

Tutor: Dr. Grace Ting Chai Wen, Applied Session Friday 2-4pm Malaysia

Project Title: The Price of Progress: How the Pursuit of Income and Trade Fuels Pollution Mortality.

Introduction

Climate change is a long-running problem that by now is common knowledge, yet, society broadly sweeps under the rug. Aside from climate change's many problems, however, pollution also causes its own fair share of problems, a cost I want to investigate to bring more light to.

Motivation

The treadmill of materialism concerns me, and I am wary of the butterfly effect - where one small action today leads to greater consequences in the future. I want to show what this unending growth is doing.

Questions

1. How much is pollution killing us, and how does it vary across income levels?
2. How does a country's income level influence its disposition to pollute?
3. How do trade dynamics conflate with waste management and pollution-related mortality?

Data sources

1. GDP per capita, 2023. ~7k rows x 4 columns. Columns are country, country code, year of data, GDP per capita, PPP (adjusted for capita and purchasing power parity).
<https://ourworldindata.org/grapher/gdp-per-capita-worldbank>
2. Pollution death rates, 2019. 197 rows x 4 columns. Columns are country, country code, year of data, age-standardized mortality rate attributed to household and ambient air pollution.
<https://ourworldindata.org/grapher/death-rate-household-and-ambient-air-pollution>
3. Plastic waste mismanagement, 2019. 171 rows x 4 columns. Columns are country, country code, year of data, share of global mismanaged plastic waste
<https://ourworldindata.org/grapher/share-of-global-mismanaged-plastic-waste>
4. Imports as % of GDP, 2023. ~270 rows x ~50 columns. Represents imports of goods and services in % of GDP with each row containing the country, country code and an array of data for each year from 1960 to 2023.
<https://data.worldbank.org/indicator/NE.IMP.GNFS.ZS?view=map>
5. Exports as % of GDP, 2023. ~270 rows x ~50 columns. Represents exports of goods and services in % of GDP with each row containing the country, country code and an array of data for each year from 1960 to 2023. <https://data.worldbank.org/indicator/NE.EXP.GNFS.ZS?view=map>

References

I used Google Gemini to brainstorm and find relevant, free and public data.