

PSYAT 231 Final Project
Broderick and Weinberg
Data Dictionary

The following data dictionary refers to the variables found in the "Global Environmental Indicators" dataset hosted by Ruchi Bhatia and made available on Kaggle by the UNSD Global Environmental Statistics Group. Only variables used in the models are listed here. For a full set of variables available in the dataset, see <https://www.kaggle.com/ruchi798/global-environmental-indicators>.

Population, area, and GDP data comes from the World Bank website (sources below) and was manually matched in the "02_final_crosswalk.csv" file (available with the project resources in the crosswalk folder). Rarely, when world bank data was not available for a country, Wikipedia was generally used for a rough estimate.

For a summary of how variables were selected for use in the report, see the project report.

Quoted descriptions come from the .xlsx files available on the Kaggle webpage.

Category	Kaggle File	Kaggle Variable Name	Code Variable Name	Unit	Original Source	Additional Notes
All	All of the following	Varies	Country_Final	Categorical	NA	The name varies, but is present in all files. Cleaned and used for merging as part of the data cleaning process
All	All of the following	Varies	Country_ID_Final	Categorical	NA	The name varies, but is present most files. Cleaned and used for merging as part of the data cleaning process
Air and Climate	CH4_Emissions.csv	CH4 emissions, latest year	CH4	1000 tonnes of CO2 Equivalent	UN Framework Convention on Climate Change (UNFCCC)	
Air and Climate	CO2_Emissions.csv	CO2 emissions, latest year	CO2	Thousands of tonnes (1000 t)	UN Framework Convention on Climate Change (UNFCCC)	
Air and Climate	GHG_Total_without_LLUCF.csv	GHG total without LLUCF, latest year	GHG	1000 tonnes of CO ₂ equivalent	UN Framework Convention on Climate Change (UNFCCC)	
Air and Climate	NOx_Emissions.csv	NOx emissions, latest year	NOx	Thousands of tonnes (1000 t)	UN Framework Convention on Climate Change (UNFCCC)	
Energy and Minerals	Energy Indicators.csv	Energy supply (petajoules)	energy_supply_petajoules	PetaJoules	UNSD Energy Statistics Yearbook.	
Energy and Minerals	Energy intensity measured in terms of primary energy and GDP.csv	2017 energy_intensity_2017	2017 energy_intensity_2017	Megajoules per USD contant 2011 PPP GDP	SDG Indicators Global Database, Indicator 7.3.1: Energy intensity measured in terms of primary energy and GDP	See report for full description. Converted to decimal representation
Energy and Minerals	Renewable elec production percentage.csv	2017 renewable_percent_2017	2017 renewable_percent_2017	Percentage	UNSD Energy Statistics Yearbook.	Contribution of mining to total value added is calculated as the value added by the mining and quarrying sector as percentage of total value added for all industries in the country or area.
Energy and Minerals	Contribution of mining to value added.csv	2017 mining_value_2017	2017 mining_value_2017	Percentage	UNSD National Accounts Main Aggregates Database.	
Land and Agriculture	Agricultural Land.csv	% of total land area covered by agricultural area in 2013	percent_land_agricultural_2013	Percentage	Food and Agriculture Organization of the United Nations (FAO).	
Land and Agriculture	Consumption of fertilizers per unit of agricultural land area.csv	Nitrogen	nitrogen_consumption	Consumption of Fertilizers per 1000 hectares of Agricultural Land Area in 2013, tonnes of nutrients	Not Provided	
Land and Agriculture	Consumption of fertilizers per unit of agricultural land area.csv	Phosphate	phosphate_consumption	Consumption of Fertilizers per 1000 hectares of Agricultural Land Area in 2013, tonnes of nutrients	Not Provided	
Land and Agriculture	Consumption of fertilizers per unit of agricultural land area.csv	Potash	potash_consumption	Consumption of Fertilizers per 1000 hectares of Agricultural Land Area in 2013, tonnes of nutrients	Not Provided	
Land and Agriculture	Terrestrial protected areas.csv	Terrestrial protected areas	terrestrial_protected_areas	Percent of total land area	Not Provided	
Biodiversity	Terrestrial_Marine protected areas.csv	Terrestrial and marine protected areas (% of total territorial area)	protected_areas_marine_terrestrial	Percent	https://www.protectedplanet.net/	
Forests	Forest Area.csv	Forest Area, 2015 (1000 ha)	forest_area_2015	100 ha	FAO, Global Forest Resources Assessments 2020	
Governance	Governance.csv	Basel Convention	Basel_Convention	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	CITES	CITES	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	Convention on Biological Diversity	Convention_on_Biological_Diversity	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	Nyoto Protocol	Nyoto_Protocol	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	Montreal Protocol	Montreal_Protocol	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	Paris Agreement	Paris_Agreement	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	Paris Agreement	Paris_Agreement	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	Rotterdam Convention	Rotterdam_Convention	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	Stockholm Convention	Stockholm_Convention	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	UN Convention on the Law of the Sea	UN_Convention_on_the_Law_of_the_Sea	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	UN Convention to Combat Desertification	UN_Convention_to_Combat_Desertification	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	UN Framework Convention on Climate Change	UN_Framework_Convention_on_Climate_Change	Year	See Governance.xlsx, available in project resources or Kaggle dataset	
Governance	Governance.csv	World Heritage Convention	World_Heritage_Convention	Year	See Governance.xlsx, available in project resources or Kaggle dataset	

World Bank Data	File	World Bank Data Name	Code Variable Name	Unit	Original Source
API_SP_POP_TOTL_DS2_en_csv_v2_3528828.csv	API_SP_POP_TOTL_DS2_en_csv_v2_3528828.csv	2017 Population	2017_Population	Count	https://data.worldbank.org/indicator/SP.POP.TOTL?locations=US
API_AG_LND_TOTL_K2_DS2_en_csv_v2_3658656.csv	API_AG_LND_TOTL_K2_DS2_en_csv_v2_3658656.csv	2017 Land Area	2017_Land_Area	Sq. Km.	https://data.worldbank.org/indicator/AG.LND.TOTL.K2?locations=US
API_NY_GDP_MKTP_CD_DS2_en_csv_v2_3628515.csv	API_NY_GDP_MKTP_CD_DS2_en_csv_v2_3628515.csv	2017 GDP (current US\$)	2017_GDP_US_Dollars	GDP (current US\$), last updated 2022-02-15	https://data.worldbank.org/indicator/NY.GDP.MKTP.CD