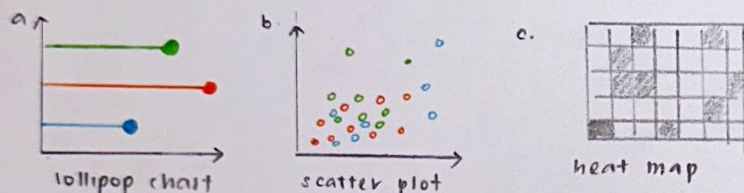


IDEAS //

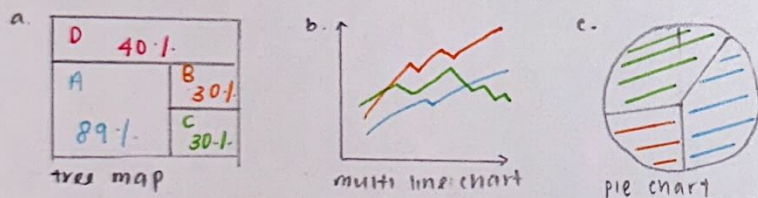
1. Geographic & Economic Overview



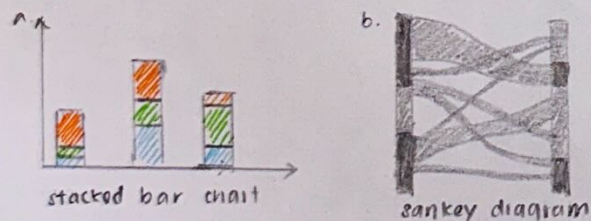
2. Climate & Environmental Impact



3. Agricultural Productivity

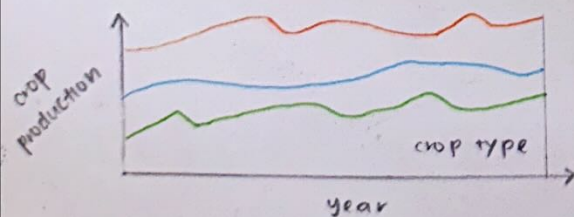


4. Resource Use

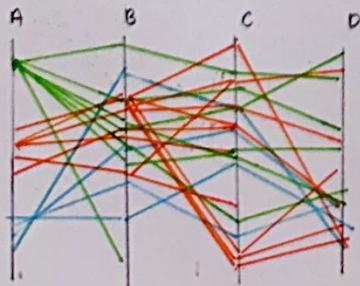


COMBINE & REFINE //

1. combine 3a & 3b into stacked area chart



2. transform 4b into parallel coordinate plot



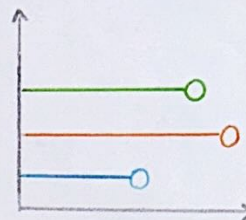
FILTER //

1a. Symbol Proportional Map



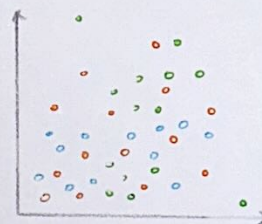
- easy to cause clutter
- might be hard to perceive size of symbol

2a. Lollipop chart



- take up a lot of space if a country used to compare on the same field, 10 countries in dataset

2b. Scatter Plot



- no correlation between attribute
- ⇒ MEANINGLESS ??

CATEGORIZE //

- ① Global & Economic Agricultural Contribution Overview
- ② Climate & Environmental Impact on Agriculture
- ③ Agricultural Production
- ④ Resource Use on Agriculture

QUESTIONS //

- ? Are these visualisation able to be generated using Vegalite
- ? Is there any deceptive information
- ? What are the storytelling genre applicable
- ? Is this category sufficient to present a good visualisation for AGRICULTURE
- ? Is these chart complex

