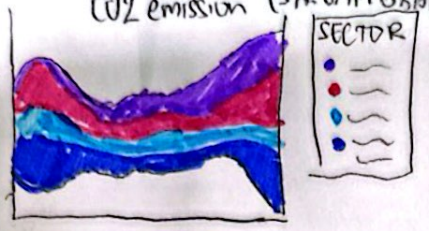
IDEAS

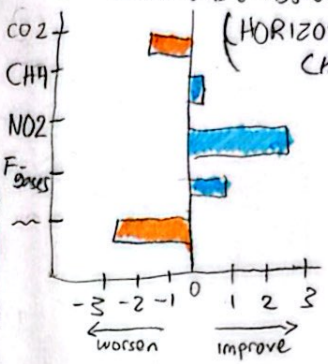
CO2 emission (STREAM GRAPH)



2.5PM (CHLOROPLETH MAP)

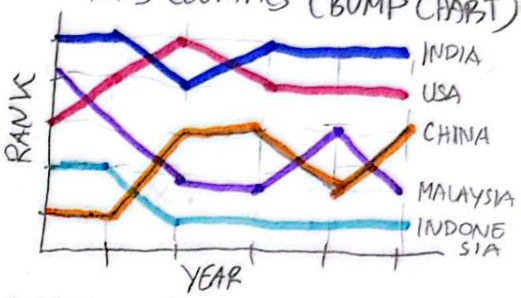
ORTHOGRAPHIC CHLOROPLETH

2000 vs 2022 Gas emission (HORIZONTAL BAR CHART)

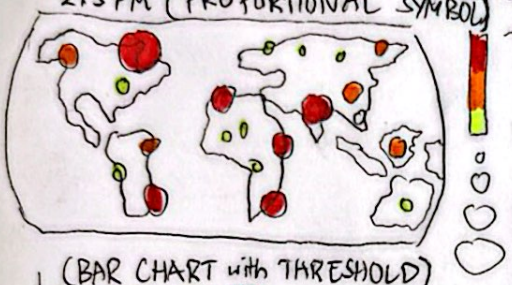


Horizontal
Vertical

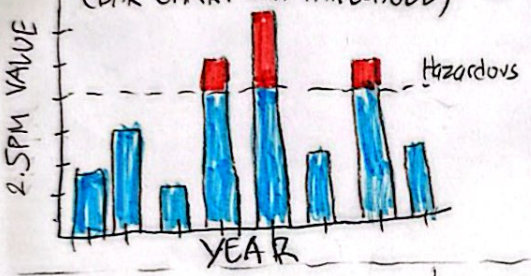
TOP 5 countries (BUMP CHART)



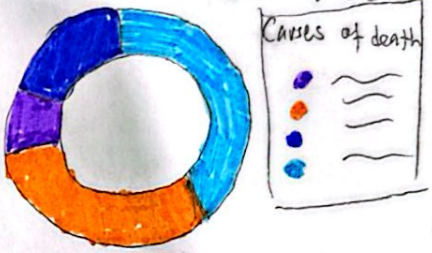
2.5PM (PROPORTIONAL SYMBOL)



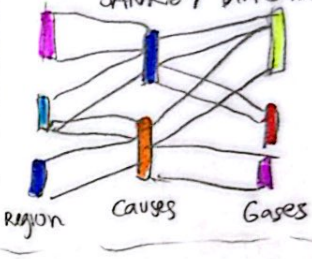
(BAR CHART with THRESHOLD)



(DONUT CHART) DEATH CAUSES



SANKEY DIAGRAM

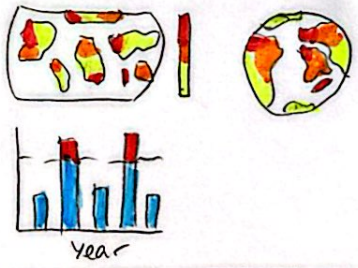


FILTER

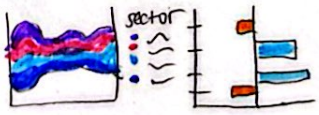
- Remove proportional symbol Map (too crowded, not suitable)

