

# IDEAS

## Key words

Coffee Green Income Exports  
Production Consumption Top 5?  
Change Over Time



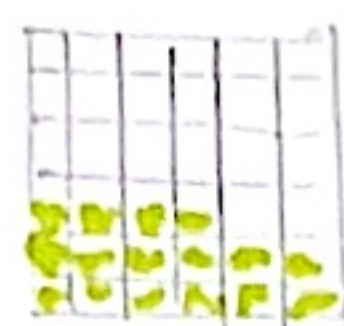
**DONUT**  
Type of coffee vs Production

→ Treemap?

→ Per country?

**SANKEY**

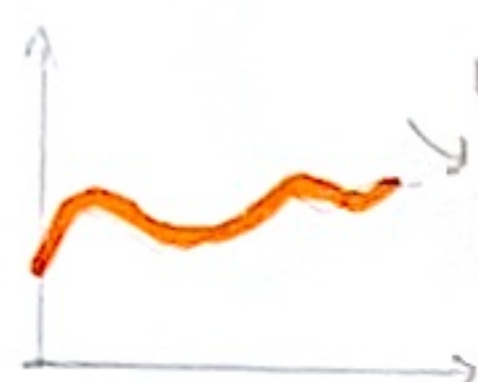
→ Possible in Vega-Lite?



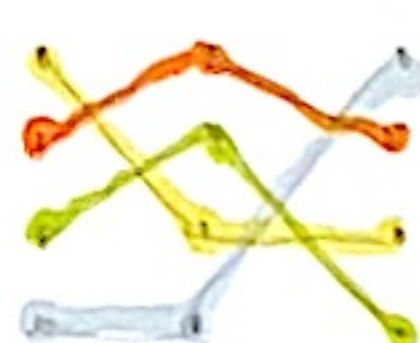
**WAFLE**  
Coffee Price per Type?  
→ Make sense?



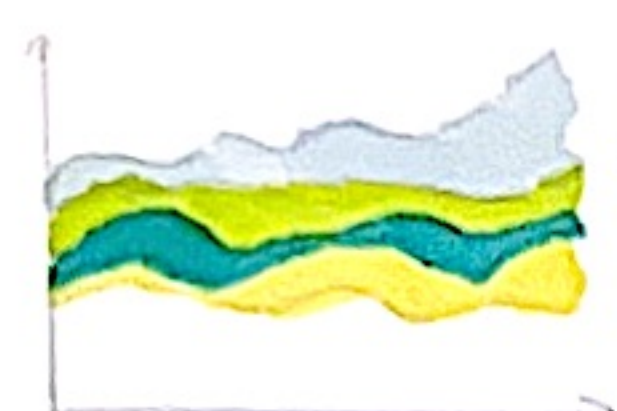
**CHORD**  
Better than Sankey,  
But feasible?



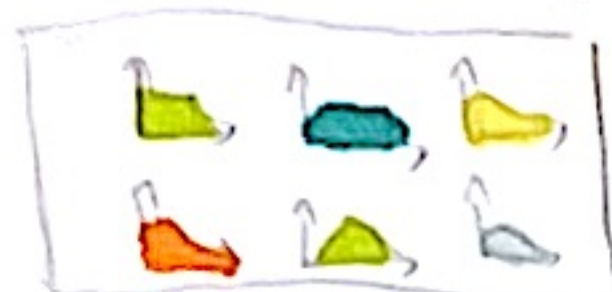
**LINE**  
Ave. coffee price  
over time?