Author : Joey Low

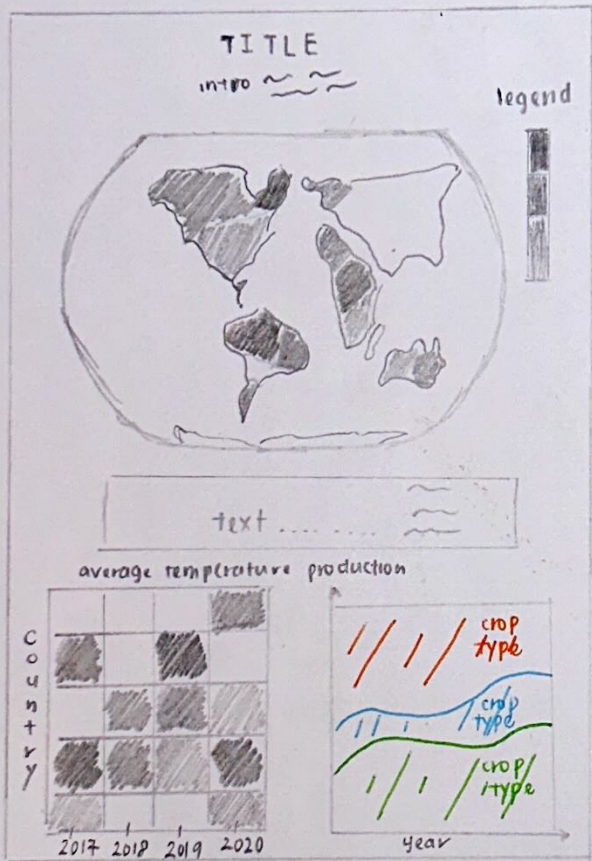
Title : Global Agriculture Insights

Task : Initial Design

Date : 6/10/2024

2

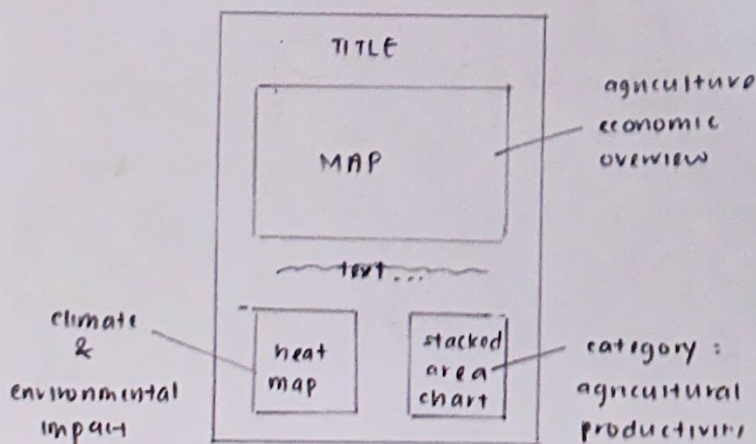
LAYOUT //



FOCUS //

- main focus is on the (equal earth projection of choropleth map to show agriculture economic impact across different countries)

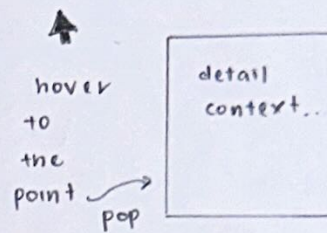
overview :



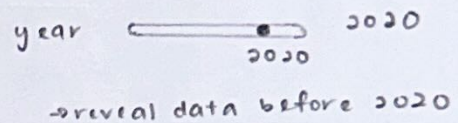
OPERATION //

→ filter

1. tooltip



2. slider



DISCUSSION //

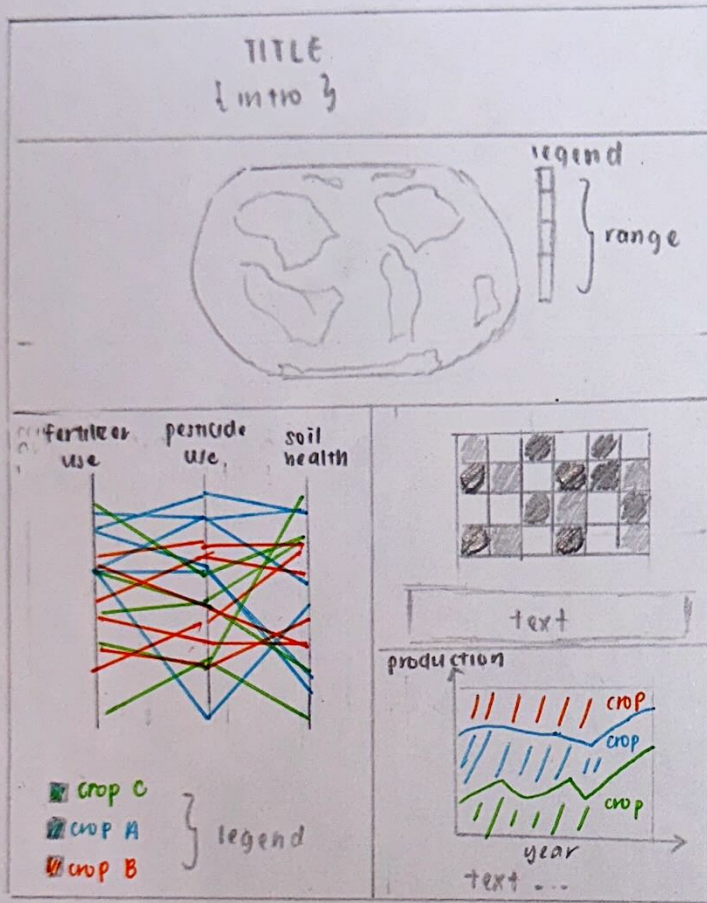
✓ Advantages :

