India Observatory

Data Platform

User Manual

DATA PLATFORM

Data platform is the backbone of the India Observatory initiative. It houses social, economic and ecological datasets with meta-data catalogue. It provides contextual insights and enables spatial and temporal analysis for better diagnosis of developmental trends. Further, it helps various stakeholders in taking informed decisions by presenting the data in a user-friendly manner through infographics, visualizations and tools.

Key Features

- Data sets pooled from various secondary sources available from 1990's onwards and for some states from 1960's onwards.
- Easy exploration of social, economic and ecological data prompting the user to analyse through an interdisciplinary lens.
- Compare Maps to create two maps on the same screen in split-screen mode for easy comparison
- Comparative Visualisation between parameters in the same map
- Export map to download maps in PDF format.
- Location At A Glance and GPDP profile provides a quick summary on the socio-economic and ecological parameters
- Examine change through temporal datasets
- Trend analysis to visualize temporal trends in tabular or graphical format.
- Analytics feature to choose parameters, view them in tabular format, perform statistical operations like mean, median, mode etc. on them and visualize them in the form of bar graphs, pie charts etc.
- Multilingual to maximize reach

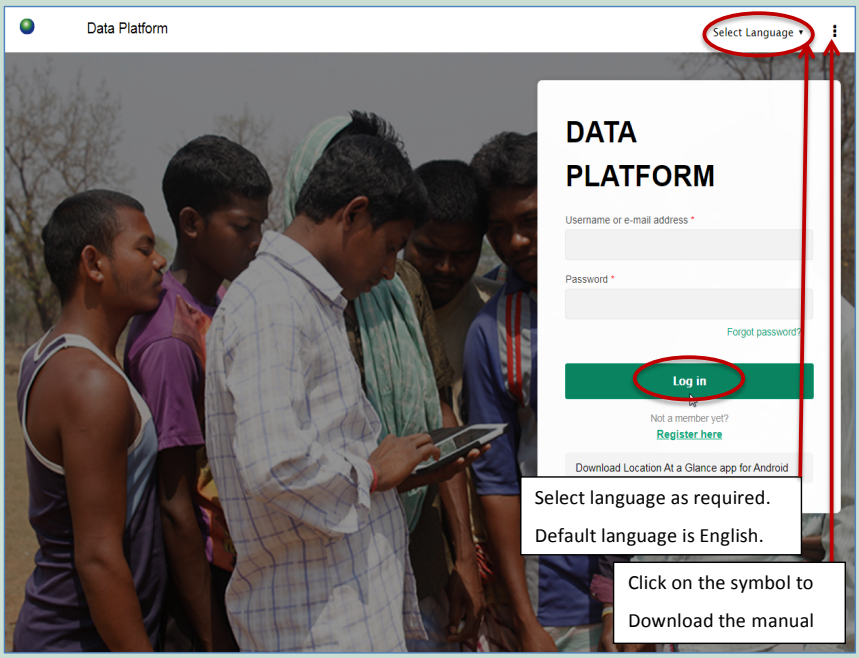
1.0 Getting Started

1.1 System Requirements

Use Google Chrome Version 70 or above for best performance.

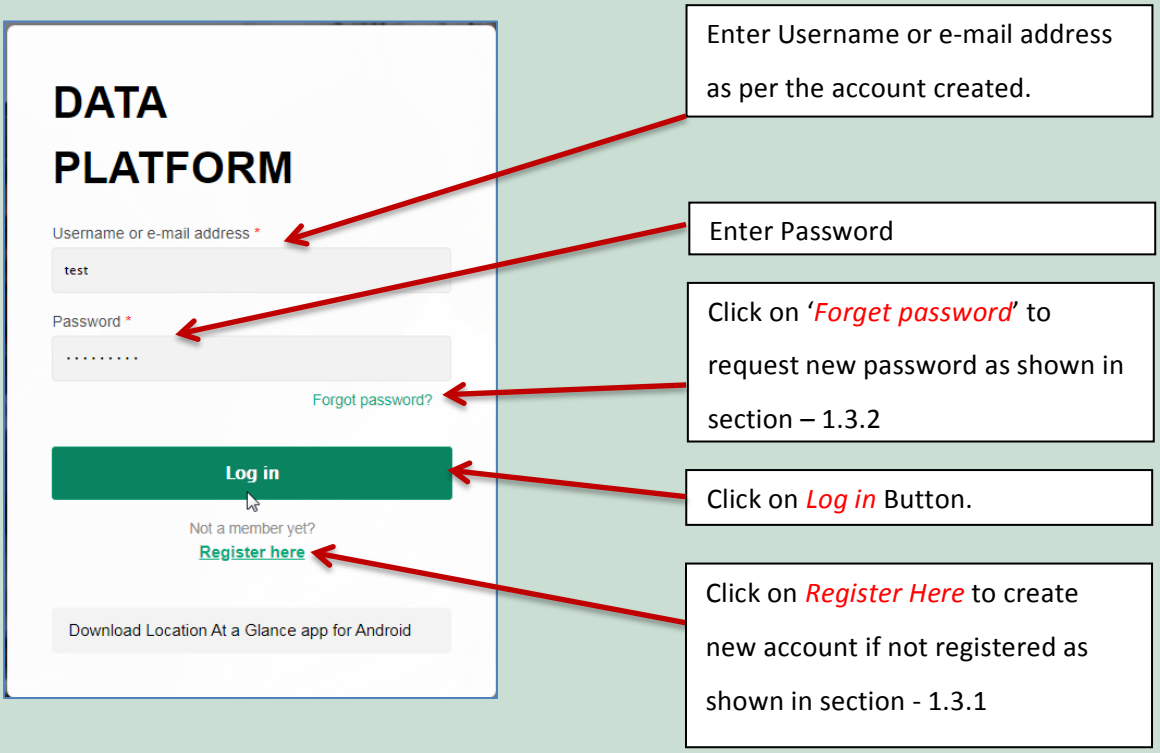
1.2 Home Page

Open Google Chrome and enter Data Platform URL (https://dp.observatory.org.in/content/explore) in the Address bar. The home Page will be displayed as shown in the picture below. It will also display Login and Language selection option.



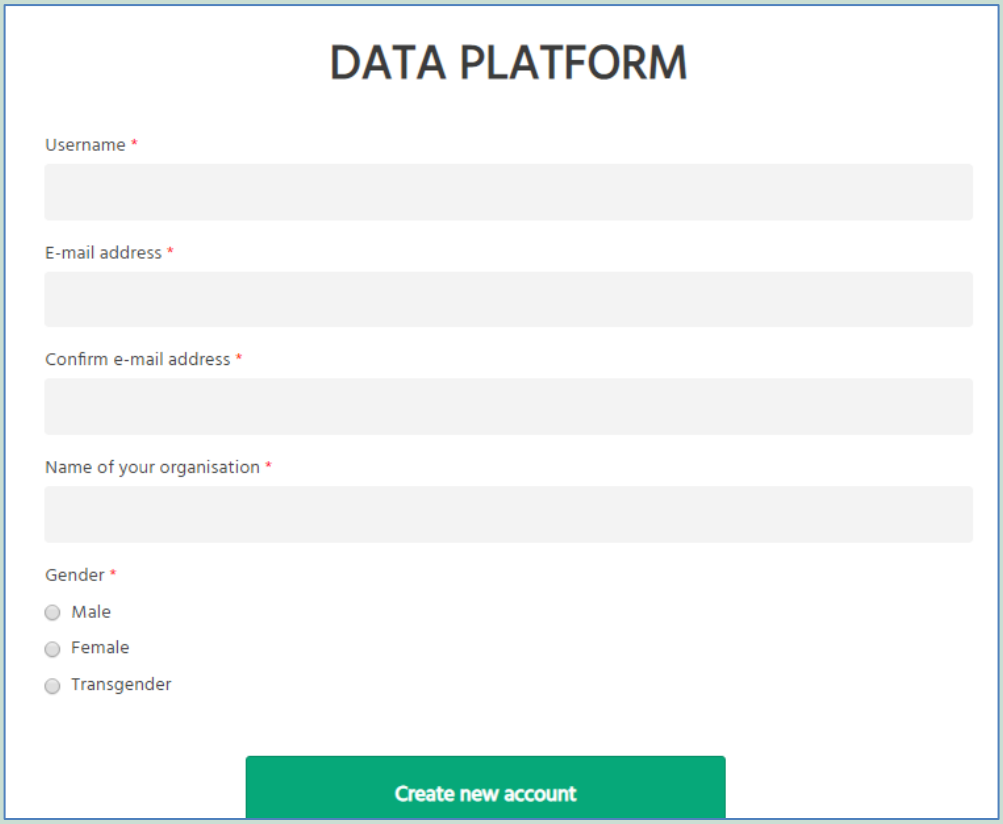
1.3 Login

- How to login ?