**Scatter**  
Ranking of coffee  
Exports  
→ Too many countries?



**STREAMGRAPH**  
Show top exports/  
profit to know?

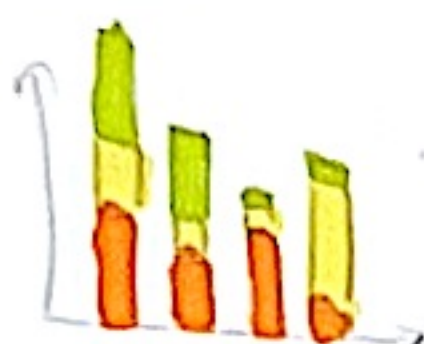


**SMALL MULTIPLES**



**BAR**  
Coffee Export vs  
Import?

OK



**STACKED BAR**

## CATEGORIZE

[Proportion]: Treemap / Donut / Waffle

[Difference in]: Line / Bar Chart  
Input / Export

[Ranking]: Bump Chart / Streamgraph

[Flow]: Sankey / Chord Diagram

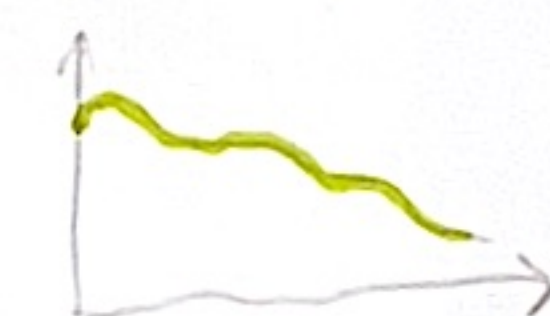
[Comparison]: Small Multiples

## COMBINE & REFINER

(Price) Line Chart

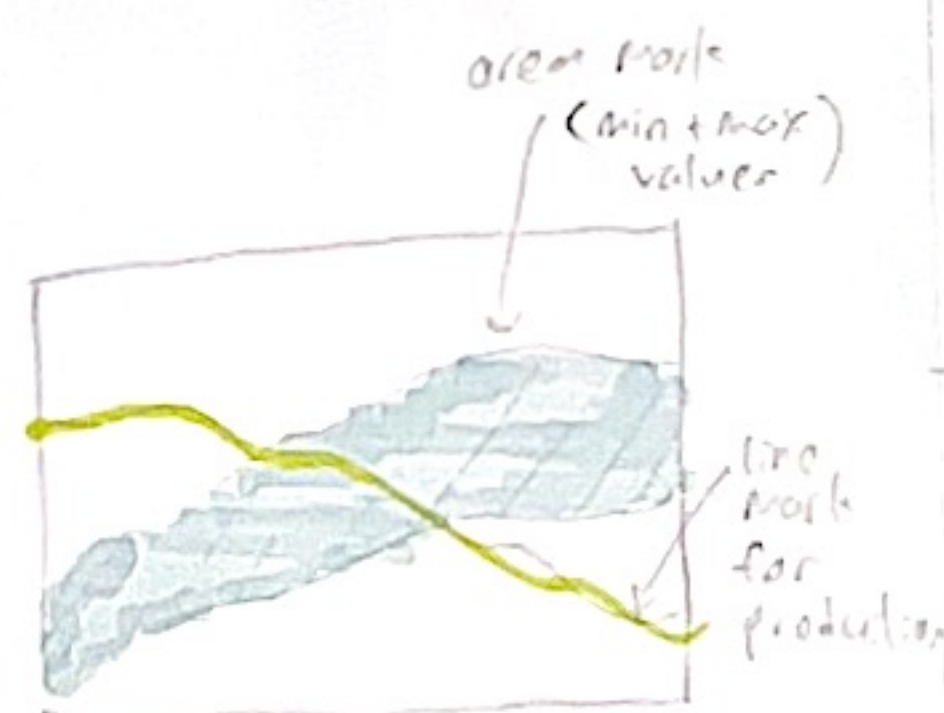


(Production) Line Chart



COMBINE

Dual-axis area/line chart  
to show correlation  
between data.



area marks  
(min+max  
values)

line marks  
for production

## FILTER

**DONUT** → Works, but not a good representation  
as ideas. Better choice?  
→ Perhaps streamgraph.

**STREAMGRAPH** → Novel and easy to visually  
process. What about the color  
scheme?

**Bump** → Seems good. Perhaps selection  
to toggle for profit/export/etc.

**BAR** → either grouped or stacked  
works.

**SANKEY** → Can work if sufficient data  
set.

**CHORD  
DIAGRAM** → Don't seem to have  
enough data for in/out  
for each country.

**LINE CHART** → Workable, how to make  
complex is on important  
issues. Interactivity?

**Waffle** → Technically okay, but is  
suitable representation in  
this case.

**SMALL  
MULTIPLES** → Useful to compare  
multiple countries.

## QUESTIONS

→ How to create a story flow?

→ How to combat issue of data?  
i.e. lack cohesive data.

→ Can Vega-Lite handle such charts  
(Sankey / Small multiple)

→ How to style using CSS?

→ How to make interactive charts  
useful?

