

List of countries by carbon emissions^[4]

	Location	% of global total	Fossil emissions (1,000,000 tons per year)		% change from 2000
			2023	2000	
	World	100%	39,023.94	25,725.44	▲ +52%
1	 China	34.0%	13,259.64	3,666.95	▲ +262%
2	 United States	12.0%	4,682.04	5,928.97	▼ -21%
3	 India	7.6%	2,955.18	995.65	▲ +197%
4	 European Union	6.4%	2,512.07	3,563.26	▼ -30%
5	 Russia	5.3%	2,069.50	1,681.14	▲ +23%
6	 Japan	2.4%	944.76	1,248.81	▼ -24%
7	 Iran	2.0%	778.80	353.93	▲ +120%
8	<i>International Shipping</i>	1.8%	706.32	503.29	▲ +40%
9	 Indonesia	1.7%	674.54	299.09	▲ +126%
10	 Saudi Arabia	1.6%	622.91	265.24	▲ +135%
11	 Germany	1.5%	582.95	871.74	▼ -33%
12	 Canada	1.5%	575.01	543.04	▲ +6%
13	 South Korea	1.5%	573.54	474.16	▲ +21%
14	<i>International Aviation</i>	1.3%	491.63	355.32	▲ +38%
15	 Mexico	1.2%	487.09	396.71	▲ +23%
16	 Brazil	1.2%	479.50	349.40	▲ +37%
17	 Turkey	1.1%	438.32	227.05	▲ +93%
18	 South Africa	1.0%	397.37	347.30	▲ +14%
19	 Australia	1.0%	373.62	353.87	▲ +6%
20	 Vietnam	1.0%	372.95	56.52	▲ +560%
21	 Italy ,  San Marino and  Vatican City	0.8%	305.49	454.72	▼ -33%
22	 United Kingdom	0.8%	302.10	551.68	▼ -45%
23	 Poland	0.7%	286.91	313.02	▼ -8%
24	 Malaysia	0.7%	283.32	130.78	▲ +117%
25	 France and  Monaco	0.7%	282.43	401.21	▼ -30%
26	 Taiwan	0.7%	279.85	238.02	▲ +18%
27	 Thailand	0.7%	274.16	174.82	▲ +57%
28	 Egypt	0.6%	249.33	127.91	▲ +95%
29	 Kazakhstan	0.6%	239.87	132.22	▲ +81%

Submitted by Tan
Banier
representing mTAA

	Location	% of global total	Fossil emissions (1,000,000 tons per year)		% change from 2000
			2023	2000	
30	 Spain and  Andorra	0.6%	217.26	313.24	▼ -31%
31	 United Arab Emirates	0.5%	205.99	88.46	▲ +133%
32	 Pakistan	0.5%	200.51	111.87	▲ +79%
33	 Iraq	0.5%	192.91	88.81	▲ +117%
34	 Argentina	0.5%	183.78	136.76	▲ +34%
35	 Algeria	0.5%	180.36	87.94	▲ +105%
36	 Philippines	0.4%	161.29	74.25	▲ +117%
37	 Uzbekistan	0.4%	137.90	130.67	▲ +6%
38	 Ukraine	0.3%	136.20	360.02	▼ -62%
39	 Nigeria	0.3%	127.94	100.30	▲ +28%
40	 Qatar	0.3%	127.91	31.75	▲ +303%
41	 Bangladesh	0.3%	124.79	26.97	▲ +363%
42	 Netherlands	0.3%	122.87	176.91	▼ -31%
43	 Kuwait	0.3%	111.63	54.48	▲ +105%
44	 Colombia	0.3%	100.86	62.57	▲ +61%
45	 Oman	0.2%	93.09	26.32	▲ +254%
46	 Czech Republic	0.2%	90.51	132.31	▼ -32%
47	 Venezuela	0.2%	84.60	137.75	▼ -39%
48	 Belgium	0.2%	84.31	124.97	▼ -33%
49	 Chile	0.2%	84.00	53.85	▲ +56%
50	 Romania	0.2%	70.77	97.42	▼ -27%
51	 Morocco	0.2%	69.86	33.56	▲ +108%
52	 Turkmenistan	0.2%	65.99	39.34	▲ +68%
53	 North Korea	0.2%	64.27	73.81	▼ -13%
54	 Libya	0.2%	61.26	49.28	▲ +24%
55	 Israel and  Palestine	0.2%	61.25	59.30	▲ +3%
56	 Austria	0.2%	58.82	66.69	▼ -12%
57	 Peru	0.1%	58.40	28.98	▲ +102%
58	 Singapore	0.1%	57.07	45.52	▲ +25%
59	 Serbia and  Montenegro	0.1%	56.12	50.64	▲ +11%
60	 Belarus	0.1%	54.18	56.26	▼ -4%

