

# VISUALISING CRIMES AGAINST WOMEN IN INDIA

## A USER GUIDE

<https://kawaii.shinyapps.io/finalapp/>

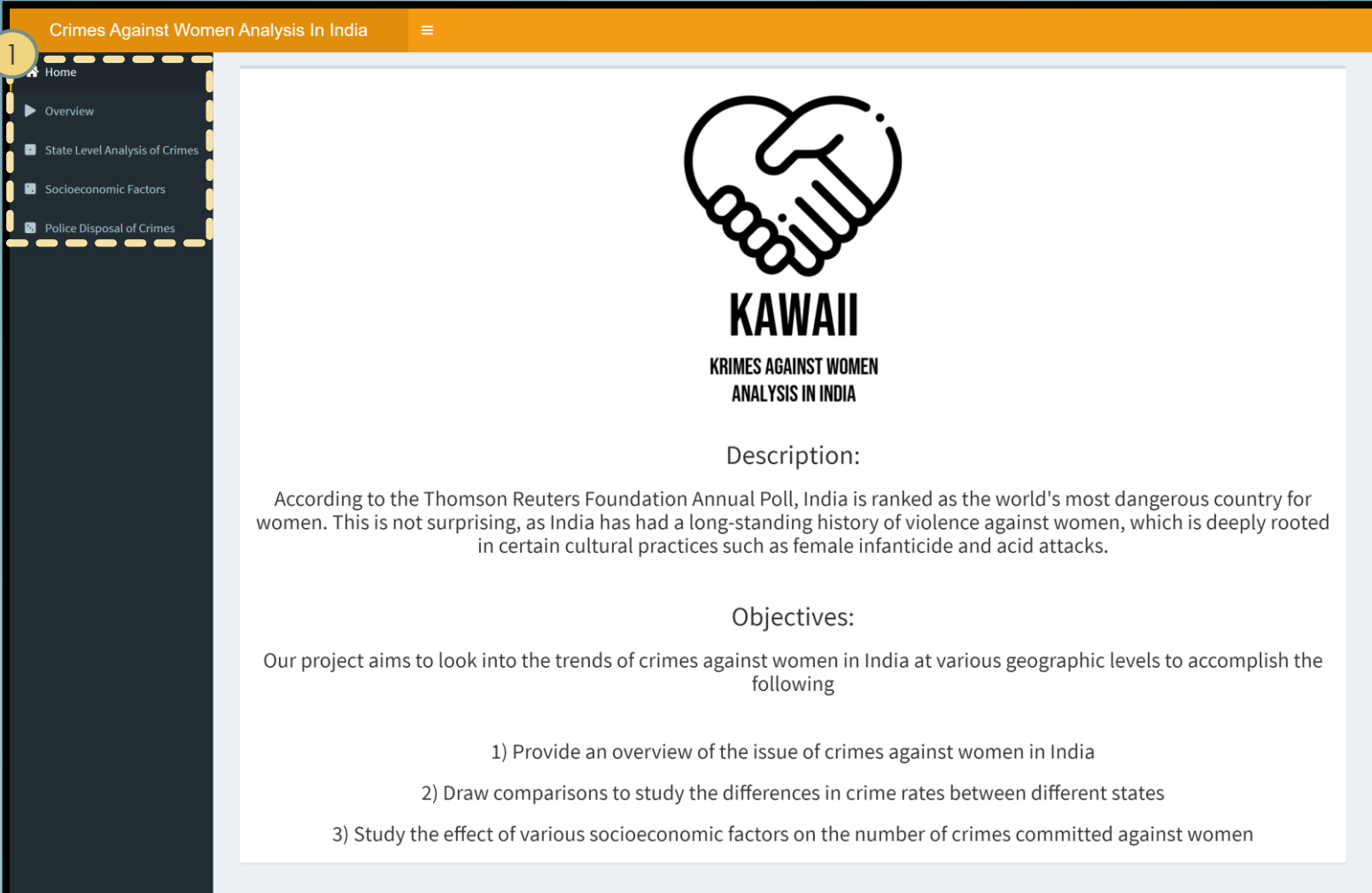


KAWAII

# Table of Contents

p3	Homepage
p4-5	Overview
p6-7	State Level Analysis of Crimes
p8-10	Socioeconomic Factors
p11	Police Disposal of Crimes

