`world.emissions` *Greenhouse gas emissions from Our World in Data*

Description

A subset of the complete CO_2 and Greenhouse Gas Emissions dataset maintained by Our World in Data (https://ourworldindata.org/) through 2019. The data follow a format of 1 row per "country" per year.

Usage

```
data("world.emissions")
```

Format

A data frame with 23708 observations on the following 15 variables.

`iso_code` Three-letter summary code for countries (ISO 3166-1 alpha-3).

`country` A character vector identifying country.

`year` Year data were collected, 1750-2019

`co2` Annual production-based emissions of carbon dioxide (CO_2), measured in million tonnes. This is based on territorial emissions, which do not account for emissions from traded goods.

`coal_co2` Annual production-based emissions of CO_2 from coal, measured in million tonnes.

`flaring_co2` Annual production-based emissions of CO_2 from flaring, measured in million tonnes.

`gas_co2` Annual production-based emissions of CO_2 from gas, measured in million tonnes.

`oil_co2` Annual production-based emissions of CO_2 from oil, measured in million tonnes.

`other_industry_co2` Annual production-based emissions of CO_2 from other industry sources, measured in million tonnes. Based on territorial emissions,.

`total_ghg` Total greenhouse gas emissions, including land use change and forestry, measured in million tonnes of CO_2-equivalents.

`methane` Total methane emissions, measured in million tonnes of CO_2-equivalents.

`nitrous_oxide` Total nitrous oxide emissions, measured in million tonnes of CO_2-equivalents.

`primary_energy_consumption` Primary energy consumption, measured in terawatt-hours per year.

`population` Population by country, available from 1800 to 2021 based on Gapminder data, HYDE, and UN Population Division (2019) estimates.

`gdp` Gross domestic product measured in international-$ using 2011 prices to adjust for price changes over time (inflation) and price differences between countries. Calculated by multiplying GDP per capita with population.

`continent` Continent. Caribbean countries are distinguished from other North American countries. Additionally a level called `"Redundant"` is included to parse redundant entries in the `country` column, e.g., the "countries" `Libya` and `Africa` contain redundant information.

Details

Thanks to BIOL 6651 students at ISU who annotated these data: Laurel Faurot, Sawyer Finley, Spencer Roop, Therese Balkenbush, Lauren Tucker, Jessica Call and Riley Lanfear.

`Mexico` Population in Mexico...

`Saudi.Arabia` Population in Saudi Arabia...

`United.Arab.Emirates` Population in the United Arab Emirates...

`United.States` Population in United States...

`World.Total` Population totals for the world...

Source

US census bureau: https://www.census.gov/programs-surveys/international-programs/about/idb.html

Source

https://github.com/owid/co2-data

References

According to Our World in Data (https://ourworldindata.org/), CO_2 data are sourced from the Global Carbon Project (https://www.globalcarbonproject.org) which releases updates of CO_2 emissions data annually. Greenhouse gas emissions (including methane, and nitrous oxide) are sourced from the CAIT Climate Data Explorer (http://cait.wri.org/), and downloaded from the Climate Watch Portal (https://www.climatewatchdata.org. Energy consumption data this data are sourced from a combination of two sources The Statistical Review of World Energy https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html and World Bank Development Indicators https://databank.worldbank.org/source/world-development-inc Although The Statistical Review of World Energy is published annually, it does not provide data for all countries. For countries absent from this dataset, we calculated primary energy by multiplying the World Bank, World Development Indicators metric Energy use per capita by total population figures. The World Bank sources its metric from the International Energy Agency (IEA). Other variables were collected from a variety of sources including the United Nations, Gapminder, and the Maddison Project Database.

Examples

```
data(world.emissions)
```

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world.pop *Population levels in various countries from 1980-2006*

Description

Population levels of 13 countries from 1980-2006. Population numbers are rounded to the nearest 100,000. More up-to-date data can be found in this package at world.emissions

Usage

```
data(world.pop)
```

Format

The dataframe contains 14 columns

`Year` The year of population measurements (1980-2006)

`Afghanistan` Population in Afghanistan from 1980-2006, rounded to the nearest 100,000.

`Brazil` Population in Brazil...

`Canada` Population in Canada...

`China` Population in China...

`Finland` Population in Finland...

`Italy` Population in Italy...

`Japan` Population in Japan...

`Kenya` Population in Kenya...