PROJECT REPORT TEMPLATE

1. INTRODUCTION

1.1. OVERVIEW

CO2 Emission refers to the Carbon Dioxide emitted throughout the world. Global warming is one of the biggest challenges currently being faced by the human race, although correlation is not causation, a likely cause of global warming is due to increased atmospheric carbon dioxide from human activities.

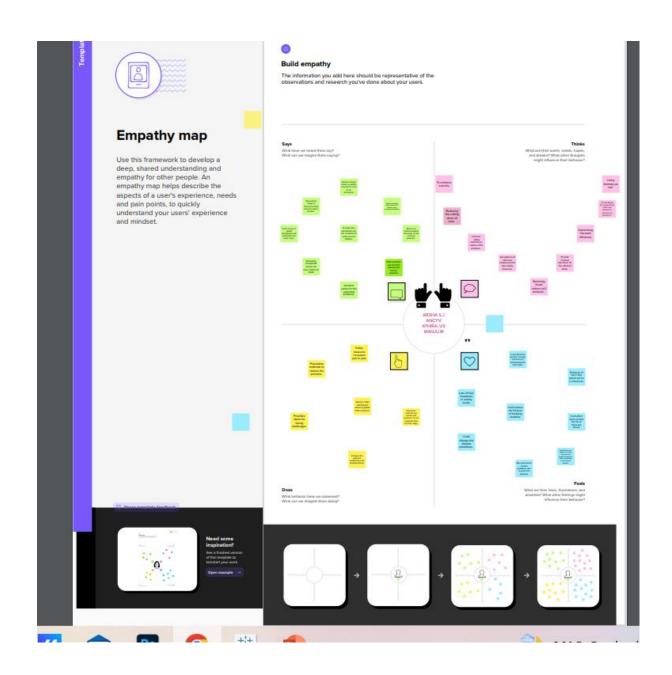
For this analysis we will be focusing on CO2 Emissions and its effect on the world we live in as well as some key factors and stats that may play a role in the emission of CO2 globally. Fossil fuel use is the primary source of CO2. The data throws light onto how much fossil fuels are burnt, per year per nation, which amounts to an increase in CO2 every year.

1.2. PURPOSE

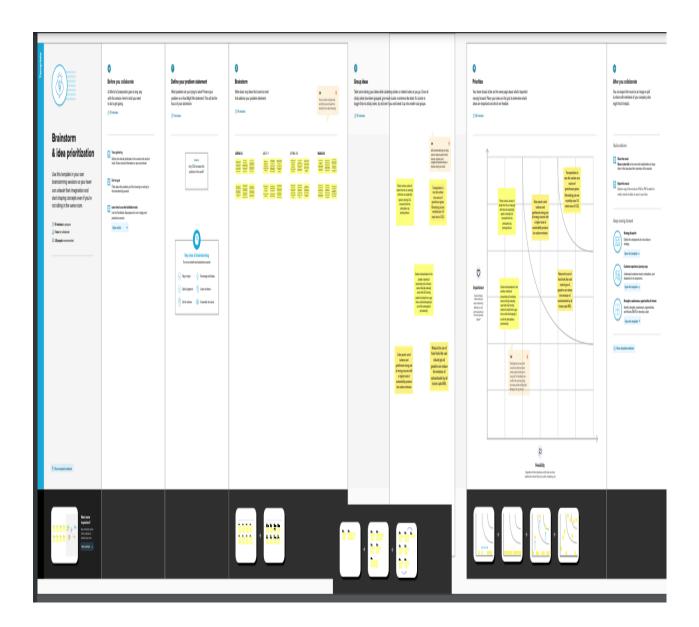
- New opportunities to use carbon dioxide (CO2) in the development of products and services are capturing the attention of governments, industry and the investment community interested in mitigating climate change as well as in other factors, including technology leadership and supporting a circular economy.
- CO2 use has potential to support climate goals, but robust lifecycle assessment is essential.
- CO₂ could be an important raw material for products that require carbon.

