

Ideas

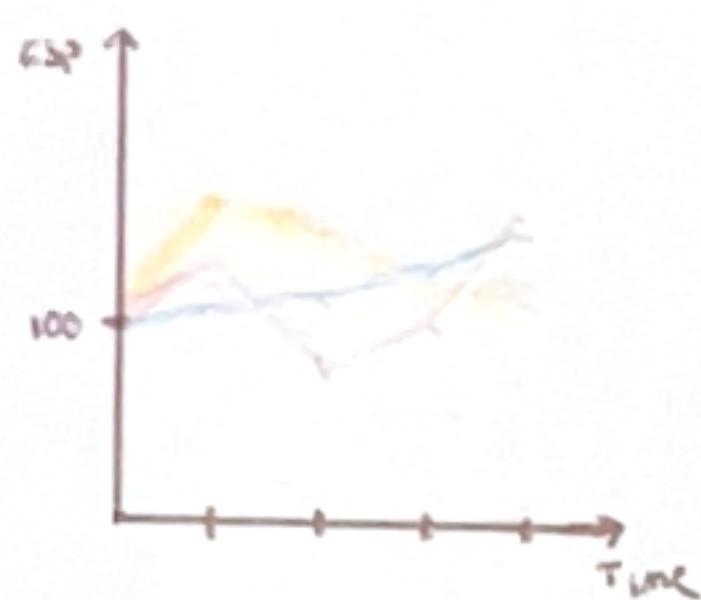
a) Map of Australia

Proportional Symbol Map



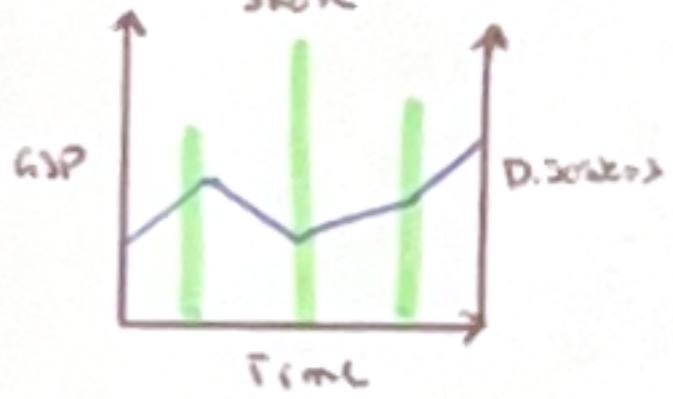
- flood
- storm
- bushfire

b) Indexed Line Chart

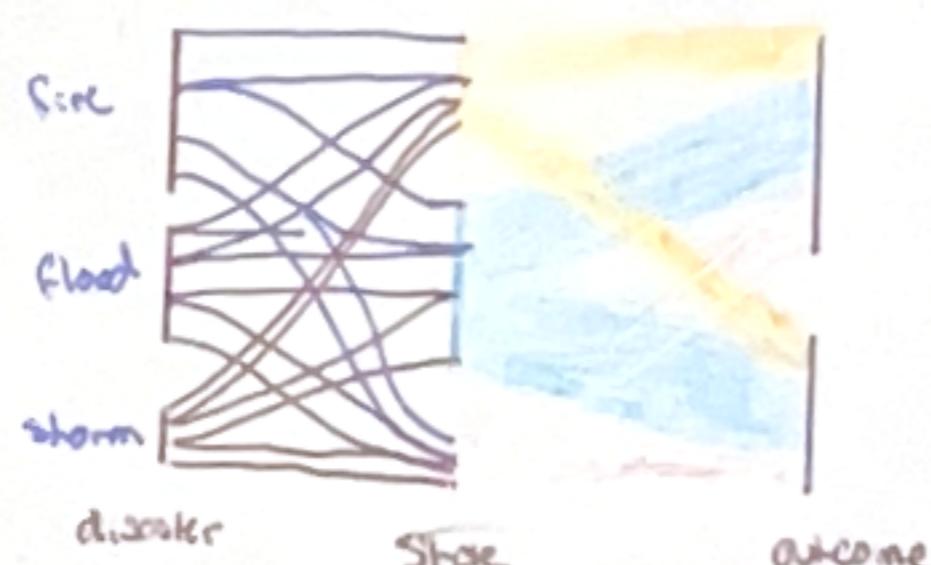


- VIC
- NSW
- QLD

c) Line + Stacked bar combo

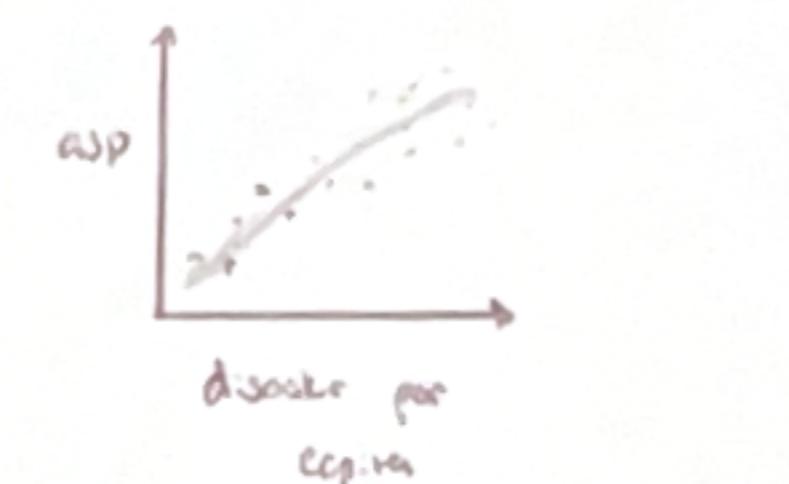


g) Alluvial diagram

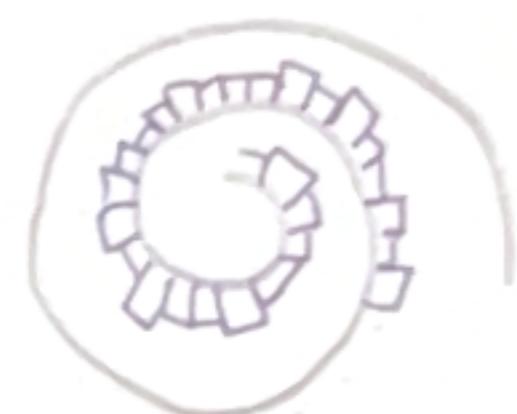


