

# PROJECT DOCUMENTATION

## UNEARTHING-THE-ENVIRONMENTAL-IMPACT-OF- HUMAN-ACTIVITY-GLOBAL-CO2-EMISSION- ANALYSIS

**Team ID : NM2023TMID26227**

**Team Size : 5**

**Team Leader : SURENDHAR K**

**Team member : THANIGAINATHAN S**

**Team member : SELVAM M**

**Team member : SARATHI R**

**Team member : THAMIZHTHEENDRAL N**

# 1. INTRODUCTION:

## 1.1 OVERVIEW:

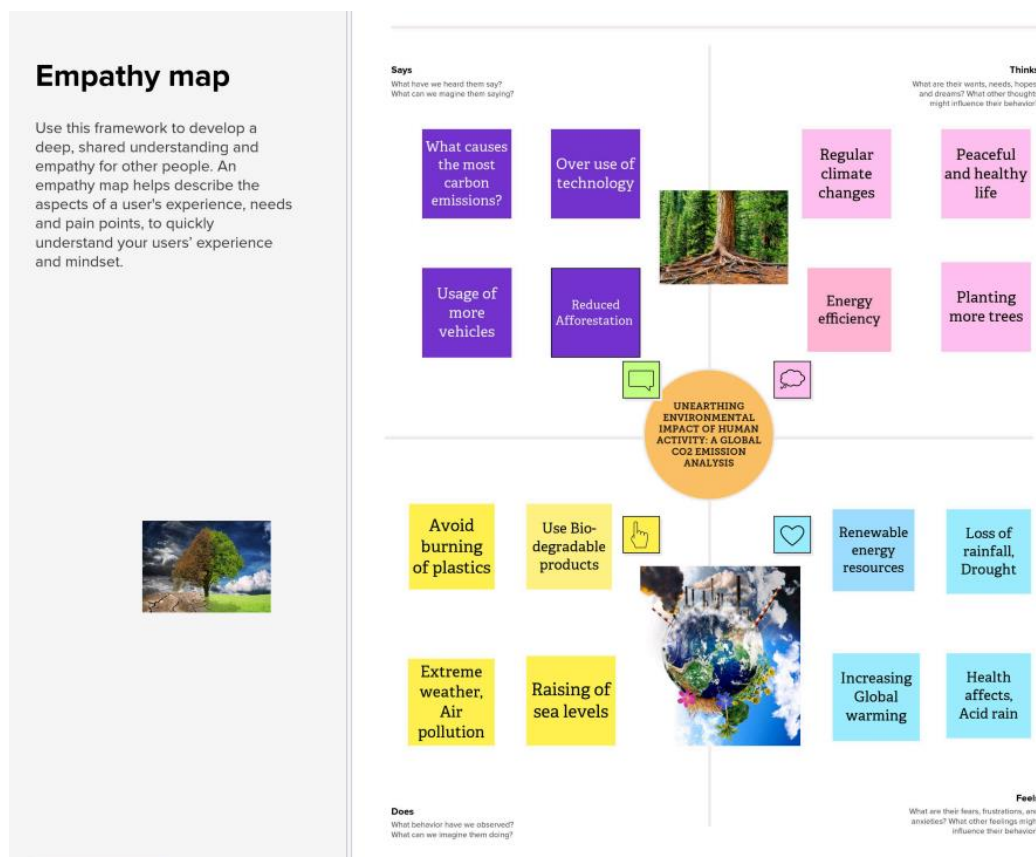
Global CO2 emissions refer to the total amount of carbon dioxide gas that is released into the atmosphere from human activities such as burning fossil fuels for energy, industrial processes, transportation, and deforestation. Understanding and analyzing global CO2 emissions is crucial for assessing the impact of human activities on the environment and climate change.

