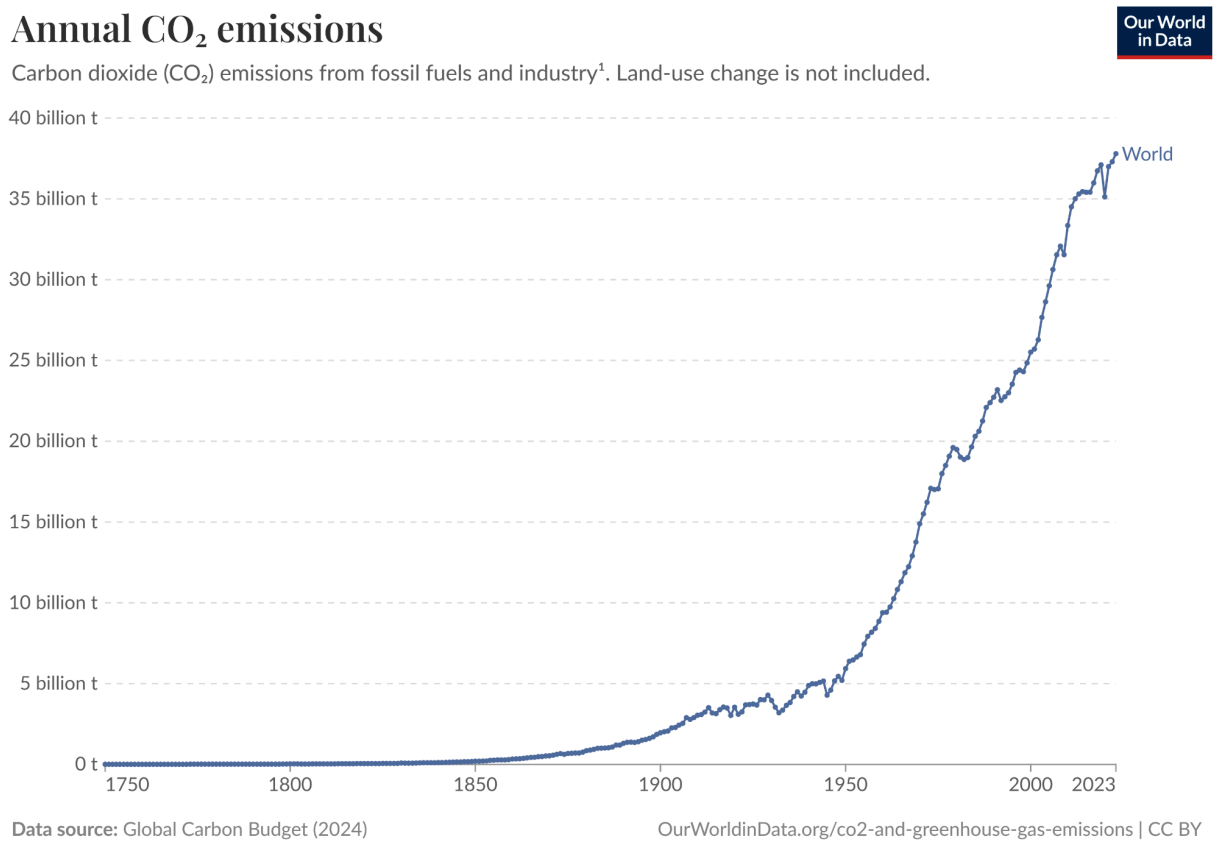
Carbon Emission

What is carbon emission:

The release of CO2 into the atmosphere is known as carbon emission.

Why is it important to calculate?

If the carbon emission is high then there is a cause of Global Warming. Thai increase the earth's temperature and leads to melting of ice.



1. Fossil emissions: Fossil emissions measure the quantity of carbon dioxide (CO_2) emitted from the burning of fossil fuels, and directly from industrial processes such as cement and steel production. Fossil CO_2 includes emissions from coal, oil, gas, flaring, cement, steel, and other industrial processes. Fossil emissions do not include land use change, deforestation, soils, or vegetation.

How my Idea will help:

This keeps a track of the carbon emission data of a single user this keeps the effect in reducing carbon emission.

How do we achieve this?

Inputs from user:

1. Kilometer they travelled (public and private transport)
2. Diet (vegan, vegetarian, nonvegetarian)
3. Energy they used (Electricity, Gas and solar)

Processing:

1. Using predefined formals
2. Dataset
3. approximate values

Output:

1. The total carbon emission
2. Compared the values of the other user
3. Tips to reduce carbon emission

Formulas:

Transportation:

1. Car (petrol): 0.192 kg CO2/km
2. Car (diesel): 0.171 kg CO2/km
3. Bus: 0.089 kg CO2/km
4. Train: 0.041 kg CO2/km
5. Bicycle/Walking: 0 kg CO2/km

Energy Usage

Energy Usage:

1. Electricity (grid average): 0.475 kg CO2/kWh
2. Natural Gas: 0.185 kg CO2/kWh
3. Solar/Wind: 0 kg CO2/kWh

Diet:

1. Vegan: 2.89 kg CO2/day
2. Vegetarian: 3.81 kg CO2/day
3. Non-Vegetarian: 5.63 kg CO2/day

Water:

1. Landfill waste: 1.2 kg CO2/kg
2. Recycled waste: 0.1 kg CO2/kg

Total Carbon Footprint:

Total Carbon Footprint = Transportation Emissions + Energy Emissions + Diet Emissions + Waste Emissions

Technologies used:

Front End

1. HTML,CSS,JS or React Native

Back End

Programming language:

1. Python or PHP

Database:

1. MySQL

APIs:

1. Carbon interface API
2. Google Maps API

Conclusion:

The Carbon Footprint Calculator is a practical and impactful project that can be developed within a tight deadline of 3 days. By leveraging standardized emission factors and simple formulas, you can create an app that helps users track their carbon emissions from activities like transportation, energy usage, diet, and waste.