# Homepage



The screenshot shows the homepage of the 'Crimes Against Women Analysis In India' dashboard. The top navigation bar is orange and contains the title 'Crimes Against Women Analysis In India' and a hamburger menu icon. A sidebar menu on the left is dark grey and contains the following items: 'Home' (with a house icon), 'Overview' (with a play button icon), 'State Level Analysis of Crimes' (with a document icon), 'Socioeconomic Factors' (with a document icon), and 'Police Disposal of Crimes' (with a document icon). The main content area is white and features a logo consisting of two hands shaking inside a heart shape, with the text 'KAWAII' and 'KRIMES AGAINST WOMEN ANALYSIS IN INDIA' below it. The text 'Description:' is followed by a paragraph: 'According to the Thomson Reuters Foundation Annual Poll, India is ranked as the world's most dangerous country for women. This is not surprising, as India has had a long-standing history of violence against women, which is deeply rooted in certain cultural practices such as female infanticide and acid attacks.' Below this, the text 'Objectives:' is followed by a paragraph: 'Our project aims to look into the trends of crimes against women in India at various geographic levels to accomplish the following'. This is followed by a numbered list of three objectives: 1) Provide an overview of the issue of crimes against women in India, 2) Draw comparisons to study the differences in crime rates between different states, and 3) Study the effect of various socioeconomic factors on the number of crimes committed against women.

Crimes Against Women Analysis In India


Home

Overview

State Level Analysis of Crimes

Socioeconomic Factors

Police Disposal of Crimes



**KAWAII**  
KRIMES AGAINST WOMEN  
ANALYSIS IN INDIA

Description:

According to the Thomson Reuters Foundation Annual Poll, India is ranked as the world's most dangerous country for women. This is not surprising, as India has had a long-standing history of violence against women, which is deeply rooted in certain cultural practices such as female infanticide and acid attacks.

Objectives:

Our project aims to look into the trends of crimes against women in India at various geographic levels to accomplish the following

- 1) Provide an overview of the issue of crimes against women in India
- 2) Draw comparisons to study the differences in crime rates between different states
- 3) Study the effect of various socioeconomic factors on the number of crimes committed against women

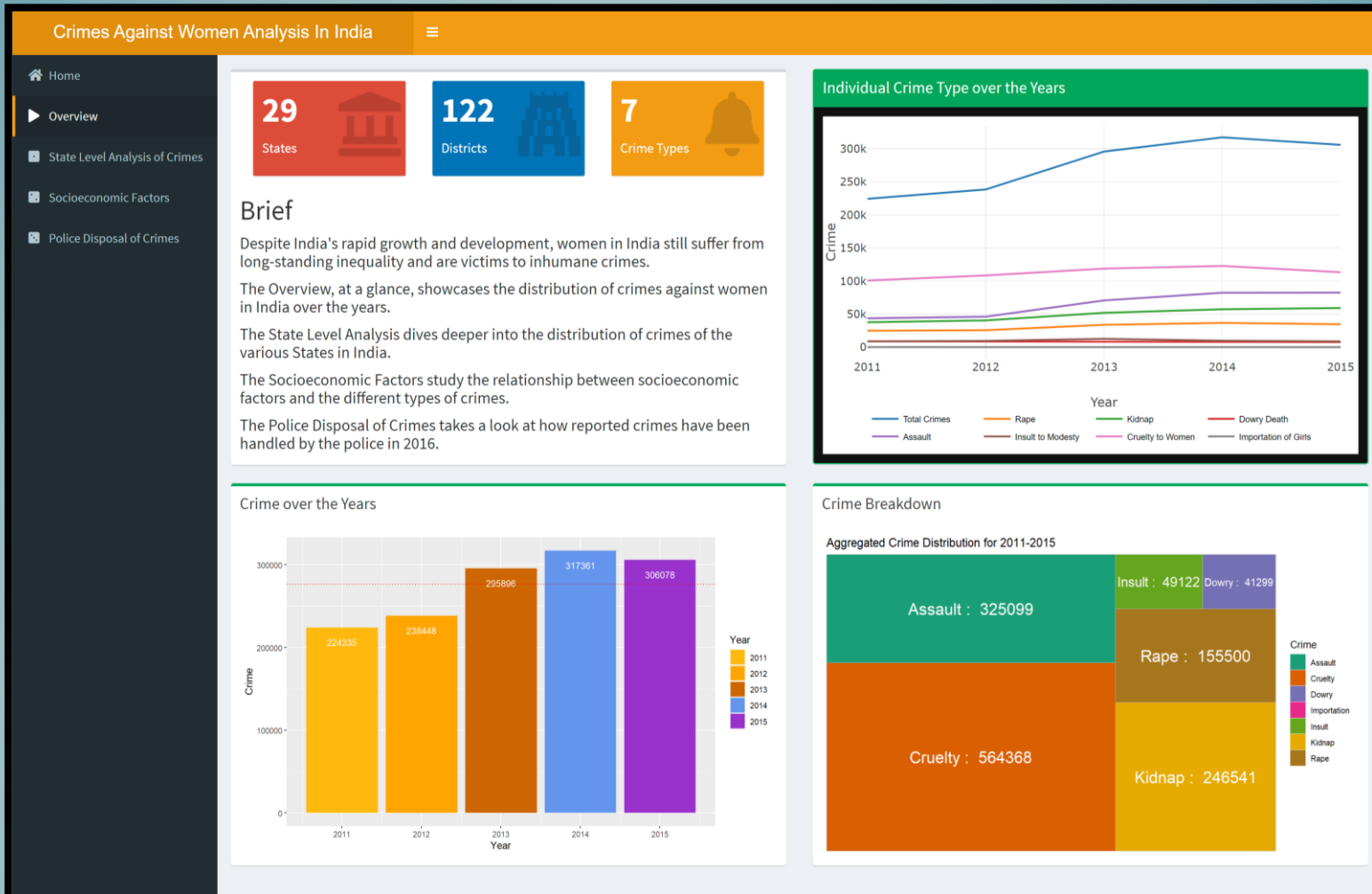
The KAWAII homepage gives an introduction to the problem of Crimes Against Women in India.