CATEGORIZE by purpose

PM2.5 VALUE

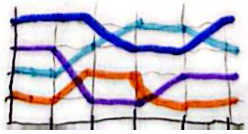


GAS EMISSION (CO2, CH4, NO2, F-gas)



DEATH & CAUSES

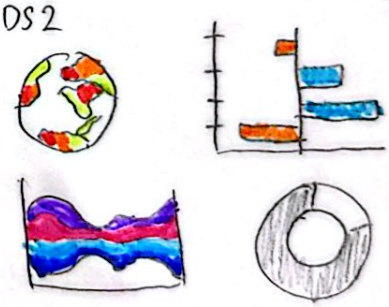
TOP COUNTRIES (Highest pollution)



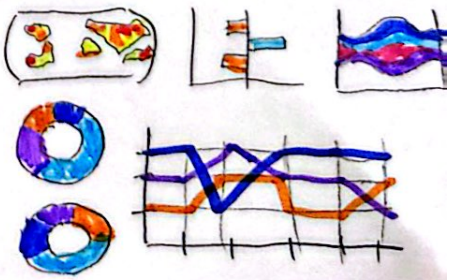
COMBINE & REFINE

DS1

DS2



DS3



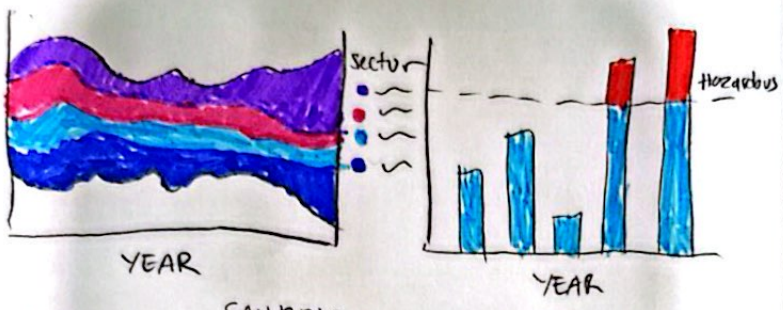
Title: Air pollution

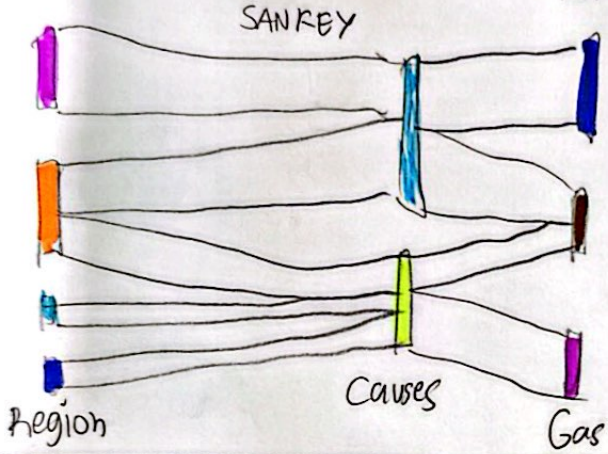
Author: Elke Ie

Date: 27/03/2024

Sheet: 2

Task: Visualize which causes from LULUCF most significant

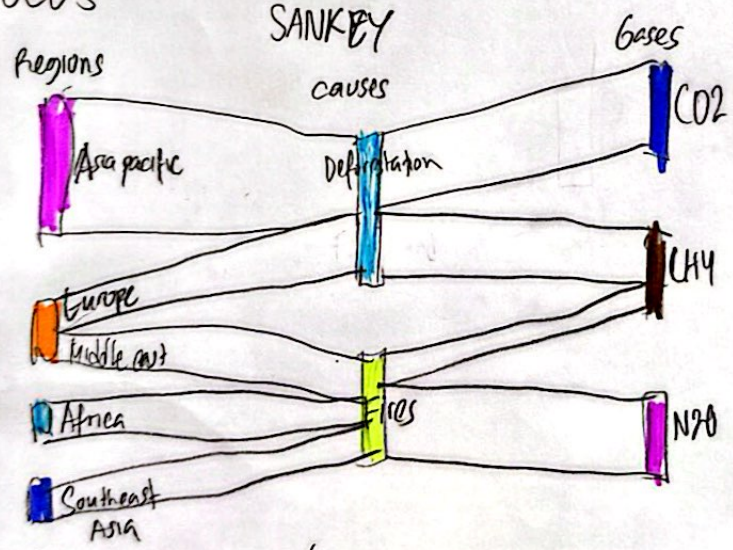




OPERATIONS

- User can hover over each visualisation to see tooltip