Set year 0 to year
of major disaster.
Track GSP after.

e) Scatterplot + loess line

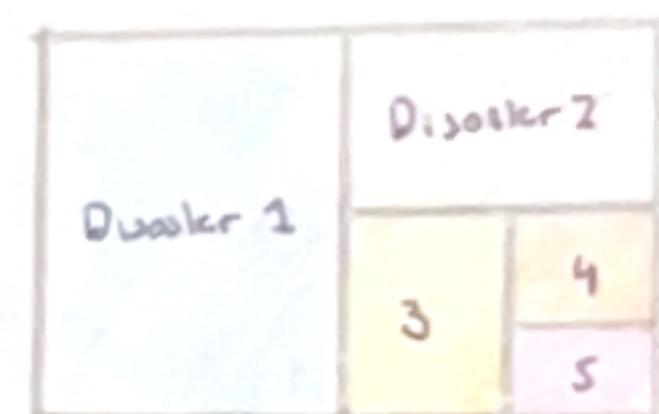


h) Spinel plot unemployment



Shows change in overall
unemployment.

i) Treemap - disasters



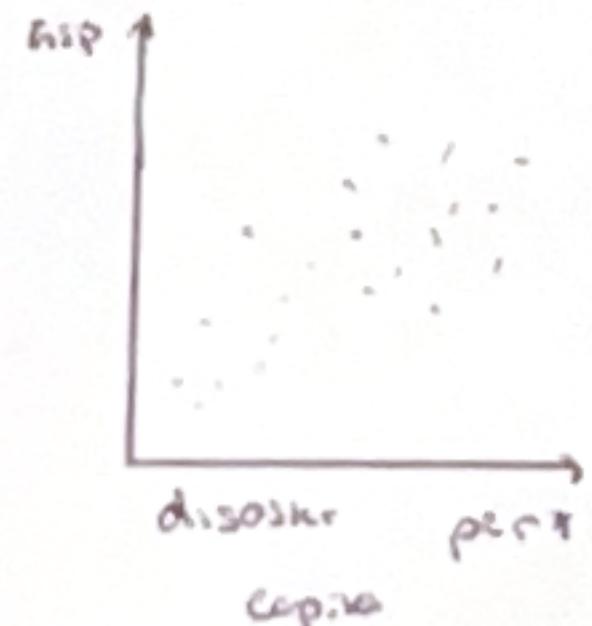
j) Donut chart



- Can be used
for GSP break
down. Or to show
which states have most
disasters.