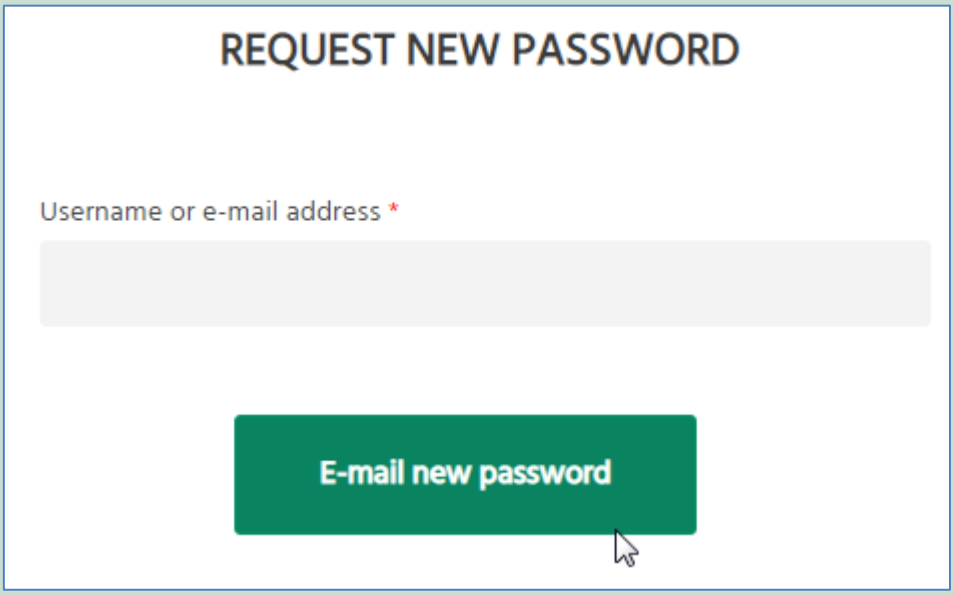
1.3.1 Create new Account

Enter the required information to create a new account. Mandatory input fields are marked with '*' .



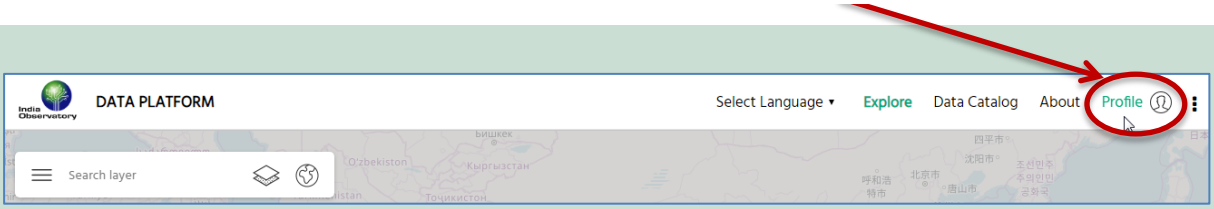
1.3.2 Forget Password

Enter Username or e-mail address to request for new password.

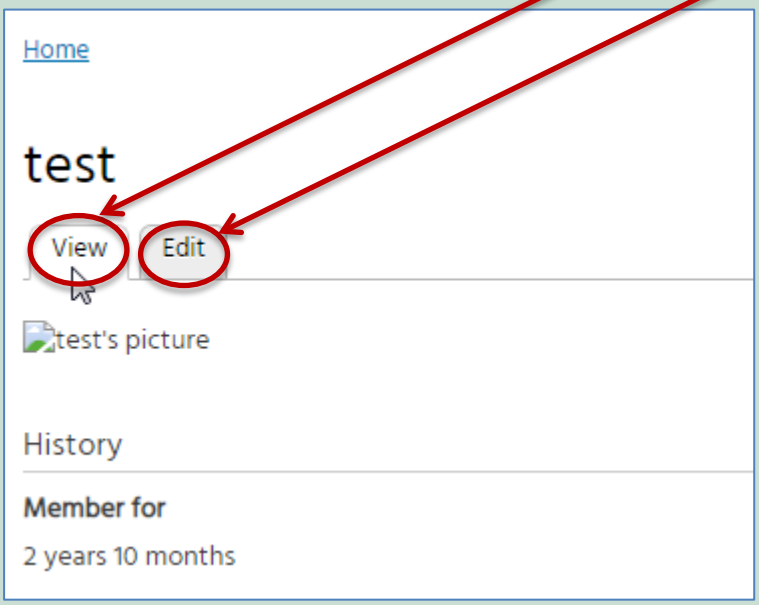


1.3.3 Profile

Access the details of your account by clicking on 'Profile' in the upper right corner as shown in the image below.

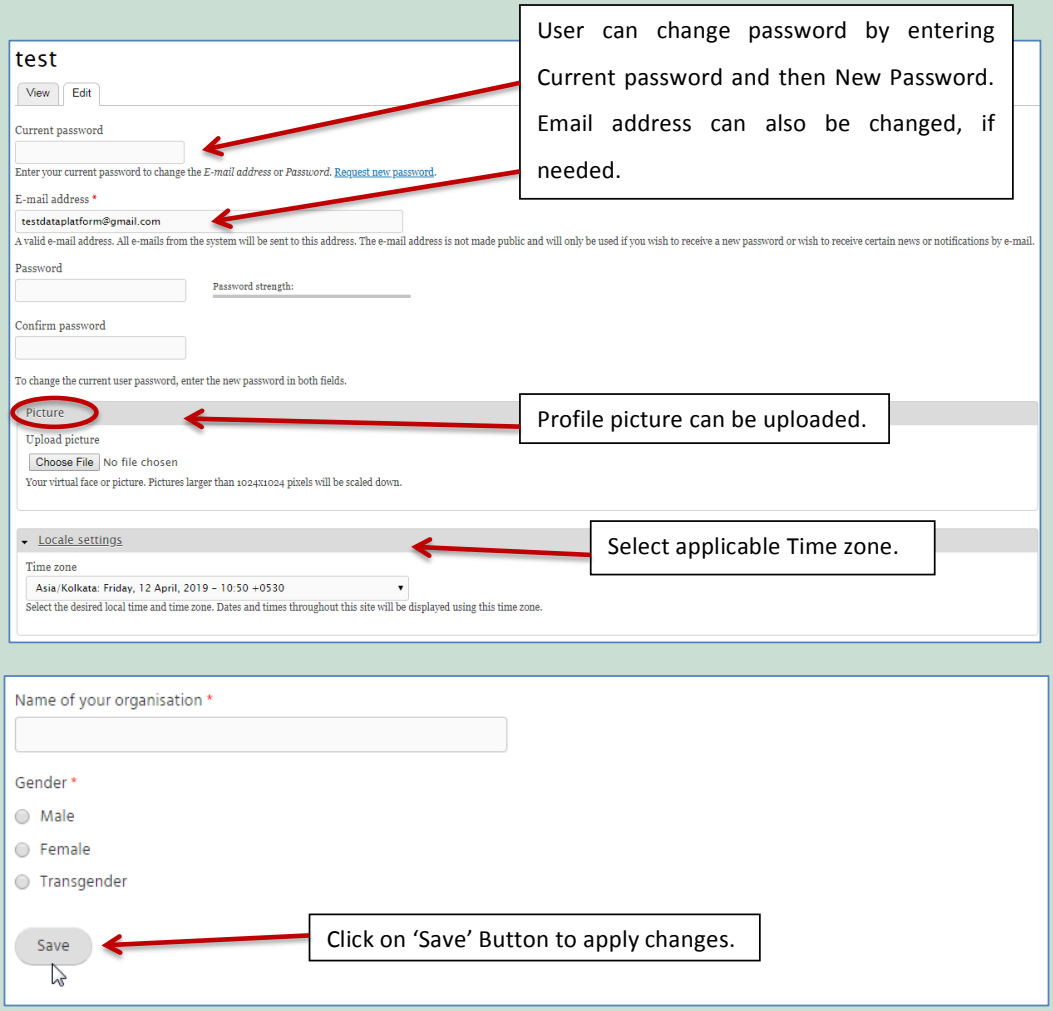


The following page will be displayed showing 'View' and 'Edit' option.



