# Policy Brief: Global $CO_2$ Emissions by Country and Sector

## 1. Introduction
This brief summarizes a global analysis of $CO_2$ emissions across countries and economic sectors. The study aims to highlight the top polluting nations, assess sector-wise emissions, and guide data-driven climate policies.
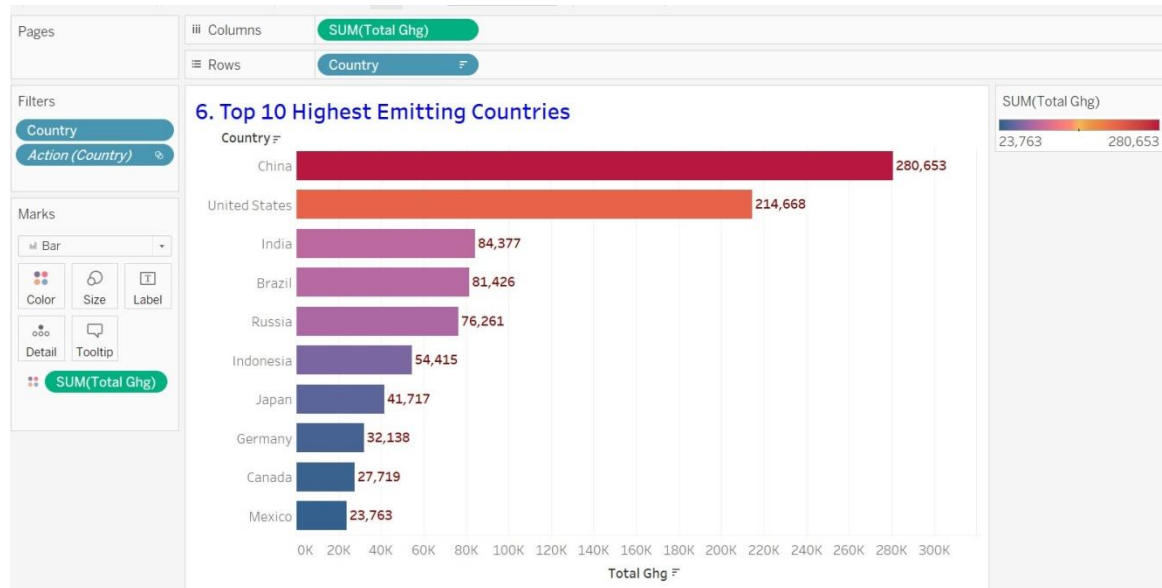
## 2. Project Overview
- Dataset: Multi-year $CO_2$ emissions data from various countries
- Tools Used: Python (data cleaning), Tableau (visualization), Word (report)
- Objectives:
  • Track emissions from energy, transport, and industry sectors
  • Calculate $CO_2$ per capita and $CO_2$ per GDP metrics
  • Identify top emitters globally
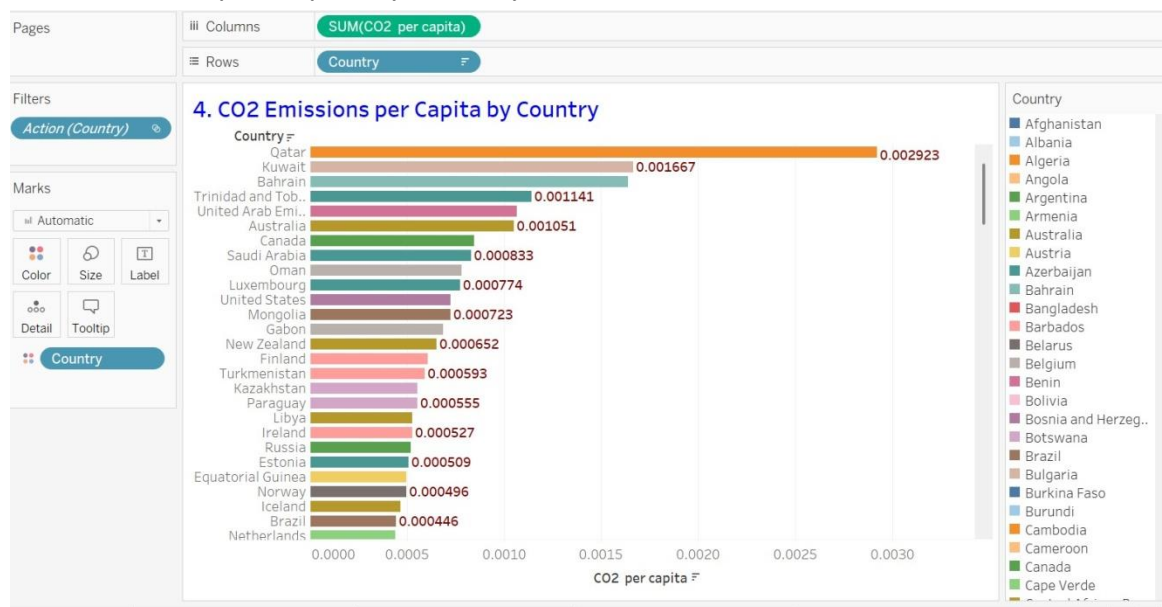
## 3. Key Findings
- Top Emitting Countries (based on Total GHG): China, United States, India, Russia, Japan
- Highest Emitting Sector: Energy sector contributes the largest share to $CO_2$ emissions across most countries
- $CO_2$ Per Capita: Countries with smaller populations but high fossil fuel dependency show high per capita emissions
- $CO_2$ Per GDP: Emerging economies have higher emissions per unit of GDP, indicating energy inefficiency

## 4. Visual Insights:

### 1: Top 10 Countries by Total $CO_2$ Emissions



### CO2 Emissions per Capita by Country:



## 5. Conclusion & Recommendations

- Urgent decarbonization is needed in energy and transport sectors
- Support for low-emission technologies in developing countries should be prioritized
- Countries should aim to reduce emissions while improving GDP efficiency
- Global co-operation is essential to curb emissions from high emitters

## 6. Contact & Credits

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**Tools Used:** Python, Tableau, Microsoft Excel, Microsoft Word

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