- User can hover over stream graph to focus on a sector by opacity
- Chloropleth map can be clicked to change the data shown by stream & bar graph

FOCUS



- Bigger band/node signify higher GHG emission flow
- Color hue for each node

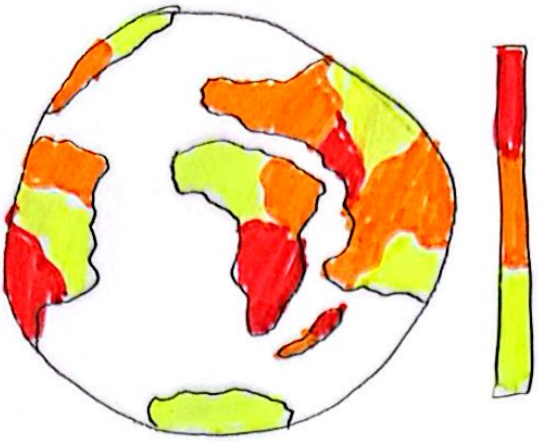
DISCUSSIONS

- Stream graph show CO2 emission by general sector
- Bar graph show which year pass the threshold be considered as hazardous

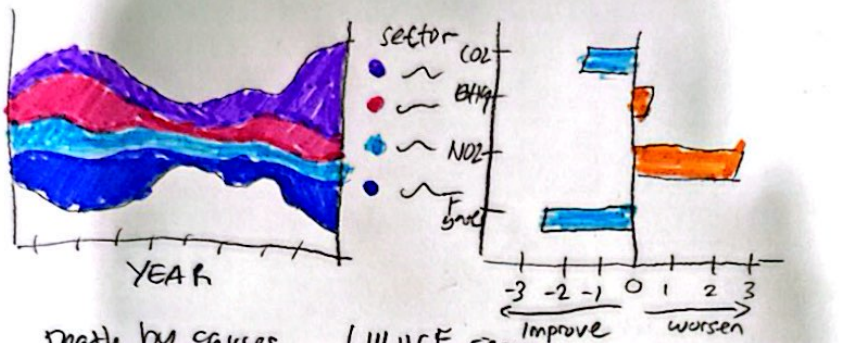
PRO & CONS

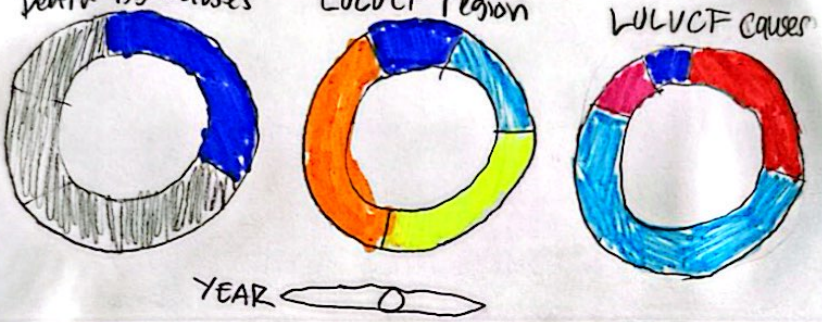
pro = sankey is visually appealing & informative