## 1.2 PURPOSE:

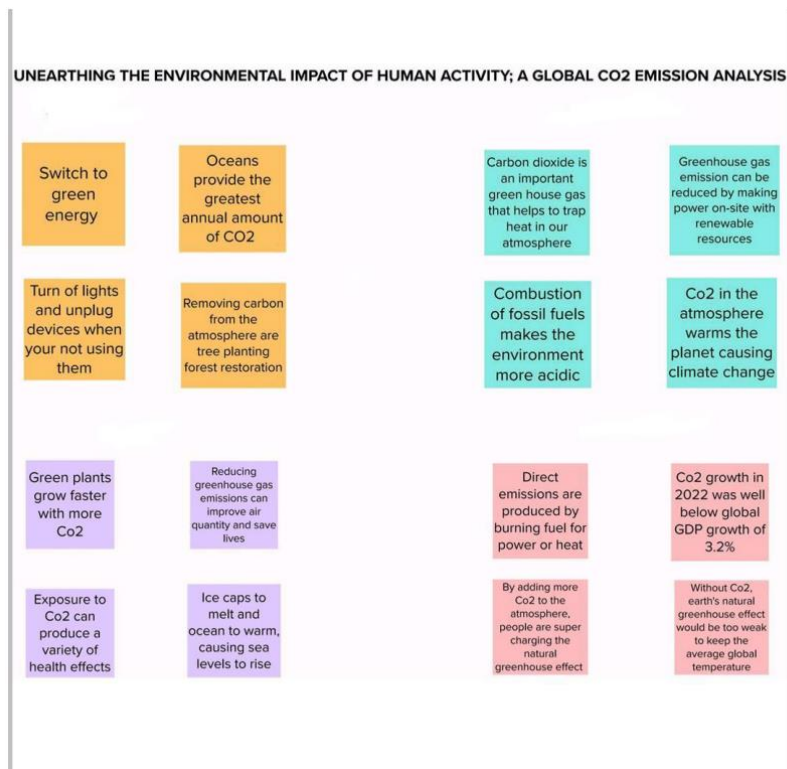
The purpose of unearthing CO2 emission analysis is to understand the extent and impact of human activities on the environment and climate change. Carbon dioxide is a greenhouse gas that traps heat in the Earth's atmosphere, contributing to global warming and climate change. The burning of fossil fuels for energy and other human activities is a major source of CO2 emissions, and reducing these emissions is crucial to mitigating the negative effects of climate change.

