

---

---

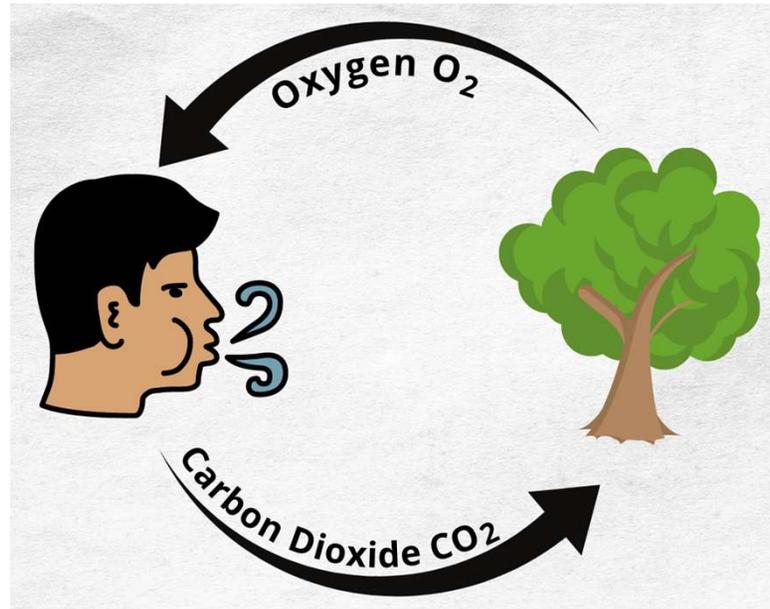
# Greenhouse Gases (GHG) Fact Sheet

Prepared: June 2021

# What are Greenhouse Gases (GHG)?

Greenhouse gases (GHG) are essentially 93% water vapour, carbon dioxide and methane. They are emitted from normal human and animal activities, like exhaling.

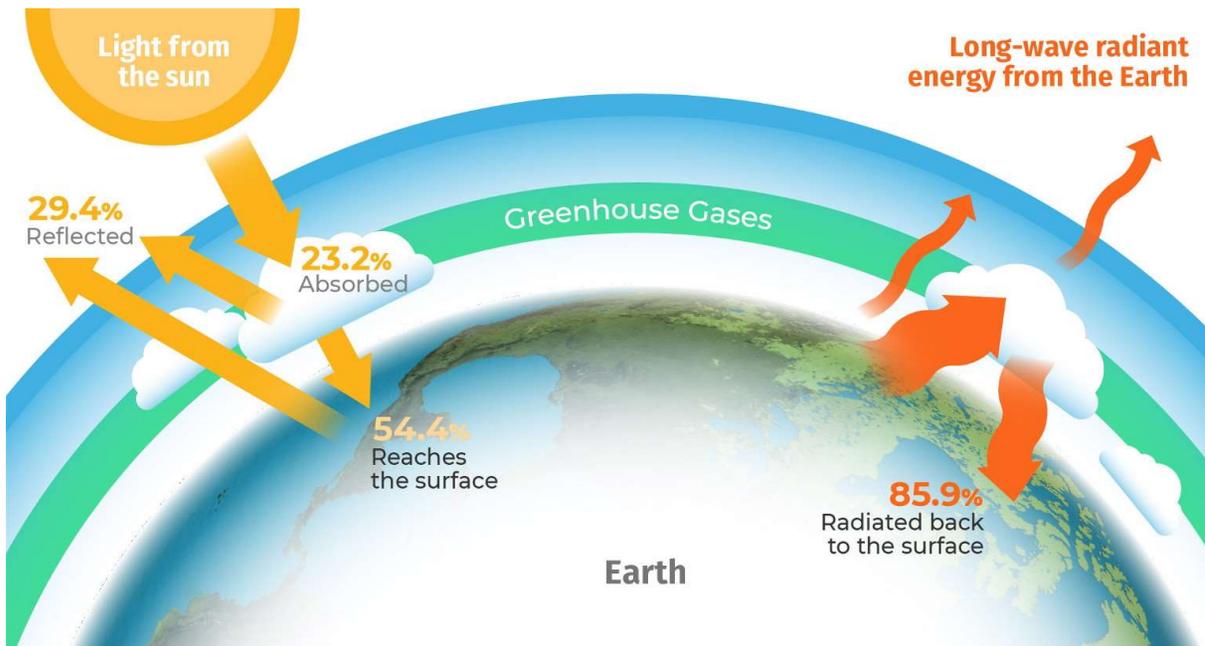
These gases have a natural cycle where nature attempts to balance them in the atmosphere. For example, plants inhale carbon dioxide, while humans and animals exhale it.