cons = Bar graph slightly redundant with map



Horizontal
Vertical





Title: Global air quality

Author: Elke Ie

Date: 27/09/2024

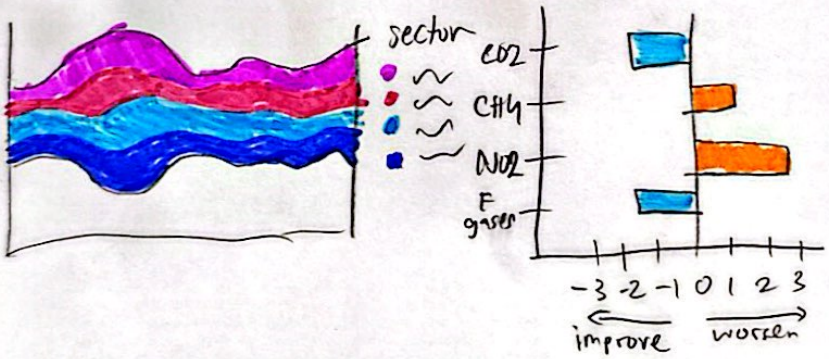
Sheet: 3

Task: Show how gas emission change from 2000 to 2022

OPERATIONS

- vertical & horizontal slider in map to rotate them
- slider in donut charts to change the year depicted
- hover over charts to see tooltips
- map used to change the data in stream & bar graph by country

FOCUS



- Know which sector contribute the most & which year produce the most CO2.
- Immediately know which gases improve /worsen by emission change from 2000 to 2022

DISCUSSIONS

- 3 donut charts give overall comparison out of 100% in each data

Pro & cons:

pro = • Diverging bar graph is very effective to show changes

cons = • Donut charts are too much & a bit redundant

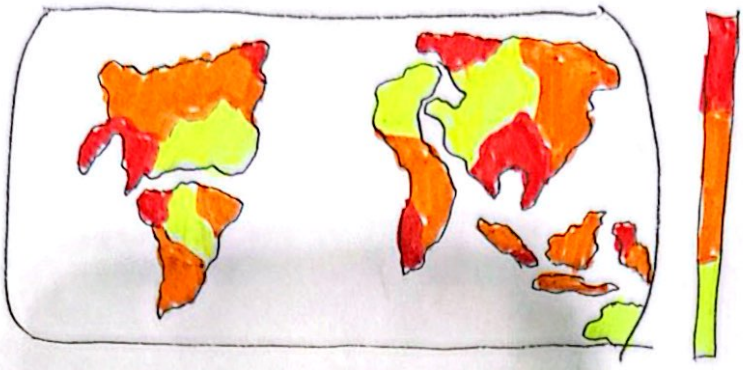
TITLE: Air in focus

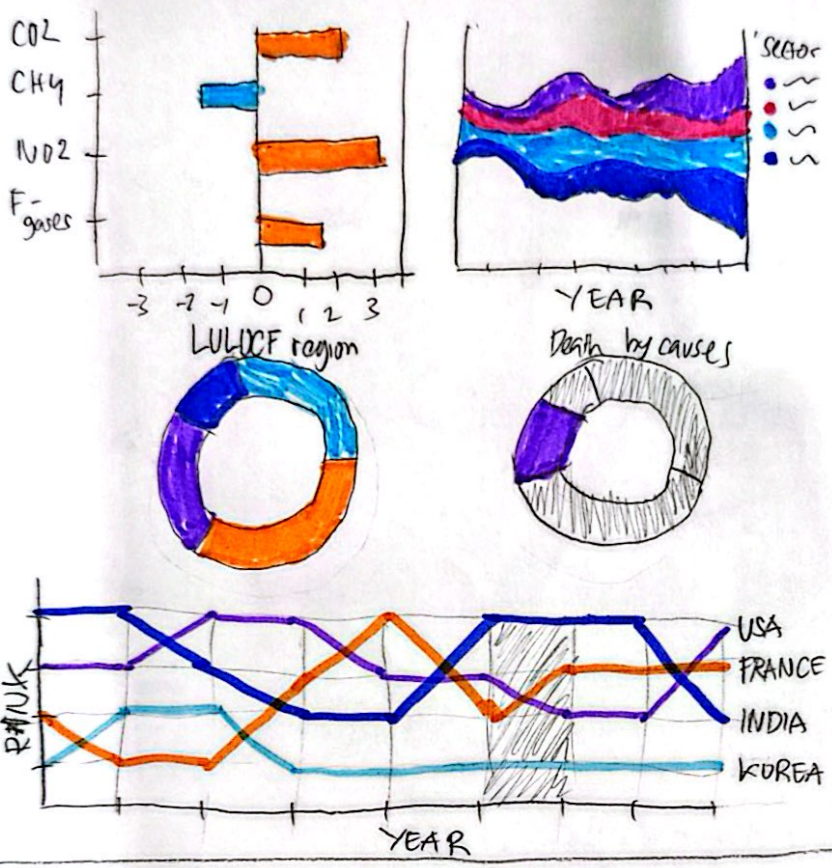
Author: Elke Ie

Date: 27/09/2024

Sheet: 4

Task: Show the ranking of each country based on 2.5PM concentration

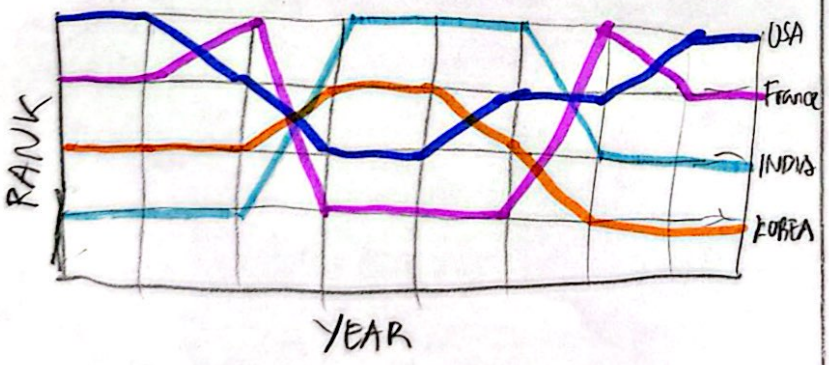




OPERATIONS

- hover over each charts to see tooltips
- hover over stream graph to focus on a sector bcs the opacity is adapted
- press/click on the line in the bump chart to focus on a country
- map is used to change the data shown in stream & diverging bar graph

