PROJECT REPORT

UNEARTHING THE ENVIROMENTAL IMPACT OF HUMAN ACTIVITY: A GLOBAL CO2 EMISSION ANALYSIS.

1. INTRODUCTION

1.1 OVERVIEW:

Carbon dioxide (CO_2) is a colourless, odourless and non-poisonous gas formed by combustion of carbon and in the respiration of living organisms and is considered a greenhouse gas. Emissions means the release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period of time. **Carbon dioxide emissions** or **CO_2 emissions** are emissions stemming from the burning of fossil fuels and the manufacture of cement; they include carbon dioxide produced during consumption of solid, liquid, and gas fuels as well as gas flaring.

Carbon dioxide (CO_2) is released into Earth's atmosphere mostly by the burning of carbon-containing fuels and the decay of wood and other plant matter. Under all conditions found naturally on Earth, CO_2 is an invisible, odorless gas. It is removed from the atmosphere mostly by plants, which extract carbon from CO_2 to build their tissues, and by the oceans, in which CO_2 dissolves.Because CO_2 is opaque to infrared radiation (the electromagnetic waves emitted by warm objects) in the atmosphere, it acts as a blanket to slow the loss of heat from Earth into space. Although other gases are also causing Earth's climate to warm, CO_2 alone is responsible for about three-fourths of global warming.

1.2: PURPOSE:

The IEA has identified five key categories of CO_2-derived products and services that are attracting significant global interest and considered the near-term requirements to increase the market for these applications to at least 10 $MtCO_2$ use per year. This is almost as much as the current CO_2 demand for food and beverages. The analysis finds that technologically all of these applications could be scaled up but would face commercial and regulatory barriers.

2. PROBLEM DEFINITION & DESIGN THINKING.

## 2.1 Empathy Map
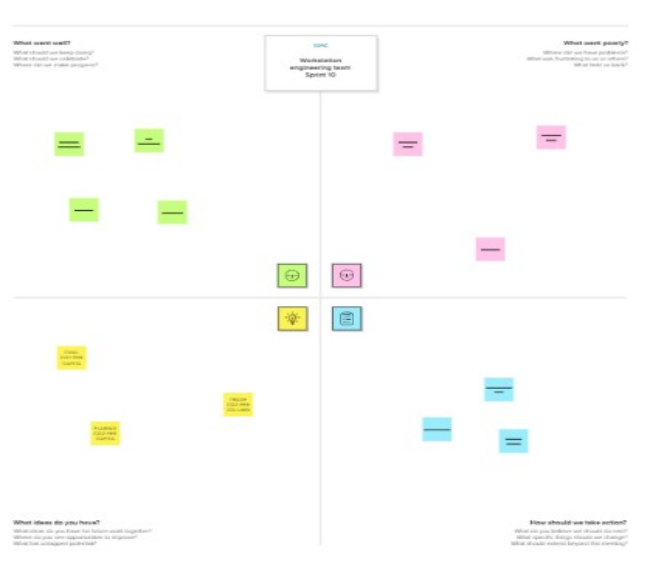
.2: IDEATION & BRAINSTORMING MAP
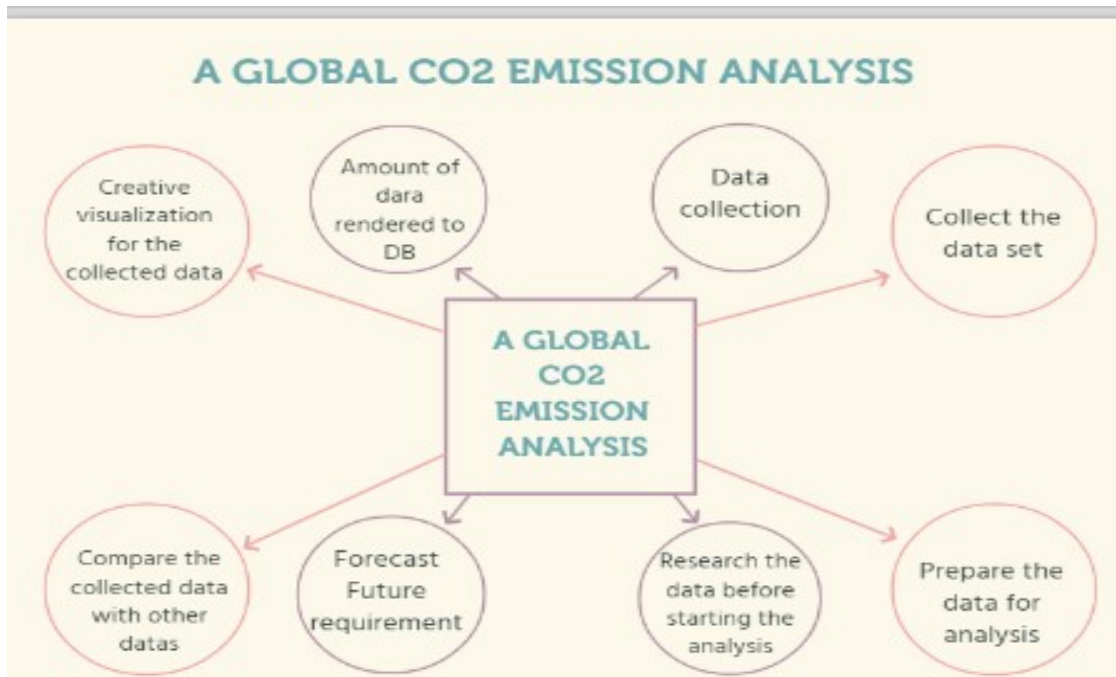
3. RESULT