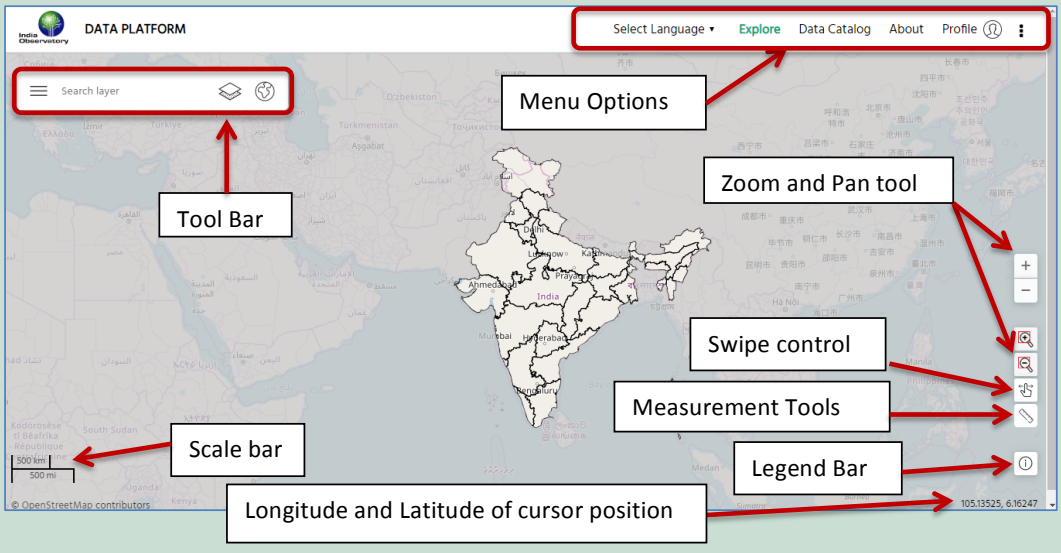
1.3.2 Edit User Account

The following page will be displayed when 'Edit' option is selected.

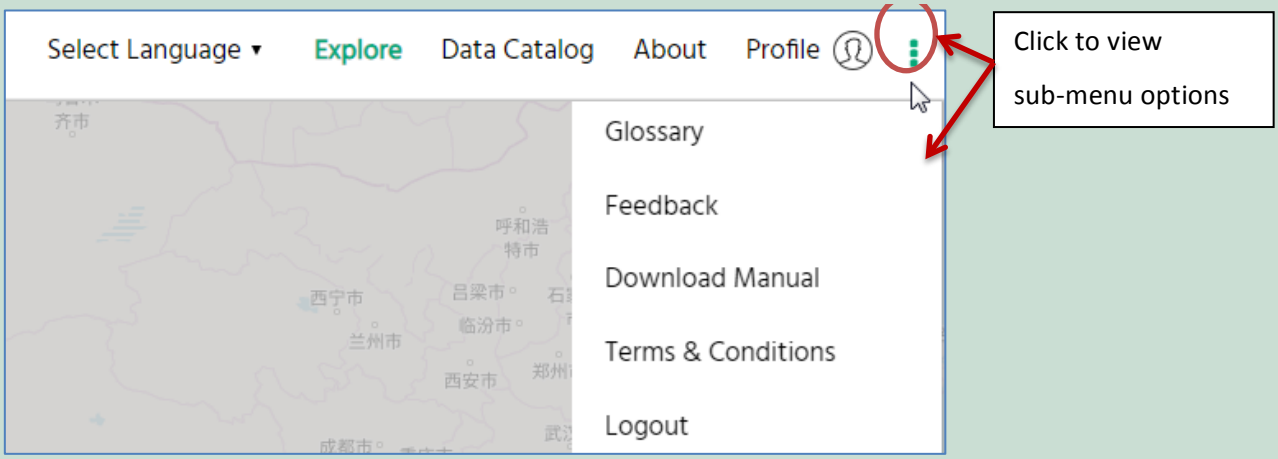


2.0 Using Data Platform

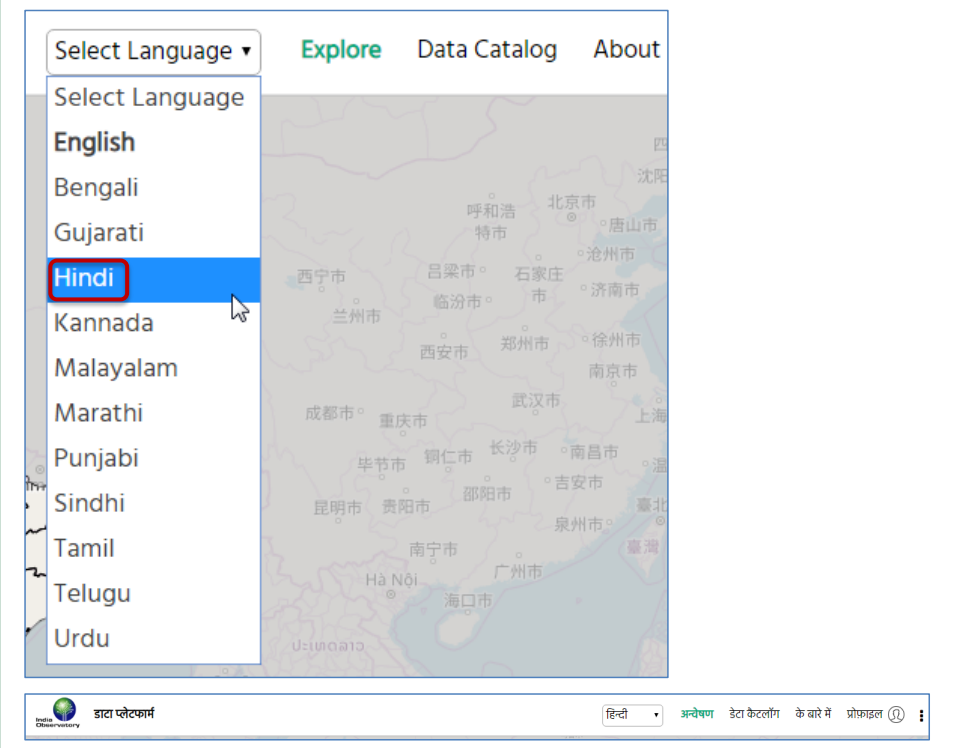
After successful User login, Home Page will be displayed wherein India Map is highlighted along with the Tool Bar and Menu Options, as shown in the image below.



2.1 Menu Options



The functionalities of the above menu options are described below.



2.1.1 Select Language

The multilingual feature in the data platform allows the user to select the preferred regional language as shown in the image below:

2.1.2 Explore

This menu option helps user to navigate to the map and map related features. Following are sub-menus of 'Explore' menu option:

2.1.2.1 Map

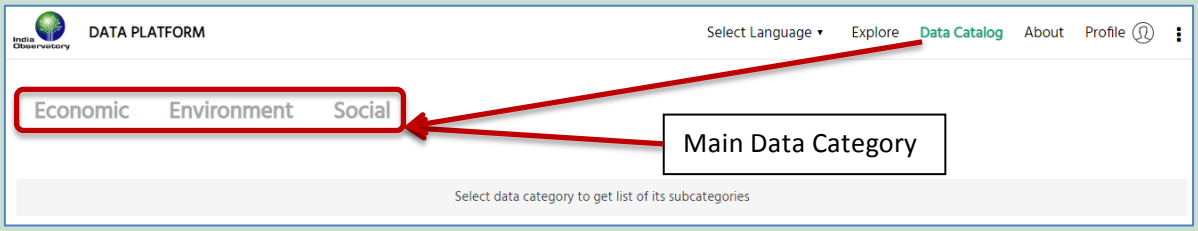
This option helps the user navigate to the Map on the home page. For example: If the user is on the 'About' page and then needs to navigate back to the homepage, he/she can do so by clicking on the map option in the explore menu.

