CO2 Worldwide Emission

Group U3

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Background

Purpose

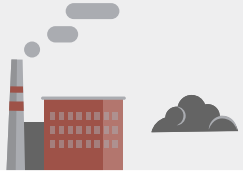
Visualize global carbon emissions from 2002 to 2022 by continent, including comparisons with GDP, CO2 per capita, and population.

Target audience

Students, researchers, policymakers, and anyone interested in sustainable development

Vision

Develop an interactive data visualization tool for empowering action towards reducing carbon footprint and promoting sustainability for individuals and organizations



Data Resource

Data on CO2 and Greenhouse Gas Emissions by Our World in Data with updated regularly

analysis primarily focuses on two indicators, both based on the territorial emissions of carbon dioxide produced by a country

CO2_per_capita

the annual carbon dioxide emissions per person, enabling comparison of per capita emissions levels across different countries or regions

CO2

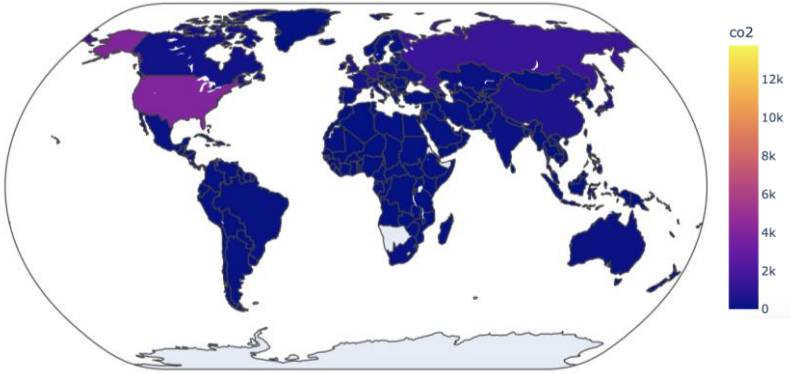
total carbon dioxide emissions in million tons and enables comparisons of emissions levels across different countries or regions, but does not consider population factors

Dashboard

Year

1969

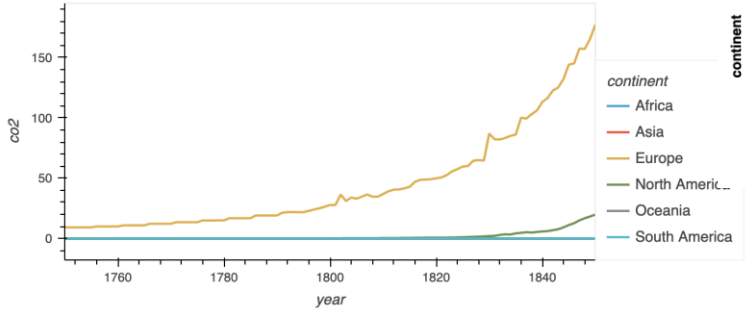
CO2 Emissions by Country (1969)



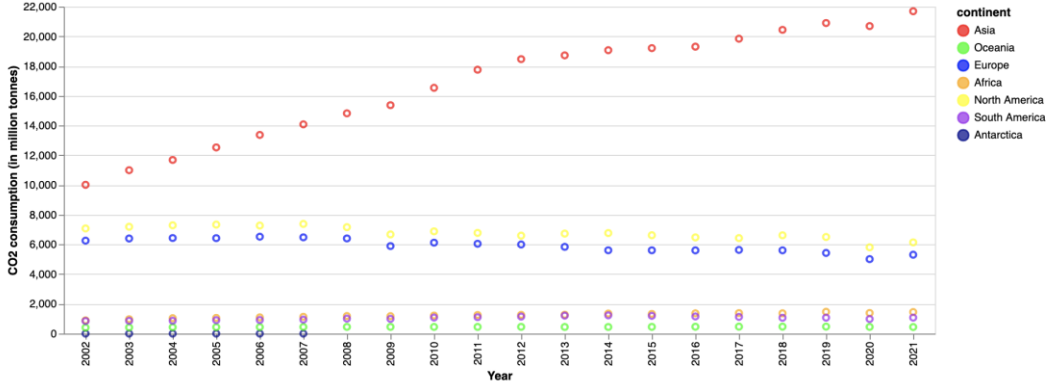
Year slider: **1850**

co2 | co2_per_capita

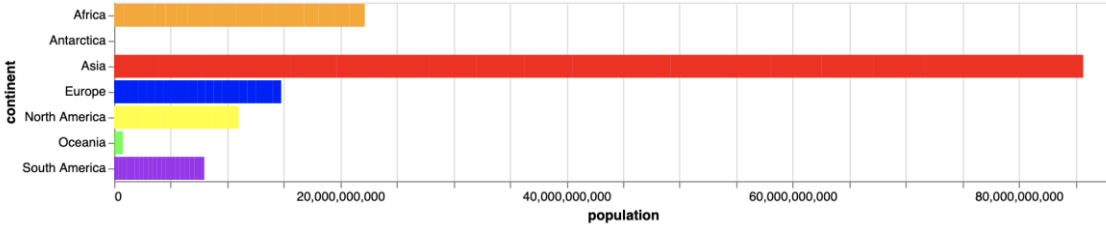
CO2 emission by continent



CO2 Consumption per Continent from 2002-2021



Population per Continent in 2021



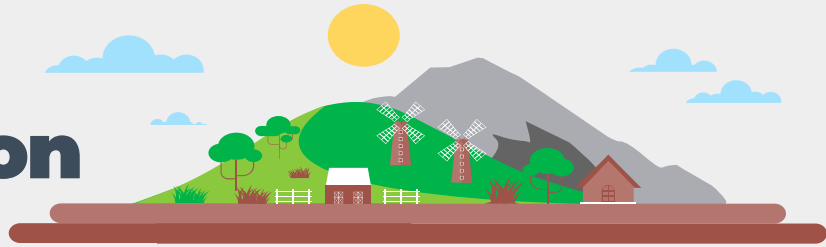
Interactive Demo

Insight

- China and the United States are the two largest emitter of CO2
- CO2 emission in most continents is increasing with years except for Europe and North America
- CO2 emission in Asia increased dramatically after 1950

- CO2 emission of each region is highly correlated with its population. However, the causal relationship between regional population and CO2 emission is to be discussed.
- Africa's emission remains low despite its relatively high population level worldwide. Some deeper socio-economical reasons may be embedded.

Limitation



Enhance the tool's usefulness by exploring other types of CO_2 emission indicators, such as those related to business, land use, and trade.

Use more different type of charts and interactive tools to extract insights from various dimensions, especially links between multiple views.

Associate data from more perspectives (eg: macro environments) in order to have potential exploratory insights

Thanks!