	Location	% of global total	Fossil emissions (1,000,000 tons per year)		% change from 2000
			2023	2000	
61	 Greece	0.1%	51.67	96.05	▼ -46%
62	 Ecuador	0.1%	45.33	22.04	▲ +106%
63	 Norway	0.1%	44.07	41.77	▲ +5%
64	 Hungary	0.1%	43.83	59.48	▼ -26%
65	 Azerbaijan	0.1%	42.77	28.79	▲ +49%
66	 Bulgaria	0.1%	39.79	48.17	▼ -17%
67	 Bahrain	0.1%	37.43	17.77	▲ +111%
68	 Portugal	0.09%	36.17	64.41	▼ -44%
69	 New Zealand	0.09%	35.80	32.89	▲ +9%
70	 Sweden	0.09%	35.39	57.98	▼ -39%
71	 Slovakia	0.09%	34.86	41.68	▼ -16%
72	 Hong Kong	0.09%	34.67	41.90	▼ -17%
73	 Switzerland and  Liechtenstein	0.09%	34.22	44.80	▼ -24%
74	 Myanmar	0.09%	33.37	10.04	▲ +232%
75	 Ireland	0.08%	32.48	43.82	▼ -26%
76	 Finland	0.08%	32.27	57.53	▼ -44%
77	 Tunisia	0.08%	31.50	21.13	▲ +49%
78	 Dominican Republic	0.08%	31.35	19.01	▲ +65%
79	 Angola	0.07%	28.23	16.51	▲ +71%
80	 Mongolia	0.07%	28.12	9.04	▲ +211%
81	 Trinidad and Tobago	0.07%	27.22	19.13	▲ +42%
82	 Denmark	0.07%	26.77	53.16	▼ -50%
83	 Laos	0.07%	26.02	0.93	▲ +2,685
84	 Syria	0.07%	25.59	45.90	▼ -44%
85	 Ghana	0.06%	24.16	6.09	▲ +297%
86	 Bolivia	0.06%	23.81	8.20	▲ +190%
87	 Jordan	0.06%	23.58	16.47	▲ +43%
88	 Cuba	0.06%	22.07	28.99	▼ -24%
89	 Bosnia and Herzegovina	0.06%	22.00	14.28	▲ +54%
90	 Kenya	0.06%	21.73	8.91	▲ +144%
91	 Guatemala	0.05%	21.35	9.69	▲ +120%