- visual hierarchy on map
- balance layout
- clarity & simplicity

✗ Disadvantages :

- might be lacking of information ,
- only focusing on :
 - overview
 - climate impact
 - agricultural productivity

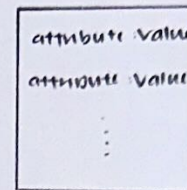
LAYOUT //



OPERATION //

1. tooltip

↓ hover to show more detail information of the data point



2. slider

year:

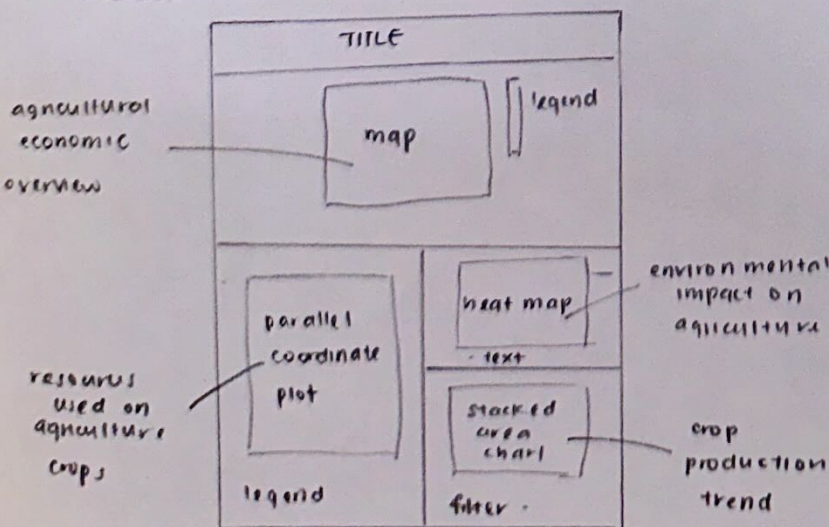


filter chart to only show data before 2024

FOCUS //

• no main focus ⇒ all equally important

- overview:



DISCUSSION //



Advantages:
 contain more information with chart



Disadvantages:
 - layout unbalanced
 - lack of interaction
 - might be overwhelming

Author: Joey Liow

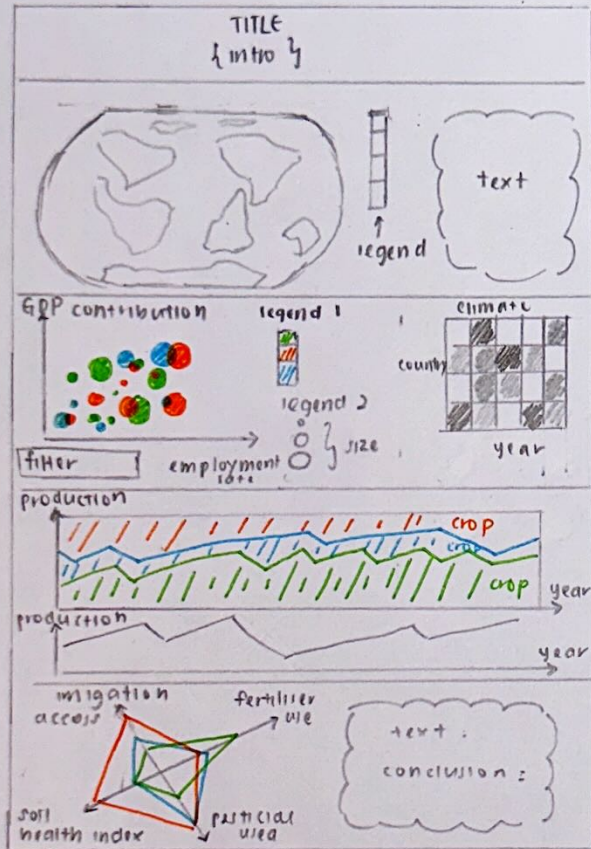
Title: Global Agriculture Insights

Task: Initial Design

Date: 7/10/2024

4

LAYOUT



OPERATION

1. tooltip: ↑

↓ hover to show more details on data point

attribute 1: value
attribute 2: value

2. slider: ————— 2020

adjust year

→ display chart based on value prior to selection

3. drop down filter: [show all ▼]

→ to filter year / category like country // region

→ display chart to based on filter

4. brushing effect: [line chart icon]

→ Alter on line chart to apply changes to stacked area chart

FOCUS

Focus on 4 categories:

① Agricultural Global Economic Impact:

map & bubble plot

② Country climate impact on Agriculture:

heatmap

③ Agriculture Productivity:

stacked area chart & line chart

④ Resources used on agriculture:

radar chart

EQUALLY IMPORTANT! NO MAIN FOCUS!