3.1.SOCIAL IMPACT

Carbon dioxide emissions are the primary driver of global climate change. It's widely recognised that to avoid the worst impacts of climate change, the world needs to urgently reduce emissions
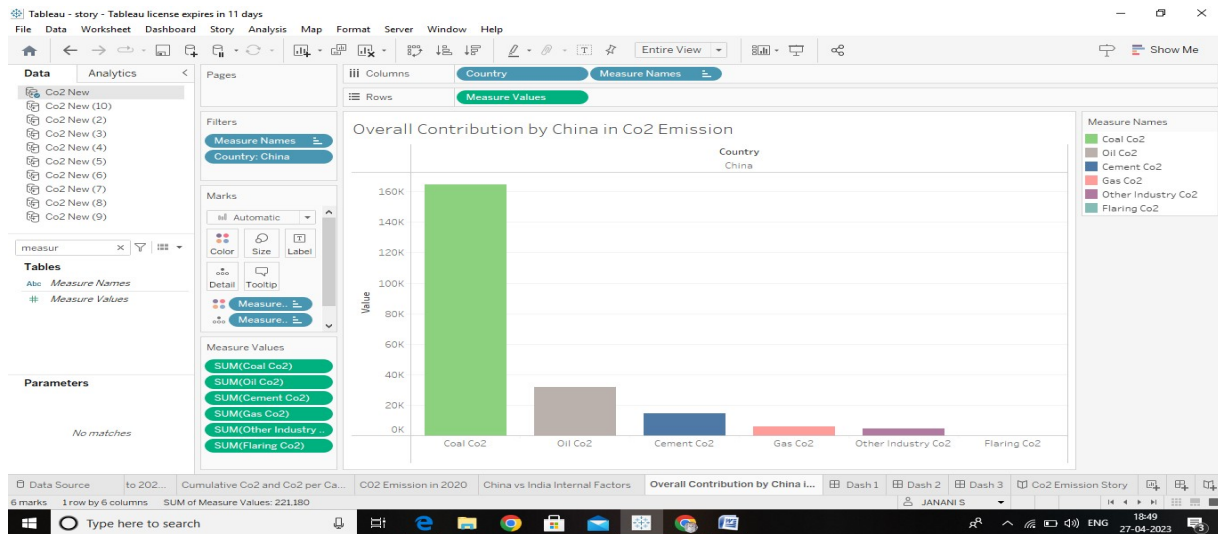
Business Model/Impact: By conducting an analysis the countries can