1



To navigate to other dashboards, click on the sidebar menu.

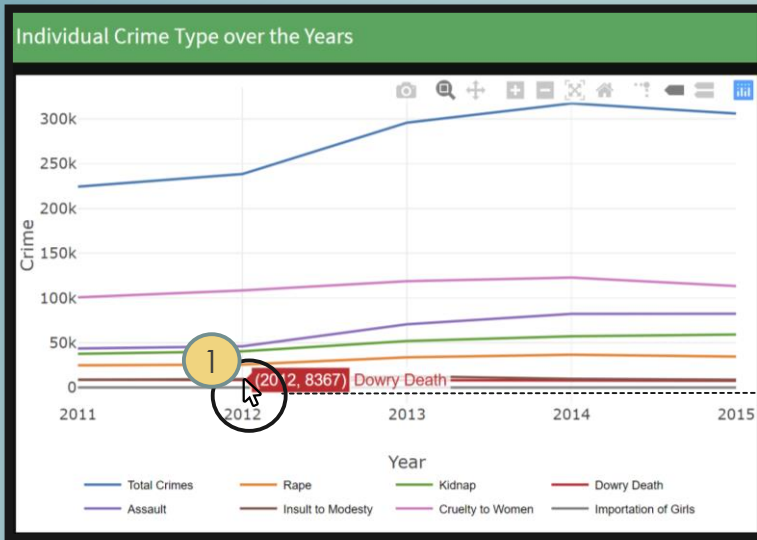
# Overview



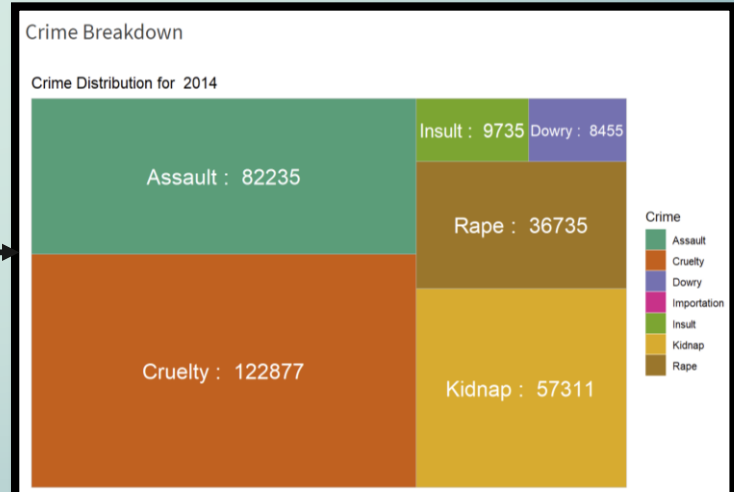
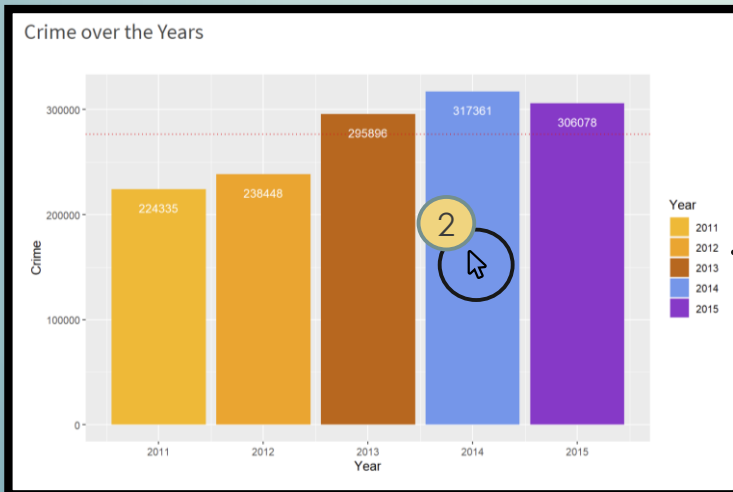
The Overview tab gives a brief breakdown of what the KAWAll visualization aims to achieve.