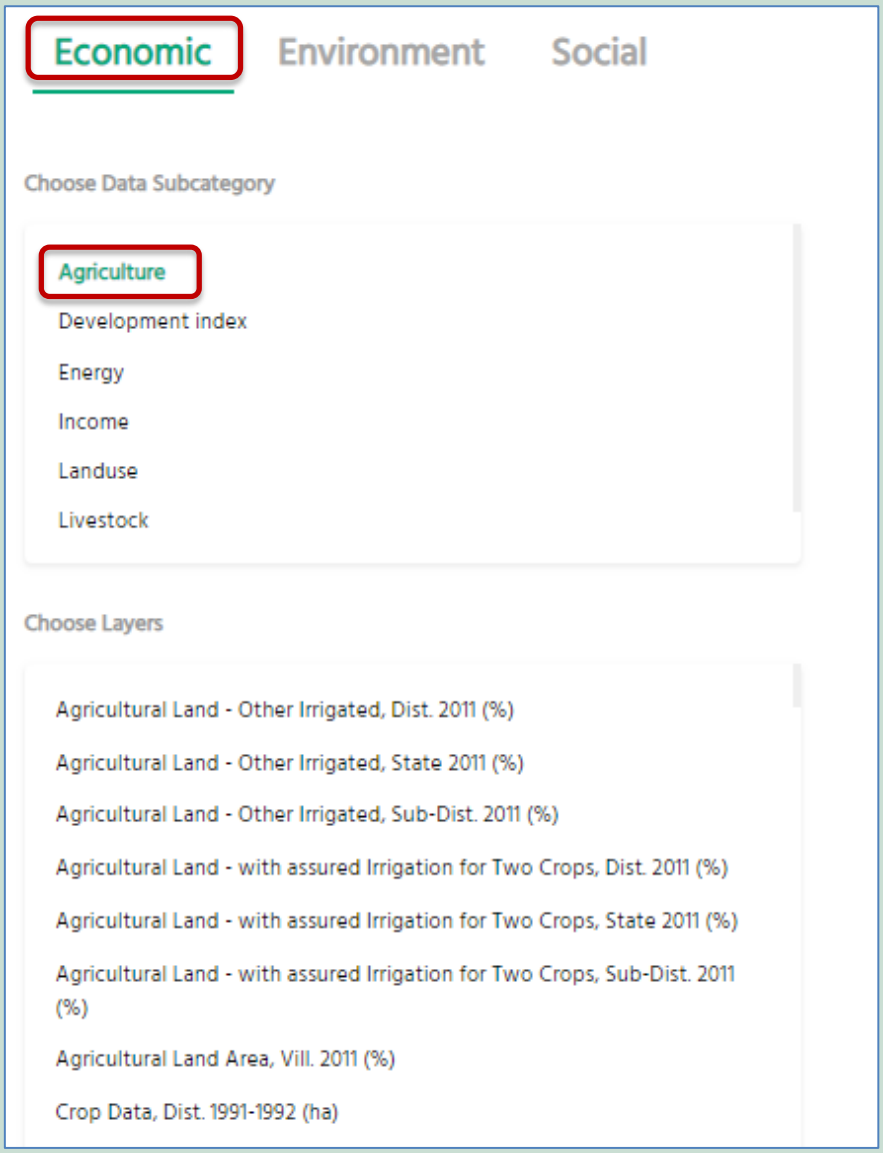
2.1.2.2 Map Comparison

This option is similar to the 'Compare Layers' option. The user can navigate to the map comparison window by clicking on this option. Refer Section – 2.2.5.

2.1.3 Data Catalog

The user can view metadata of all data layers using the data catalog option. Following example shows Metadata of the 'All Marine Richness (per sq km) layer from the biodiversity subcategory under the environment category.



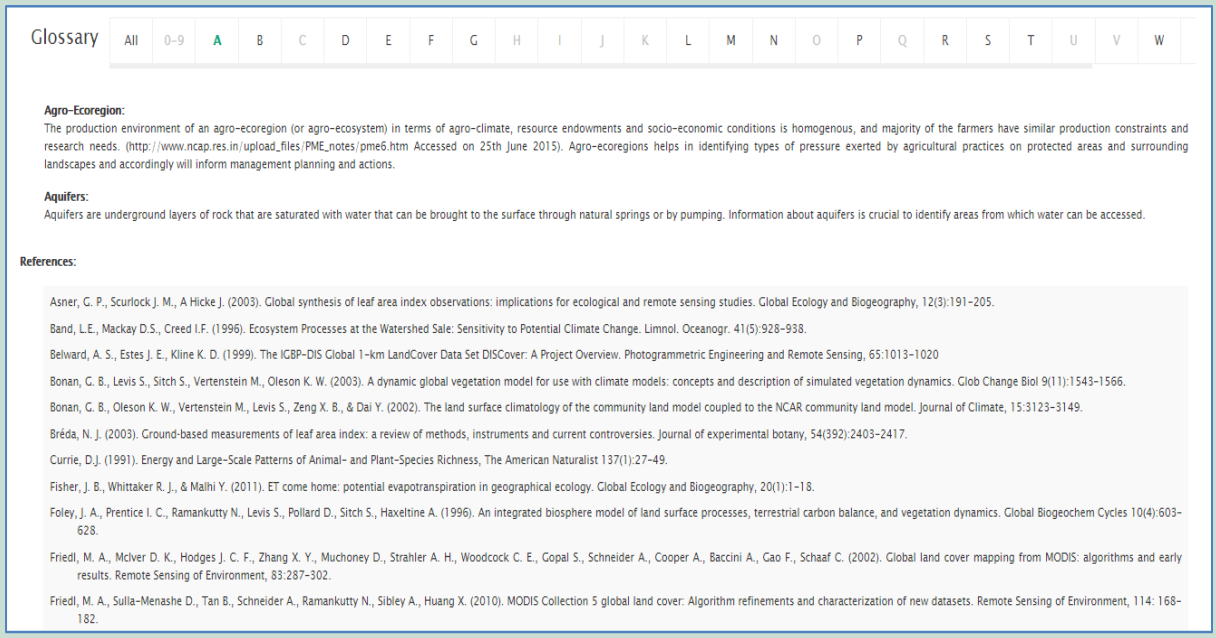


2.1.4 About

The 'About' menu option gives a brief introduction on Data Platform, India Observatory and the Foundation for Ecological Security.

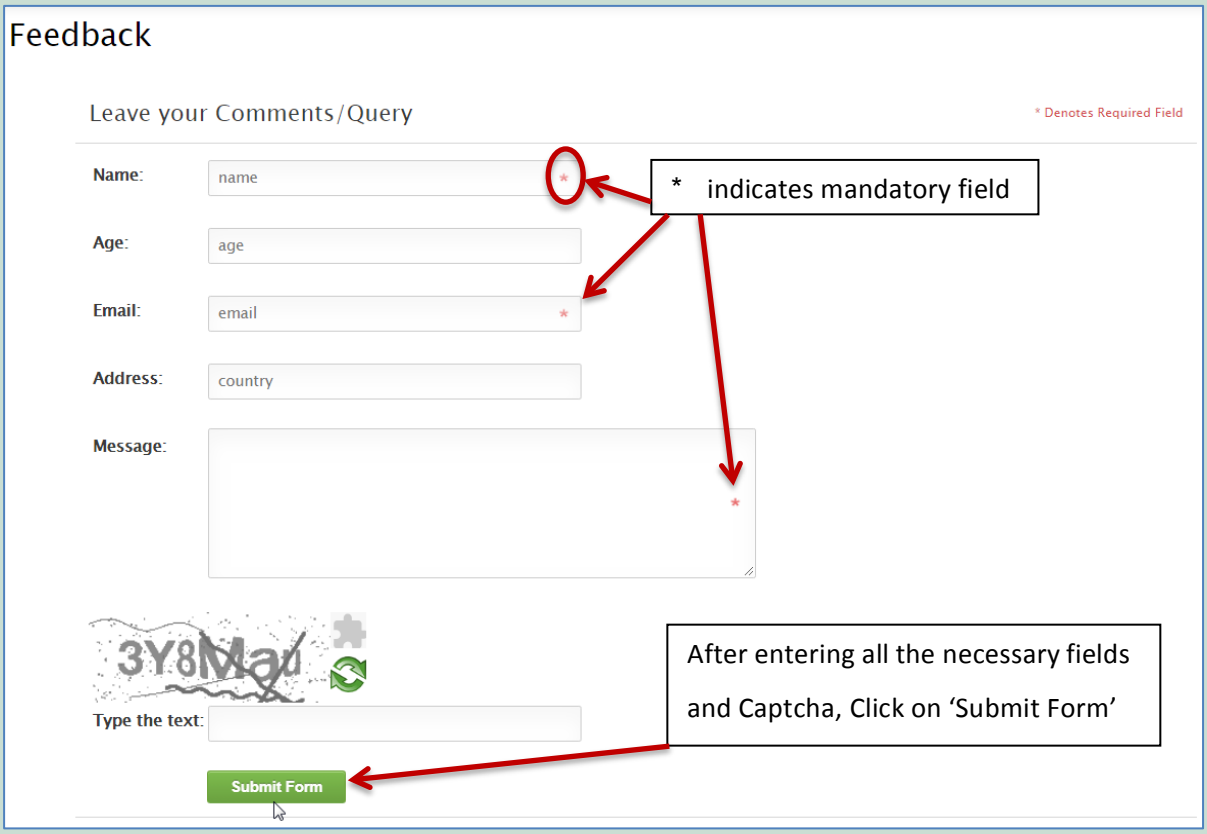
2.1.5 Glossary

The Glossary defines terms used within the Data Platform portal to help the user understand and use the platform efficiently. The following image shows an overview of Glossary.



