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PROJECT TITTLE:

UNEARTHING THE ENVIRONMENTAL IMPACT OF HUMAN ACTIVITY:

A GLOBAL CO2 EMISSION ANALYSIS

SUBMITTED BY

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PROJECT REPORT

A GLOBAL CO2 EMISSION ANALYSIS

Introduction

Carbon dioxide is an important greenhouse gas and since the industrial revolution, has been rising in levels in our atmosphere contributing to global warming and climate change. Construction of buildings, utilization of the built environment has led to emissions of a large number of CO2 into the air. The exploitation of non-renewable energy resources, poor building design, and lack of sustainability consideration in urbanization has been holding back CO2 emission mitigation measures in the building sector. Combustion of fossil fuels is by far the human activity most responsible for greenhouse gas emissions; from transportation to energy use, fossil fuels are used often by human beings and are therefore responsible for the majority of carbon dioxide emissions. From cars to planes to trains, most forms of transportation rely on the combustion of fossil fuels and are the greatest way in which humans contribute to carbon dioxide emissions

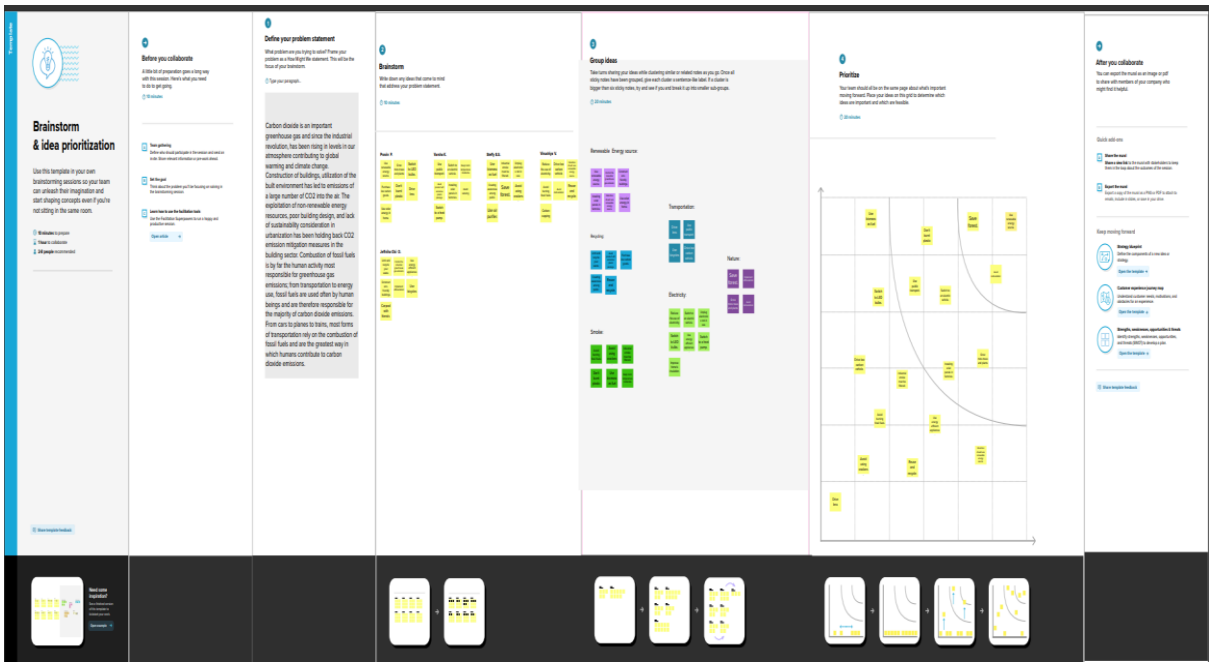
PROBLEM DEFINITION & DESIGN THINKING:

To analysis the carbon dioxide emission in all the country in the world and to identify what are the factors responsible for the emission of carbon dioxide. This analysis is used to get a way to reduce carbon dioxide.

EMPATHY MAP:

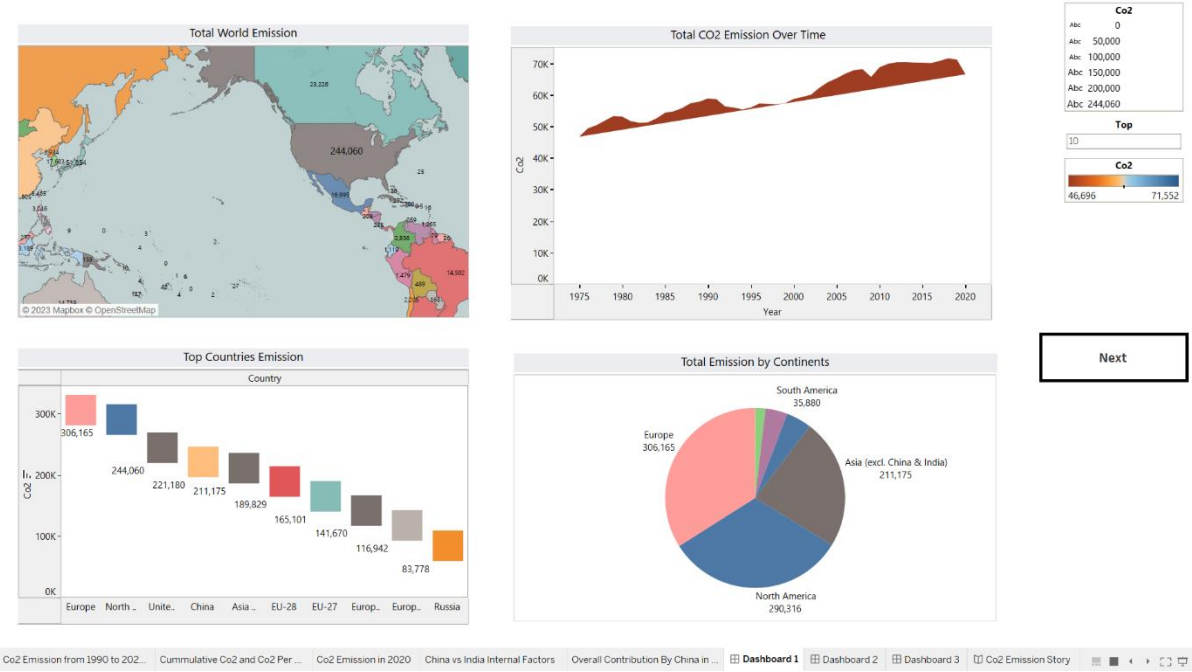

Template
Empathy map
Use this framework to develop a deep, shared understanding and empathy for other people. An empathy map helps describe the aspects of a user's experience, needs and pain points, to quickly understand your users' experience and mindset.
Share template feedback
Need some inspiration?
See a finished version of this template to kickstart your work.
Open example
Build empathy
The information you add here should be representative of the observations and research you've done about your users.
A Global CO2 emission analysis.
Says
What have we heard them say?
What can we imagine them saying?
Thinks
What are their wants, needs, hopes, and dreams? What other thoughts might influence their behavior?
Does
What behavior have we observed?
What can we imagine them doing?
Feels
What are their fears, frustrations, and anxieties? What other feelings might influence their behavior?
CO2 emissions
Eco-anxiety
Climate change
Recycling
Promote planting
Carbon neutrality
Lead to health problems
Increase heart rate

