	205
	2019	2,709	34,731	16,090	53,530	1,631	3,510	226
	2020	1,934	27,054	13,520	42,508	1,276	1,528	139
	2021	1,978	26,413	17,663	46,054	1,366	2,237	*128
Puerto Rico	2018	..	..	3,349	3,349	1,009	..	..
	2019	..	..	3,743	3,743	1,137	..	..
	2020	..	..	2,758	2,758	843	..	..
	2021	..	..	3,940	3,940	1,210	..	..
Sint Maarten (Dutch part)	2018	..	*702	..	*702	*16,624	*730	..
	2019	..	*705	..	*705	*16,407	*737	..
	2020	..	*670	..	*670	*15,366	*686	..
	2021	..	*701	..	*701	*15,907	*732	..
St. Kitts-Nevis	2018	..	*251	..	*251	*5,264	*16	..
	2019	..	*256	..	*256	*5,355	*17	..
	2020	..	*239	..	*239	*5,018	*16	..
	2021	..	*237	..	*237	*4,969	*16	..
St. Lucia	2018	..	521	..	521	2,931	103	..
	2019	..	514	..	514	2,878	*103	..
	2020	..	*499	..	*499	*2,786	*87	..
	2021	..	*519	..	*519	*2,890	*91	..
St. Vincent-Grenadines	2018	..	246	..	246	2,338	0	..
	2019	..	225	..	225	2,149	0	..
	2020	..	241	..	241	2,303	0	..
	2021	..	*240	..	*240	*2,296	0	..

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
Suriname	2018	..	2,075	10	2,085	3,512	*246	2
	2019	..	2,617	12	2,628	4,378	*243	2
	2020	..	2,914	14	2,927	4,822	*215	2
	2021	..	2,635	13	2,648	4,320	*241	2
Trinidad and Tobago	2018	..	3,735	15,159	18,894	12,557	1,895	2,685
	2019	..	3,673	14,537	18,210	11,981	732	2,876
	2020	..	3,374	12,157	15,530	10,230	506	2,742
	2021	..	3,086	11,808	14,894	9,762	547	2,323
Turks and Caicos Islands	2018	..	*369	..	*369	*8,891	*77	..
	2019	..	*373	..	*373	*8,650	*78	..
	2020	..	*366	..	*366	*8,275	*77	..
	2021	..	*374	..	*374	*8,295	*79	..
Uruguay	2018	0	6,178	117	6,295	1,837	783	..
	2019	0	5,991	171	6,162	1,797	801	..
	2020	0	6,085	126	6,212	1,811	445	..
	2021	0	7,428	145	7,573	2,210	417	..
Venezuela (Bolivar. Rep.)	2018	411	52,217	42,803	95,432	3,200	1,538	22,386
	2019	298	51,974	35,384	87,655	3,026	936	27,982
	2020	208	38,255	26,393	64,857	2,276	433	26,718
	2021	209	33,152	29,354	62,715	2,224	635	16,133
Northern America	2018	1,359,827	2,296,347	1,840,701	5,496,875	14,885	155,593	28,982
	2019	1,165,129	2,254,451	1,957,626	5,377,206	14,456	164,419	32,641
	2020	940,412	1,961,469	1,923,037	4,824,919	12,902	103,626	26,007
	2021	1,071,681	2,140,861	1,927,138	5,139,680	13,696	122,557	19,131
Bermuda	2018	0	708	..	708	11,133	*83	..
	2019	0	604	..	604	9,460	*78	..
	2020	0	443	..	444	6,927	*66	..
	2021	0	526	..	526	8,190	*73	..
Canada	2018	58,618	253,489	267,594	579,701	15,653	16,169	3,022
	2019	49,973	258,015	270,086	578,074	15,406	15,747	2,882
	2020	39,804	231,536	256,675	528,015	13,936	7,372	2,854
	2021	41,183	233,791	266,717	541,691	14,197	7,164	3,078
Greenland	2018	..	567	..	567	10,138	68	..
	2019	..	583	..	583	10,426	64	..
	2020	..	559	..	559	9,969	64	..
	2021	..	569	..	569	10,113	39	..
St. Pierre-Miquelon	2018	..	*62	..	*62	*10,438	*16	..
	2019	..	*67	..	*67	*11,382	*17	..
	2020	..	*64	..	*64	*10,781	*10	..
	2021	..	*57	..	*57	*9,694	*5	..
United States	2018	1,301,209	2,041,522	1,573,106	4,915,837	14,800	139,257	25,960
	2019	1,115,155	1,995,182	1,687,540	4,797,877	14,351	148,513	29,760
	2020	900,609	1,728,867	1,666,362	4,295,838	12,787	96,114	23,153
	2021	1,030,498	1,905,919	1,660,421	4,596,838	13,641	115,276	16,053
Oceania	2018	196,621	155,702	80,977	433,300	10,186	21,673	7,528
	2019	200,287	156,490	85,128	441,905	10,211	23,193	8,861
	2020	183,376	154,475	93,363	431,214	9,816	16,390	6,624
	2021	173,633	150,876	90,733	415,242	9,333	7,015	5,360
American Samoa	2018	..	*407	..	*407	*8,414	*79	..
	2019	..	*407	..	*407	*8,610	*79	..
	2020	..	*392	..	*392	*8,483	*73	..
	2021	..	*392	..	*392	*8,701	*73	..