## 2. Define Problem / Problem Understanding

### 2.1 Empathy Map

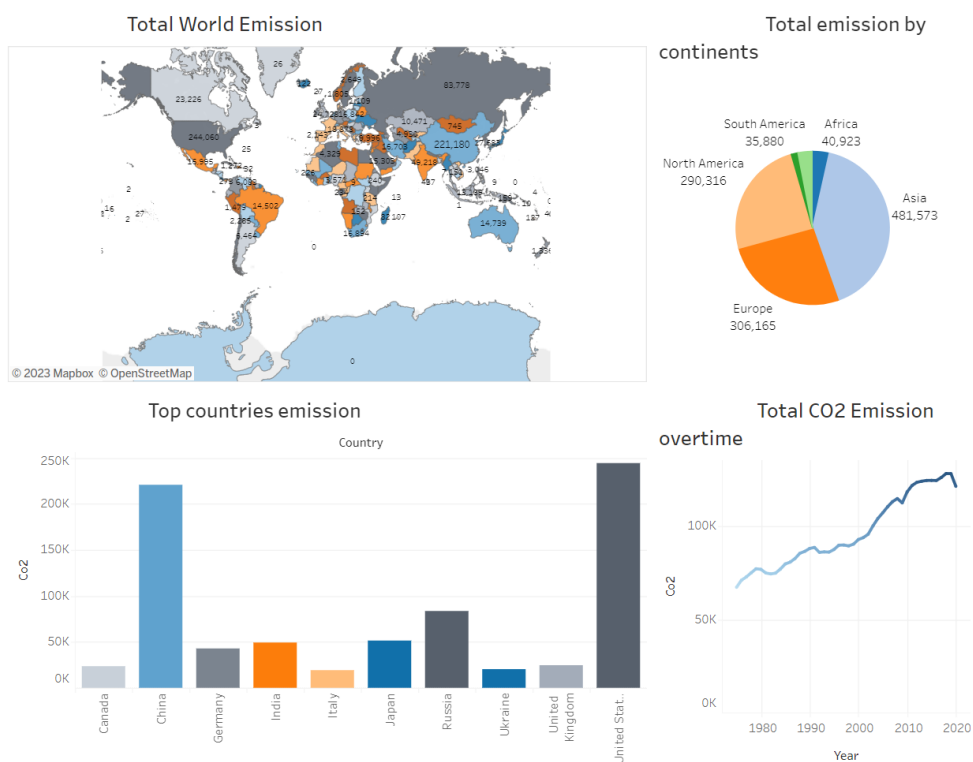


## 2.2 Ideation & Brainstorming Map



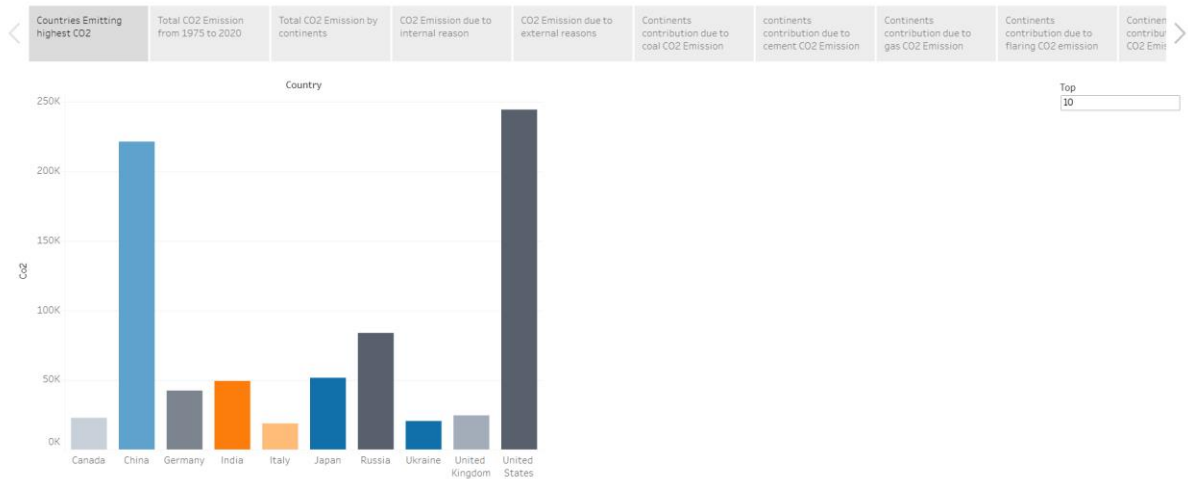
## 3. Result

### 3.1 Dashboard