	Location	% of global total	Fossil emissions (1,000,000 tons per year)		% change from 2000
			2023	2000	
92	 Sudan and  South Sudan	0.05%	21.27	6.00	▲ +255%
93	 Sri Lanka	0.05%	20.52	11.46	▲ +79%
94	 Tanzania	0.05%	19.37	3.11	▲ +523%
95	 Cambodia	0.05%	17.97	2.00	▲ +798%
96	 Nepal	0.05%	17.93	3.42	▲ +424%
97	 Croatia	0.04%	17.46	19.37	▼ -10%
98	 Lebanon	0.04%	17.33	15.31	▲ +13%
99	 Ethiopia	0.04%	16.71	3.88	▲ +331%
100	 Panama	0.04%	14.72	5.19	▲ +184%
101	 Ivory Coast	0.04%	14.41	6.97	▲ +107%
102	 Puerto Rico	0.04%	13.82	25.18	▼ -45%
103	 Lithuania	0.03%	13.11	11.66	▲ +13%
104	 Georgia	0.03%	12.86	5.21	▲ +147%
105	 Slovenia	0.03%	12.08	15.04	▼ -20%
106	 Senegal	0.03%	12.02	3.99	▲ +201%
107	 Zimbabwe	0.03%	11.74	14.60	▼ -20%
108	 Estonia	0.03%	11.44	17.38	▼ -34%
109	 Honduras	0.03%	10.95	5.00	▲ +119%
110	 Yemen	0.03%	10.90	15.74	▼ -31%
111	 Cameroon	0.03%	10.76	5.73	▲ +88%
112	 Kyrgyzstan	0.03%	10.46	4.80	▲ +118%
113	 Moldova	0.03%	9.93	6.89	▲ +44%
114	 Mozambique	0.02%	9.74	1.57	▲ +520%
115	 Brunei	0.02%	9.72	6.07	▲ +60%
116	 Tajikistan	0.02%	9.31	2.78	▲ +234%
117	 Uruguay	0.02%	8.82	5.57	▲ +58%
118	 North Macedonia	0.02%	8.76	9.04	▼ -3%
119	 Afghanistan	0.02%	8.71	1.02	▲ +757%
120	 Costa Rica	0.02%	8.57	5.12	▲ +67%
121	 El Salvador	0.02%	8.38	5.80	▲ +45%
122	 Paraguay	0.02%	8.25	3.64	▲ +127%

	Location	% of global total	Fossil emissions (1,000,000 tons per year)		% change from 2000
			2023	2000	
123	 Zambia	0.02%	8.06	1.95	▲ +313%
124	 Armenia	0.02%	7.73	3.57	▲ +116%
125	 Botswana	0.02%	7.42	4.10	▲ +81%
126	 Congo	0.02%	7.25	4.51	▲ +61%
127	 Uganda	0.02%	7.22	1.41	▲ +411%
128	 Cyprus	0.02%	7.18	7.13	▲ +1%
129	 Luxembourg	0.02%	7.01	8.80	▼ -20%
130	 Jamaica	0.02%	6.86	10.21	▼ -33%
131	 Mali	0.02%	6.66	0.80	▲ +730%
132	 Latvia	0.02%	6.55	7.23	▼ -9%
133	 Malawi	0.02%	6.45	3.10	▲ +108%
134	 Benin	0.02%	6.44	1.54	▲ +317%
135	 New Caledonia	0.02%	6.21	2.18	▲ +185%
136	 Burkina Faso	0.02%	6.00	0.88	▲ +583%
137	 Papua New Guinea	0.02%	5.95	2.95	▲ +102%
138	 Nicaragua	0.01%	5.73	3.77	▲ +52%
139	 Gabon	0.01%	4.93	6.60	▼ -25%
140	 Mauritania	0.01%	4.65	1.07	▲ +336%
141	 Albania	0.01%	4.59	3.23	▲ +42%
142	 Namibia	0.01%	4.36	1.95	▲ +124%
143	 Mauritius	0.01%	4.21	2.44	▲ +73%
144	 Madagascar	0.01%	4.10	1.69	▲ +142%
145	 Democratic Republic of the Congo	0.01%	3.80	1.88	▲ +102%
146	 Equatorial Guinea	0.01%	3.78	2.74	▲ +38%
147	 Guinea	0.01%	3.72	1.47	▲ +153%
148	 Haiti	0.009%	3.54	1.69	▲ +109%
149	 Guyana	0.008%	3.30	1.66	▲ +99%
150	 Iceland	0.008%	3.09	2.85	▲ +8%
151	 Macao	0.008%	3.01	1.48	▲ +104%
152	 Maldives	0.007%	2.88	0.64	▲ +352%
153	 Niger	0.007%	2.82	0.70	▲ +302%