## GHG FACTS

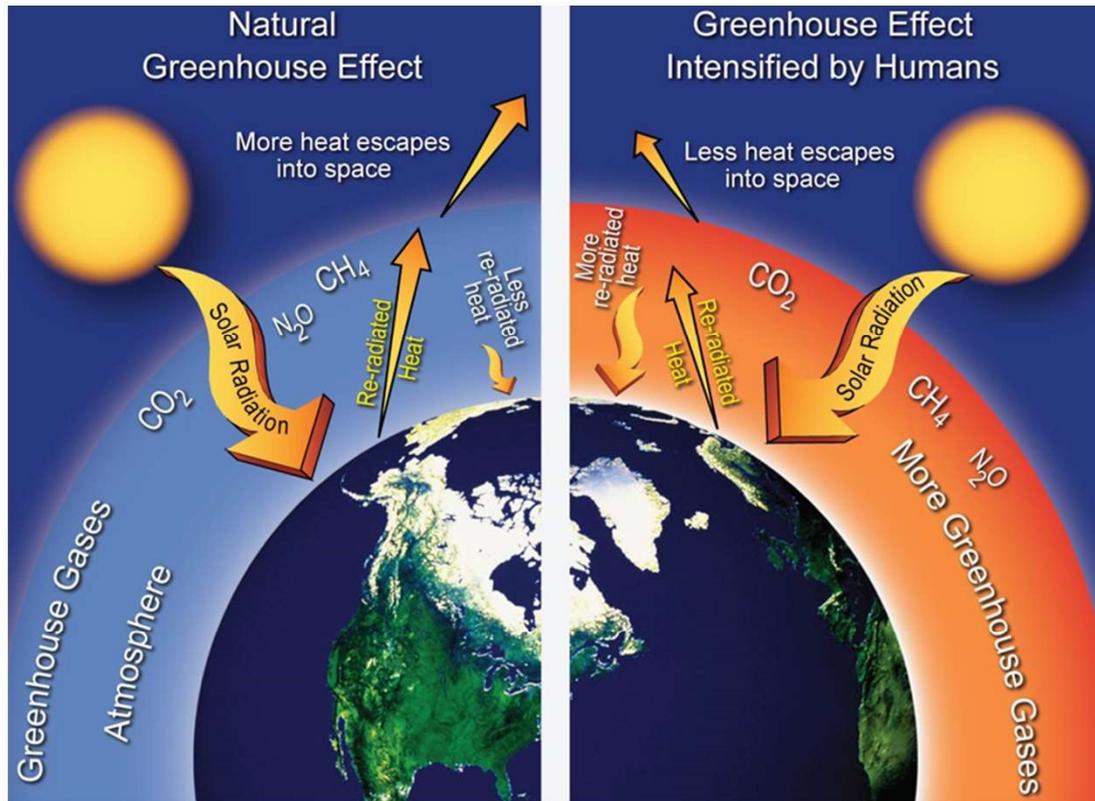
- Natural cycles reduce about half the carbon dioxide emitted by human activities from the atmosphere.
- Carbon-based energy generation is the highest source of GHG emissions.
- Transportation is the second-largest source of GHG emissions.
- Agricultural activities are the largest source of methane emissions.