IDEATION & BRAINSTORMING MAP:

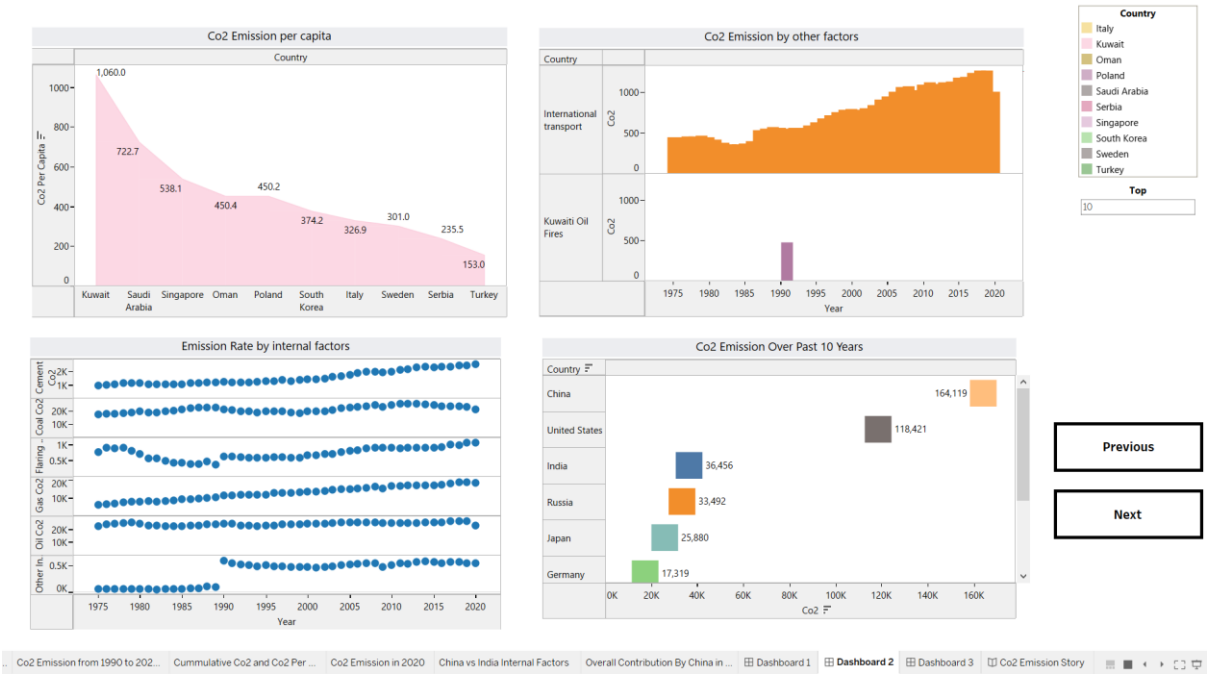


RESULT:

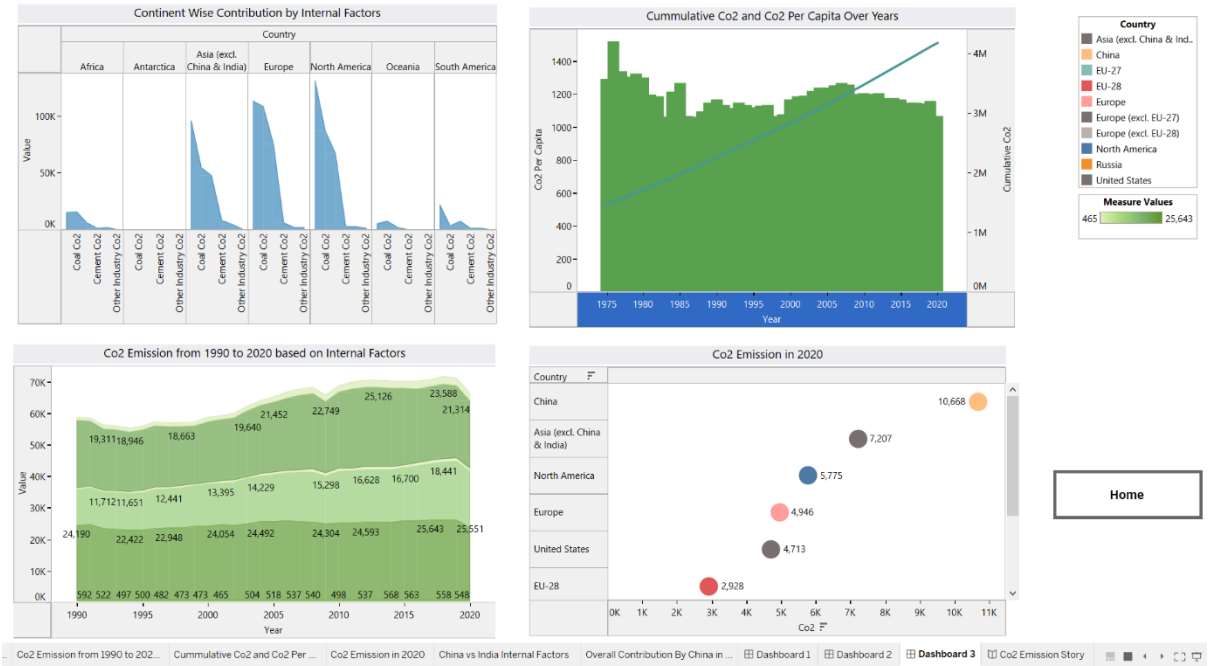
Dashboard 1



Dashboard 2

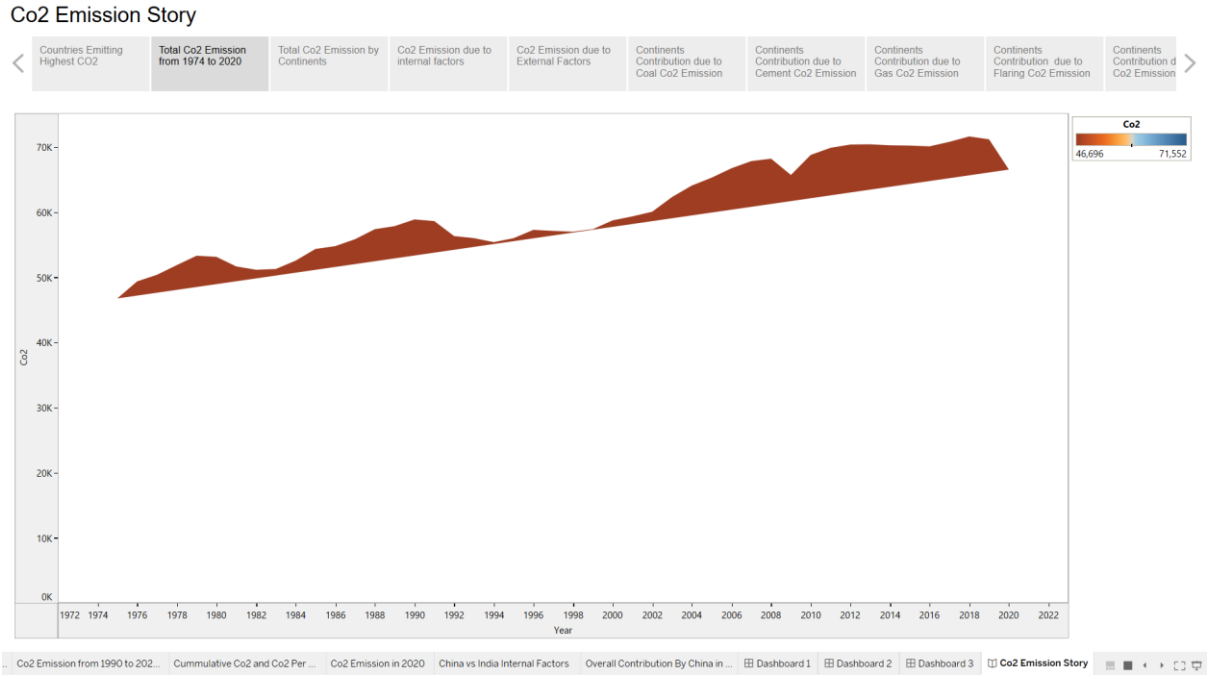


Dashboard 3



Story


Co2 Emission Story
Countries Emitting Highest CO2
Total Co2 Emission from 1974 to 2020
Total Co2 Emission by Continents
Co2 Emission due to internal factors
Co2 Emission due to External Factors
Continents Contribution due to Coal Co2 Emission
Continents Contribution due to Cement Co2 Emission
Continents Contribution due to Gas Co2 Emission
Continents Contribution due to Flaring Co2 Emission
Continents Contribution d Co2 Emission
Country
306,165
290,316
244,060
221,180
211,175
189,829
165,101
141,670
116,942
83,778
300K
250K
200K
150K
100K
50K
0K
Co2
Europe
North America
United States
China
Asia (excl. Chin..
EU-28
EU-27
Europe (excl..
Europe (excl..
Russia
Country
Asia (excl. China & Ind..
China
EU-27
EU-28
Europe
Europe (excl. EU-27)
Europe (excl. EU-28)
North America
Russia
United States
Top
10
Co2 Emission from 1990 to 202...
Cummulative Co2 and Co2 Per ...
Co2 Emission in 2020
China vs India Internal Factors
Overall Contribution By China in ...
Dashboard 1
Dashboard 2
Dashboard 3
Co2 Emission Story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Continents Contribution due to Gas Co2 Emission
Continents Contribution due to Flaring Co2 Emission
Continents Contribution d Co2 Emission
70K
60K
50K
40K
30K
20K
10K
0K
Co2
1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2022
Year
Co2
46,696
71,552
Co2 Emission from 1990 to 202...
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Co2 Emission Story

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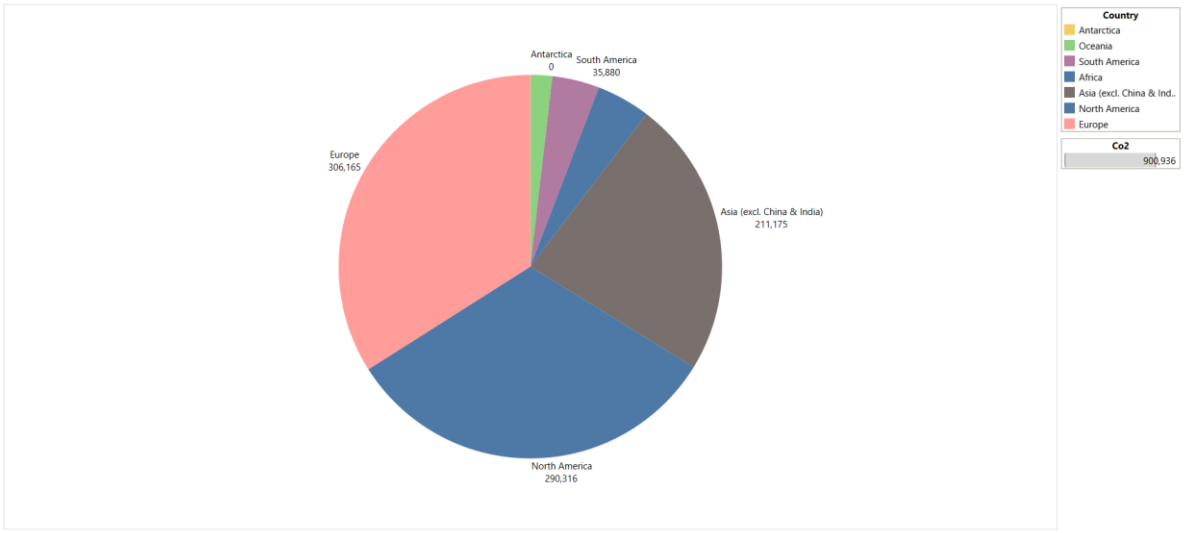
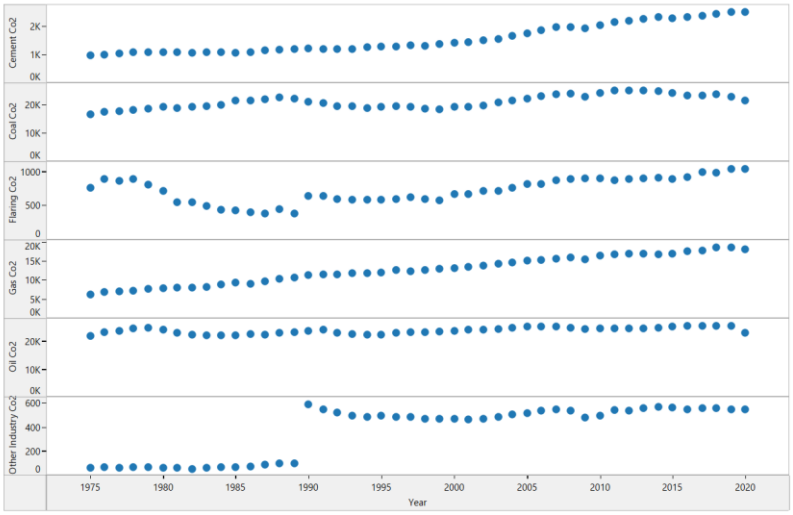