Filter

e) Scatterplot + Loess Line



while the graph effectively
reveals correlation patterns,
they overlap in purpose with
the aligned line chart and
may not add substantial value.

j) Donut chart

Initially considered
to illustrate the proportion
share of GSP by state,
but it offered limited analytical
depth and made precise comparison
difficult.

Categorise

Economic Impacts:

- (b) indexed line
- (f) aligned line
- (h) spinel plot

Disasters:

- (a) Proportional symbol map
- (g) Alluvial

Combination:

- (c) line + bar combo

Questions

Can we use visualizations to
make connections with
disasters and economic change?

Do the idioms together tell
a coherent story?

Combine & Refine

Indexed line chart (b)
+ Alluvial Diagram (g)

Combined to unify temporal
and categorical perspectives of
disaster impacts. Lines convey
detailed recovery trajectories,
while alluvial diagram reveal
overall flow patterns.

Map (a) + Treemap, (i)

Combined to provide spatial
and categorical breakdown.
Allows users to explore geo
concentration and internal
composition of disasters.

Author: Aryan Chardia

Date: 07/10/2025

Sheet: 1

Big Picture / Layout

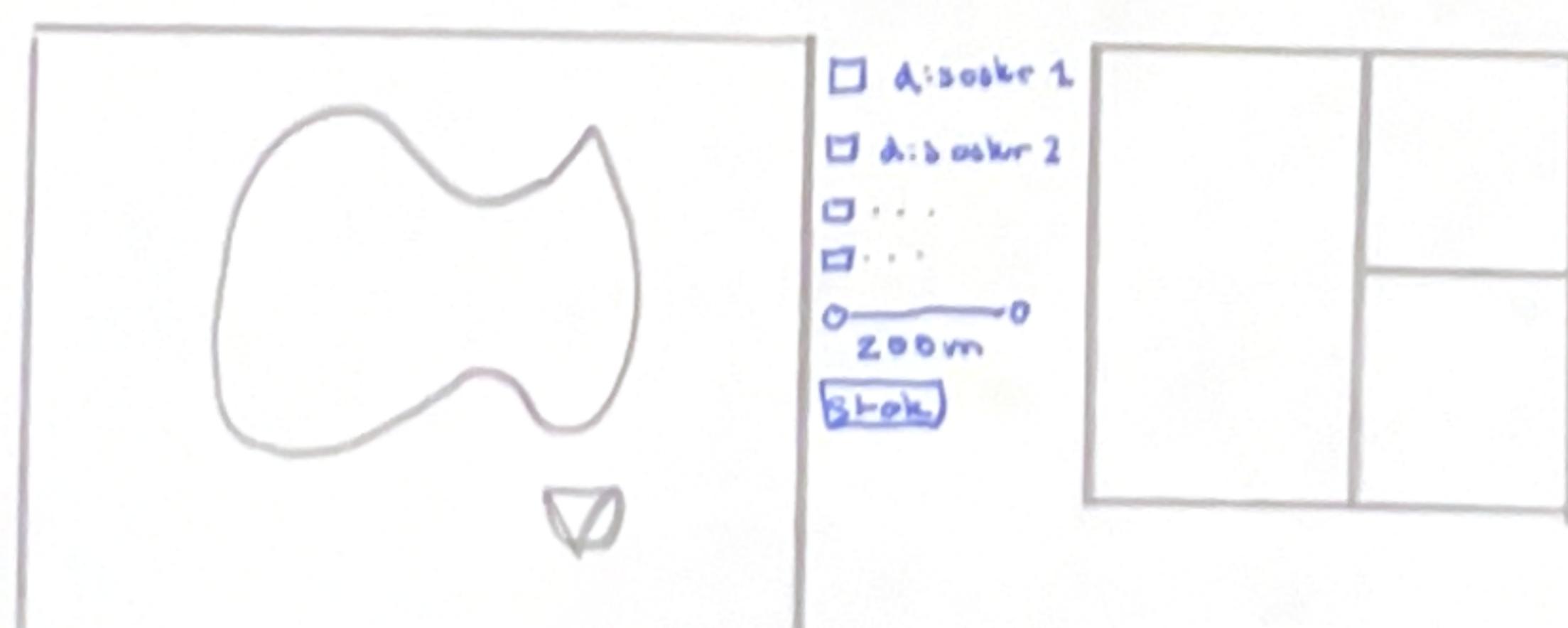


- a) Map of Australia outlining different disasters and proportion.
- b) Treemap according to chosen state showing breakdown of disasters.
- c) Alluvial diagram showing flow.
- d) Aligned line chart to show change in asp after major incident.