⇒ might have to reorder the sequence for better readability

DISCUSSION



Advantages:

- a lot of user interactivity to enhance experienced
- more information
- balanced layout



Disadvantages:

- might encounter information overload

Author: JOJO LIOW

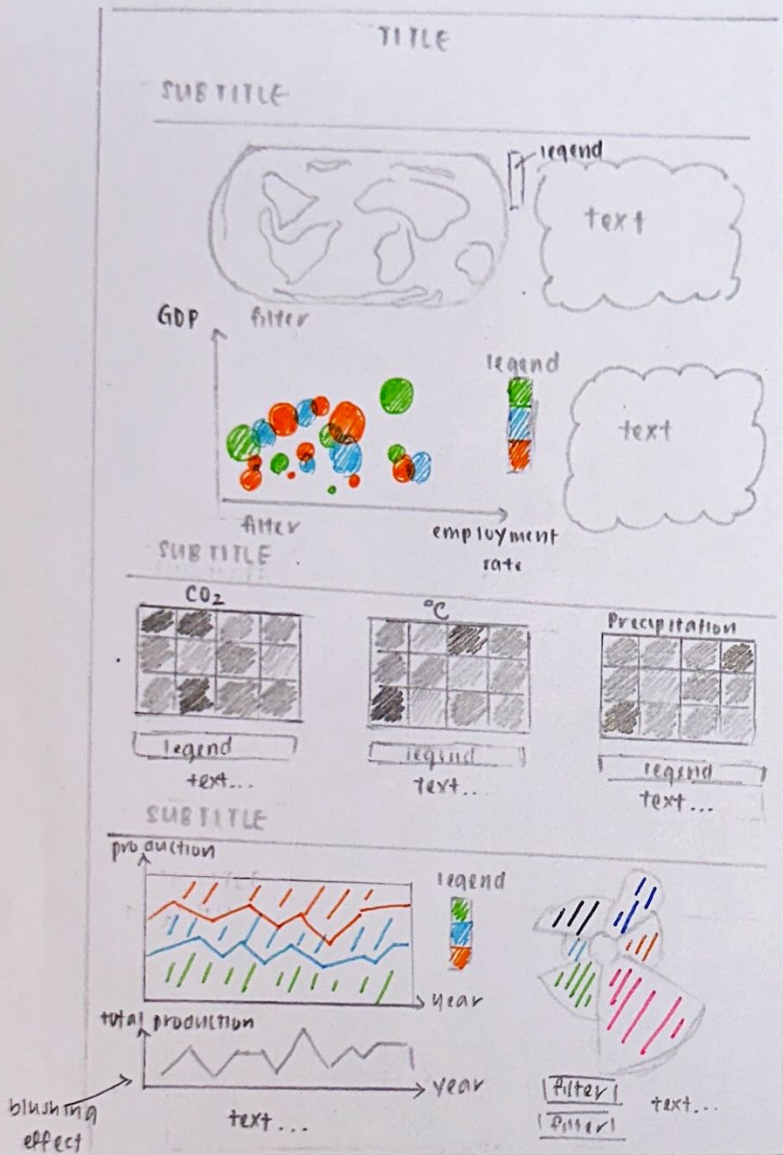
Title: Global Agriculture Insight

Task: Final Implementation

Date: 8/10/2024

5

LAYOUT



OPERATION

1. Tooltip : hover to show more details

attr1: val 1
attr2: val 2
2. Selection on Legend

A
 B
 C

: click to filter based on selected category
3. drop down filter

show all ▼

 : click to filter based on selected value
4. slider filter : 2021 : drag to filter based on max value "2021"
5. brushing effect : filter on line chart to apply filter across stacked area chart
6. selection on heatmap : click to compare clearly in that row

FOCUS

- no main chart focus, all graphs equally important
- category included:
 1. geographic & economic overview
 2. climate & environmental impact
 3. agricultural efficiency
- storytelling :
 - emphasis on consistent color across attributes, layout (white space, sight line, typography) principles to create a clear hierarchy

overview:



DETAIL

Dependencies : Excel workbook &
Excel worksheet &
Vegalite &
HTML & CSS &
Pandas
Github

Estimated Time taken to Complete:

1 week