Co2 Emission Story



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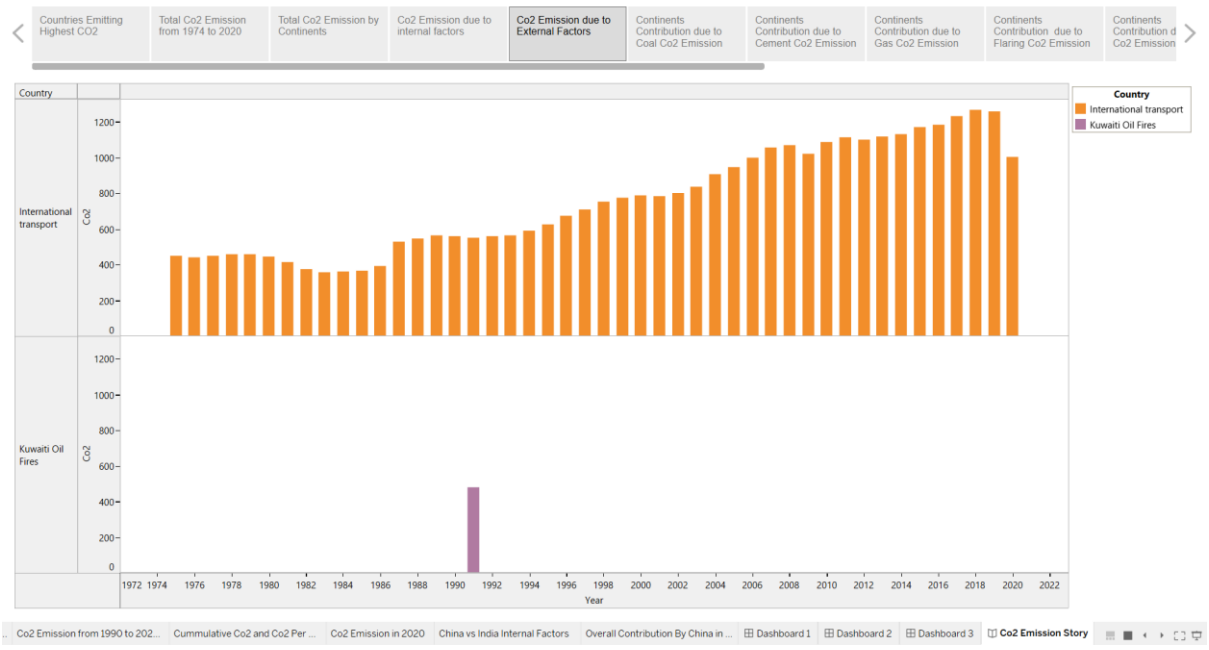
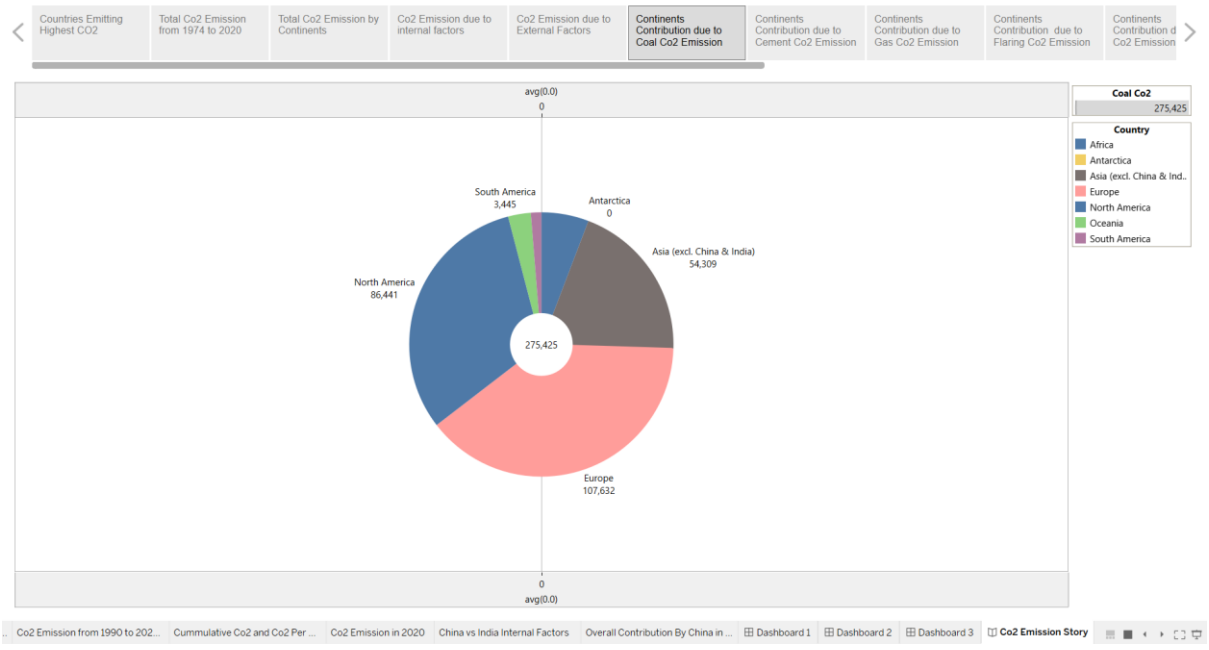