Part / Focus

Main focus will be on Map + Treemap combination. Together they emphasise how much natural disasters Australia faces. The symbol map shows disasters in Australia along with information such as fatalities, injuries and insured cost.

Treemap shows breakdown of most common disasters in a state.



Sheet 2,3,4

Name Aryan Chordia

Date 07/10/2025

Title Sheet 2

Description

Design dashboard for disaster & economy.

Components / Operations

Many interactions will be used.

1) Disaster Toggle

- D1 changes which disasters are shown on map.
- D2
- D3
- ...

2) Zoom slider

so get a closer look and break down close disasters.

3) State picker

Changes state shown on treemap. Can also be done by clicking state on map.

- This also changes text.

Pro & Cons

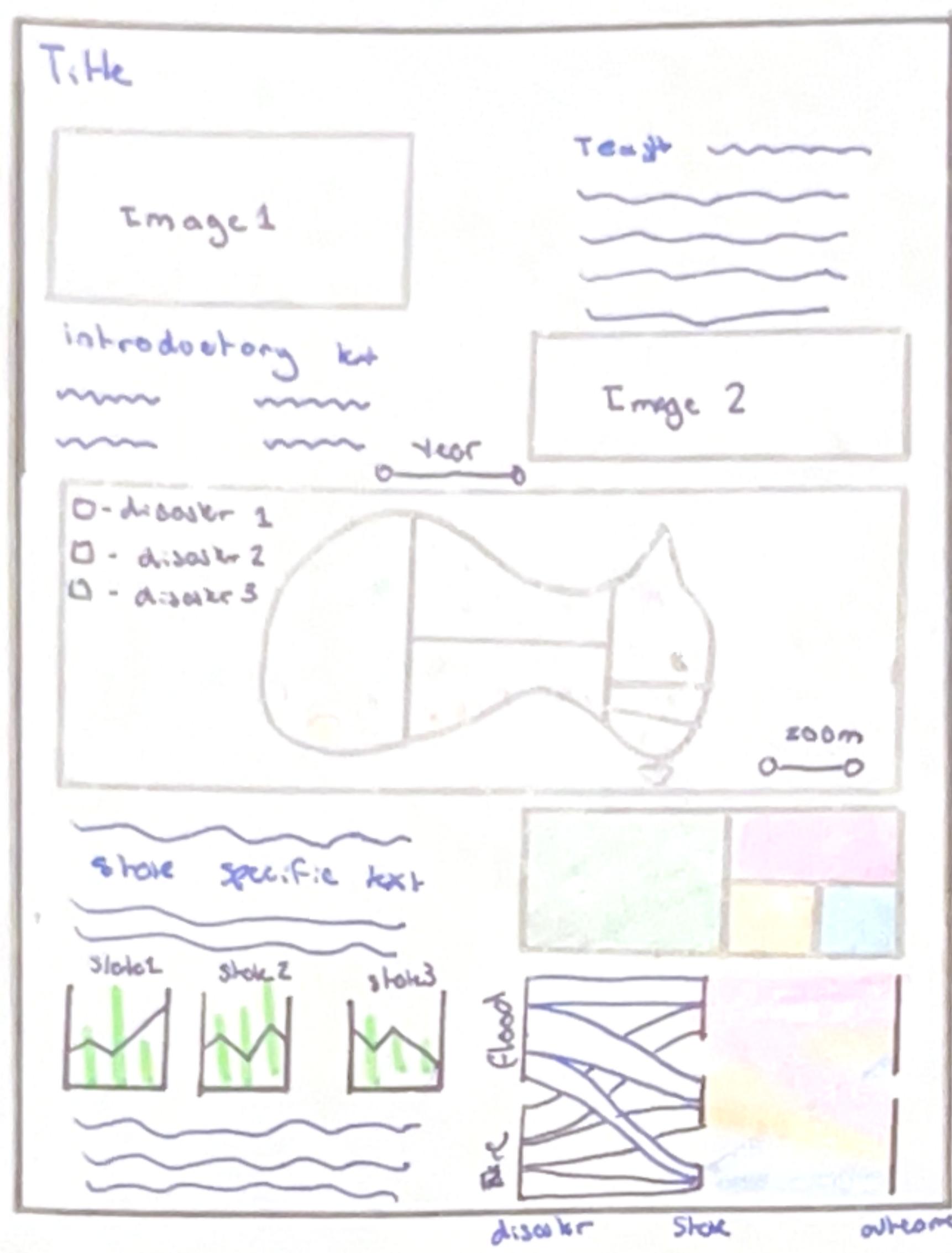
Pros:

- Flow is good and shows information as a story.
- Good interactions.

Cons:

- Not enough idioms
- Lacking information

Big Picture / Layout



Part / Focus

2 main focus points.

1. Map + Heatmap
 - Shows distribution of disasters.
 - Split up according to state.
 - Points on map are sized according to fatality + injury.
2. Line + bar mini graphs
 - Bar shows number of disasters
 - Line shows change in gap
 - One for each state.

Sheet 2,3,4
Name ARYAN CHOURA
Date 08/10/25

Title sheet 3

Description

Dashboard design for economy vs disaster.

Components / Operations

1. Zoom slider

- Lets you zoom into the map to have a clearer view.

2. Tooltip

- Lets you analyse the event better and understand what happened at a specific point.

3. Linked year slider

- Lets you scrub through time and immediately see changes in map, line and alluvial chart.

Pro & Cons

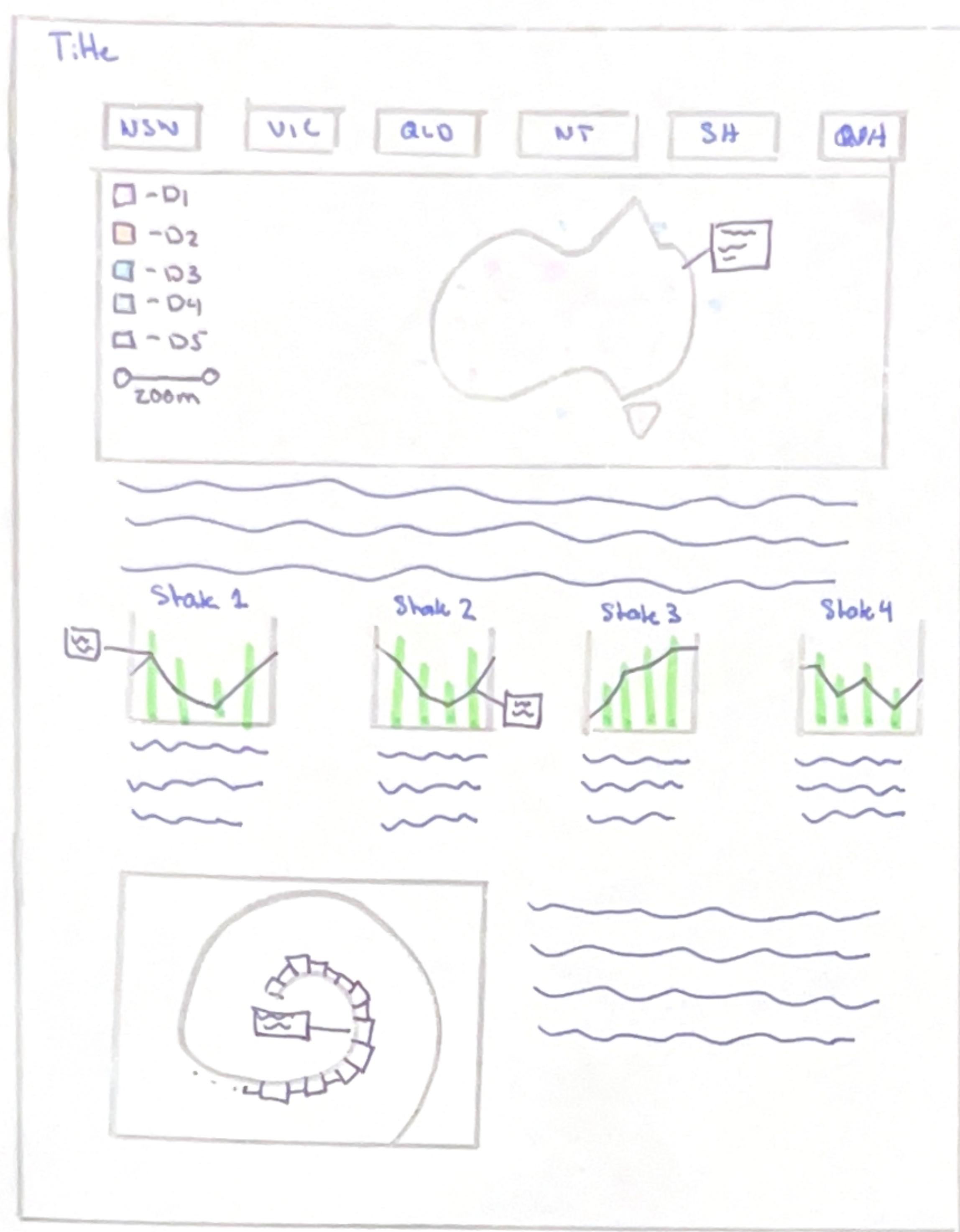
Pros:

- Creates a clear story, providing explanations of different disasters.
- Connects all visualizations together.
 - ↳ Fun user interaction

Cons:

- Layout is a bit messy
 - ↳ heatmap / alluvial
- Colouring could be more distinct.

Big Picture / Layout



Part / Focus

All parts equally important.

1) Map

- Breakdown of disaster
- Zoom in
- Choose which disasters to see
- Using annotations to point out particular events.



2) Individual Line + bar chart mini

- State gets one each
- Breakdown of cast v number of disaster
- Annotations to point out spikes

3) Spiral plot

- Unemployment
- Visually appealing

Sheet 2,3,4

Name ARYAN CHORDIA

Date 12/10/2025

Title Sheet 4

Description

Interaction 3 of dashboard for disaster v economy visualisation.

Components / Operations

State picker

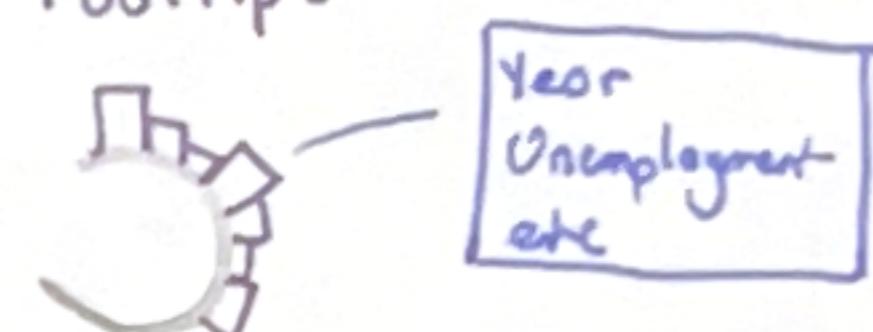
VIC QLD

- Zooms in on that state
- Only shows disaster in that state

Zoom Slider

Annotations

Tooltips



- Use for all graphs
- Maybe include colour

Pro & Cons

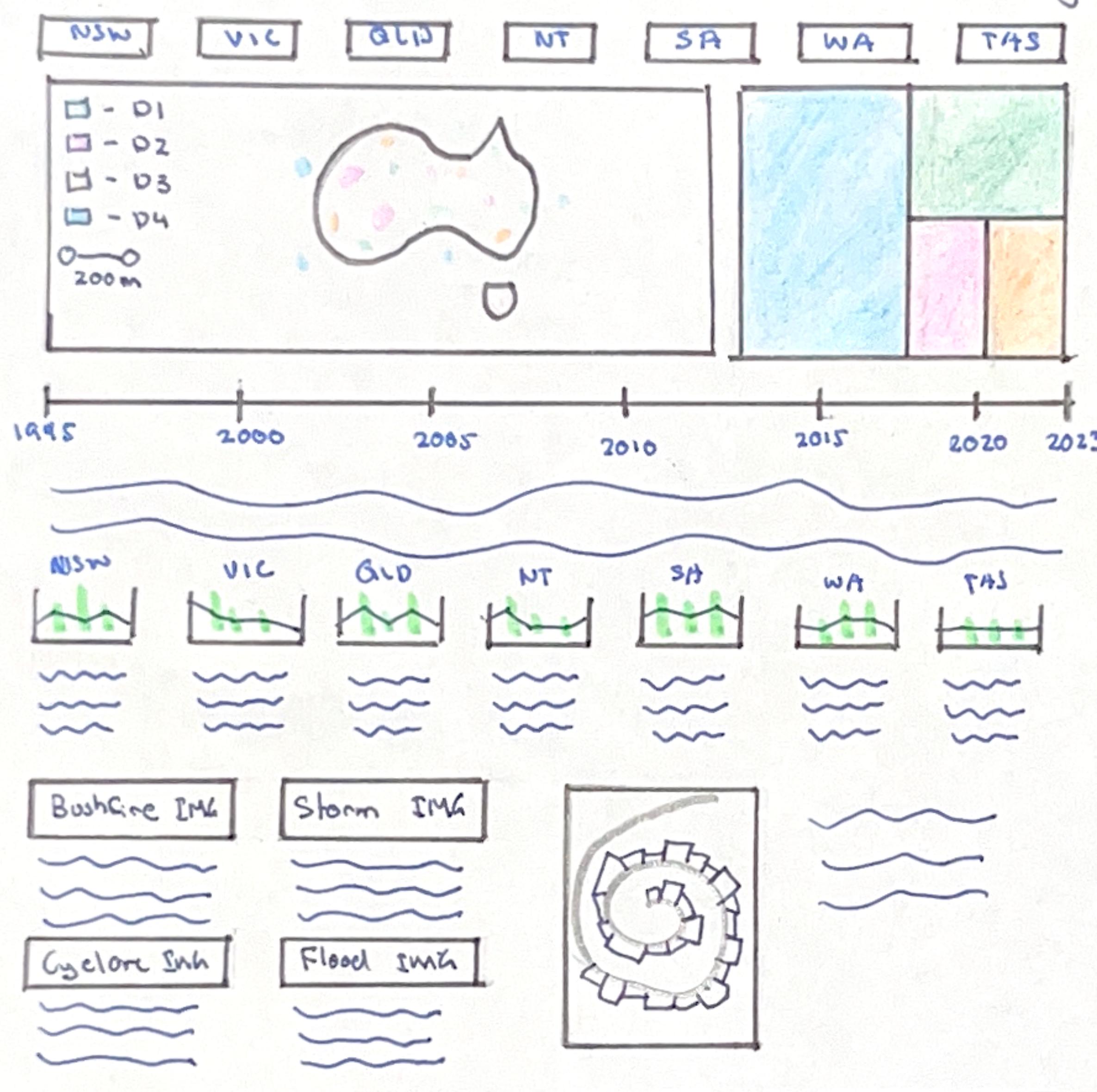
Pro:

- Easy to read
