



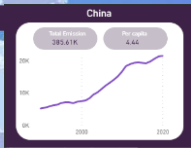
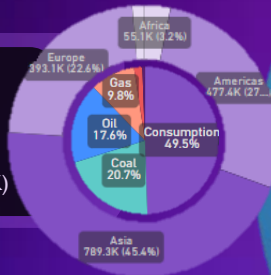
# Global Emissions Dashboard

Yayuan Zhang

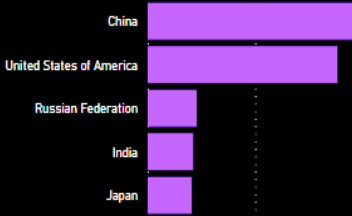
Emission data from 1990-2020 | Key influencing factors data from 1990-2018 | Emission Unit: Metric Ton

## Global View

Global Total Emission MT: 1.74M  
Global Emission per capita – all region: 6.43  
Emission change: 0.13  
Top Emission Continent: Asia (45.6%, 789.3K)  
Top Emission Type: Consumption (49.5%, 860.26K)

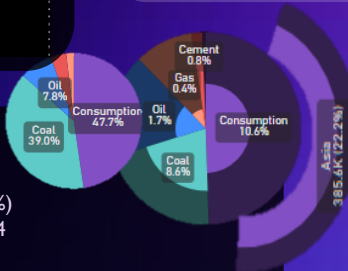
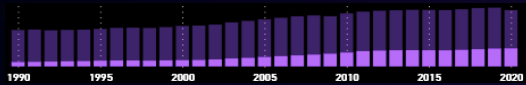


## Top 5 Emissions Country

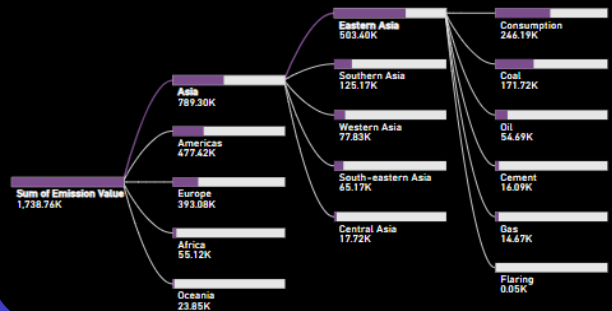


- ❖ China's emissions soared since 2000, rising by an astonishing 316.69%.
- ❖ In 2007, it overtook the United States as the world's top carbon emitter, with a widening gap between them.

Top Emitting Country: China  
Top Emissions: 385.61K (22.2%)  
CO2 Emissions per capita: 4.44  
GDP Per Capita: \$ 25,384.59  
Main Emission Type: Consumption (global view: 10.6%)



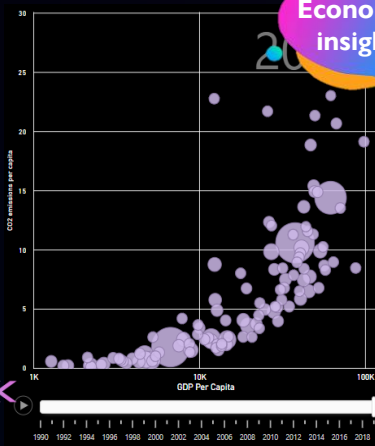
## Decomposition Tree | Emission by Continent and Types



## Economic insight

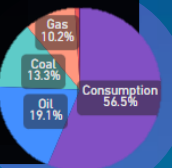
- ❖ Animation shows impact of economic fluctuations on per capita GDP for different countries.
- ❖ Positive correlation between per capita emissions and per capita GDP.

Since 2000, China's GDP has steadily grown, even during periods of economic turmoil with no significant decline



Top Average Emitting Per Capita Country: Luxembourg  
Main Emission Type: Consumption (56.5%)  
CO2 Emissions per capita: 32.18  
Top Emissions: 653.71K (22.2%)  
Emissions change: 0.24  
GDP Per Capita: \$96,965.58

[Animation] Significant fluctuations in per capita carbon emissions of this country occurred between 20-50 over time.



## When is CO2 emissions more likely to be Low?

Segment	Avg Emissions	% of data	Units lower than overall Avg
Segment 1	0.28	5.3%	4.03
Segment 2	0.74	11.1%	3.56
Segment 3	1.65	8.4%	2.65
Segment 4	2.28	9%	2.03
Segment 5	2.80	10%	1.5
Segment 6	3.25	10%	1.05

- Access to clean fuel for cooking change is not NO change.
- Access to clean fuel for cooking change is low increase.
- GDP Growth change is Low decrease.
- Life expectancy change is High Increase

1

- Access to clean fuel for cooking change is not NO change.
- Access to clean fuel for cooking change is not low increase
- GDP Growth change is not Low decrease
- Life expectancy change is High Increase

2

- Access to clean fuel for cooking change is low increase
- GDP Growth change is Low increase
- Life expectancy change is High Increase

3

- Access to clean fuel for cooking change is low increase
- GDP Growth change is not Low decrease
- GDP Growth change is not Low increase
- Life expectancy change is High Increase

4

- Access to clean fuel for cooking change is low increase
- GDP Growth change is not Low decrease
- Life expectancy change is High Increase

5

- Access to clean fuel for cooking change is not No change
- GDP Growth change is not Low decrease
- GDP Growth change is not Low increase
- Life expectancy change is not High Increase

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## Top Segment

### Reducing Emissions...

- ❖ Improved access to clean fuel for cooking
- ❖ Increased Life expectancy
- ❖ Moderate or decreasing GDP Growth

### Increasing Emissions...

- ❖ Limited access to clean fuel for cooking
- ❖ Rapidly increased Life expectancy
- ❖ Low GDP Growth

## Key Influencers

### Key Features

Continent Filter: Select continents, sub-regions, and countries.  
Year Filter: Choose a specific year for drill-down exploration.  
Reset Dashboard Button: One-click reset using bookmarks.  
Page Navigation Button: Easy access to desired information across pages.  
Bookmarked Button: Easy access and explore data in four dimensions.  
DAX expressions and Measures: Support analysis and visualization

### What went well?

- ❖ Relationship in model view
- ❖ Effective DAX and Measures
- ❖ Navigation Button
- ❖ Bookmarked Buttons
- ❖ UI design

### What go not well?

- ❖ Clean large and dirty datasets
- ❖ Find available datasets
- ❖ (Blank) option in Filters
- ❖ Laptop run slowly

3W

Differently next time?

- ❖ Enhance data preprocessing
- ❖ Resolve "Blank" option in Filters before modeling
- ❖ Improve time management for data preprocessing and visualization