2.1.6 Feedback

The feedback option allows the users to send their comments and queries. All the fields marked with the '*' symbol are mandatory.



2.1.7 Download Manual

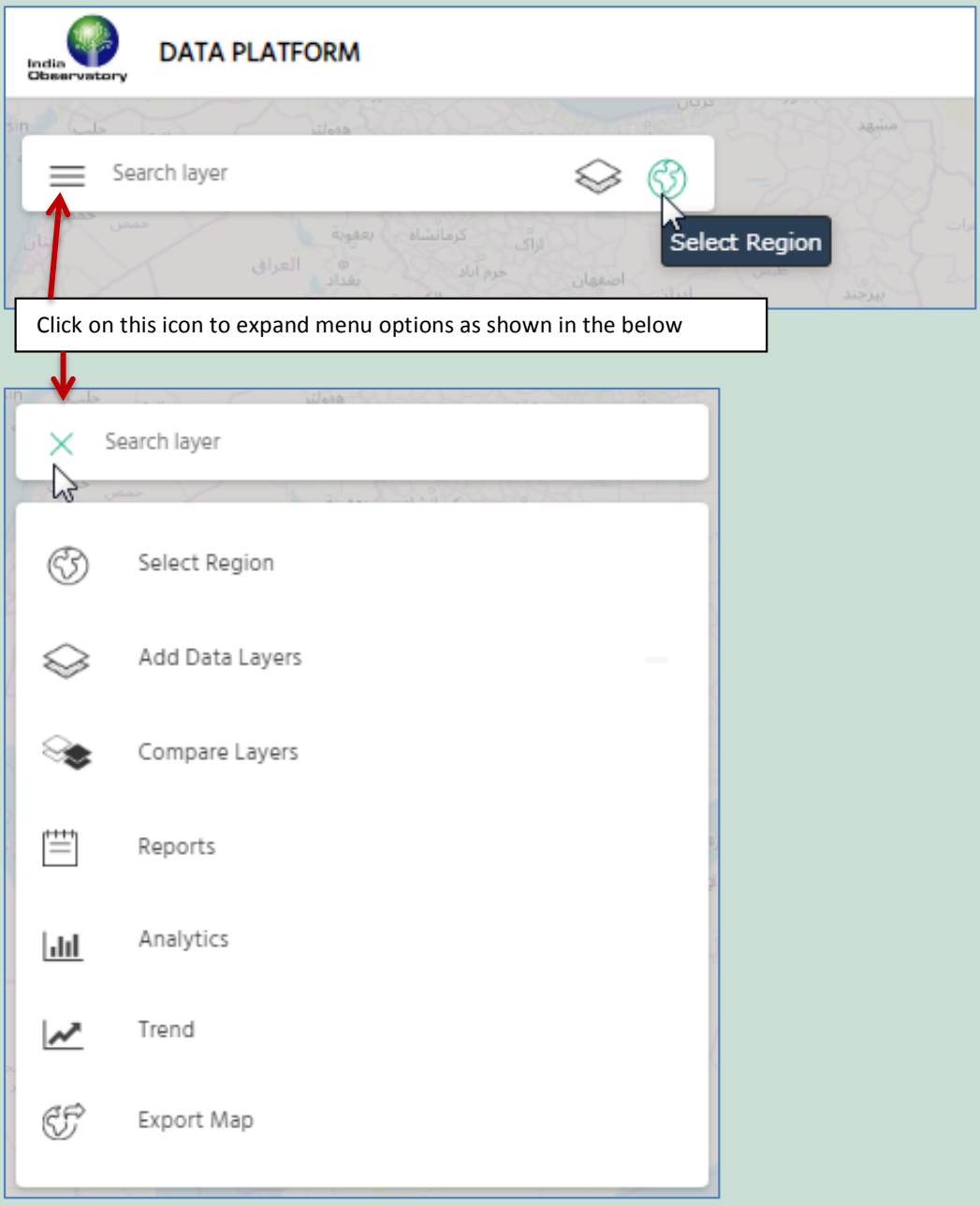
The download manual option enables the user to download the Data Platform Manual.

2.1.8 Terms & Conditions

This option displays the Terms & Conditions of the Data platform.

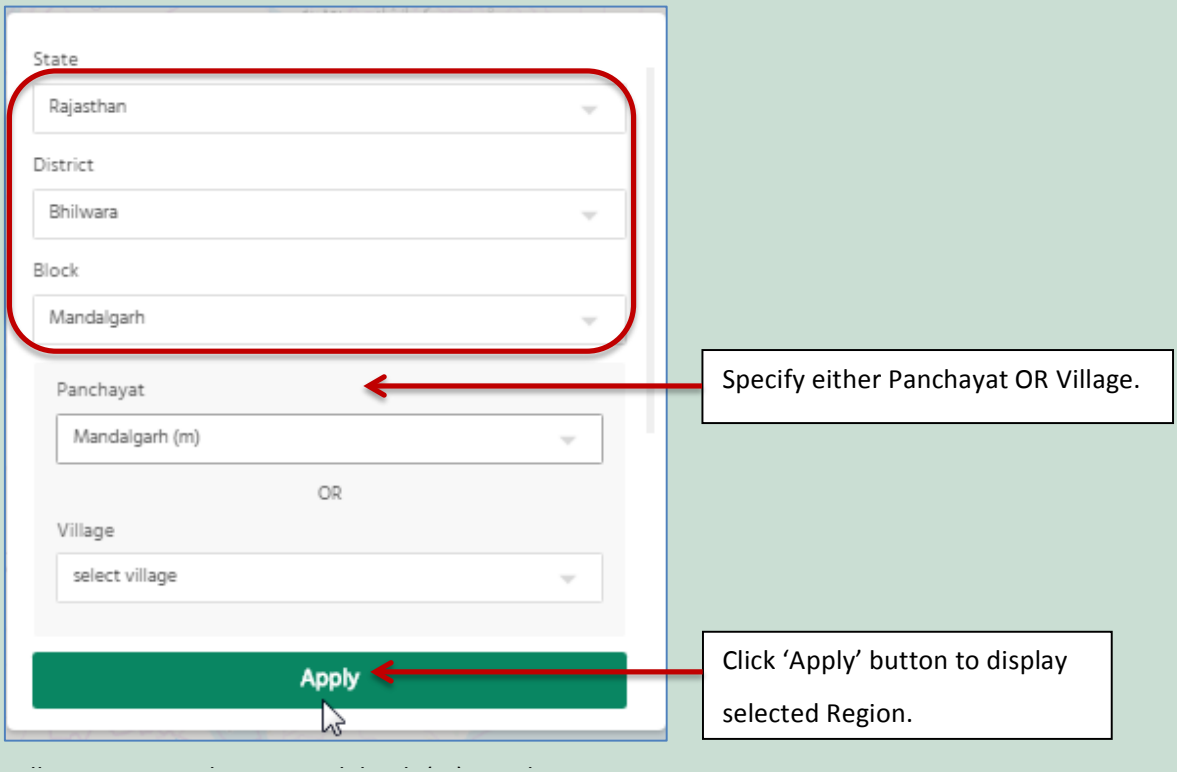
2.2 Tool Bar Menu Options

Hovering over the icons will display the name of the option. For example: 'Select Region'.