Co2 Emission Story



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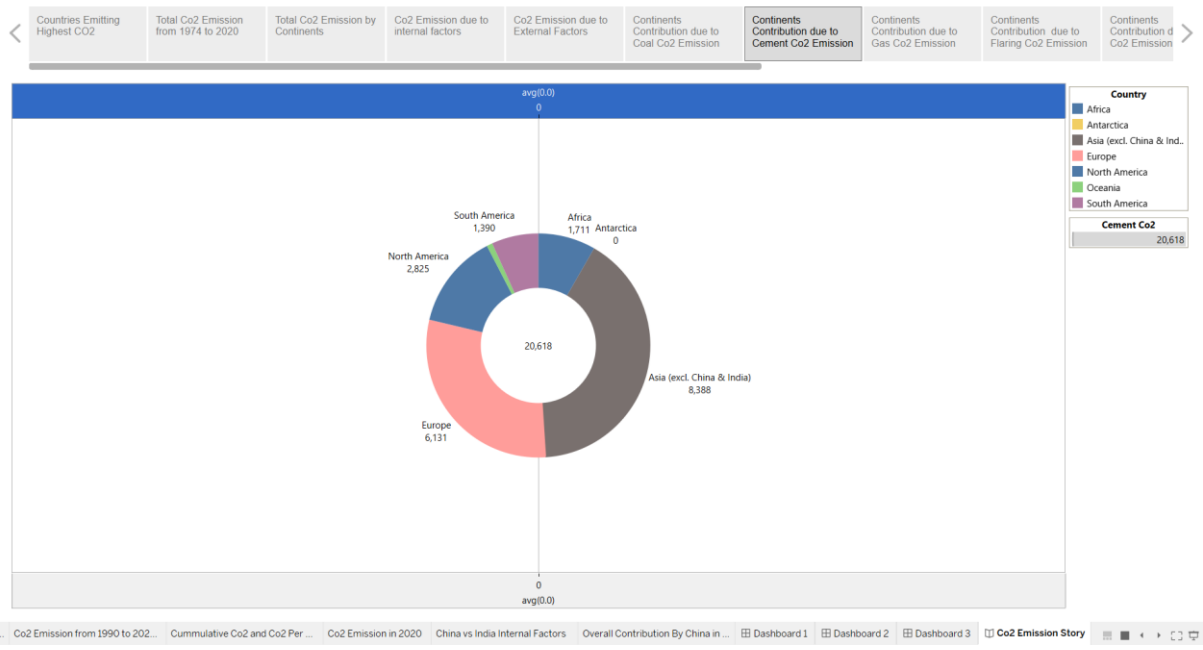
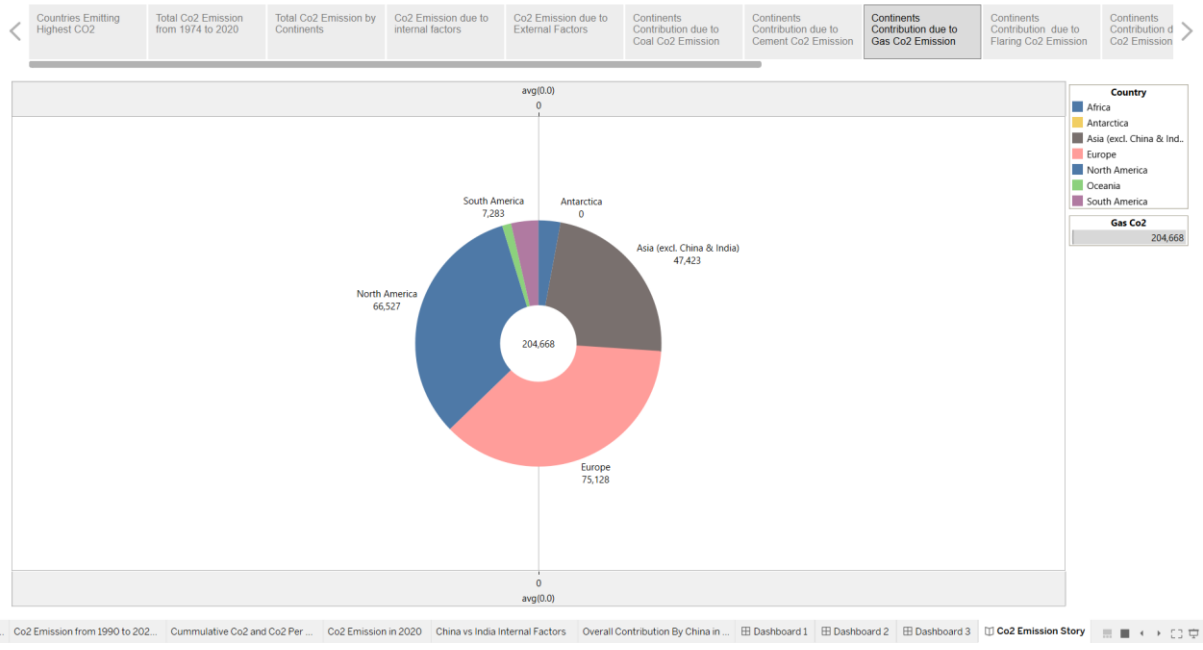


Co2 Emission Story



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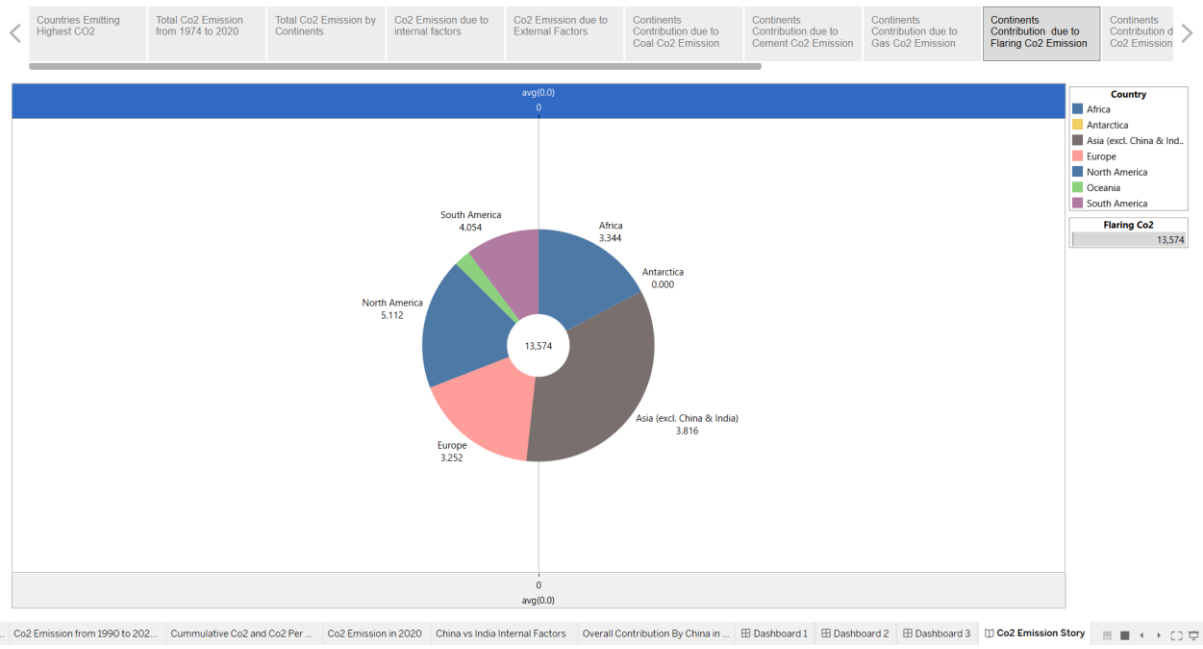

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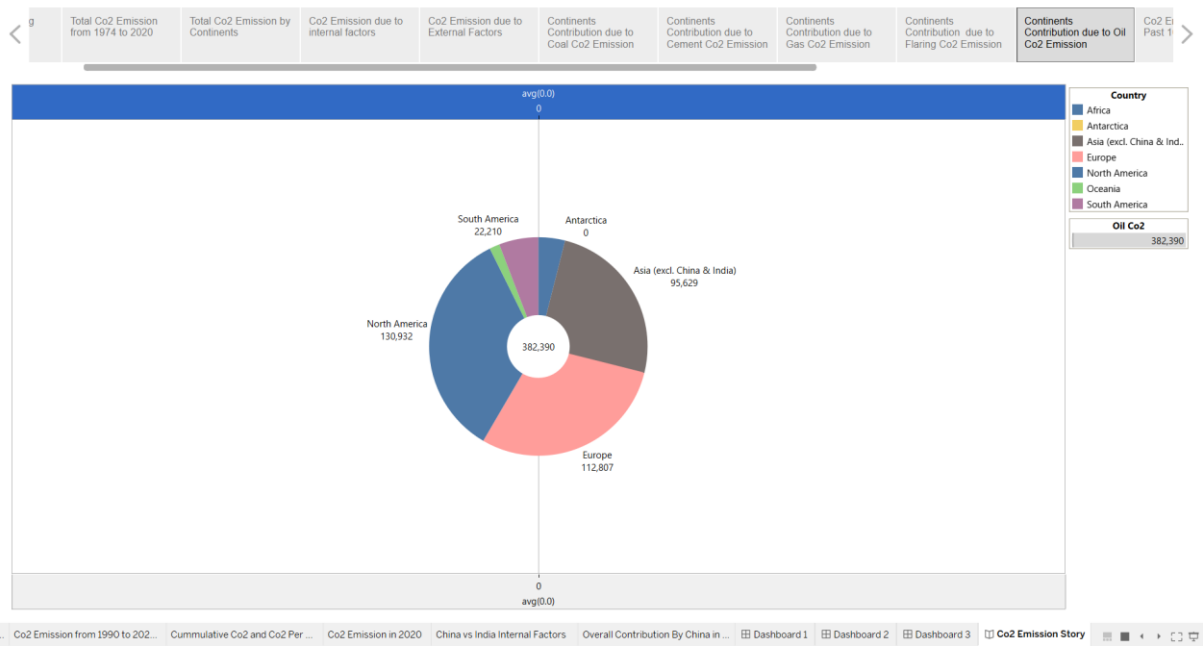

