**Project Report Template** 

#### 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 likely 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 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. This will help researchers and environment experts to predict global warming. So countries should set a goal to decrease this amount yearly.

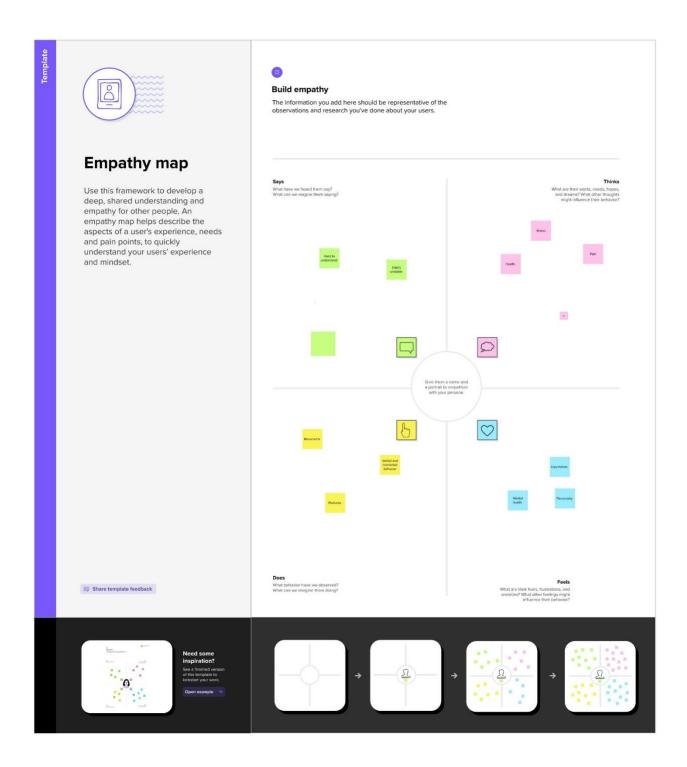
Analysing Global Co2 Emission across countries from 1975 to 2020. This dataset contains a record of Co2 Emission by each Country and Region of Earth, here we are going to analyse and visualise Country wise, Region wise and Overall Co2 Emission on Earth.

### 1.2 Purpose

CO2 Emissions in 2022 provides a complete picture of energy-related greenhouse gas emissions
in 2022. The report finds that global growth in emissions was not as high as some had originally
feared amid the disruptions caused by the global energy crisis. This latest release brings together
the IEA's latest analysis, combining the Agency's estimates of CO2 emissions from all energy
sources and industrial processes, as well as providing information on energy-related methane
and nitrous oxide emissions.

# 2 Problem Definition & Design Thinking

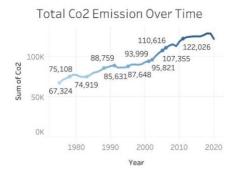
# 2.1 Empathy Map



# 2.2 Ideation & Brainstorming Map



# 3 Result:





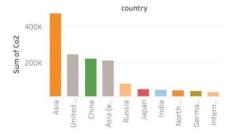
Total World

# Emission

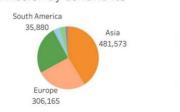


Top Emitting

# Countries

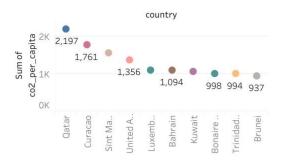


Totel Emission by Continents

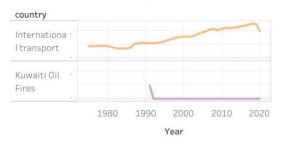




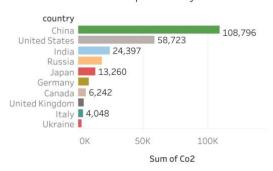
# Co2 Emission Per Capita



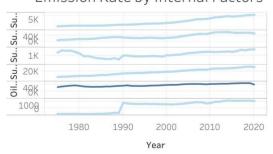
# Co2 Emission by Other Factors



# Co2 emission over past 10 years

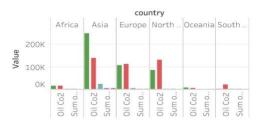


# Emission Rate by Internal Factors

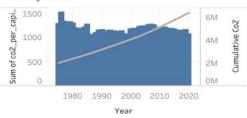


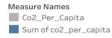


# Continet Wise Contibutoin by Internal Factors

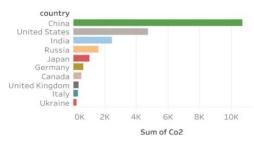


# cummulative co2 and co2 per capita over years



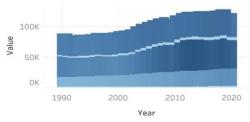


# Co2 Emission in 2020





# Co2 emission from 1990 to 2020 based on internal factors





### Advantages:

The captured carbon dioxide is incorporated into concrete to reinforce it and increase the durability of the infrastructure. The carbon capture operations create employment for skilled engineers and technicians who need to operate them

# Disadvantages:

disadvantage of carbon capture storage is that it is not adequate to successfully deal with climate change. The emissions that come from heat and power generation as a result of using fossil fuels only account for about 25% of the total greenhouse gas (GHG) emission, while 60% of all greenhouse gas emissions come from transportation, agriculture, and other related industrial activities. These emissions are currently not being captured by carbon capture and storage

### **5 APPLICATIONS**

• CO2 growth in 2022 was well below global GDP growth of 3.2%, reverting to a decade-long trend of decoupling emissions and economic growth that was broken by 2021's sharp rebound in emissions. Improvements in the CO<sub>2</sub> intensity of energy use were slightly slower than the past decade's average.

#### **6 CONCLUSION**

Carbon pricing initiatives are spreading throughout the world. Over 60 countries, cities, states and provinces have implemented or are planning to implement carbon pricing schemes, with a fairly balanced distribution between emission trading systems and carbon taxes. When the emissions trading system in the power sector of China starts its implementation, carbon pricing initiatives will cover one-fifth of global greenhouse gas emissions

#### **7 FUTURE SCOPE**

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. As with CO2-derived fuels, converting CO2 to methanol and methane is the most technologically mature pathway.