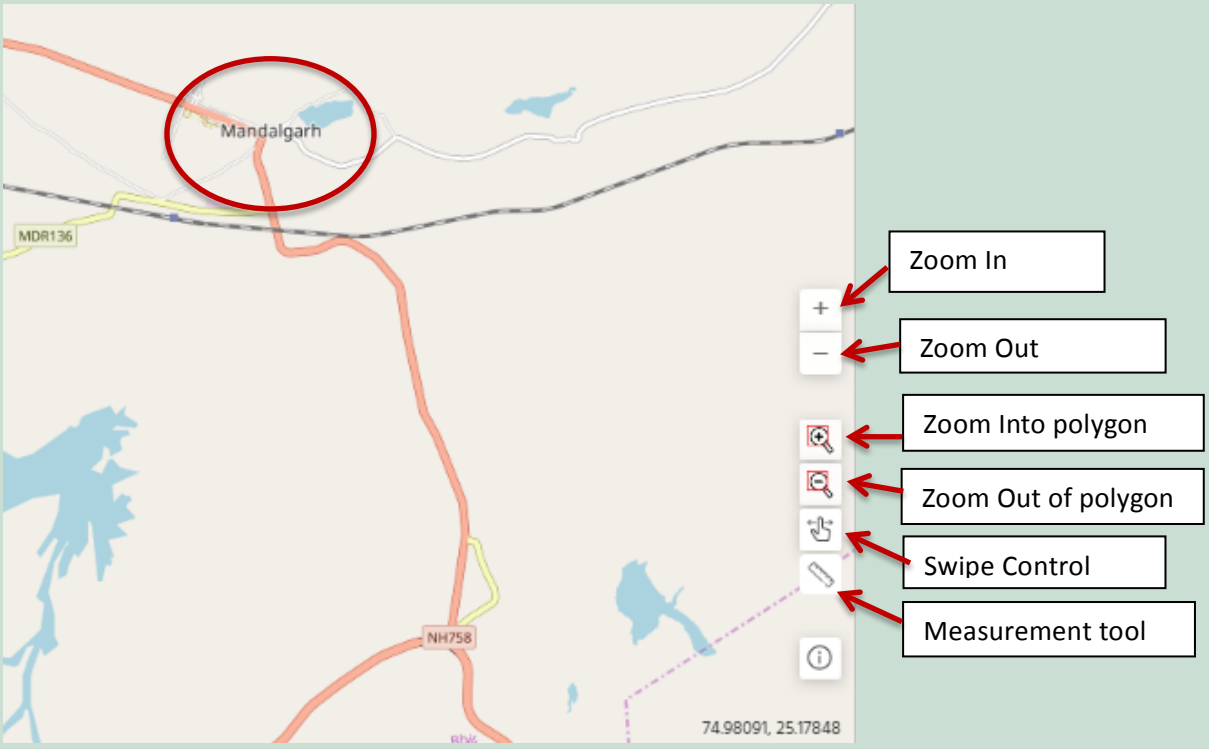


2.2.1 Select Region

Through this option, data can be explored for a particular region. It can be explored State wise, District wise, Block wise, Panchayat wise or Village wise as per the requirement. Accordingly the User needs to select 'State, District, Block and Panchayat OR Village.' The following image shows an example of User defined Region to explore map of a Panchayat.



Following image shows Mandalgarh (m) Panchayat map.



2.2.2 Usage of Zoom functions while Exploring Map

Zoom In - Click on this button to zoon into the map.

Zoom Out - Click on this button to zoom out of the map.

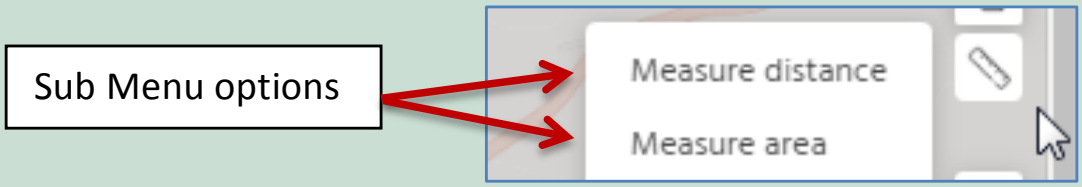
Zoombox In - Click on this button for a rectangle polygon based Zoom in.

Zoombox Out - Click on this button for a rectangle Polygon based Zoom out.

Swipe Control - Add two layers. Use the swipe control button to compare the two layers.

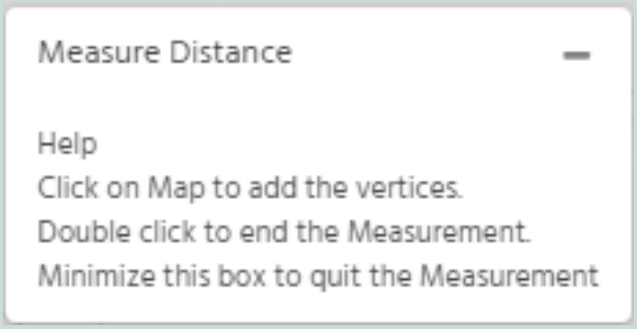
2.2.3 Measurement Tools

Click on this tool to view sub menu options.

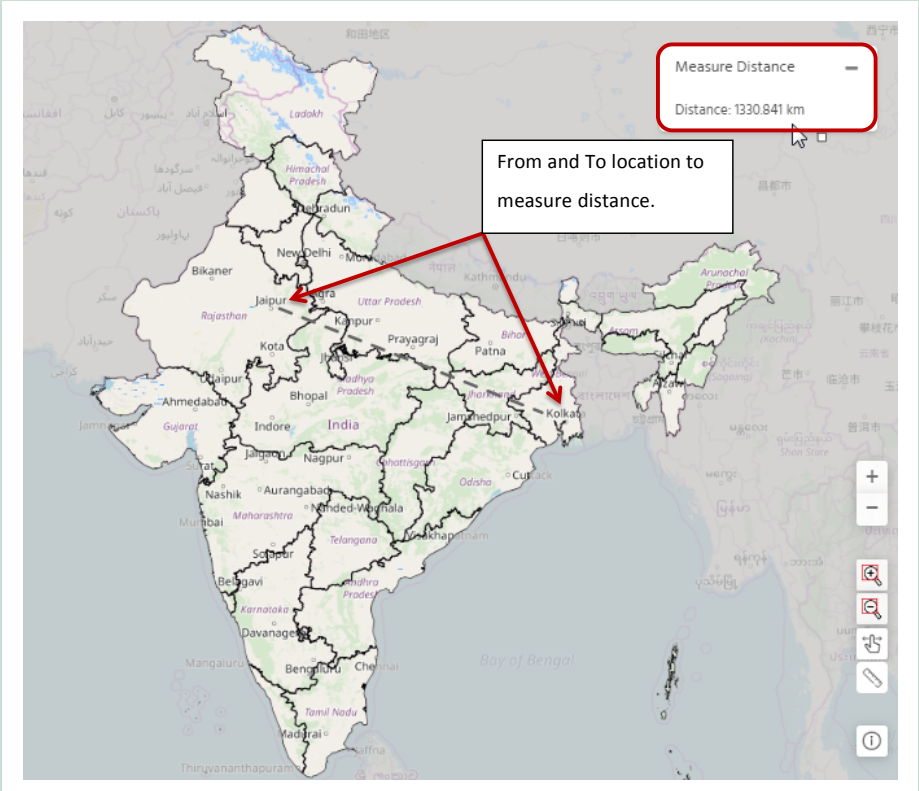


2.2.3.1 Measure distance

This option helps user measure the distance by adding vertices indicating From and To locations. It reveals the distance between the vertices indicated by the user.

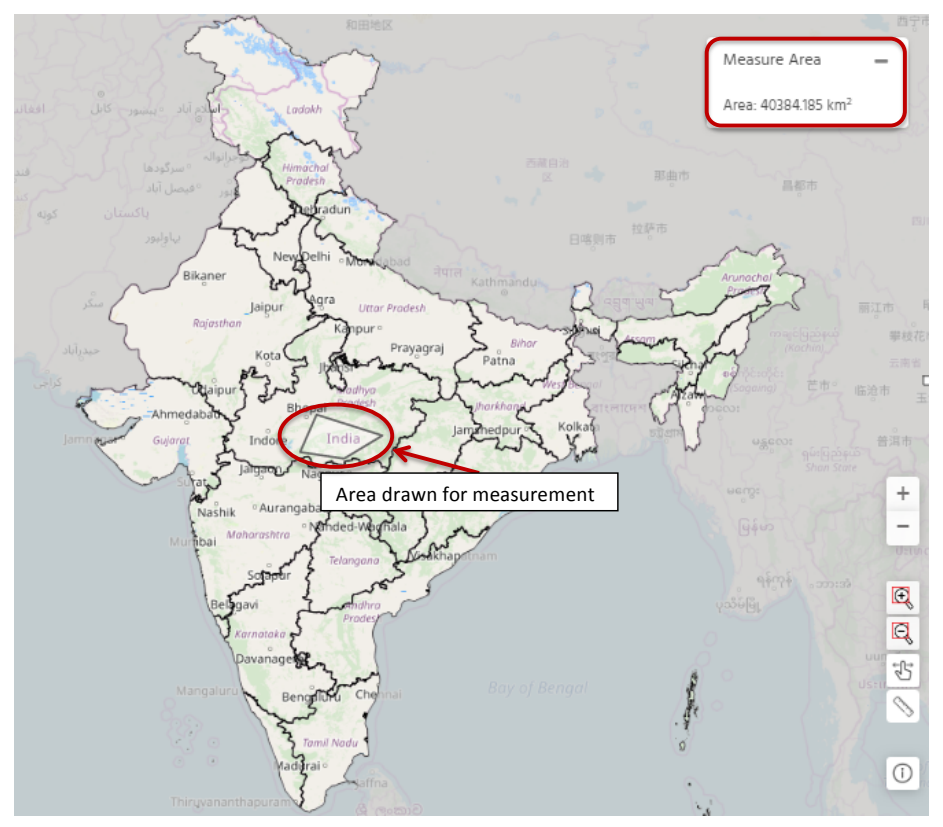


The following example shows the distance between Jaipur and Kolkata.