# Why are Greenhouse Gases Important?



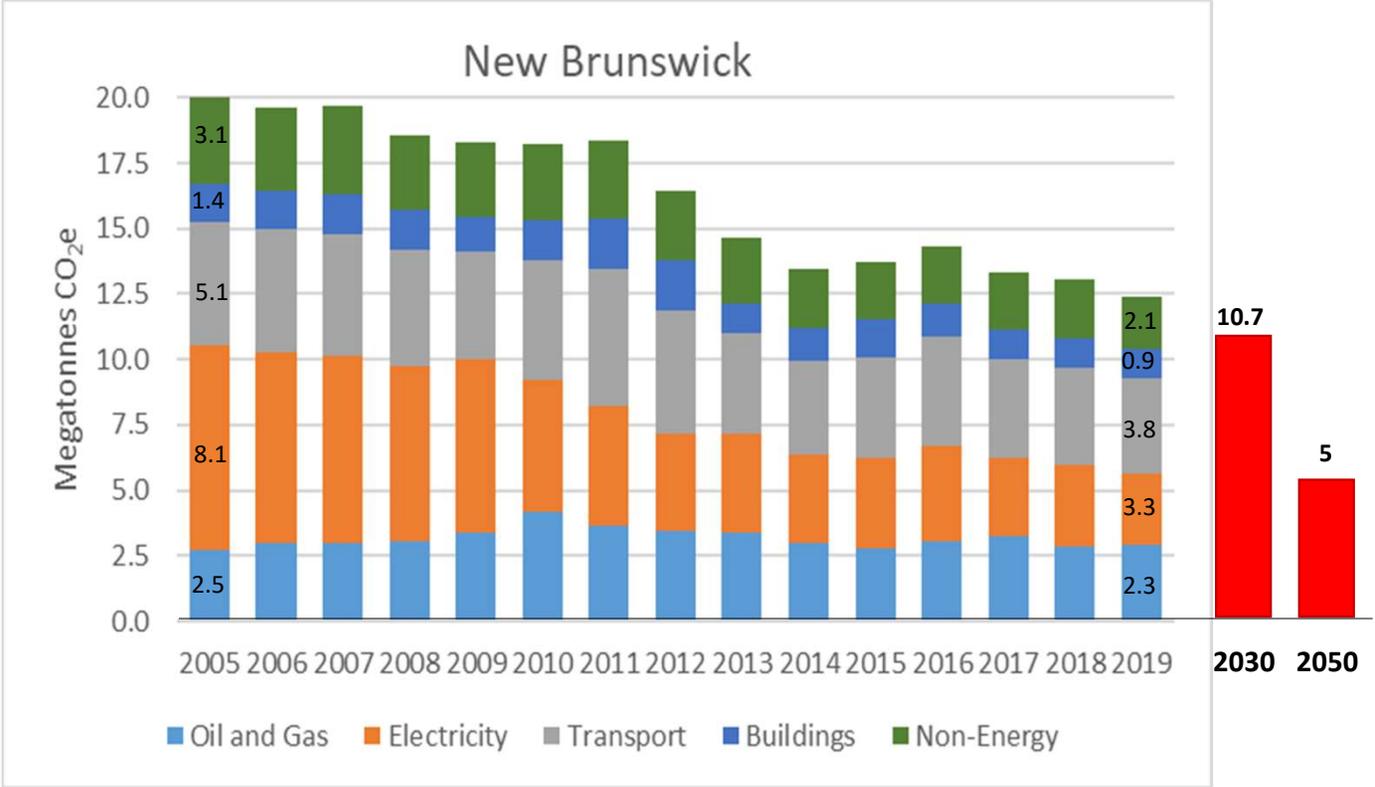
- Greenhouse Gases create a natural heat blanket in the earth's atmosphere that helps trap heat rays from the sun and radiates them back to the earth.
- Without the GHG blanket over the earth, the earth would be too cold to support life.
- 1 tonne is the emission equivalent of driving a car from Calgary to Moncton, or from heating a Canadian home for the winter.
- It takes 1 million tonnes, to equal 1 Megatone (Mt)

# Why reduce Greenhouse Gases?



- Since the Industrial Revolution, GHG emissions have increased the amount of heat trapped in the atmosphere.
- There is more GHG in the atmosphere than at any time in history.
- Natural processes can no longer maintain optimum balance, causing extreme weather conditions.
- Transportation activities emit 3.8 (Mt) of GHG in New Brunswick.

# New Brunswick Emission Targets and Progress



- Canada committed to a **40-45% reduction rate in GHG emissions by 2030.**
- New Brunswick is **leading** the country in achieving this.
- Since 2005, the **electricity sector** has the **most** emission reductions.

**■ = Targets for the Province of New Brunswick**

**■ = Non-Energy is Agriculture, Waste, etc.**



# Resources

- Nunez, C. (2021, May 3). *Carbon dioxide in the atmosphere is at a record high. Here's what you need to know.* Environment.  
<https://www.nationalgeographic.com/environment/article/greenhouse-gases>.
- *Greenhouse Gases.* Climate Atlas of Canada. (n.d.).  
<https://climateatlas.ca/greenhouse-gases>.
- Windjammer, Asha, Jaycee, & Adamson, L. (2020, May 15). *Infographic: What is a tonne of greenhouse gas emissions?* Citizens for Public Justice.  
<https://cpj.ca/infographic-what-is-a-tonne-of-greenhouse-gas-emissions/>.
- *Tables-IPCC-Sector-Provinces-Territories.* C. (2021, March 31).  
<https://data.ec.gc.ca/data/substances/monitor/canada-s-official-greenhouse-gas-inventory/C-Tables-IPCC-Sector-Provinces-Territories/?lang=en>.