	Location	% of global total	Fossil emissions (1,000,000 tons per year)		% change from 2000
			2023	2000	
154	 Suriname	0.007%	2.63	1.48	▲ +78%
155	 Chad	0.007%	2.57	0.24	▲ +962%
156	 Réunion	0.007%	2.57	2.05	▲ +25%
157	 Togo	0.006%	2.49	1.25	▲ +99%
158	 Curaçao	0.006%	2.43	5.67	▼ -57%
159	 Fiji	0.006%	2.21	1.46	▲ +51%
160	 Bhutan	0.005%	1.99	0.41	▲ +388%
161	 Malta	0.004%	1.68	2.13	▼ -21%
162	 Bahamas	0.004%	1.68	1.00	▲ +69%
163	 Rwanda	0.004%	1.65	0.68	▲ +142%
164	 Liberia	0.004%	1.64	0.40	▲ +307%
165	 Palau	0.004%	1.44	2.12	▼ -32%
166	 Eswatini	0.004%	1.39	1.10	▲ +27%
167	 French Polynesia	0.003%	1.26	0.72	▲ +75%
168	 Seychelles	0.003%	1.24	0.76	▲ +63%
169	 Guadeloupe	0.003%	1.17	0.62	▲ +89%
170	 Martinique	0.003%	1.09	0.67	▲ +62%
171	 Sierra Leone	0.003%	1.07	0.43	▲ +147%
172	 Cape Verde	0.003%	1.01	0.28	▲ +256%
173	 Lesotho	0.002%	0.88	0.35	▲ +148%
174	 Somalia	0.002%	0.87	0.63	▲ +38%
175	 Burundi	0.002%	0.84	0.29	▲ +186%
176	 Barbados	0.002%	0.80	0.59	▲ +35%
177	 Djibouti	0.002%	0.75	0.74	▲ +1%
178	 East Timor	0.002%	0.70	0.23	▲ +208%
179	 Gibraltar	0.002%	0.69	0.34	▲ +102%
180	 Eritrea	0.002%	0.67	0.67	— no change%
181	 Gambia	0.002%	0.61	0.27	▲ +126%
182	 Greenland	0.001%	0.58	0.00	▲ +43,369
183	 Aruba	0.001%	0.53	0.27	▲ +97%
184	 Samoa	0.001%	0.47	0.19	▲ +149%

	Location	% of global total	Fossil emissions (1,000,000 tons per year)		% change from 2000
			2023	2000	
185	 <u>Solomon Islands</u>	0.001%	0.42	0.24	▲ +78%
186	 <u>French Guiana</u>	0.001%	0.38	0.17	▲ +119%
187	 <u>Central African Republic</u>	0.001%	0.37	0.26	▲ +43%
188	 <u>Cayman Islands</u>	0.001%	0.36	0.13	▲ +172%
189	 <u>Bermuda</u>	0.001%	0.35	0.15	▲ +133%
190	 <u>Guinea-Bissau</u>	0.001%	0.35	0.20	▲ +71%
191	 <u>Antigua and Barbuda</u>	0.001%	0.32	0.14	▲ +139%
192	 <u>Comoros</u>	0.001%	0.32	0.09	▲ +250%
193	 <u>Saint Lucia</u>	0.001%	0.30	0.10	▲ +207%
194	 <u>Vanuatu</u>	0.001%	0.29	0.08	▲ +238%
195	 <u>Belize</u>	0.001%	0.28	0.14	▲ +101%
196	 <u>Western Sahara</u>	0.001%	0.26	0.26	▲ +4%
197	 <u>Tonga</u>	0.001%	0.22	0.10	▲ +118%
198	 <u>São Tomé and Príncipe</u>	0.001%	0.21	0.06	▲ +288%
199	 <u>Grenada</u>	0.0004%	0.14	0.06	▲ +149%
200	 <u>Cook Islands</u>	0.0004%	0.14	0.06	▲ +133%
201	 <u>Saint Kitts and Nevis</u>	0.0003%	0.12	0.05	▲ +140%
202	 <u>Turks and Caicos Islands</u>	0.0003%	0.10	0.02	▲ +481%
203	 <u>Kiribati</u>	0.0002%	0.10	0.03	▲ +197%
204	 <u>Saint Vincent and the Grenadines</u>	0.0002%	0.10	0.04	▲ +131%
205	 <u>Dominica</u>	0.0002%	0.08	0.06	▲ +44%
206	 <u>British Virgin Islands</u>	0.0002%	0.08	0.03	▲ +172%
207	 <u>Saint Pierre and Miquelon</u>	0.0001%	0.04	0.02	▲ +129%
208	 <u>Anguilla</u>	0.0001%	0.02	0.02	▲ +48%
209	 <u>Falkland Islands</u>	0.0000%	0.02	0.01	▲ +170%
210	 <u>Saint Helena, Ascension and Tristan da Cunha</u>	0.0000%	0.02	0.01	▲ +58%
211	 <u>Faroe Islands</u>	0.0000%	0.00	0.00	▲ +20%