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
Australia	2018	189,488	122,672	73,445	385,606	15,437	15,824	7,158
	2019	191,764	122,726	77,262	391,752	15,449	17,337	8,653
	2020	174,774	124,083	84,600	383,458	14,938	13,593	6,463
	2021	165,678	118,270	82,865	366,813	14,151	5,010	5,177
Cook Islands	2018	..	*81	..	*81	*4,674	*31	..
	2019	..	*82	..	*82	*4,765	*30	..
	2020	..	*69	..	*69	*4,058	*8	..
	2021	..	*75	..	*75	*4,424	*6	..
Fiji	2018	0	*1,381	..	*1,381	*1,503	*303	..
	2019	..	*1,386	..	*1,386	*1,509	*287	..
	2020	..	*1,022	..	*1,022	*1,110	*105	..
	2021	..	*1,114	..	*1,114	*1,205	*175	..
French Polynesia	2018	..	900	..	900	3,023	..	..
	2019	..	911	..	911	3,038	..	..
	2020	..	851	..	851	2,818	..	..
	2021	..	894	..	894	2,940	..	..
Kiribati	2018	..	*73	..	*73	*596	*2	..
	2019	..	*73	..	*73	*589	*2	..
	2020	..	*72	..	*72	*569	*2	..
	2021	..	*72	..	*72	*559	*2	..
Marshall Islands	2018	..	*152	..	*152	*3,302	*7	..
	2019	..	*152	..	*152	*3,401	*7	..
	2020	..	*150	..	*150	*3,461	*6	..
	2021	..	*150	..	*150	*3,559	*6	..
Micronesia (Fed. States of)	2018	..	*147	..	*147	*1,326	*31	..
	2019	..	*147	..	*147	*1,324	*32	..
	2020	..	*146	..	*146	*1,303	*30	..
	2021	..	*144	..	*144	*1,276	*30	..
Nauru	2018	..	*55	..	*55	*4,634	*24	..
	2019	..	*54	..	*54	*4,471	*24	..
	2020	..	*55	..	*55	*4,449	*22	..
	2021	..	*58	..	*58	*4,617	*23	..
New Caledonia	2018	2,294	2,878	..	5,172	18,156	122	..
	2019	2,337	2,658	..	4,995	17,503	114	..
	2020	2,115	2,419	..	4,535	15,833	65	..
	2021	1,728	2,261	..	3,989	13,861	73	..
New Zealand	2018	4,838	18,540	6,648	30,026	6,206	4,812	*278
	2019	6,186	19,153	6,835	32,174	6,488	4,859	141
	2020	6,487	17,747	6,780	31,014	6,128	2,120	52
	2021	6,227	19,679	5,884	31,790	6,197	1,250	53
Niue	2018	..	*6	..	*6	*3,167	2	..
	2019	..	*6	..	*6	*3,365	2	..
	2020	..	*6	..	*6	*3,306	*2	..
	2021	..	*7	..	*7	*3,367	*2	..
Northern Mariana Islands	2018	..	*558	..	*558	*11,088	*73	..
	2019	..	*561	..	*561	*11,251	*73	..
	2020	..	*399	..	*399	*8,051	*41	..
	2021	..	*434	..	*434	*8,777	*51	..
Palau	2018	..	*219	..	*219	*12,253	*20	..
	2019	..	*224	..	*224	*12,529	*22	..
	2020	..	*215	..	*215	*11,986	*19	..
	2021	..	*215	..	*215	*11,952	*19	..

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
Papua New Guinea	2018	..	6,734	883	7,617	816	209	93
	2019	..	7,000	1,031	8,031	842	*199	67
	2020	..	5,862	1,982	7,844	805	*208	108
	2021	..	*6,111	*1,984	*8,096	*814	*202	130
Samoa	2018	..	245	..	245	1,167	*38	..
	2019	..	275	..	275	1,299	*38	..
	2020	..	*246	..	*246	*1,144	*16	..
	2021	..	*245	..	*245	*1,120	*16	..
Solomon Islands	2018	..	*303	..	*303	*460	*30	..
	2019	..	*307	..	*307	*455	*30	..
	2020	..	*302	..	*302	*437	*25	..
	2021	..	*299	..	*299	*423	*24	..
Tonga	2018	..	136	..	136	1,289	*13	..
	2019	..	161	..	161	1,533	*2	..
	2020	..	190	..	190	1,806	1	..
	2021	..	192	..	192	1,810	*1	..
Tuvalu	2018	..	*10	..	*10	*909	*1	..
	2019	..	*10	..	*10	*903	*1	..
	2020	..	*9	..	*9	*854	*1	..
	2021	..	*10	..	*10	*859	*1	..
Vanuatu	2018	..	181	..	181	609	*50	..
	2019	..	169	..	169	557	*52	..
	2020	..	210	..	210	675	*49	..
	2021	..	224	..	224	702	*51	..
Wallis and Futuna Is.	2018	..	26	..	26	2,189	4	..
	2019	..	27	..	27	2,282	4	..
	2020	..	28	..	28	2,437	3	..
	2021	..	29	..	29	2,493	2	..