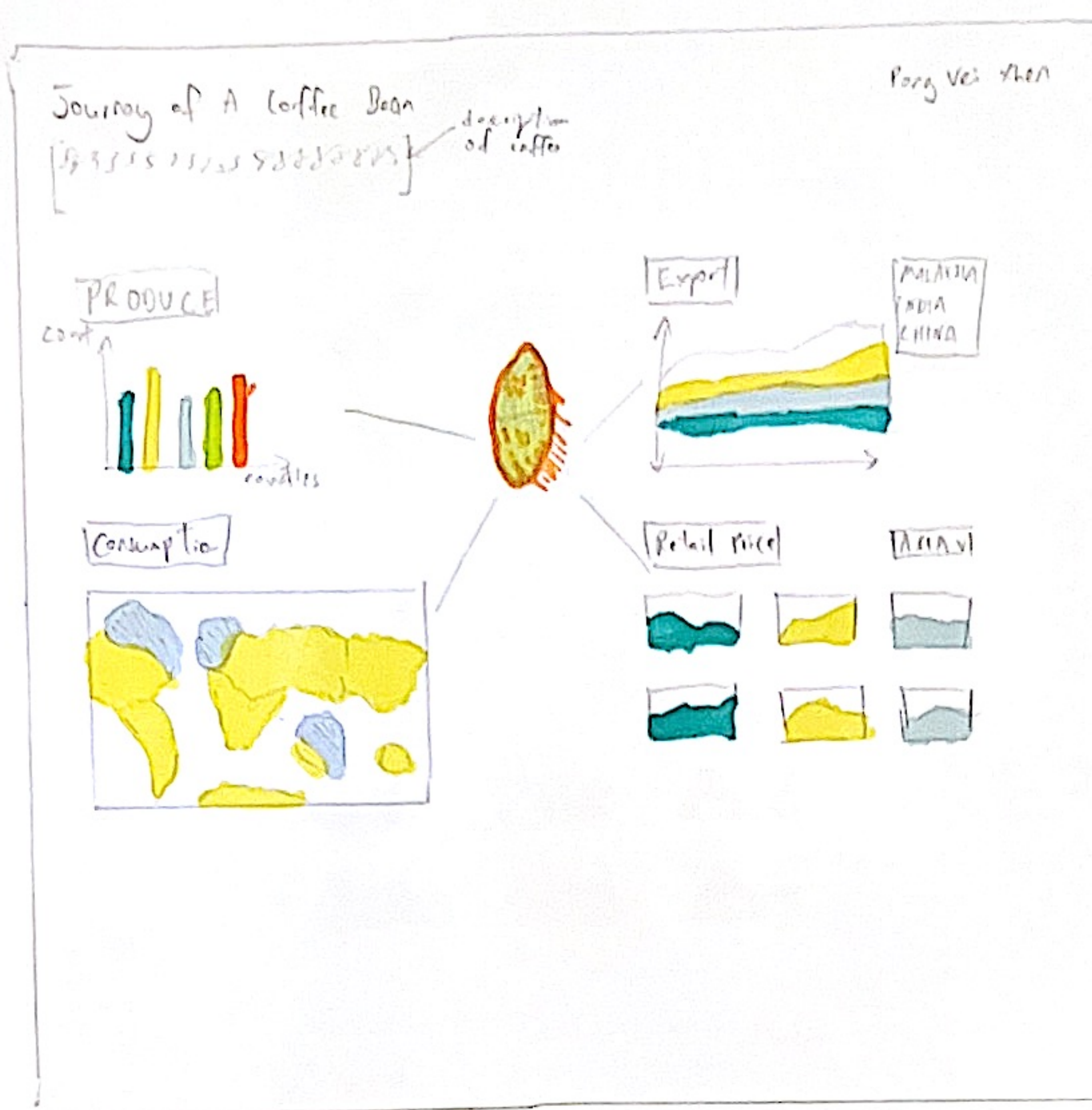
Author: Roy Vei Xien

Date: 2/10/2022

Sheet: 1



# LAYOUT



Author: Pong Wei Shen

Date: 3/10/2021

Sheet: 2

Task: 2

## OPERATION / UI

At a glance, the icon of a coffee bean takes entire stage to denote the topic at hand.

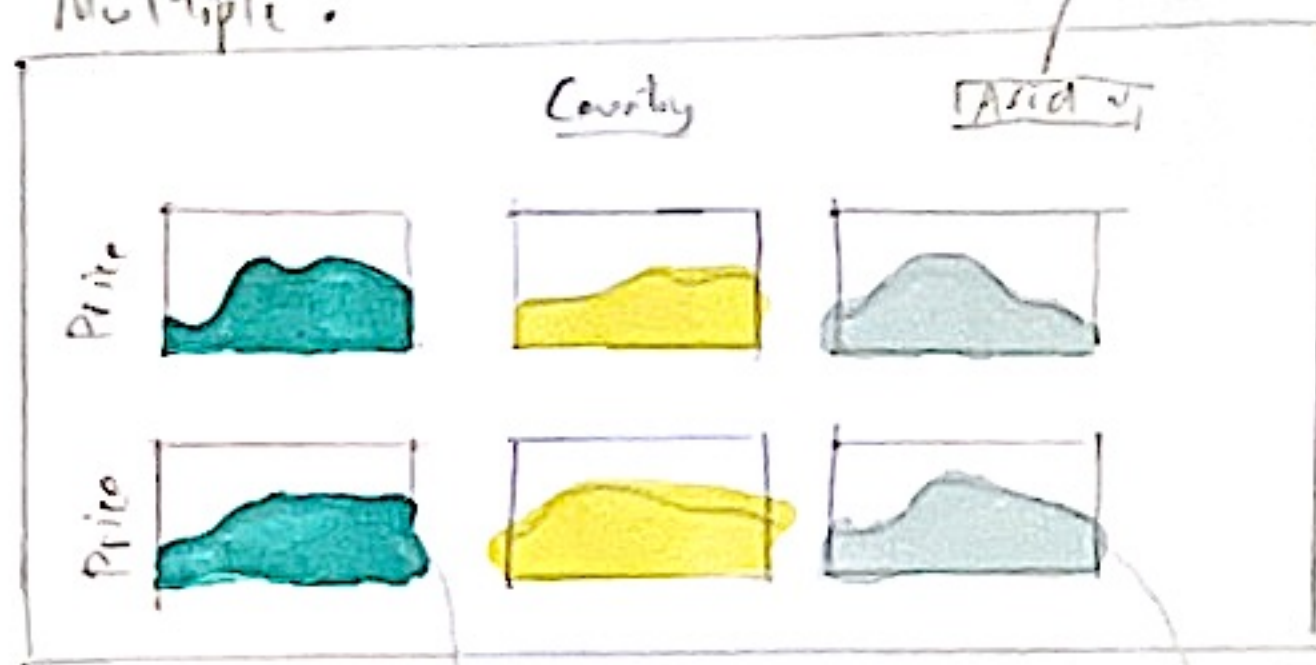
→ Stronggraph  
• shows top 10 coffee exporting countries over time.  
• tooltip to show exact count.