Fossil CO₂ emissions 2023 vs. fossil CO₂ emissions per capita 2023



CONNECTING PEOPLE
& STRATEGIES TO DRIVE
MAINE'S ECONOMY

News (<https://www.mdf.org/news/>) | Events (<https://www.mdf.org/events/>) |
Email Signup (<https://www.mdf.org/email-signup/>) |
Become a member (<https://www.mdf.org/membership/become-a-member/>)

(http4l
www4
Maine
U

LEADERSHIP DEVELOPMENT
([HTTPS://WWW.MDF.ORG/
LEADERSHIP-DEVELOPMENT/](https://www.mdf.org/leadership-development/))

COMMUNITY & WORKFORCE
PROGRAMS & PARTNERSHIPS
([HTTPS://WWW.MDF.ORG/
PROGRAM-PARTNERSHIPS/](https://www.mdf.org/program-partnerships/))

ECONOMIC POLICY & RESEARCH
([HTTPS://WWW.MDF.ORG/
ECONOMIC-POLICY-RESEARCH/](https://www.mdf.org/economic-policy-research/))

ABOUT US
([HTTPS://
WWW.MDF.ORG/
ABOUT-US/](https://www.mdf.org/about-us/))

GIVE ([HTTPS://WWW.MDF.ORG/
GIVE/](https://www.mdf.org/give/))

JOIN

2024 Measures of Growth Report

2024 Measures of Growth (<https://www.mdf.org/economic-policy-research/measures-of-growth-report/>) > Environment ([news/mog_cat/environment/](https://www.mdf.org/news/mog_cat/environment/)) > **Greenhouse Gas Emissions**

★ Greenhouse Gas Emissions

+1.4%

From 2020 to 2021, GHG emissions rose 1.4% but still shows major progress toward the long-term goal.