At a glance, it also provides an overview of the crime distribution over the years in India.

# Overview – Interactivities

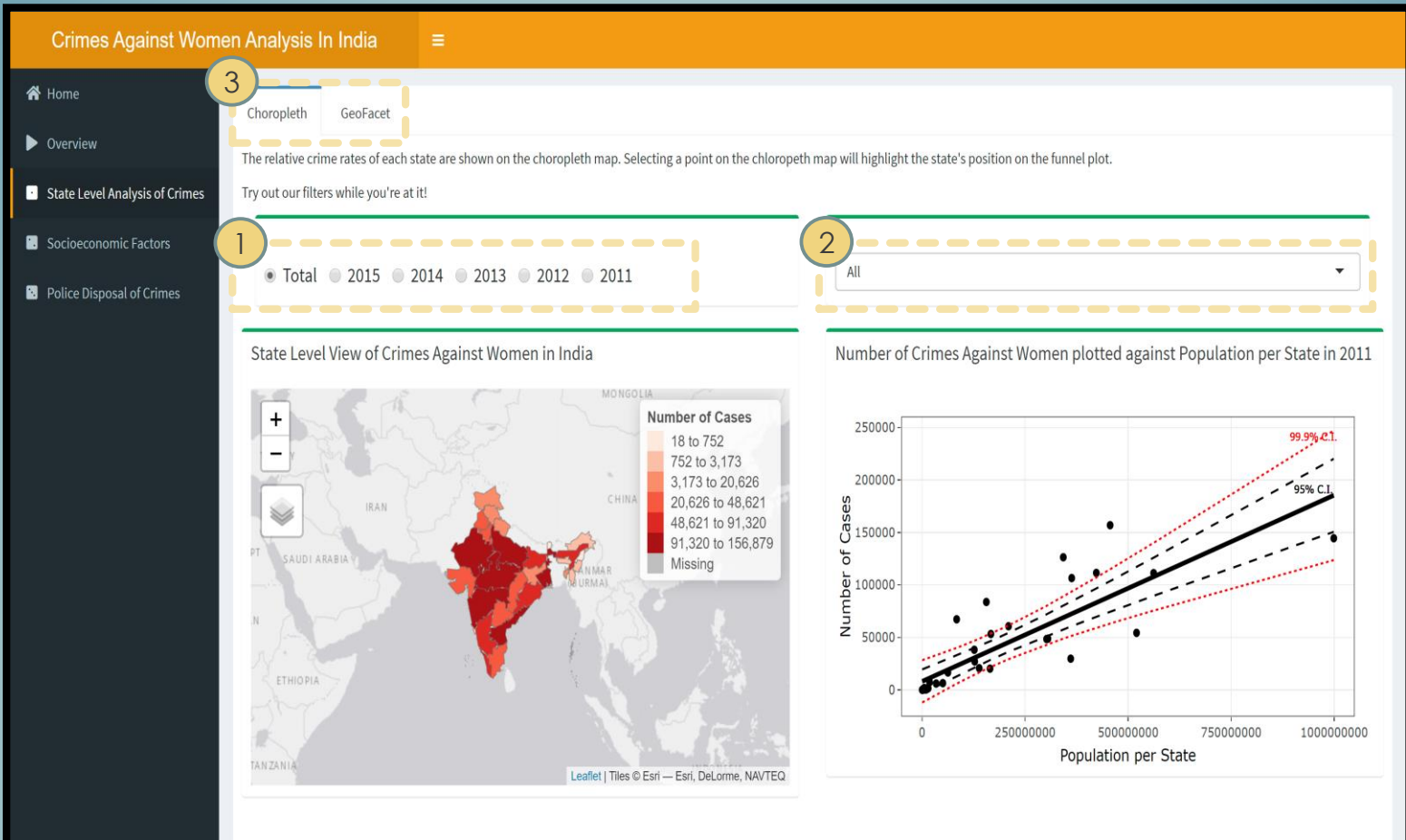


1 Hovering over a year on the line graph will give you the number of report cases of the corresponding crime type for the given year.



