

## Project Report

# Unearthing the Environmental impact of human activity: A global CO2 emission analysis

## 1. INTRODUCTION

### 1.1 Overview

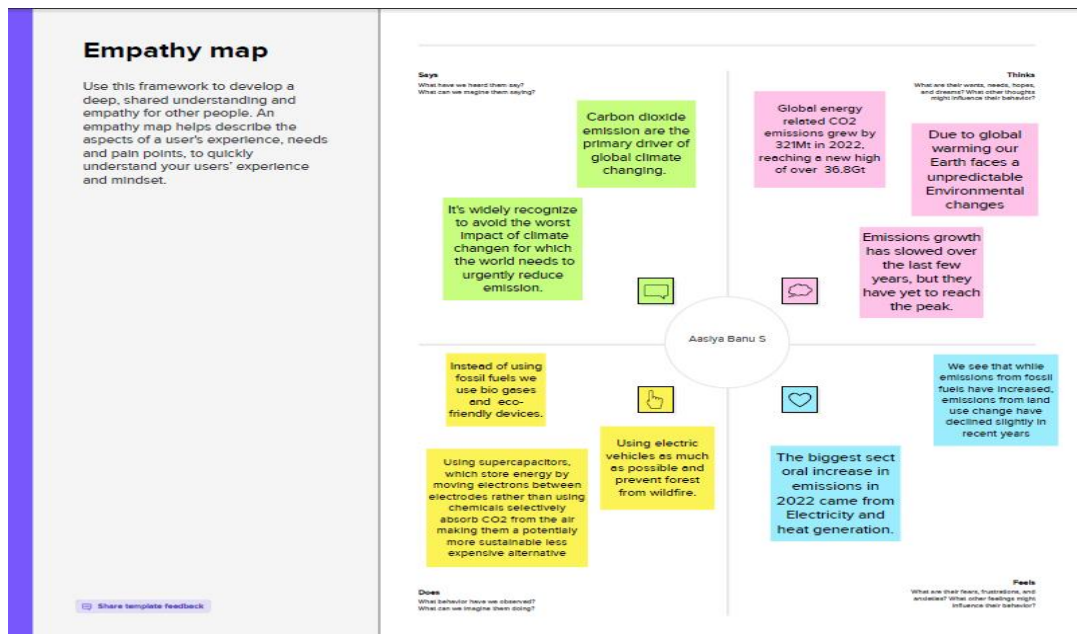
Global warming is one of the biggest challenges currently being faced by the human race, although correlation is not causation a, lightly cause of global warming is due to increased atmospheric carbon dioxide from human activities. CO2 emission refers to the carbon dioxide emitted throughout the world. For this analysis we will be focusing on CO2 emissions and it's effect on the world we will in as well as some key factors and states that may play a role in the emission of CO2 globally. Fossil fuel use in the primary source of CO2. The data throws light on to how much fossil fuels are burnt, per year, per nation, which amounts to an increase in CO2 every year. This will help researchers and environment experts to predict global warming. So countries should set a goal to decrease this amount yearly. Analysing global CO2 emission across countries from 1975 to 2020. This data-set contains a record of CO2 emission by each country and region of earth, here we are going to analyse and visualize country wise, region wise and overall CO2 emission on earth.

### 1.2 Purpose

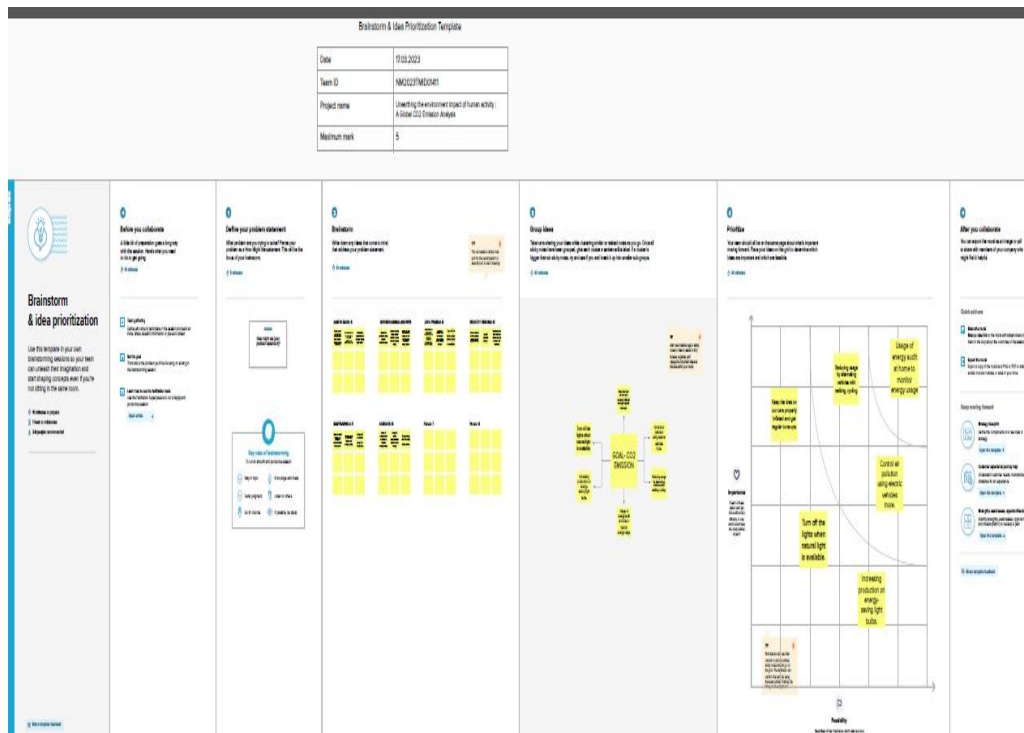
The data throws light on to how much fossil fuels are burnt, per year, per nation, which amounts to an increase in CO2 every year. From this data we can analyse and visualize the impact of CO2 emission. We can take action of reducing the CO2 emission from the overall world. It will eventually decrease air pollution and improve air quality.