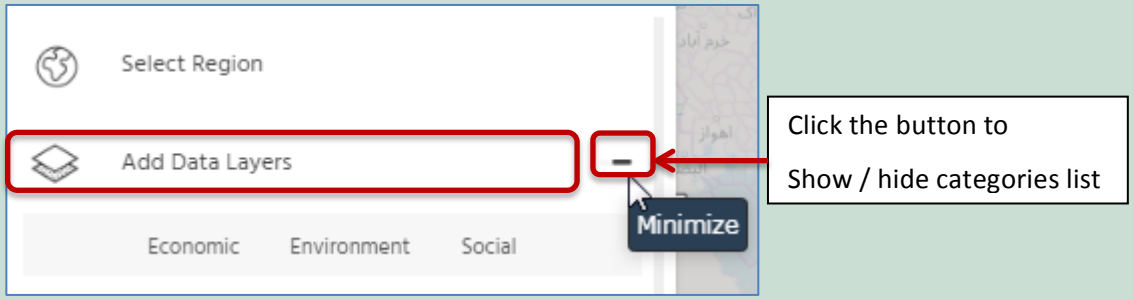
2.2.3.2 Measure Area

This feature allows the user to define an area by drawing and measuring its area. The following example shows the area and its measurement.

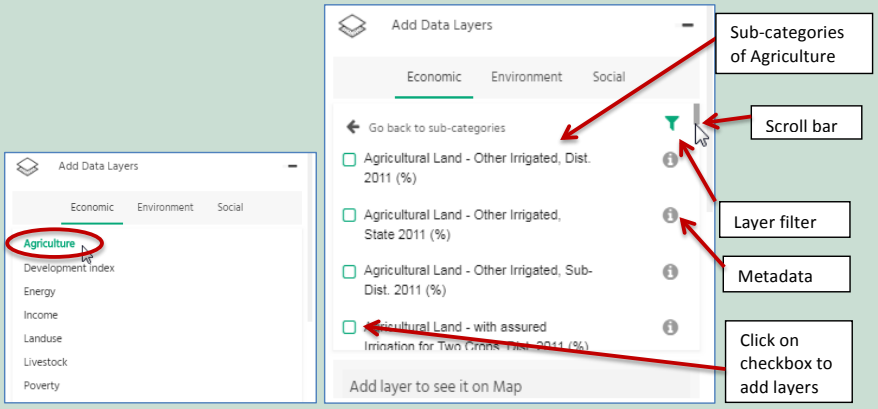


2.2.4 Add Data Layers

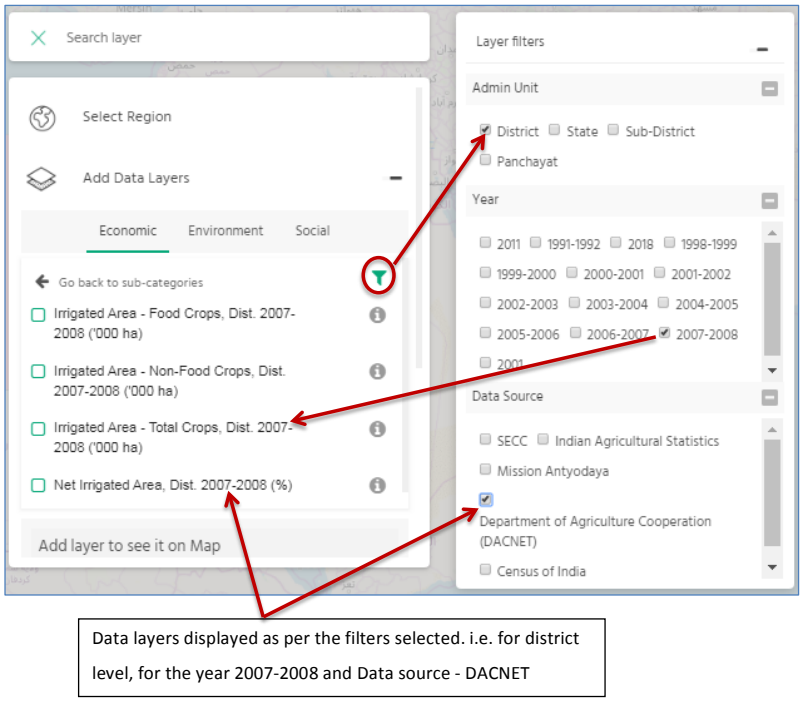
Data layers can be added to the map using this tool. They are broadly categorized into three categories– 'Economic', 'Environment' and 'Social' as shown in the below image.

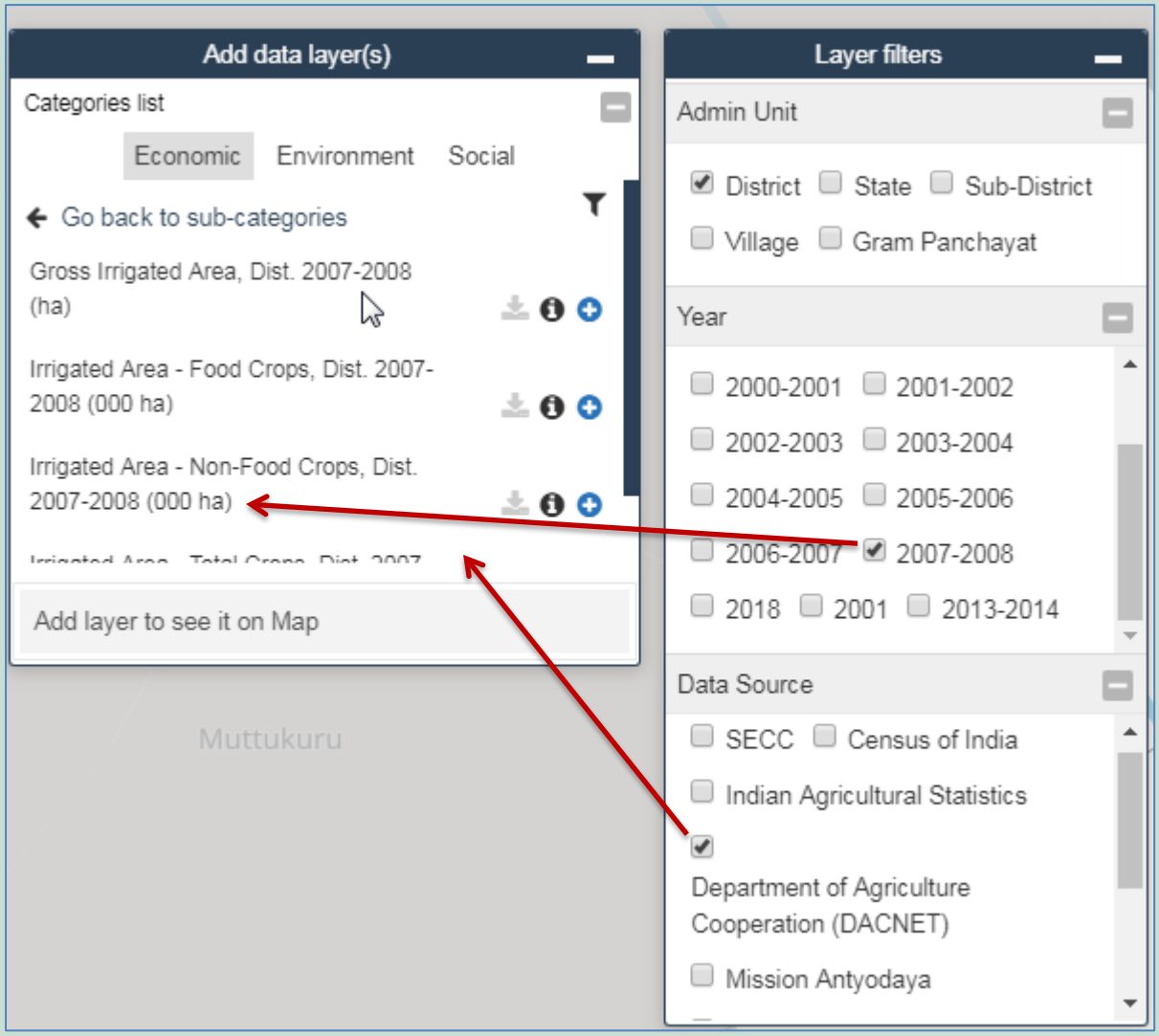


Click on 'Economic' or 'Environment' or 'Social' category. Select the sub-category and finally the layer from the layer list, as shown in the image below.