→ Choropleth map  
• Gives user a good idea of which countries consume coffee.  
• slider to change year

2000 2018

## FOCUS

Small Multiple:



Toggle between Asian/European/etc countries.

Allows us to examine a quantitative attribute in detail w.r.t another country.

## DISCUSSION

### Advantages

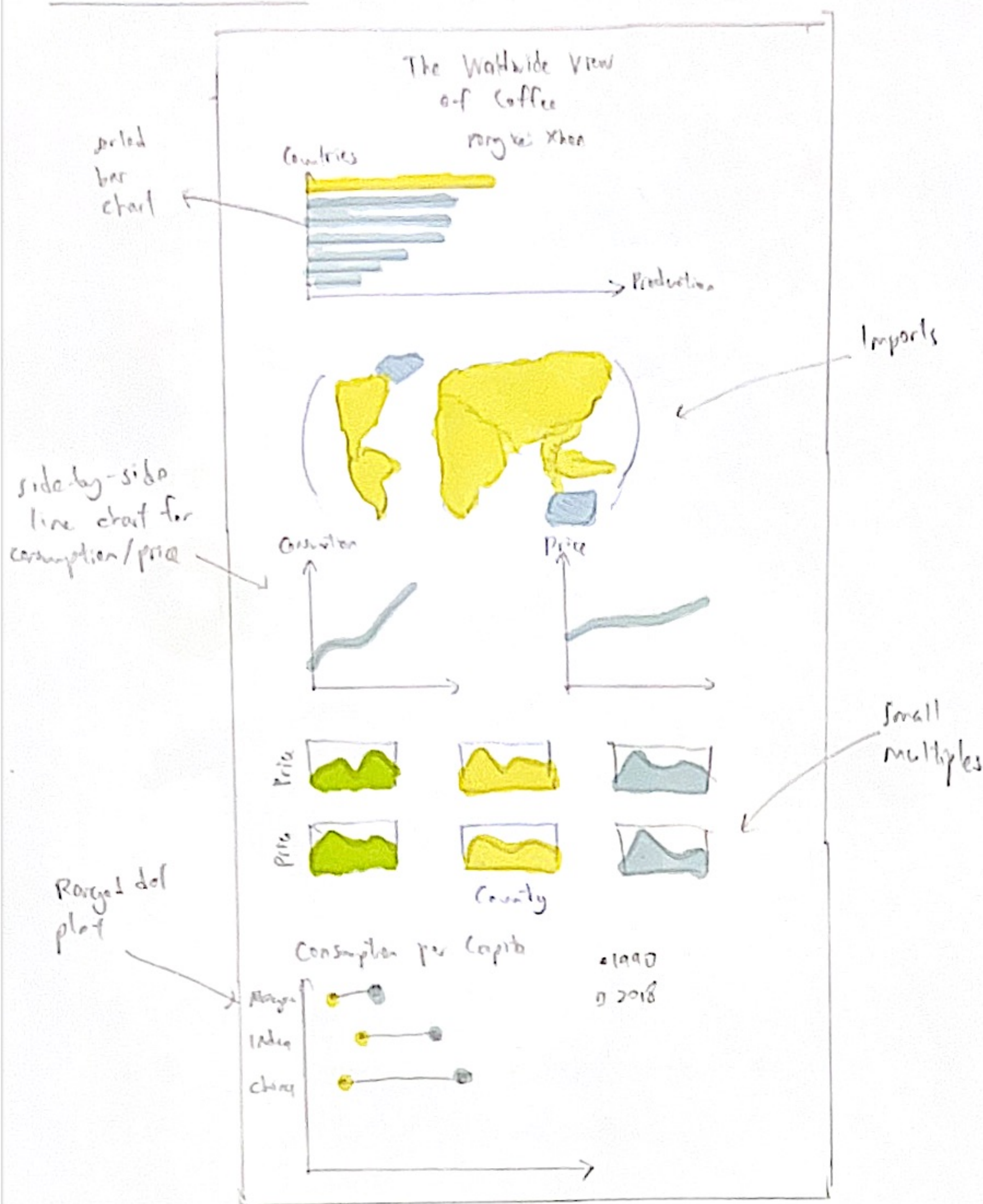
- Clear topic due to coffee bean icon
- Clear flow of story (From produce to consumption)

### Disadvantages

- Difficult to align right lines
- Not enough different visualizations.