## 2. Problem Definition & Design Thinking

## 2.1 Empathy Map

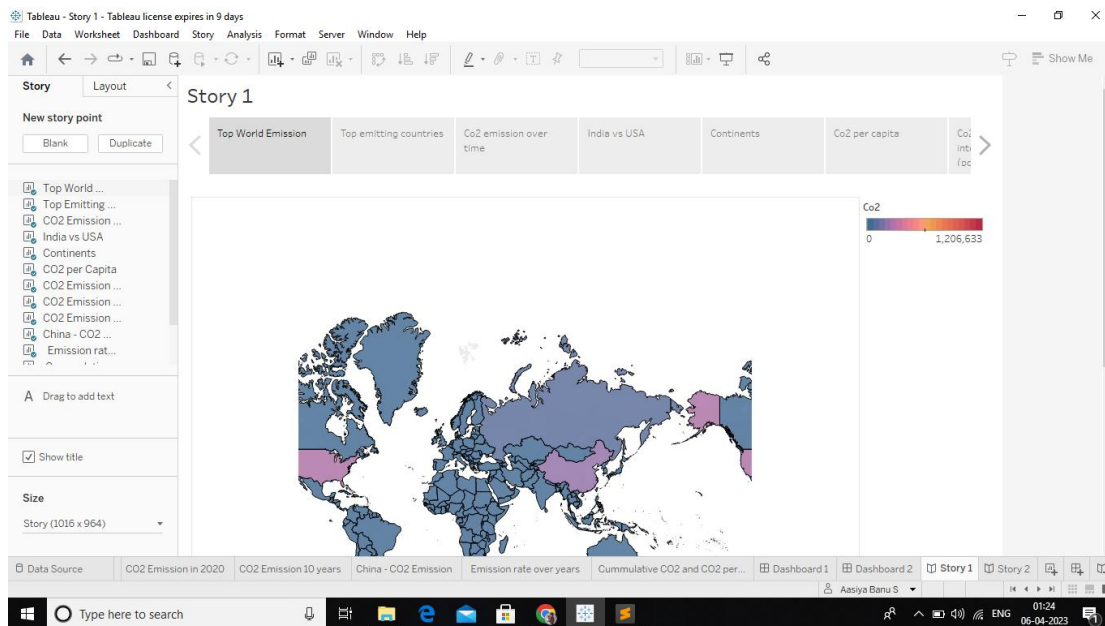


## 2.2 Idealization & Brainstorming Map



## 3.RESULT Dashboard 1





Web Integrator

Using **Sublime Text**



Program Code :