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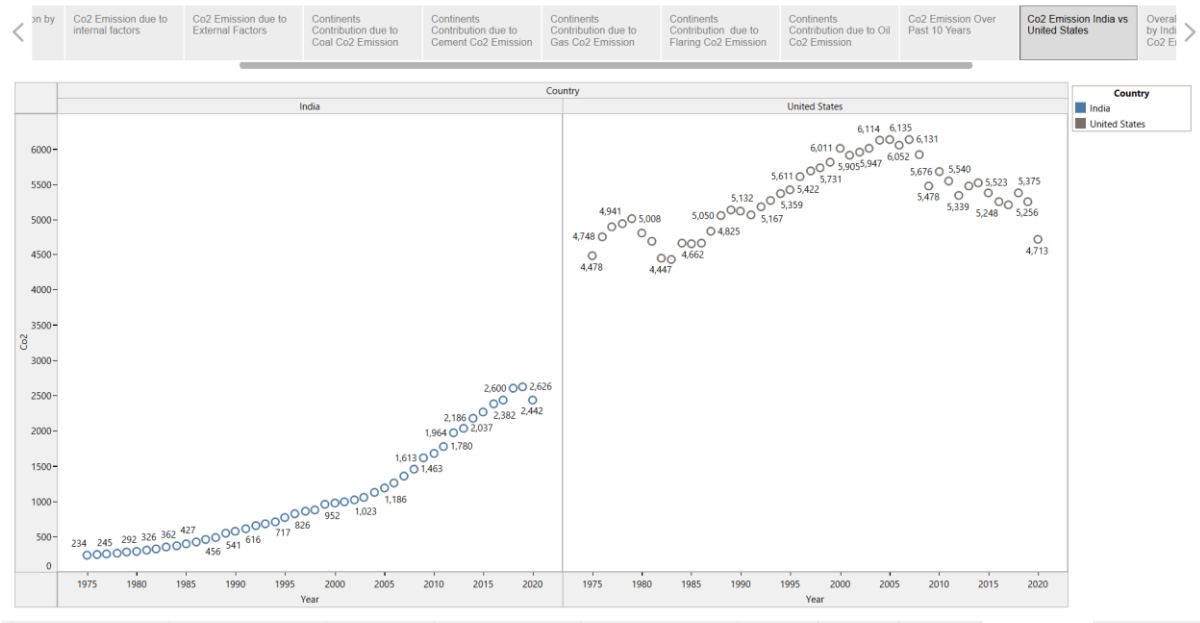

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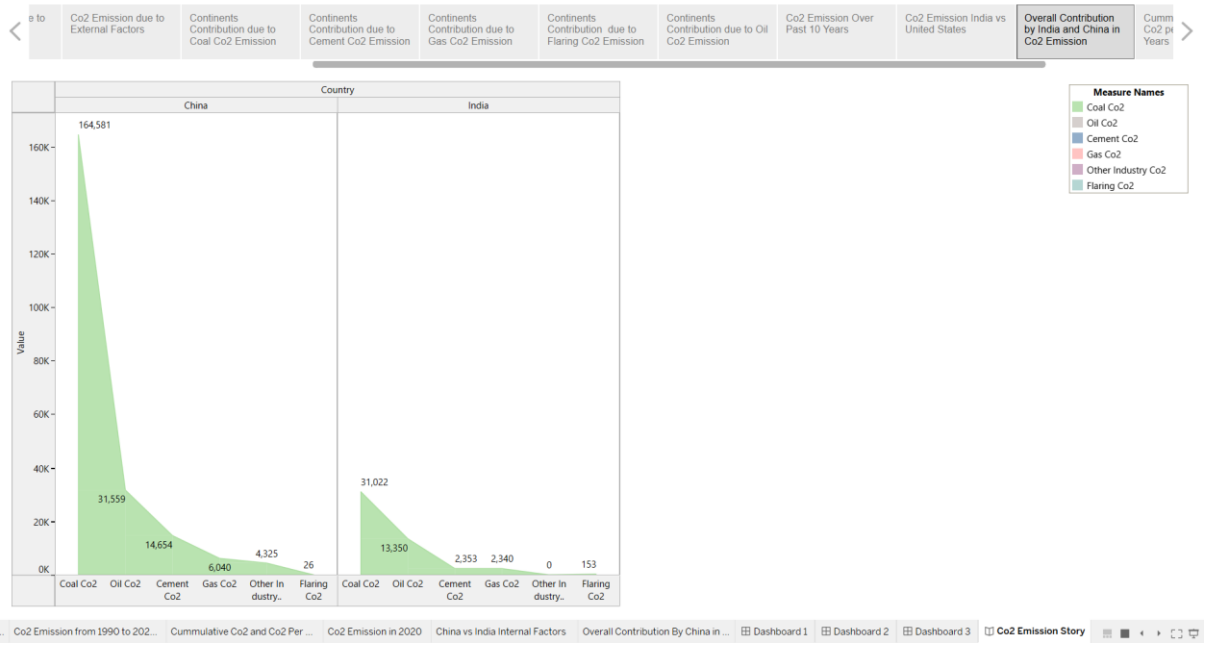