2 Hovering over a year on the bar chart will result in the tree-map displaying the crime distribution for the given year.

# State Level Analysis of Crimes –Choropleth



The choropleth tab displays a choropleth map alongside a funnel plot.

1  
 Total  2015  2014  2013  2012  2011

Radio buttons allow filtering by year

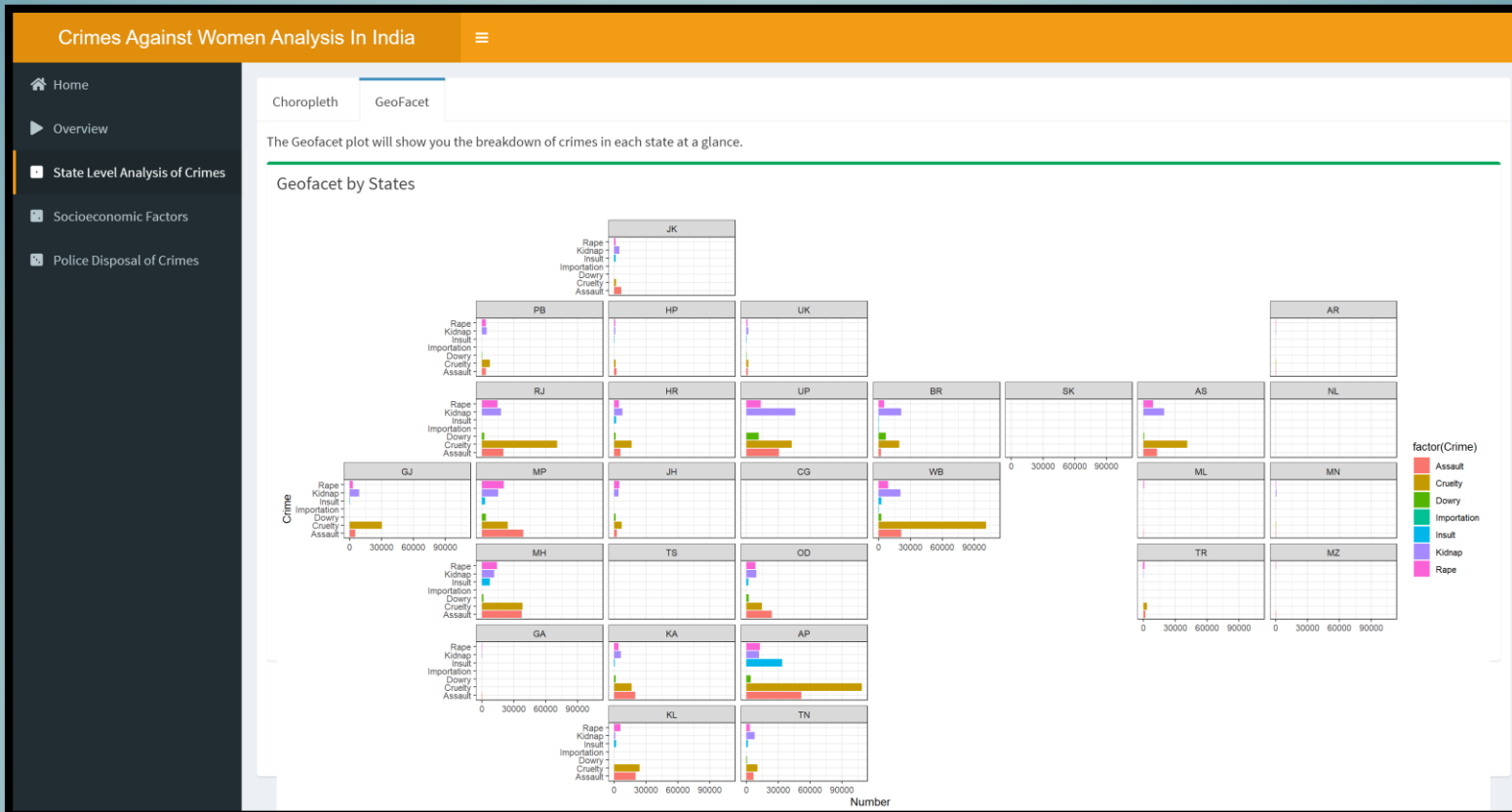
2  
 All

Dropdown box allows filtering by crime type

3  
 Choropleth    GeoFacet

Tabs will display Choropleth Map/ GeoFacet Map respectively

# State Level Analysis of Crimes –GeoFacet



The GeoFacet map breaks down distribution of crimes against women in India by State Level.