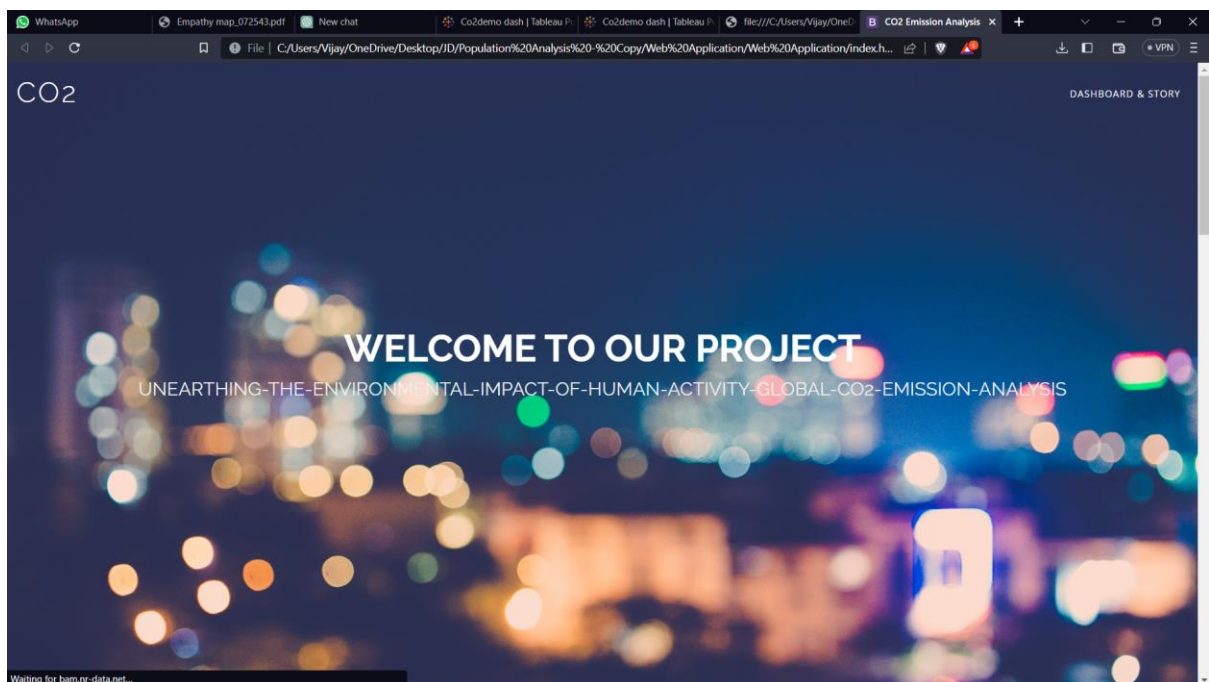


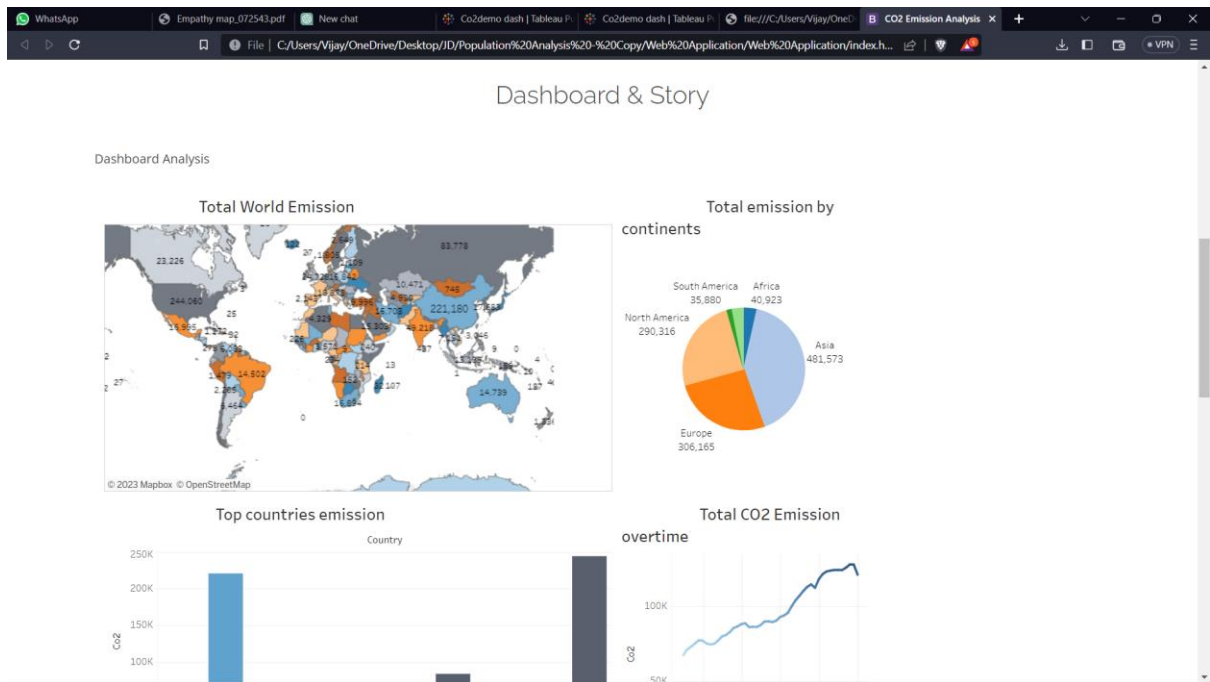
## 3.2 Story

### CO2 Emission Story



## 3.3 Web integration





## 4. Advantages & Disadvantages:

Advantages of global CO2 emission analysis:

- **Helps in identifying global trends:** Global CO2 emission analysis helps to identify the trends of CO2 emissions across different regions, countries, and sectors. This information can be useful for policymakers to develop effective strategies and policies to mitigate the effects of climate change.
- **Encourages transparency:** By analyzing global CO2 emissions, governments and industries can better understand their contribution to greenhouse gas emissions. This can lead to increased transparency and accountability in reporting emissions data.
- **Helps in monitoring progress:** Regular analysis of global CO2 emissions can help in monitoring the progress made towards reducing emissions. This can motivate countries and industries to take necessary steps to reduce their carbon footprint.

Disadvantages of global CO2 emission analysis:

- **Limited accuracy:** Measuring CO2 emissions can be challenging, and different methodologies can lead to different results. Therefore, the accuracy of the data can be limited, which can impact the effectiveness of policies and strategies based on this analysis.
- **Complex calculations:** Analyzing global CO2 emissions involves complex calculations and modeling. This requires significant expertise and resources, which may not be available to all countries or organizations.
- **Lack of cooperation:** To conduct effective global CO2 emission analysis, cooperation and data-sharing between countries and industries are necessary. However, some countries or industries may be reluctant to share their data, which can limit the accuracy and usefulness of the analysis.

## 5. Application

CO2 emission analysis has many applications across various fields. Here are some examples:

- **Environmental Policy:** CO2 emission analysis is essential in developing environmental policies that aim to reduce greenhouse gas emissions. This analysis helps policymakers determine the sources and amount of CO2 emissions from various sectors, such as transportation, energy, and industry. This information helps in developing policies that incentivize the reduction of CO2 emissions from these sectors.
- **Energy Management:** CO2 emission analysis is also important in energy management. It helps to identify energy efficiency opportunities and quantify the potential savings that can be achieved by implementing energy conservation measures. Energy managers can use this information to prioritize investments in energy-efficient technologies and renewable energy sources that can reduce CO2 emissions.
- **Corporate Sustainability:** CO2 emission analysis is useful for companies that are committed to sustainability. It helps to quantify the carbon footprint of their operations and identify opportunities for reducing emissions. This information can be used to develop sustainability reports, set reduction targets, and engage with stakeholders on sustainability issues.

## **6. CONCLUSION:**

In conclusion, CO2 emission analysis is a crucial area of research that helps us understand the sources, trends, and impacts of carbon dioxide emissions on our planet's climate. It is clear that reducing greenhouse gas emissions, especially CO2, is necessary to mitigate the negative impacts of climate change. In the future, improving data collection and analysis, developing advanced modeling techniques, investing in renewable energy, developing carbon capture and storage technologies, and promoting international cooperation will all be important strategies for reducing CO2 emissions. As individuals, we can also take action by reducing our carbon footprint through lifestyle changes, such as using public transportation, consuming less meat, and reducing energy consumption. Ultimately, by taking collective action and prioritizing sustainable practices, we can work towards a more sustainable and resilient future for our planet.

## **7. FUTURE SCOPE:**

- Improved data collection and analysis: One of the most significant areas of improvement is in the collection and analysis of data. Accurate and detailed data on CO2 emissions from various sources is essential to identifying trends and developing effective policies.
- 2. Advanced modeling techniques: Advanced modeling techniques, such as machine learning and artificial intelligence, can help researchers to better understand the relationship between CO2 emissions and climate change. These techniques can also help to predict future emissions and climate scenarios.