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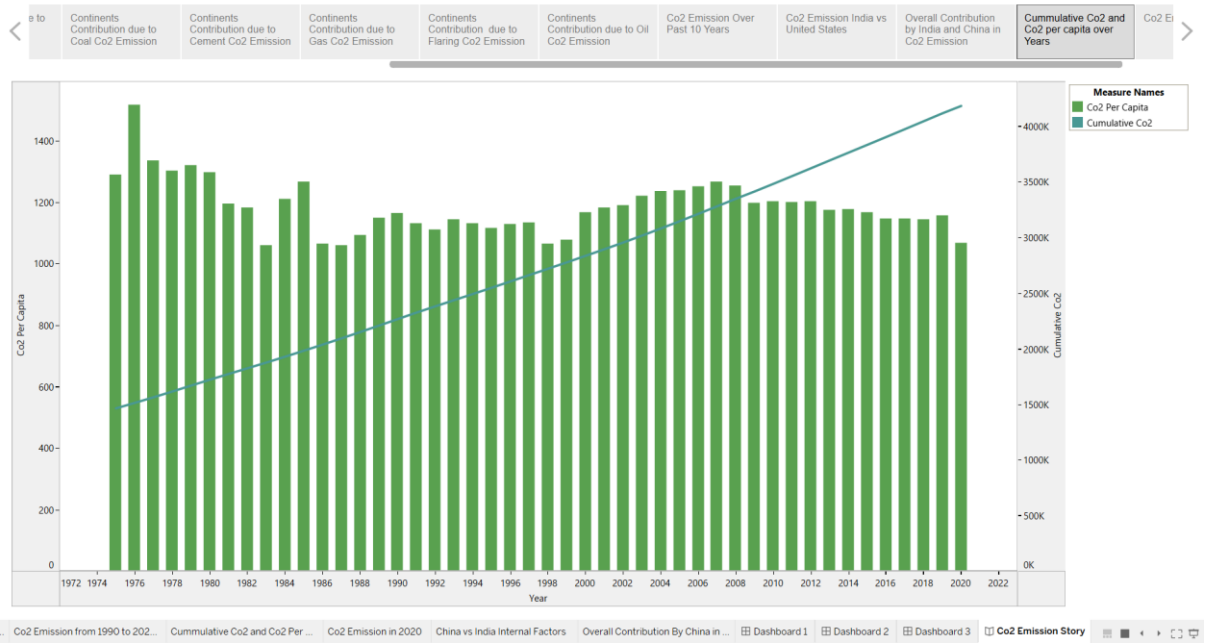


Co2 Emission Story

Web Integration:

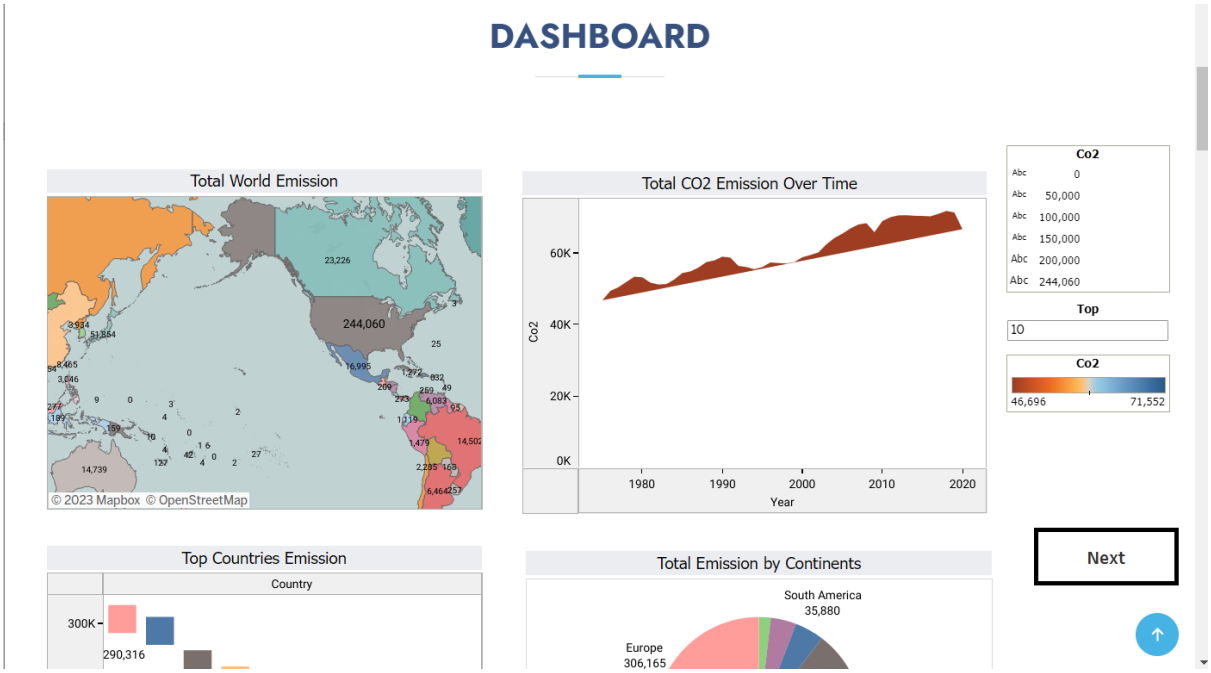
ABOUT US

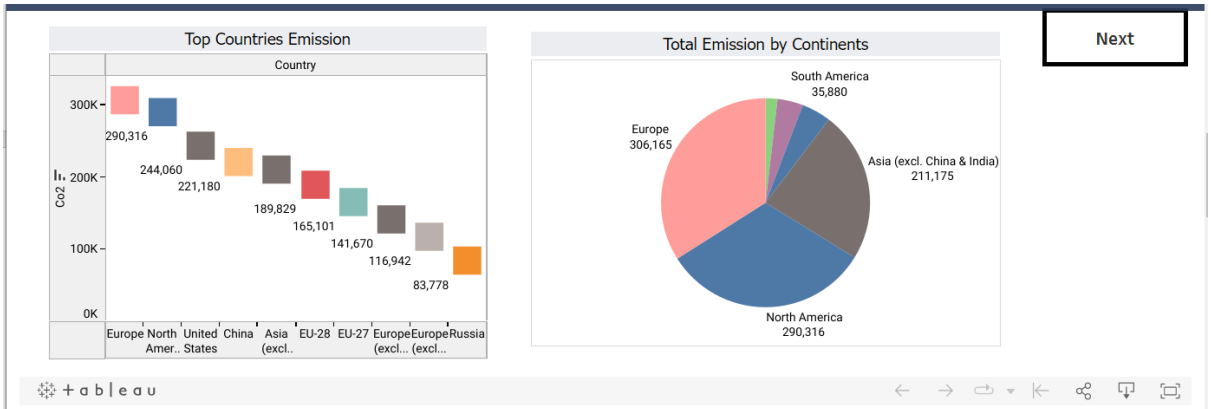
Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring.

Global carbon dioxide (CO2) emissions from fossil fuels and industry have increased considerably since 2000, and in 2019 reached a record high of 36.7 billion metric tons of CO2. In 2020, the COVID-19 pandemic caused global CO2 emissions to plummet five percent to 34.81 billion metric tons.

Historically, major global events cause emission reductions. The 2009 global recession caused worldwide CO2 emissions to fall by approximately 460 million metric tons. But this pales in comparison to the emission reductions in 2020. Countries around the world were put under strict lockdowns, meaning transportation and industrial activities were significantly reduced. CO2 emission levels in India dropped for the first time in four decades in the year ending March 2020. Global CO2 emissions per capita also experienced a substantial decline in 2020, falling to an average of 4.47 metric tons per person.