# LAYOUT



Author: Pong Vei Xhen

Date: 3/10/2024

Sheet: 3

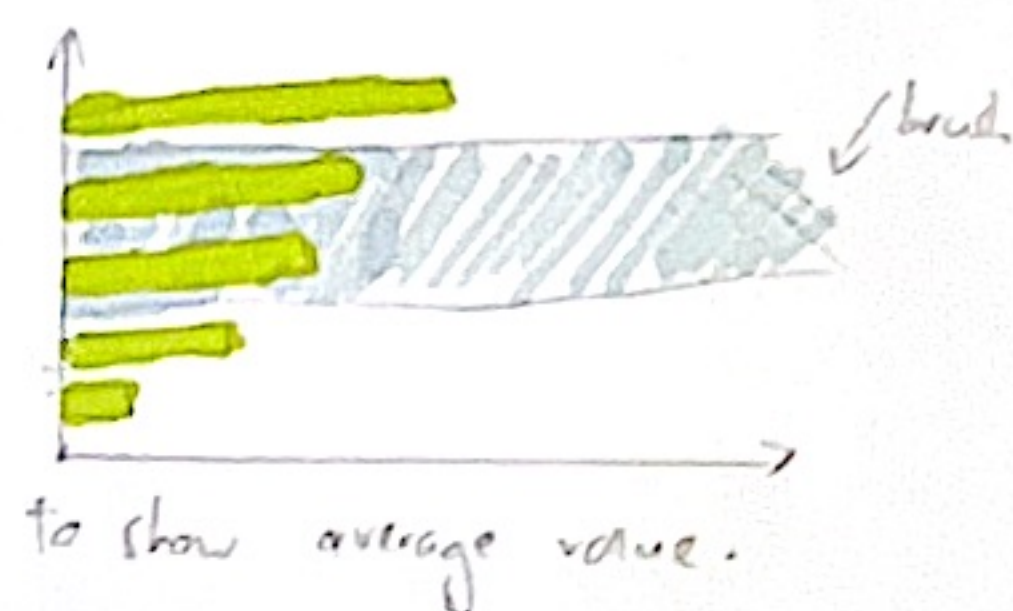
Task: 2

## OPERATION / UI

- Following design of webpage, allow user to scroll vertically, with 1-2 charts per row.
- slider for bar chart and choropleth map to adjust year