# Socioeconomic Factors

Crimes Against Women Analysis In India
☰

Home
Overview
State Level Analysis of Crimes
Socioeconomic Factors
Police Disposal of Crimes

Display boxplot?  
 YES

Choose a State to display  
 VIEW ALL

The Parallel Coordinate Plot shows the relationships between the various socioeconomic factors across states. Toggle the boxplot filter to remove the boxplot, and toggle the filter for states to highlight states that you are interested in.

Socioeconomic factors for States in India based on 2011 Census Data

— 0-25th Percentile   
 — 25-50th Percentile   
 — 50-75th Percentile   
 — 75-100th Percentile

Tip: Toggle the legends to hide/show points corresponding to the percentile of total crimes!

Correlation Heatmap between Crime Types and Socioeconomic Factors

cruelty.husband	0.16	0.04	0.68	0.12	-0.35	-0.19	-0.33
insult.modesty	-0.23	-0.22	0.3	0.18	-0.14	-0.06	0.02
assault.women	0.09	-0.07	0.68	0.18	-0.29	-0.18	-0.3
dowry.deaths	0.42	0.25	0.93	-0.06	-0.47	-0.15	-0.51
rape	0.27	0.07	0.7	0.08	-0.36	-0.19	-0.44
import.girls	0.17	-0.03	0.27	-0.02	-0.2	-0.09	-0.28
kidnap.abduct	0.4	0.28	0.9	-0.06	-0.43	-0.12	-0.44
	household.size	non.workers	population	females.per.male	literacy.rates	higher.sec.grads	person.aged.15-59

Pearson Correlation  
 1.0  
0.5  
0.0  
-0.5  
-1.0

Tip: Click on the correlation heatmap to populate the scatterplot!

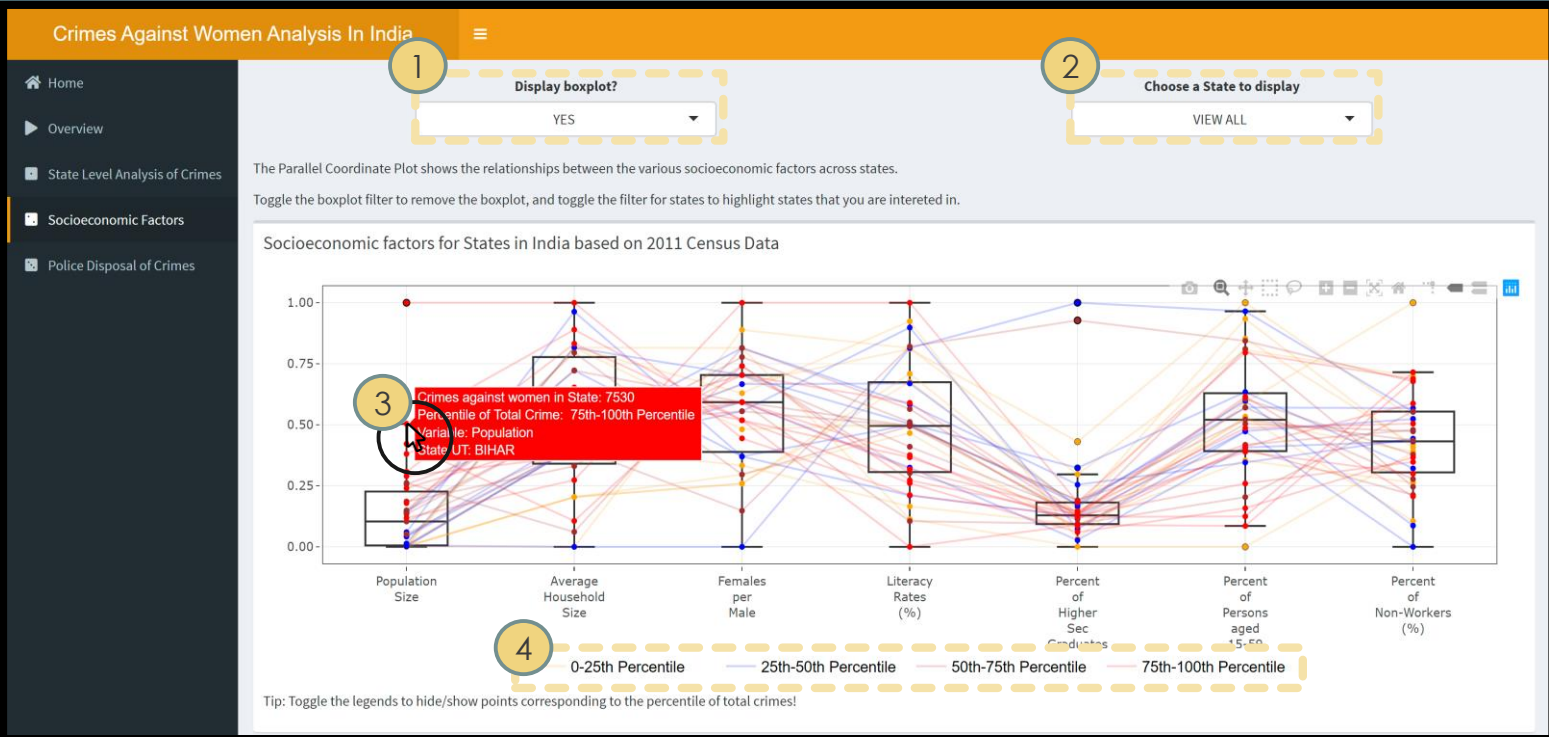
Scatterplot showing variables selected from Correlation Heatmap