- Good flow
- Good explanation of story

Con:

- Could have more interactions
- More idioms
- Maybe more visually appealing

National Disasters

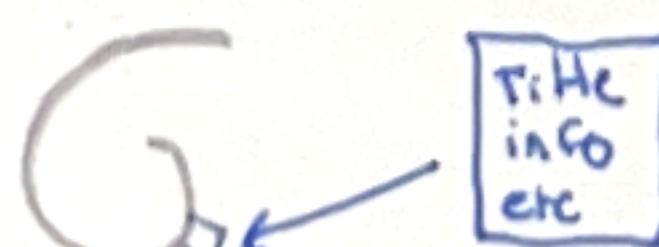
↑
B6 image

Part / Focus

Everything is the focus.

1. Main focus is story-telling and connecting all info and idiom together.
2. Annotations are used to pinpoint key events.

e.g.



3. Editors must

3. Individual mini charts for each state emphasise change in GSP with disasters.

Sheet 5

Name ARYAN CHOURIA

Date 12/10/2025

Title Sheet 5

Description

Final iteration of dashboard.

Components / Operations

State Picker

[NSW] [VIC] [QLD] ...

- Picking zooms into the state on map.
- Changes heatmap to show state details.

Year Brush

- Choose one particular area
- Choose one spot
- Changes heatmap, minichart and map.

Tool tips



- Shows off key info
- Helps user understand

Details

• Dependencies:

- Vega-lite
- HTML
- CSS
- Excel

• Time and effort:

- 3 days for data and cleaning
- 1 day map
- 1 day heatmap
- 1 day mini + spiral
- 1 day interactions