INTRODUCTION

What is CO2?
Carbon dioxide (CO_2) is a greenhouse gas primarily produced by human activities like burning fossil fuels (coal, oil, and gas), deforestation, and industrial processes.

Why It Matters?
CO_2 emissions are the largest driver of climate change, leading to rising global temperatures, extreme weather events, and disruptions to ecosystems.

Project Goal: This project aims to analyze global CO_2 emission trends, identify major contributors, and provide insights for policymakers to help mitigate the impact of climate change.

OBJECTIVES

1. **Understand Emission Trends**: Analyze historical data to reveal global CO_2 emission patterns.

2. **Identify Top Emitters**: Determine the countries, sectors, and activities contributing most to emissions.

3. **Support Policymaking**: Provide insights to aid in the development of climate mitigation strategies.

4. **Raise Public Awareness**: Increase awareness of CO_2 emissions and climate change impacts.

Global CO2 Emissions: Visualizing Environmental Impact

Name of region
World

Number of Regions
236

Population Count
539bn

Choose desired year

| 1750 | 2021 |

Choose desired region
- [ ] Afghanistan
- [ ] Aland Islands
- [ ] Albania

Average CO2 Emissions
2.00
3.86
0.00   10.00

Country-wise Greenhouse Gases Total

Microsoft Bing

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Country-wise Total GHG

- China
- United States
- India
- Russia
- Brazil

0K   200K
Greenhouse gases

Distribution of Carbon Dioxide

612.56K (29.77%)   18.79K (0.91%)
256.5... (12...)
45... (2...)
8a... (...)

236.6...
(11.02...)

805.22K (39.61%)

- Flaring
- Gas
- Cement
- Nitrous Oxide
- Methane
- Coal
- Oil

Annual CO2 Temperature Change

Change in Temperature

1
0

1900   1950   2000
Year
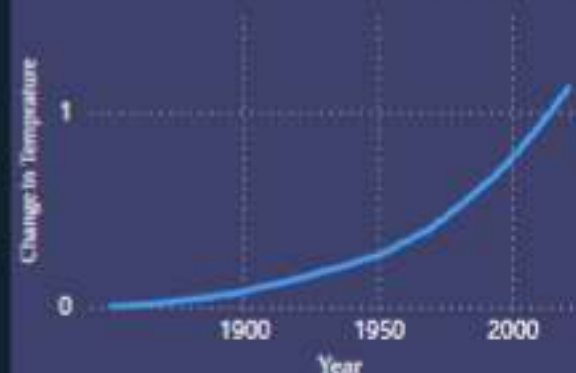
INSIGHTS

i. CO_2 emissions are steadily increasing, requiring urgent action to meet global climate targets.

ii. China, the USA, and India are the top emitters, with China leading significantly in global emissions.

iii. The global average CO_2 emissions per capita of 3.86 metric tons exceeds the sustainable target of 2 metric tons.

iv. The energy sector is the largest emitter, making clean energy transitions crucial for reducing emissions.

v. Developed nations have higher per capita emissions, but developing countries are experiencing rapid emissions growth.

RECOMMENDATION

i. Invest in solar, wind, and other renewables while reducing fossil fuel dependence.

ii. Promote electric vehicles and public transportation to reduce emissions from personal cars.

iii. Increase forest cover to absorb CO_2 and restore natural ecosystems.

iv. Foster global partnerships to share technology and reduce emissions across borders.

v. Launch media initiatives to educate people on reducing their personal carbon footprint.

CONCLUSION

•Global CO₂ emissions are rising, but some countries are making strides in reducing emissions.
•Significant investment and policy reforms are needed to meet global climate targets.
•Future analysis could include predictive models to forecast emissions and compare the effectiveness of different policies.

FUTURE CONSIDERATIONS

Future analyses could include:

- **Industrial Growth Factors**: Analyzing how industrial expansion impacts emissions.

- **Predictive Modeling**: Using machine learning to predict future emissions trends.

- **International Comparisons**: Compare emissions across similar countries to identify best practices.