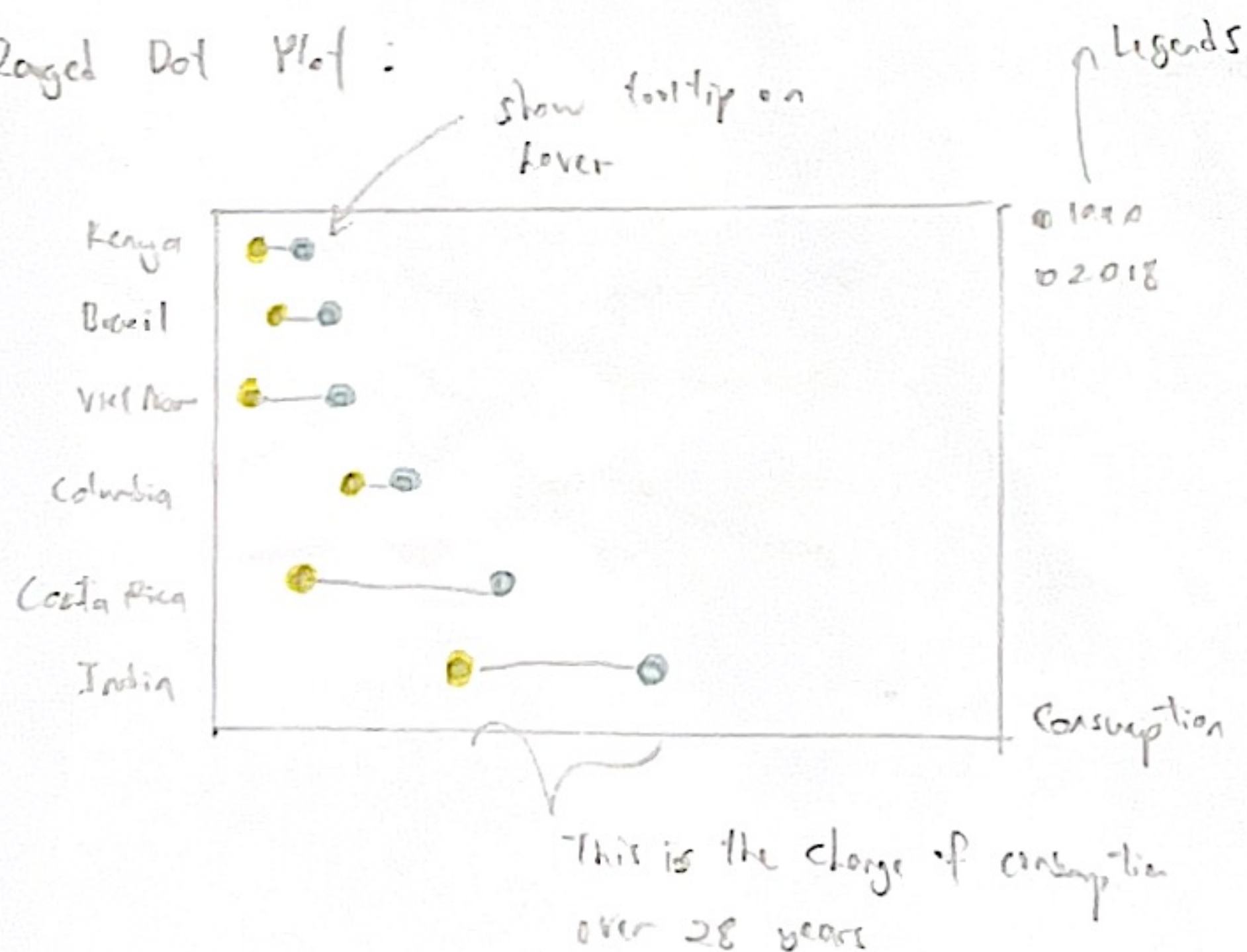
1990 2018

- Add brush to bar chart:



## FOCUS

Ranged Dot Plot:



## DISCUSSION

Advantages

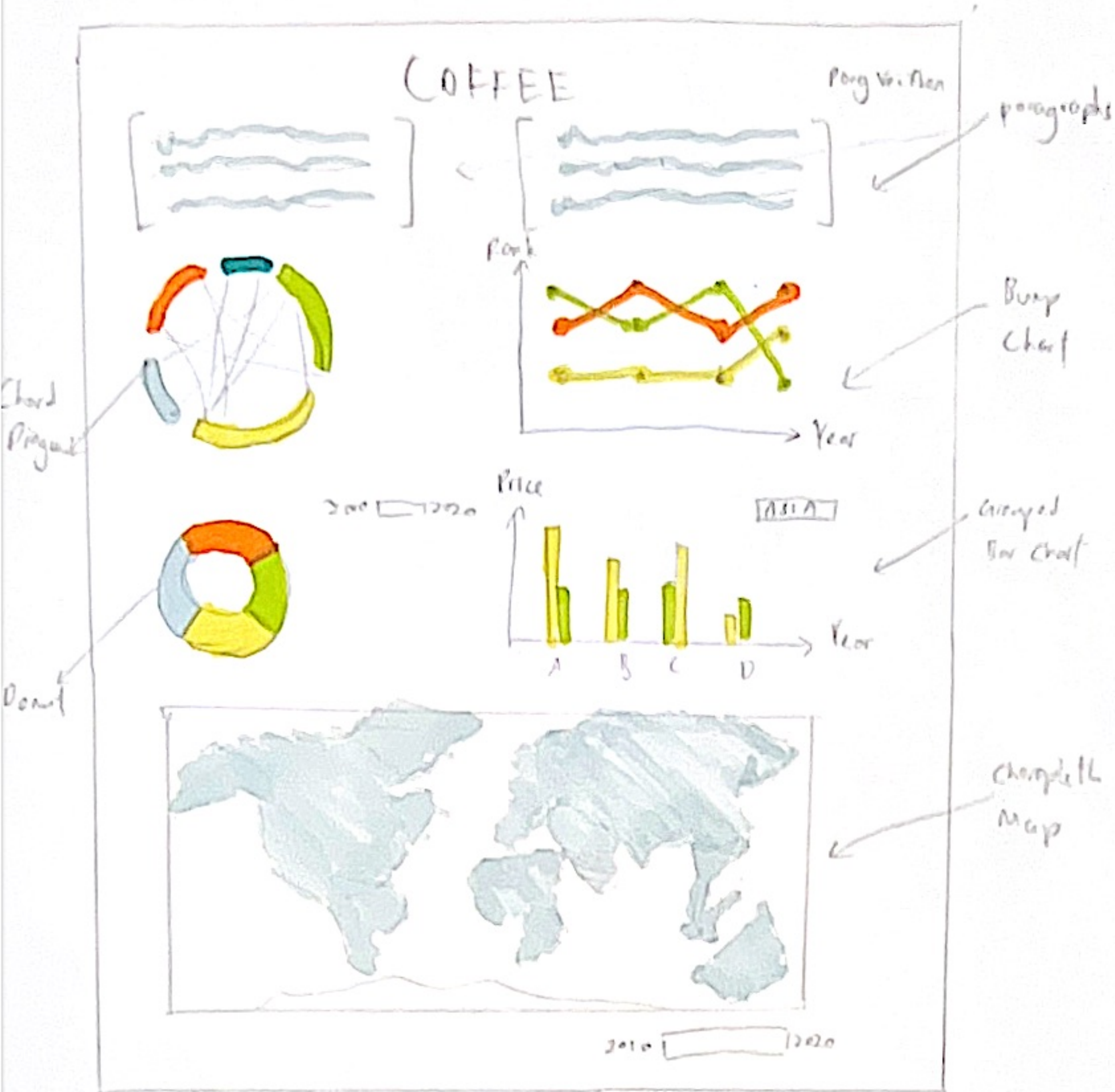
- Good view hierarchy from top to bottom.
- Dot plot is complex and good use of the data.

