

CANADA'S CO₂ EMISSIONS IMPACT ON GLOBAL TEMPERATURE

0.000247°C per year, or 1°C in 4055 years.

Source: Intergovernmental Panel on Climate Change AR6, "CLIMATE CHANGE 2023: [Synthesis Report](#)"

The public is poorly served by descriptions of the benefits of emissions reductions in terms of tonnes of CO₂. The **real objective** is to defer or reverse global warming, **measured in degrees**. Governments fail to provide Canadians "cost / benefit" analyses of carbon tax or "green energy" programs in meaningful comprehensible terms. Without this knowledge, voters cannot make informed decisions. The purpose of this document is to provide readily understandable examples of the **actual relationship between CO₂ emissions and global temperature**.

The table below is based on the latest science as reported by the *Intergovernmental Panel on Climate Change* ("IPCC"). The relationship between atmospheric CO₂ and temperature is very poorly understood, as is the relative contribution between man-made and natural causes. According to the IPCC's latest comprehensive [report](#): "**For every 1000 GtCO₂ emitted by human activity, global surface temperature rises by 0.45°C (best estimate, with a likely range from 0.27°C to 0.63°C).**"

Translated to more commonly used metrics, this is a **very** broad "likely" range of 0.00000027°C to 0.00000063°C temperature impact per megatonne (Mt) CO₂ emitted. The science is **not** settled. Canada's total emissions in 2022 were 548 Mt. This means that we warmed the globe by 0.000148°C to 0.000345°C, or 1°C per 2897 to 6759 years. IPCC's "best estimate" (0.00000045°C) is used in the table below and the rest of this document. This gives Canada's impact at 0.000247°C or 1°C in 4055 years.

Canada's initial carbon tax was forecast to reduce emissions by 90 Mt in 2022. If this was actually achieved, global warming was deferred by 0.000041°C or 1°C per 24691 years.

Another way to put Canada's impact in context is to point out that in recent times China's annual emissions increase has exceeded Canada's total output every 2.4 years.

CO₂ EMISSIONS: ANNUAL IMPACT ON GLOBAL TEMPERATURE				
IPCC: "For every 1000 GtCO ₂ emitted by human activity, global surface temperature rises by 0.45°C"				
SOURCE - https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf				
Annual CO ₂ impact on temperature - °C / megatonne:		0.00000045		
Global and national CO ₂ emissions source:	%	Annual emissions megatonnes CO ₂	Annual impact on global temp: °C	Years to affect global warming by 1°C
https://ourworldindata.org/co2-emissions				
Globe - 2022	100%	37150	0.016718	60
China - 2022	30.68%	11397	0.005129	195
United States - 2022	13.61%	5057	0.002276	439
Canada - 2022	1.48%	548	0.000247	4055
Alberta - 2021	0.69%	256	0.000115	8681
Canada - Oil and gas - 2021	0.51%	189	0.000085	11758
Ontario - 2021	0.41%	151	0.000068	14717
Canada - Transport sector - 2021	0.40%	150	0.000068	14815
Canada original carbon tax projection for 2022	0.24%	90	0.000041	24691
Canada - Agriculture sector - 2021	0.19%	69	0.000031	32206
Canada - Electricity sector- 2021	0.14%	52	0.000023	42735
Toronto - 2021	0.04%	15	0.000007	148148

PHYSICAL IMPACT OF EMISSIONS REDUCTION:

If Canada reduced emissions to **zero**, what would be the physical impact?

Altitude, emissions reduction and temperature:

Temperature decreases with height. This '[lapse rate](#)' averages 6.5°C / kilometer increase in altitude. If Canada's emissions suddenly went to zero, the theoretical impact would be:

$$0.000247^{\circ}\text{C} / 6.5^{\circ}\text{C} / \text{kilometer} = 0.000038 \text{ kilometers.}$$

This is 3.8 centimeters or 1.5 inches.

Latitude, emissions reduction and temperature:

As we travel away from the equator, the climate cools. On average, the cooling rate in North America is 0.0032°C / kilometer. If Canada's emissions suddenly went to zero, the theoretical impact would be:

$$0.000247^{\circ}\text{C} / 0.0032^{\circ}\text{C} / \text{kilometer} = 0.077 \text{ kilometers}$$

This is less than the length of a football field.

CONCLUSIONS:

The reason your governments refuse to reveal the **temperature** impacts of emissions reduction programs and carbon taxes is simple: Canada has a small 1.5% contribution to global CO₂ emissions and current "green" technologies have a minimal impact on global temperature at an enormous cost. With an uninformed public, politicians can freely engage in virtue signaling – pretending that they are actually doing something meaningful to save the planet for future generations.

Canadians deserve a political party with the courage to tell people the truth.

Canadian media fails to hold the government to account and is complicit in helping the likes of Greta Thunberg to convince people that we are doomed in a matter of a few years. The significant damage to the mental health of a scientifically illiterate public is ignored.

Since 1979 the globe has warmed at a [rate](#) of 1.5°C per century. Is this an issue? Yes. An existential crisis? Hardly. Can we solve this by continuing to throw money at ineffective solutions. No!

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