

UNEARTHENING THE ENVIRONMENTAL IMPACT OF HUMAN ACTIVITIES: A GLOBAL CO₂ EMISSION ANALYSIS

PROJECT REPORT

1. INTRODUCTION

1.1 Overview

Co₂ Emission provides a complete picture of energy-related greenhouse gas emission. The report finds that global growth in emission was not as high as so had originally feared amid the disruption caused by the global energy crisis.

1.2 Purpose

The Carbon in co₂ can be used to produce fuels that are in use today, including methane, methanol, gasoline and aviation fuels.

2. Problem Definition & Design Thinking

2.1 Empathy Map

Mural is a collaborative intelligence tool. Task 1 ideation • A Global CO2 Emission Analysis

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Task 1 ideation

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.

Says
What have we heard from you?
What can we imagine them saying?

Biggest challenge

Decrease with amount early

Help the researches and environment

Refrigerant

Helps to breath tree

process of photosynthesis

Caring agent

Give them a name and a portrait to empathize with your persona.

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Task 1 ideation

Reduce the use of fossil fuel.

Wear oxygen mask

Reduce to avoid the use of co2

Dangerous to human

Reduced concentration

Does
What behavior have we observed?
What can we imagine them doing?

Feels
What are their feelings, attitudes and beliefs?

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2.2

ideation

&

brainstorming

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Task 1 brain storming

Person 1

Greenhouse effect	Global warming	co2 emission
effect concentration		

Person 2

Dangerous to health	fossil fuel affectus	Refrigerant
	cooling agent	

Person 3

Electrochemical	respiration	insertion
	biochemical	

Person 4

Biological transformation	manufacturing chemicals	
	minerals	
	Designer fuels	

Person 5

Person 6

Person 7

Pers

44%

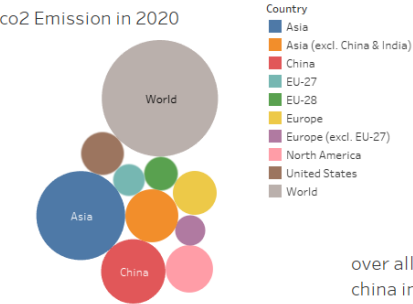
8:37 AM 4/10/2023

The screenshot displays a Mural collaborative workspace with a mind map centered on "CO2 EMISSION ANALYSIS". The map includes nodes for "Minerals", "Bio chemical", "Respiration", and "Global warming". Additional nodes on the left side include "Production of cement", "Distillation from air", "Importance", "The level changes as the level of co2 changes in blood", "CO2 is an acidic oxide", and "measure the monitor the acidity". The interface features a top navigation bar, a toolbar with drawing tools, and a bottom status bar.

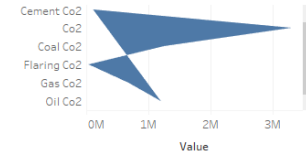
3. RESULT



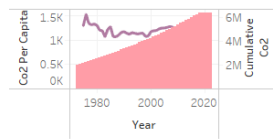
co2 Emission in 2020



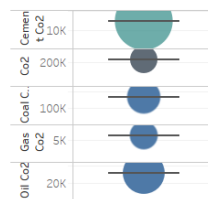
co2 Emission from 1990 to 2020 based on internal factors



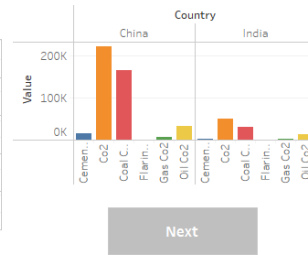
Cummulative co2 and co2 per capita over year



over all contributes by china in co2 emission



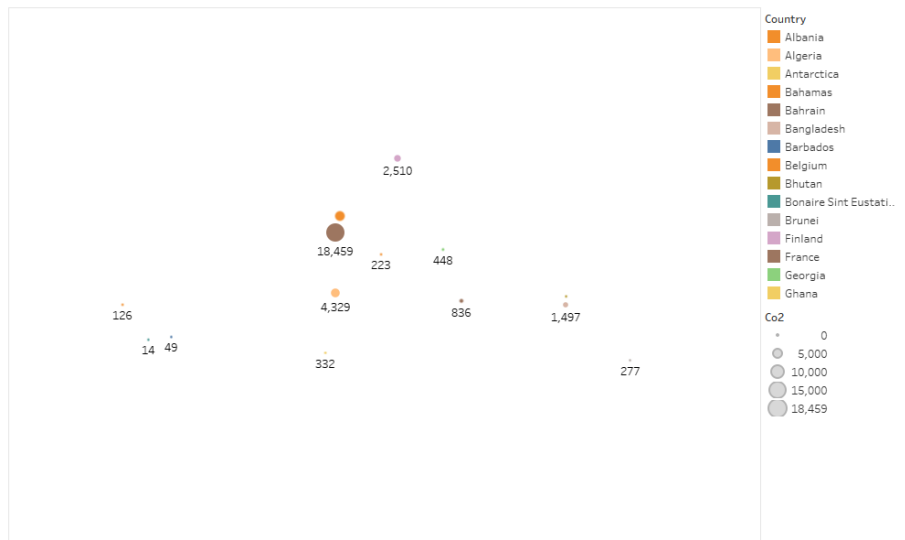
China vs India internal fasctors



from 1990 to 202... Cummulative co2 and co2 per c... co2 Emission in 2020 China vs India internal fasctors over all contributes by china in c... Sheet 16 Dashboard 1 Dashboard 2 Dashboard 3

Story 1

This chart is about world emission This chart is about top emitting countries This chart is about co2 emission over time This chart is about India vs US This chart is about total emission by continents This chart is about co2 emission per capita This chart is about co2 emission per capita



202... Cummulative co2 and co2 per c... co2 Emission in 2020 China vs India internal fasctors over all contributes by china in c... Sheet 16 Dashboard 1 Dashboard 2 Dashboard 3 Story 1

4. Advantage & disadvantage

Advantage:

- Concentrated in co₂
- High pressure
- Removes the need for co₂ piping to transport the gas to underground storage sites.

Disadvantages:

- Direct cycles require removal of water from the fluid before recycling.
- Gas turbines running on hydrogen are a huge challenge.

5. Applications

Using various catalyst, co₂ can be made into a variety of chemical intermediaries' materials that then serve as feedstocks in other industrial processes, like

- Methanol
- Syngas and
- Formic acid.

6. Conclusion

Co₂ capture and storage is technologically feasible and could play a significant role in reducing greenhouse emission over the course of this century.

7. Future Scope

The latter, which sees most emissions come from deforestation and peatland clearance, now says it will cut emissions level by at least 31.89% by 2023. Globally, inadequate pledges put the world on a path to warm by 2.5 by 2100. Still, 10.6% increase in emissions represents slight progress.

8. Appendix

A. Source code: [Kavitha's Team Project.html](https://www.kavitha.com/project.html)