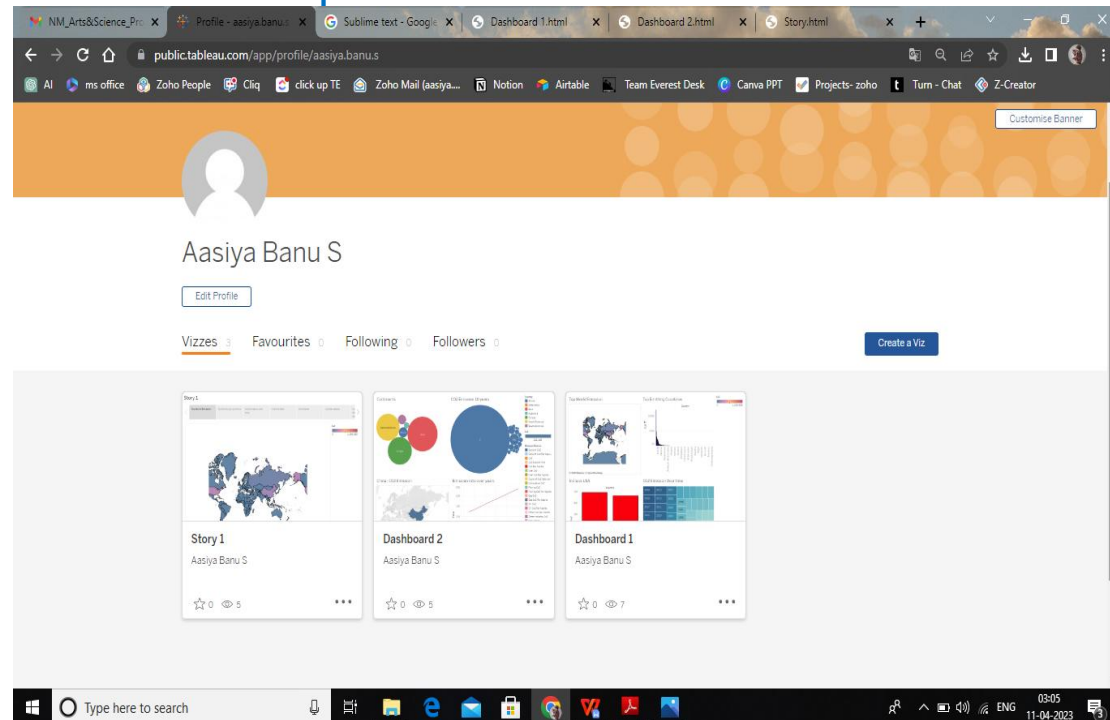
```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title></title>
</head>
<body>

</body>
</html>
```

**Integrating**



## Published in tableau public



## 4. ADVANTAGES AND DISADVANTAGES

### Advantages:

1. Technology more mature than other alternatives can easily retrofit into existing plant high CO<sub>2</sub> concentration enhance absorption efficiency.
2. Fully developed technology, commercial developed at the required scale in some industrial sector.
3. Opportunity for retrofit to existing plant
4. Very high CO<sub>2</sub> concentration that enhance absorption efficiency.
5. Mature air separation technologies available.

### Disadvantages:

1. Low CO<sub>2</sub> concentration affect the capture efficiency.
2. Temperature associated heat transfer problem and efficiency decay issues associated with the use of hydrogen rich gas turbine fuel.
3. High parasitic power requirement for sorbent regeneration.

## 5. Applications

1. Coal fired and gas fired plant.
2. Coal gasification plants.
3. Carbon dioxide in solid and in liquid form is used for refrigeration and cooling.

4. It is used as an inert gas in chemical processes in the storage of carbon powder and in fire extinguishers.
5. Metal industry - CO<sub>2</sub> is used in the manufacture of casting molds to enhance their hardness.

## **6. Conclusions**

This project deals with the impact of the CO<sub>2</sub> emission increased in overall world. Reducing the CO<sub>2</sub> emission per country wise, per state wise, per nation wise, per continent wise and per ca-pita wise we can take action. In future we can face a lots of problems regarding air pollution and breathing. So we have to reduce Co<sub>2</sub> emission. In our project we Analysing global CO<sub>2</sub> emission across countries from 1975 to 2020. This data-set contains a record of CO<sub>2</sub> emission by each country and region of earth, here we are going to analyse and visualize country wise, region wise and overall CO<sub>2</sub> emission on earth.

## **7. Future Scope**

1. If global energy demand continue to the growth and rapidly we meet in mostly with fossil fuel.
2. Human emission of CO<sub>2</sub> could reach 75 billion ton per year or more by the end of century.
3. Atmosperic Co<sub>2</sub> could be 800 ppm or higher conditions not seen on earth for closed to 50 million years.

## **8. Appendix**

### **a. Source code**

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title></title>
</head>
<body>
```

</body>  
</html>

## **b. Links**

Dashboard 1 -

[https://public.tableau.com/views/Dashboard1\\_16807628971830/Dashboard1?:language=en-GB&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/Dashboard1_16807628971830/Dashboard1?:language=en-GB&:display_count=n&:origin=viz_share_link)

Dashboard 2 -

[https://public.tableau.com/views/Dashboard2\\_16807630874930/Dashboard2?:language=en-GB&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/Dashboard2_16807630874930/Dashboard2?:language=en-GB&:display_count=n&:origin=viz_share_link)

Story -

[https://public.tableau.com/views/Story1\\_16807632104190/Story1?:language=en-GB&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/Story1_16807632104190/Story1?:language=en-GB&:display_count=n&:origin=viz_share_link)

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