% **No significant movement** since the last available data

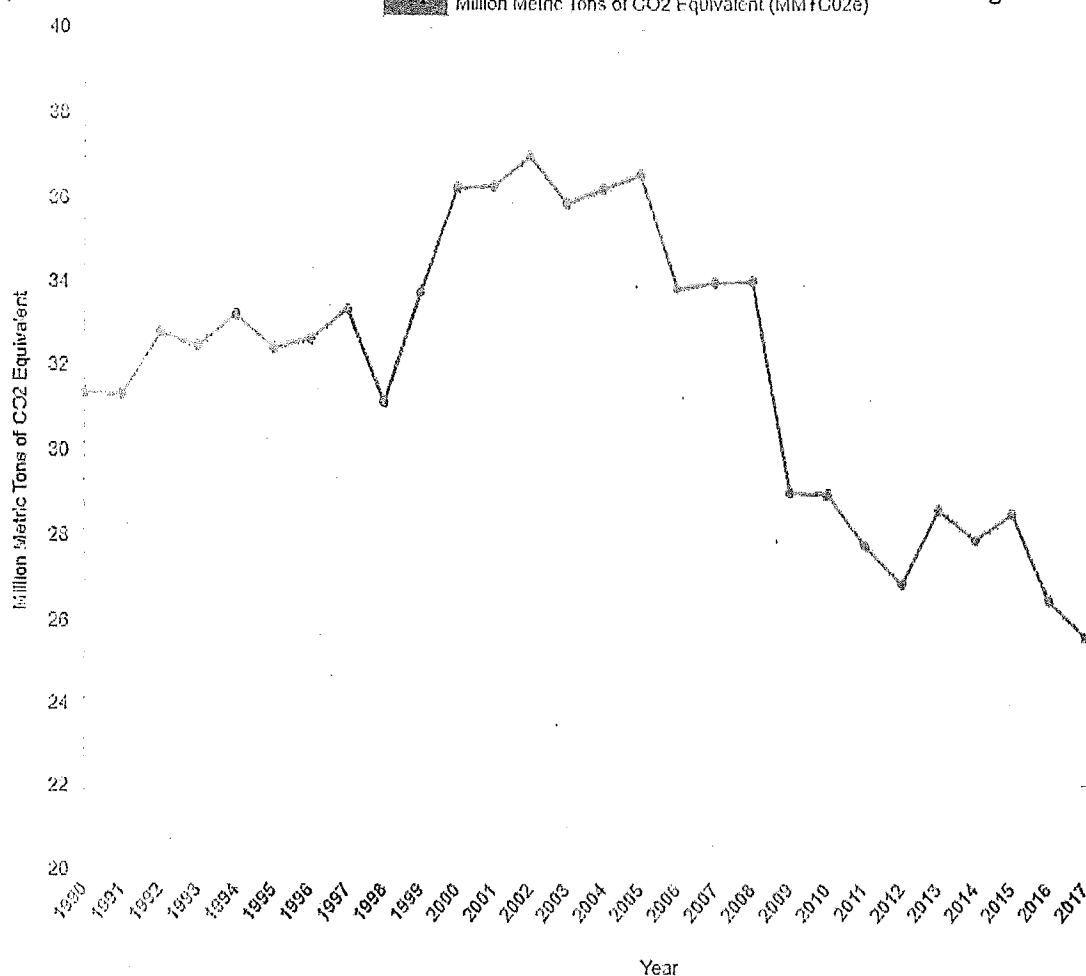
Benchmark: Greenhouse gas emissions will fall 45% below 1990 levels by 2030.

Overview

In 2020, Maine's greenhouse gas (GHG) emissions fell when the COVID-19 pandemic temporarily halted daily activities. In 2021, they rose slightly, from 21.6 to 21.9 million metric tons of carbon dioxide. However, emissions were still 30% below 1990 levels, meaning Maine is continuing to progress toward its goal of 45% below 1990 levels by 2030.

In 2003, Maine became the first U.S. state to enact a statutory GHG target. The original goal was for emissions to be 10% below 1990 levels by 2020. Maine has been consistently below this target since 2016. In 2019, further legislation set the goal of reducing emissions 45% below 1990 levels by 2030 and 80% by 2050.

According to the Maine Department of Environmental Protection, 94% of Maine's emissions are from energy consumption, mostly from the combustion of petroleum products. The other 6% is from agriculture, industrial processes, and waste management. Movement toward renewable energy sources and lower carbon fuels such as natural gas have contributed to reduced emissions.



Source: Maine Department of Environmental Protection

[Previous Indicator \(https://www.mdf.org/measures-of-growth/gender-wage-equity/\)](https://www.mdf.org/measures-of-growth/gender-wage-equity/)

Maine Development Foundation

P.O. Box 3

Augusta, ME 04332

P: 207.622.6345 (tel:2076626345)

Email: mdf@mdf.org (mailto:mdf@mdf.org)

© 2025 MDF.

All rights reserved.

([https://](https://www.facebook.com/pages/Maine-Development-Foundation)

[www.facebook.com/](https://www.facebook.com/pages/Maine-Development-Foundation)

[pages/](https://www.facebook.com/pages/Maine-Development-Foundation) ([https://](https://www.facebook.com/pages/Maine-Development-Foundation)

Maine- [www.youtube.com/](https://www.facebook.com/pages/Maine-Development-Foundation)

Development [channel/](https://www.facebook.com/pages/Maine-Development-Foundation)

Foundation [1673650132148](https://www.facebook.com/pages/Maine-Development-Foundation) LYxtRYg)

Sign up for our Newsletter

Receive periodic updates on MDF News & Events.

SIGN UP HERE ([HTTPS://WWW.MDF.ORG/EMAIL-SIGNUP/](https://www.mdf.org/email-signup/))