FOCUS



- color hue to differentiate each country
- up to top 10 ranking

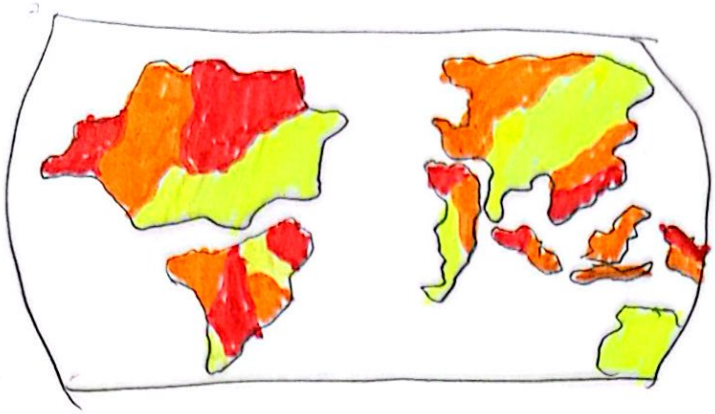
DISCUSSIONS

- Bump chart might take up space, leads to less words/discussions

pro & cons

pro = • Bump chart is very effective to show ranking

cons = • Not much cons, just less word due to bump chart



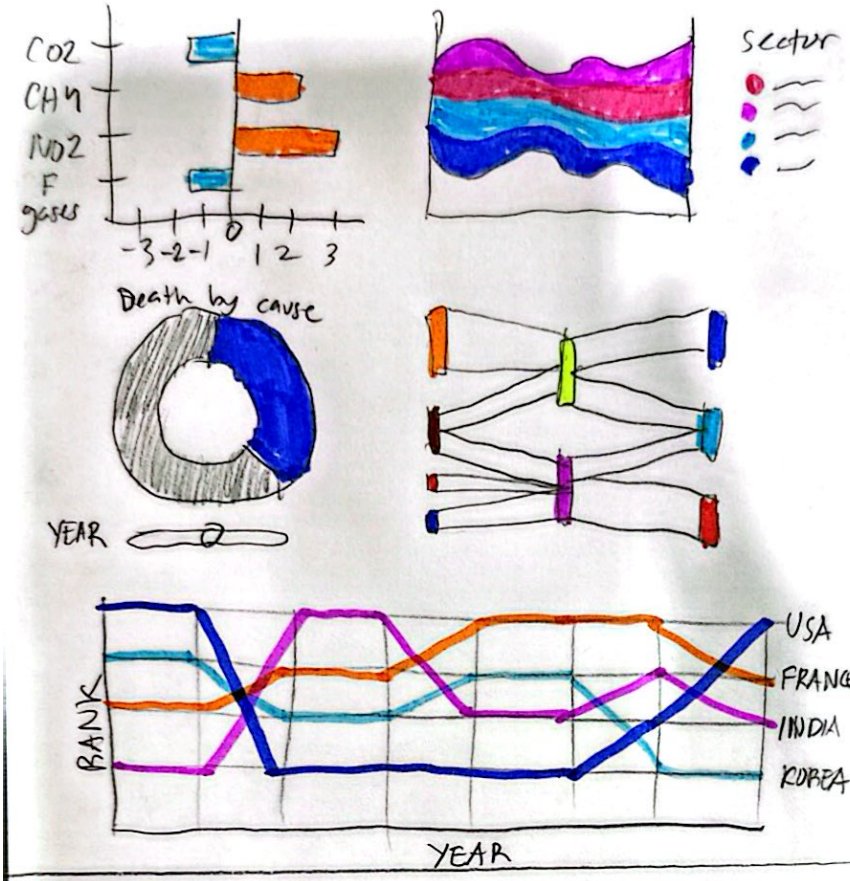
Title: Beyond the Smog

Author: ElkeIe

Date: 28/09/2024

Sheet: 5

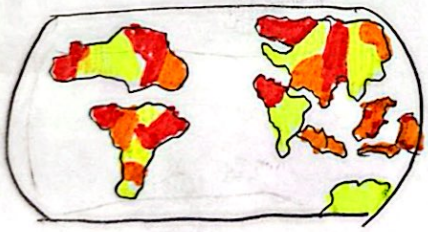
Task: Show global air quality & the top 10 country ranking



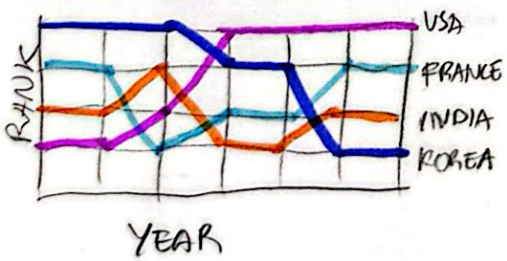
OPERATIONS

- click on map to change the data shown in bar & stream graph
- slider in donut chart to change the year data depicted
- click on a country in bump chart to focus on a country (change opacity)
- hover over stream graph to focus on a sector (change opacity)

FOCUS



- New focus (not from any sheet)



- Taken from sheet 4 focus

DETAIL

- might need a lot of data preprocessing
- selection/interactivity from map need effort (understand code)

Time to finish

- 2 weeks

cost

- None

Requirements

- width not exceed standard desktop
- At least 1 map graph