DASHBOARD

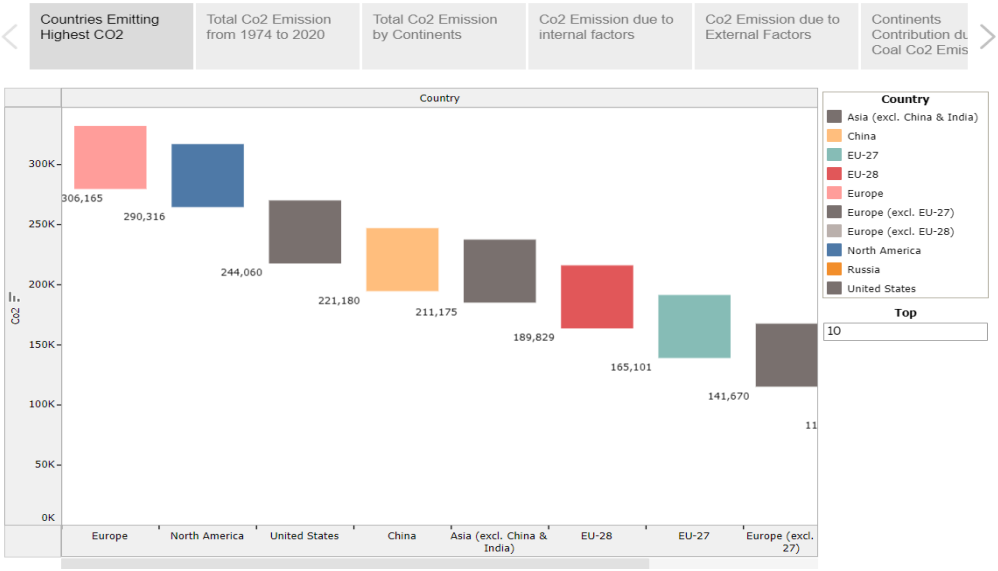




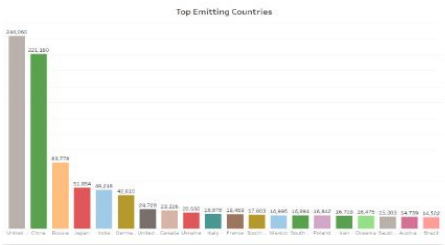
STORY

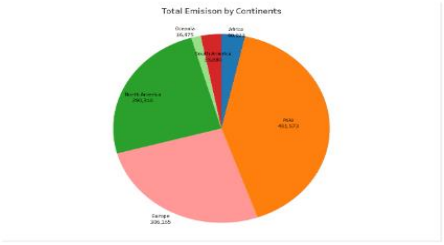
Co2 Emission Story

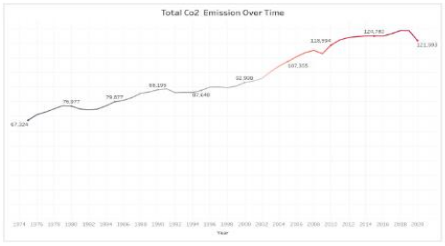
Countries Emitting | Total Co2 Emission | Total Co2 Emission | Co2 Emission due to | Co2 Emission due to | Continents

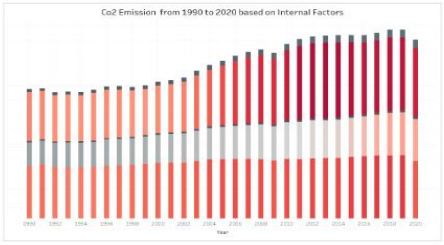


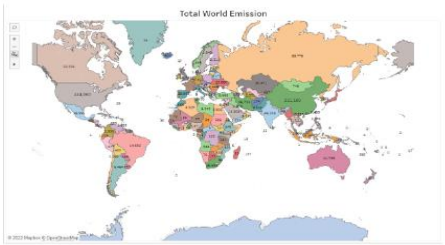
VISUALIZATIONS

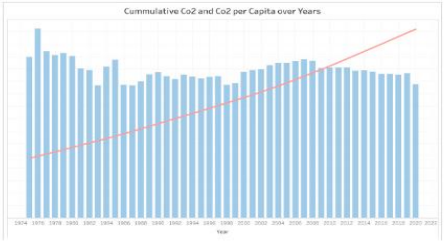












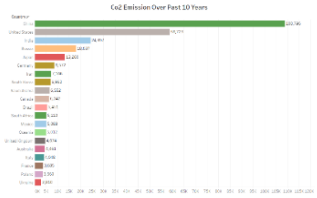
REPORT

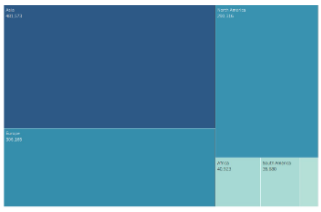
Top Co2 Emitting countries for Past 10 Years

China is the highest Co2 Emitting country among the other countries.

United States is the second highest Co2 Emitting country.

India is the Third highest Co2 Emitting country.



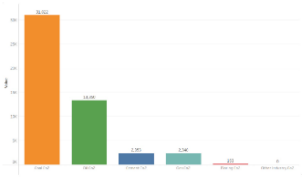


Continents Contribution towards Co2 Emission

Asian is the highest Co2 Emitting country among the other continents.

Europe is the second highest Co2 Emitting continent.

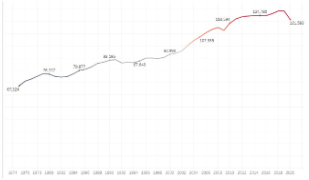
Antartica is the lowest Co2 Emitting countries because of low human activity/existence in the continent.



Overall India Contribution towards Co2 Emission

Coal is the highest factor of Co2 Emission.

Oil is the second highest Co2 Emitting factor.



Overall Co2 Emission over time

Co2 Emission in 1975 was 67324 (in metric tons).

Co2 Emission in 2019 was 128423 (in metric tons) which was highest in the past years.

Co2 Emission in 2020 was found to be 121593 (in metric tons).

Advantages and Disadvantages:

- ***Advantages:***
  - *Green plants grow faster with more Carbon di oxide.*
  - *Rising CO2 levels in the atmosphere enhance crop yields.*
  - *Rising CO2 enhances productivity in natural ecosystems.*
  - *Rising CO2 increases the water-use efficiency of plants.*
- ***Disadvantages:***
  - *High carbon dioxide levels can cause poor air quality.*
  - *Increases temperature of the earth's atmosphere.*
  - *It causes the global warming effect that has bad effects on the earth.*
  - *High concentration of CO2 causes narcosis.*
  - *Increasing the percentage of CO2 in air causes melting the snow on the tops of the mountain.*

Applications:

Carbon dioxide is used as a refrigerant, in fire extinguishers, for inflating life rafts and life jackets, blasting coal, foaming rubber and plastics. It is used in promoting the growth of plants in greenhouses. Carbon dioxide gas is used in the electronics industry for circuit board assembly, to clean surfaces and in the manufacture of semiconductor devices.

Conclusion:

The rising level of atmospheric carbon dioxide could be the one the one global natural resource that is progressively increasing food production and total biological output, in the world of otherwise diminishing natural resources of land, water, energy, minerals, and fertilizer.

Future Scope:

In the future, every industry should be an environmental industry. The transition from coal, oil, and gas to wind, solar, and geothermal energy is well under way. In the old economy, energy was produced by burning something - oil, coal, or natural gas - leading to the carbon emissions that have come to define our economy. The new energy economy harnesses the energy in wind, the energy coming from the sun, and heat from within the earth itself.