Disadvantages

- Possibility of lack of coherence.
- Data not existing for all countries at once (import/export)



# LAYOUT



The focuses more on ranking and flow instead of low values. Suitable if dataset contains many info of such.

Author: Pong V. Nien

Date: 3/10/2024

Sheet: 9

Task: 2

## OPERATION / UI

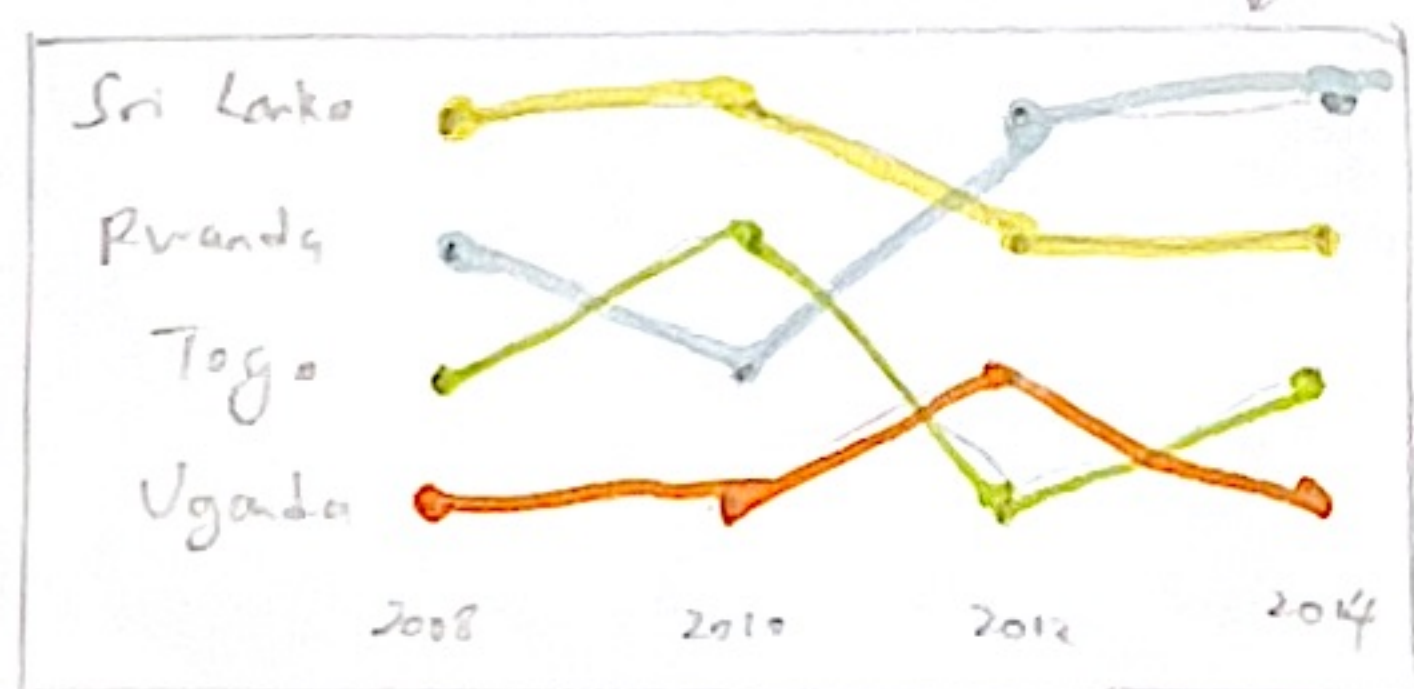
→ Useful tool for chord diagram to understand it better

Origin: Asia  
Dest: China  
Flow: 10000

→ slider to change year for choropleth map and donut chart

## FOCUS

Bump Chart:



Profile

Allow use to change attribute for ranking

## DISCUSSION

### Advantages

→ No chart junk, no white space; good for concise dashboard.