identify areas for improvement and take steps to reduce factors that are responsible for CO_2Emission for environmental sustainability by improving the efficiency and transitioning to low carbon alternatives.
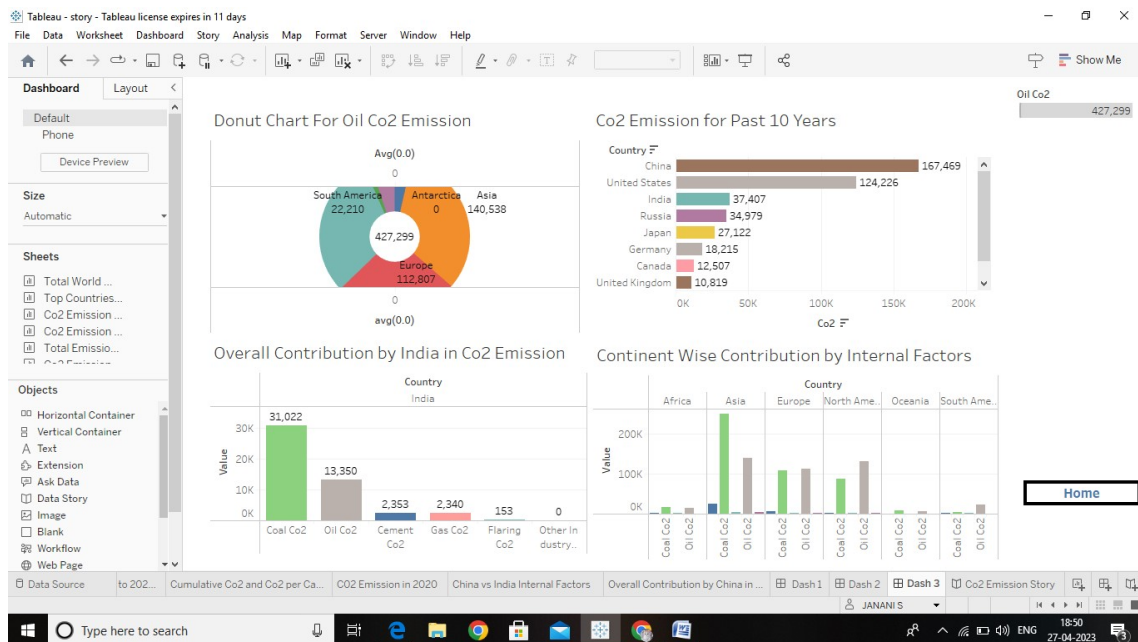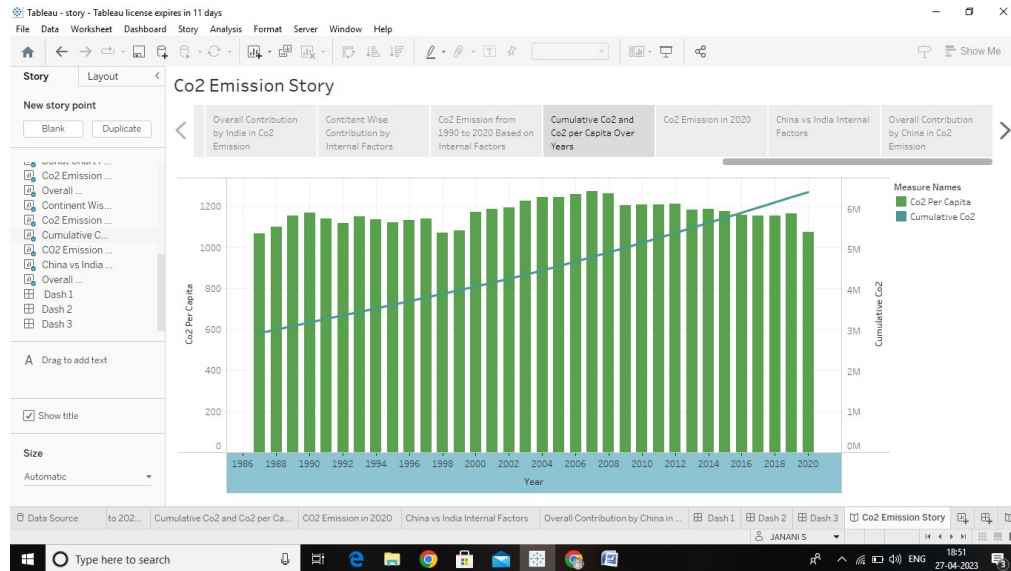
3.2 Activity & Screenshot