2. PROBLEM DEFINITION AND DESIGN THINKING

2.1 EMPATHY MAP



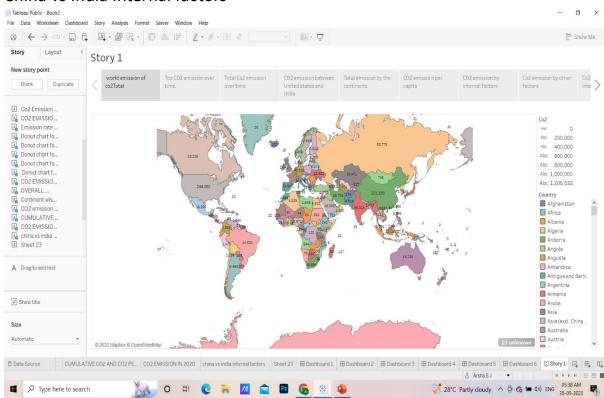
2.2 IDEATION AND BRAINSTORMING MAP



3. RESULT

- Total emission of co2 through world wide.
- Top emission of co2 over time.
- Total co2 emission by the continents.
- CO2 emission between United states and India
- Total emission by the continents
- CO2 emission per capita
- CO2 emission by internal factors
- Co2 emission by other factors
- Co2 emission rate by internal factors

- Donut chart for coal co2
- Donut chart for flaring co2
- Donut chart for gas co2
- Co2 emission over past 10 years
- Overall contribution of India in co2 emission
- Continent wise contribution by Internal factors
- Co2 emission from 1990 to 2020 based on internal factors
- Cumulative co2 and co2 per capita over year
- CO2 emission in 2020
- China vs India internal factors



4. ADVANTAGES AND DISADVANTAGES

Advantages:

 Pure CO2 gas is chemically inert, transparent, colorless, and odorless. On a cold winter day, chilled air often condenses the water vapor of human breath—of which 4 to 5 percent is CO2 —into visible fog. Such fog, however, is not CO2. Similarly, water vapor often condenses into clouds of steam over fossil-fuel power plants, creating

- the impression of smoke. Such steam clouds are not CO2 , either.
- On a calm summer day, CO2 concentrations in a cornfield can drop to 200 ppm, as the growing corn consumes the available CO2. 10 At a concentration of about 150 ppm or less, many plants die of CO2 starvation.11 The differences between the peak winter CO2 levels and minimum summer CO2 levels, measured at Hawaii's Mauna Loa volcano (Fig. 4), have increased over the past 50 years. This is believed to be due a global expansion of forests and other plant life.

Disadvantage:

- High carbon dioxide levels can cause poor air quality and can even extinguish pilot lights on gas-powered appliances.
- Exposure to CO₂ can produce a variety of health effects. These may include headaches, dizziness, restlessness, a tingling or pins or needles feeling, difficulty breathing, sweating, tiredness, increased heart rate, elevated blood pressure, coma, asphyxia, and convulsions.

5. APPLICATIONS

- CO2 use is a complement, not an alternative, to CO2 storage for large-scale emissions reductions.
- The emerging interest in opportunities for the use of CO2 is driven by several concerns. Key among these is its potential to contribute to climate goals
- The carbon in CO2 can be used to produce fuels that are in use today, including methane, methanol, gasoline and aviation fuels.

- The carbon (and oxygen) in CO2 can be used as an alternative to fossil fuels in the production of chemicals, including plastics, fibres and synthetic rubber
- Construction aggregates (small particulates used in building materials) can be produced by reacting CO2 with waste materials from power plants or industrial processes.

6. CONCLUSION

CO2 use has the potential to support the development of products and services with a lower CO2 footprint and to contribute to emissions reductions. It can also be a complement to the widespread deployment of CCS, which the IEA has consistently highlighted as a critical part of the portfolio of technologies needed to achieve climate goals. In particular, CO2 use can support investment in CO2 capture opportunities, technology refinement and (in limited cases) early development of CO2 transport infrastructure. Increased CO2 levels have likely produced some warming of the Earth and will continue to do so in the future, although with ever decreasing efficiency because of the "logarithmic" dependence of warming on CO2 concentrations. C More CO2 will have a hugely beneficial effect on agriculture, forests and plant growth in general. The benefits of more CO2 will greatly exceed any harm. Conclusion involve the we came to know about the emission of carbon di oxide. Preventive measures should take.

7. FEATURE SCOPE

- ➤ nature-based solutions include restoration of coastal and marine habitats to ensure they continue to draw CO₂ from the air
- weathering and ocean fertilisation approaches require further research to understand their potential for carbon removal as well as their costs, risks and trade-offs.