Please select a set of variables by clicking on the correlation heatmap

The Socioeconomic Factors tab shows a Parallel Coordinate Plot, Correlation Heatmap and Scatterplot



# Socioeconomic Factors –Parallel Coordinate



1

Display boxplot?

YES

Dropdown box will toggle boxplot display

2

Choose a State to display

VIEW ALL

Dropdown box filters all charts by selected State

3

Crimes against women in State: 7530  
Percentile of Total Crime: 75th-100th Percentile  
Variable: Population  
State UT: BIHAR

Hovering over data points will display tooltip

4

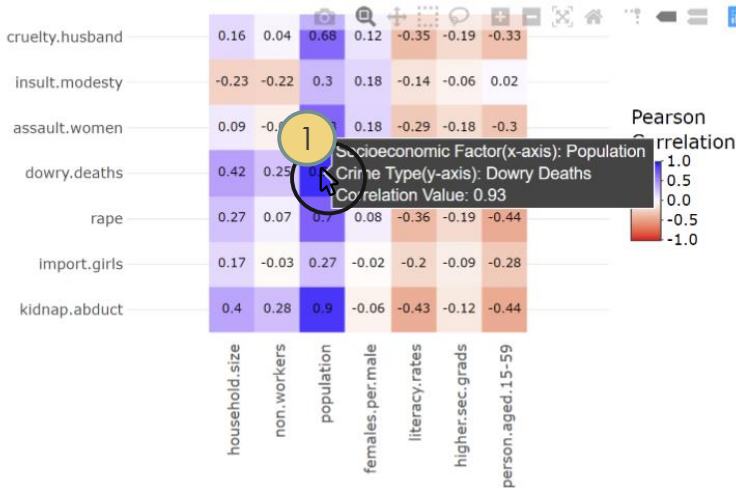
0-25th Percentile 25th-50th Percentile 50th-75th Percentile 75th-100th Percentile

Clicking on legends will toggle display of data points corresponding to the selected Percentile of Total Crime