Sheet 1
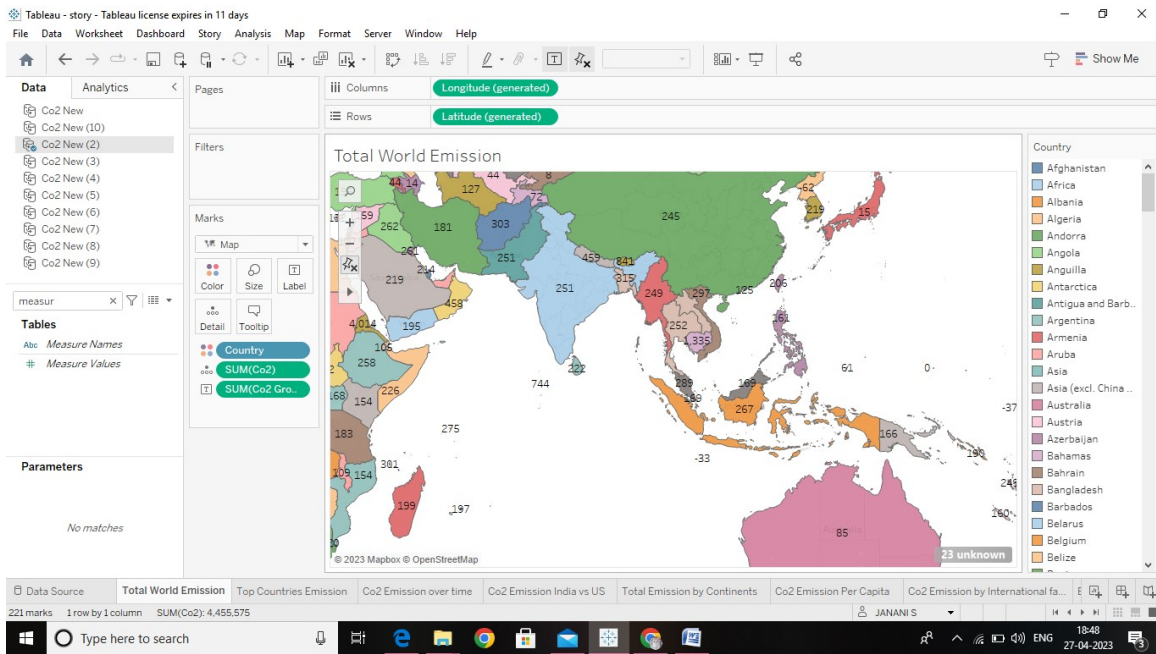
Sheet 19

Dashboard – 3

Story

TEAM DETAILS

Team leader: S. Janani.

Team member 1 : M. Asila Banu.

Team member 2: Z. Ayesha sithiqa.

Team member 3: S. Swetha.

5. ADVANTAGES & DISADVANTAGES

ADVANTAGES:

Green plants grow faster with more CO2. Many also become more drought-resistant because higher CO2 levels allow plants to use water more efficiently. More abundant vegetation from increased CO2 is already apparent**.**

DISADVANTAGES:

High carbon dioxide levels can cause poor air quality and can even extinguish pilot lights on gas-powered appliances.

6. APPLICATIONS:

The carbon in CO_2 can be used to produce fuels that are in use today, including methane, methanol, gasoline and aviation fuels.

7. CONCLUSION:

We conclude from this project the rising level of atmospheric CO_2 could be the one global natural resource that is progressively increasing food production and total biological output, in a world of otherwise diminishing natural resources of land, water, energy, minerals, and fertilizer.

8. FUTURE SCOPE:

The carbon (and oxygen) in CO_2 can be used as an alternative to fossil fuels in the production of chemicals, including plastics, fibres and synthetic rubber. As with CO_2-derived fuels, converting CO_2 to methanol and methane is the most technologically mature pathway.

DASHBOARD:

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Story:

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