### Disadvantages

→ Lack of visual hierarchy  
→ hard to make chord diagram make sense in terms of design



# LAYOUT

[Based off sheet 3.]

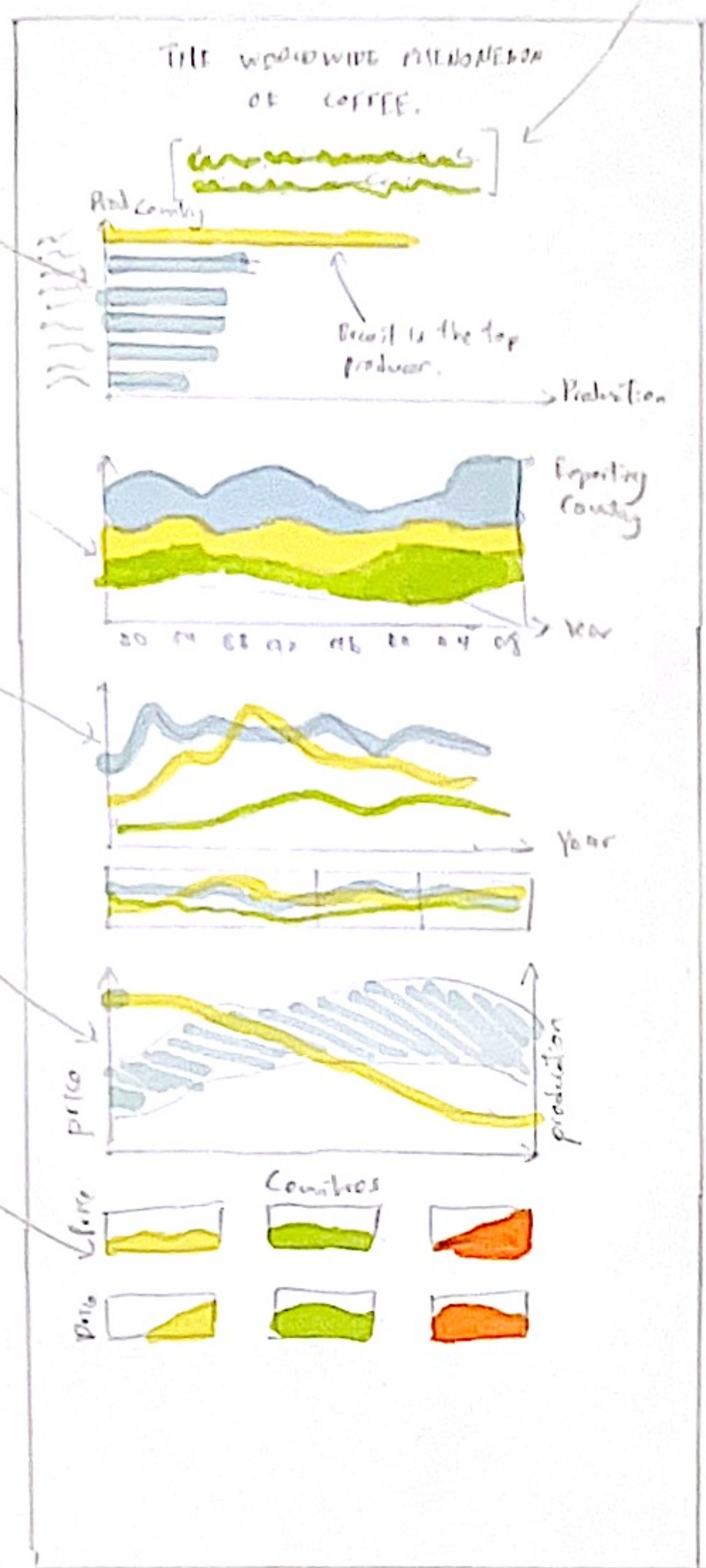
Bar chart

streamgraph

Line chart

Anti-axis line-area chart

Small multiples



description

Title : Final Design Sheet

Author : Pong Ve. Then

Date : 9/10/2024

Sheet : 5

Task : Final Implementation Design

## OPERATION

• year slider for bar chart and map (choropleth).

• brush for bar chart (to show average), and line-chart (to zoom in on details)

• tooltip for all charts to display important info as user hovers on it.

## FOCUS

→ The flow as user scrolls is as such :

- production
- export
- import
- consumption
- price

which ensures that user understands the journey of coffee.

→ Uses more visualization instead of text to bring about information and meaning.

## DETAIL

• As Brazil is the top producer, the bar for Brazil is highlighted in yellow, consistent with the overall theme.

• Dependencies : Vega-lite, like server, Python, VS code.

• Estimated time : 7-10 days

• Dataset : ICO, Kaggle, UN.