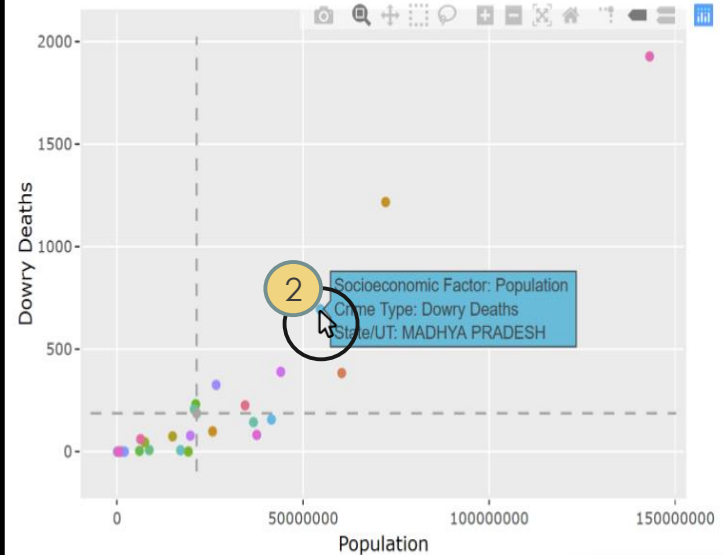
# Socioeconomic Factors

## –Correlation Heatmap, Scatterplot

Correlation Heatmap between Crime Types and Socioeconomic Factors



Scatterplot showing variables selected from Correlation Heatmap



1  
Socioeconomic Factor(x-axis): Population  
Crime Type(y-axis): Dowry Deaths  
Correlation Value: 0.93

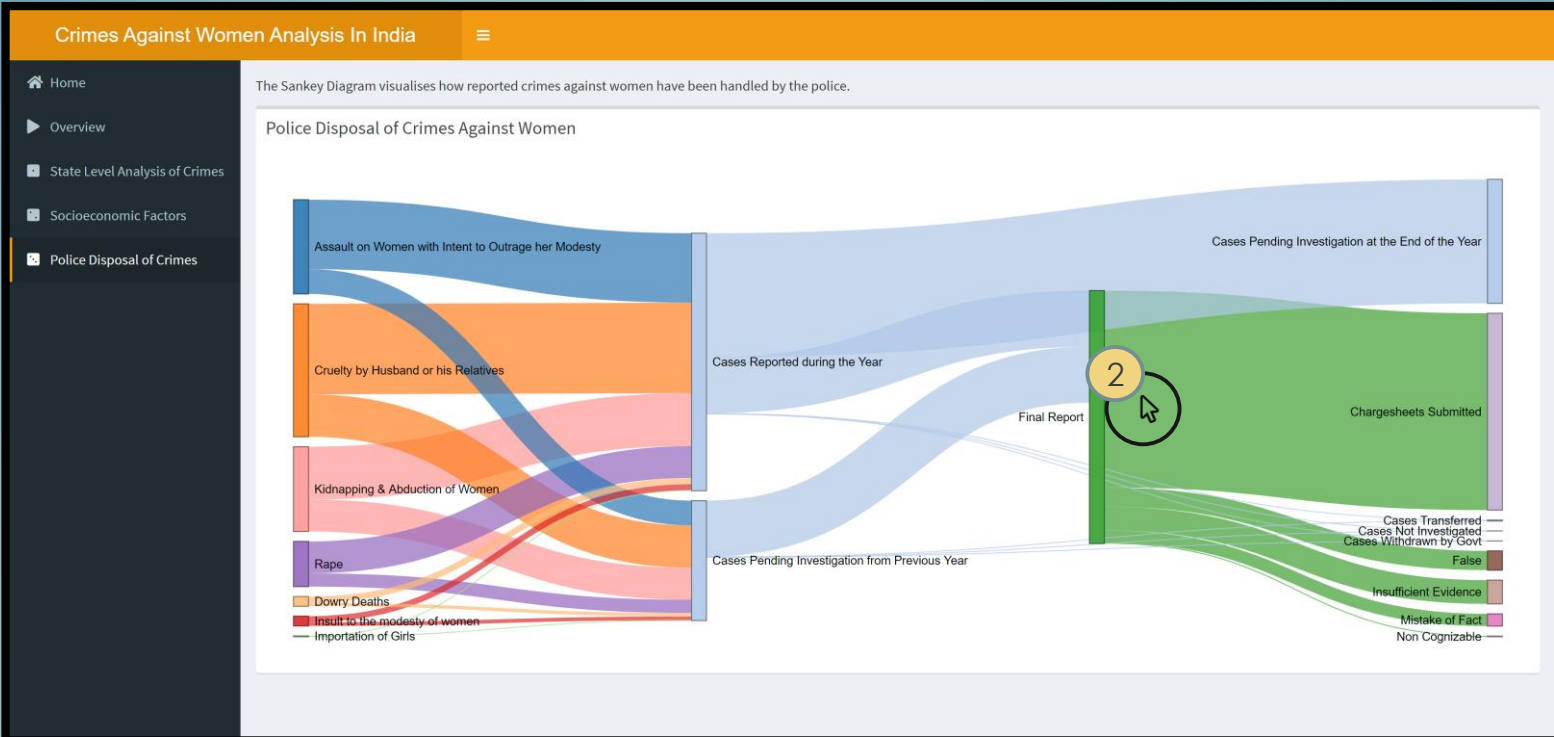
Hovering over the Correlation Heatmap will display the tooltip

Click on a point on the Correlation Heatmap will pass selected variables to the Scatterplot

2  
Socioeconomic Factor: Population  
Crime Type: Dowry Deaths  
State/UT: MADHYA PRADESH

Hovering over scatterplot will display the tooltip

# Police Disposal of Crimes



The Police Disposal of Crimes tab displays a Sankey Diagram that studies the journey of reported cases of crimes against women.



1

Hovering over the plot displays the tooltip.