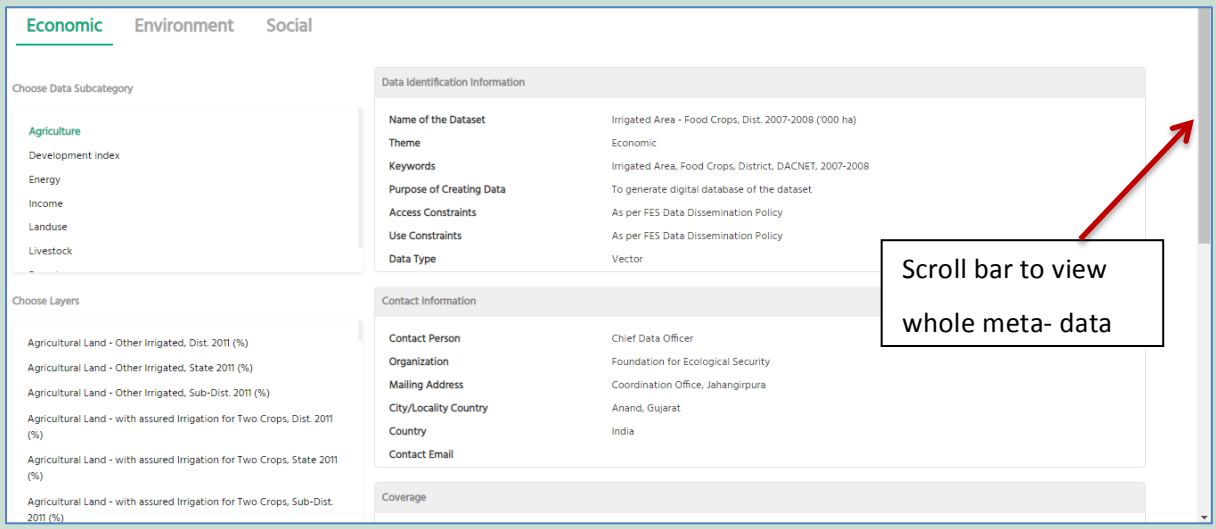


Click on  to filter the data layers according to preference. This will help minimize the list for easy and fast access to the available data.

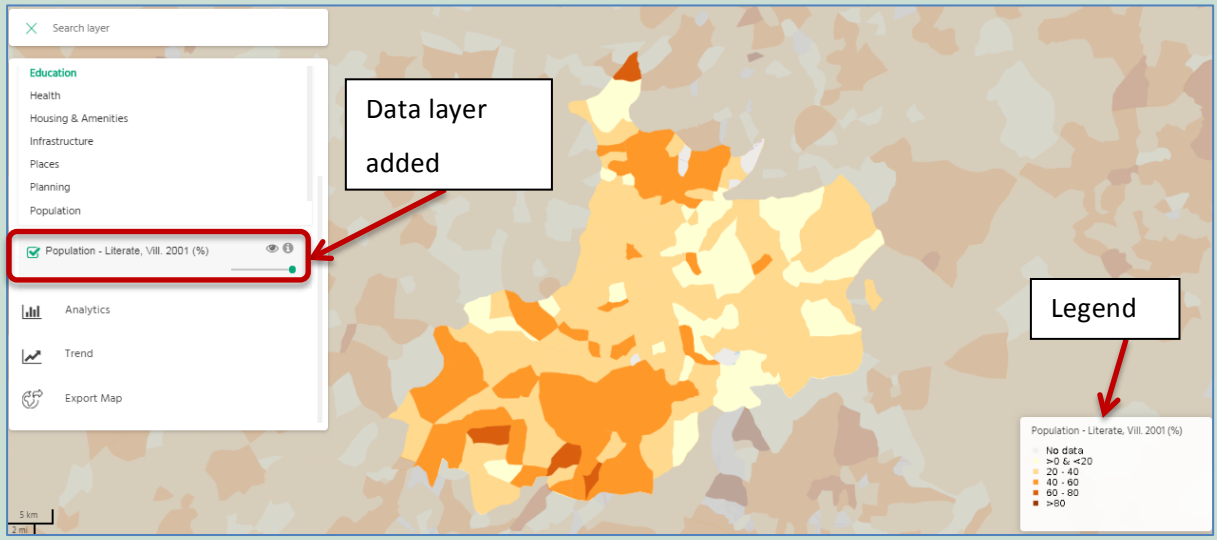




Click on  to view Metadata of the selected data layer.

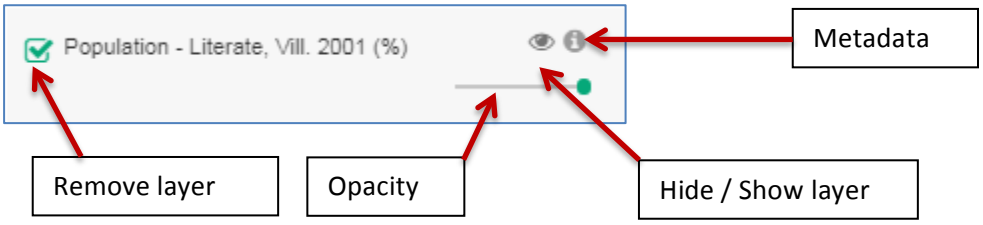


Select Data layer and then click on - ☐ Add Layer icon as shown below.



The above example shows Data layer 'Population Literate, Vill. 2001(%)' for Mandalgarh block of Rajasthan State, Bhilwara District. The legend on the bottom right corner shows the literacy percentage against the color code displayed in map.

User can overlay multiple data layers and change the opacity level to compare them. Once the data layer is added, following functionalities are available to the user:



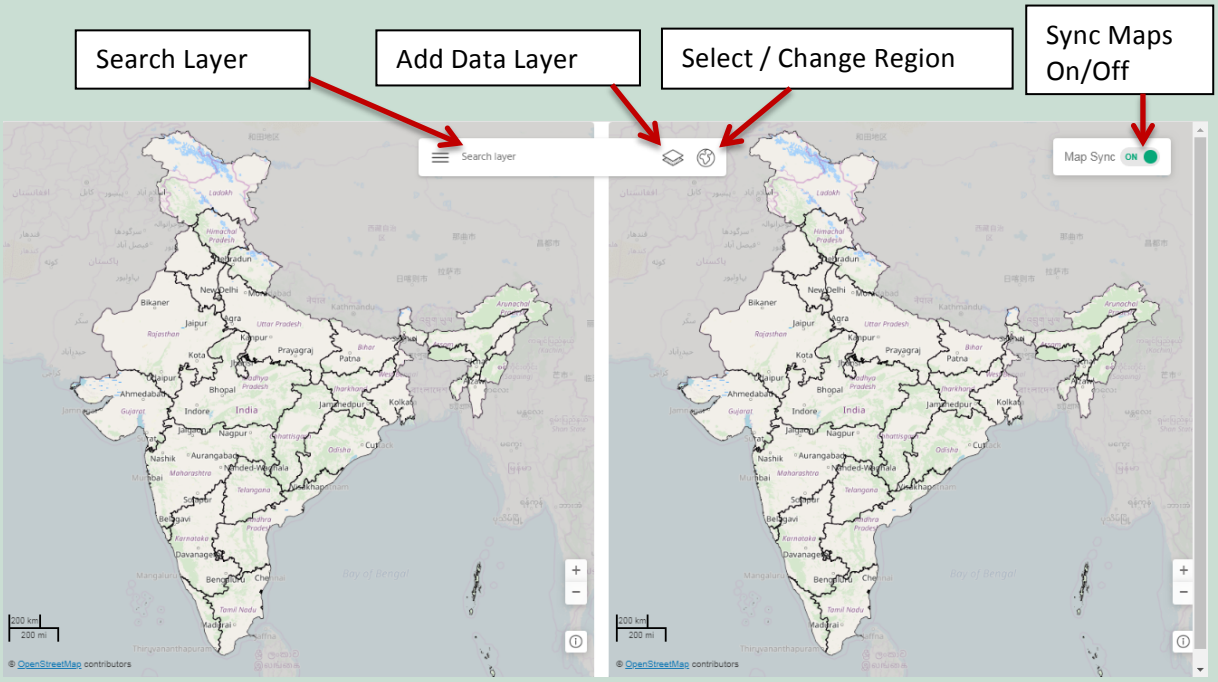
- ☐ Opacity : Opacity of layers can be increased or decreased with the help of slide bar.
- ☐ Metadata : Metadata ℹ can be viewed using this option.
- ☐ Hide / Show layer : Data layers can be displayed or Hidden using this option.
- ☐ Remove layer : ☐ Uncheck the box to remove a layer.

2.2.5 Compare Layers

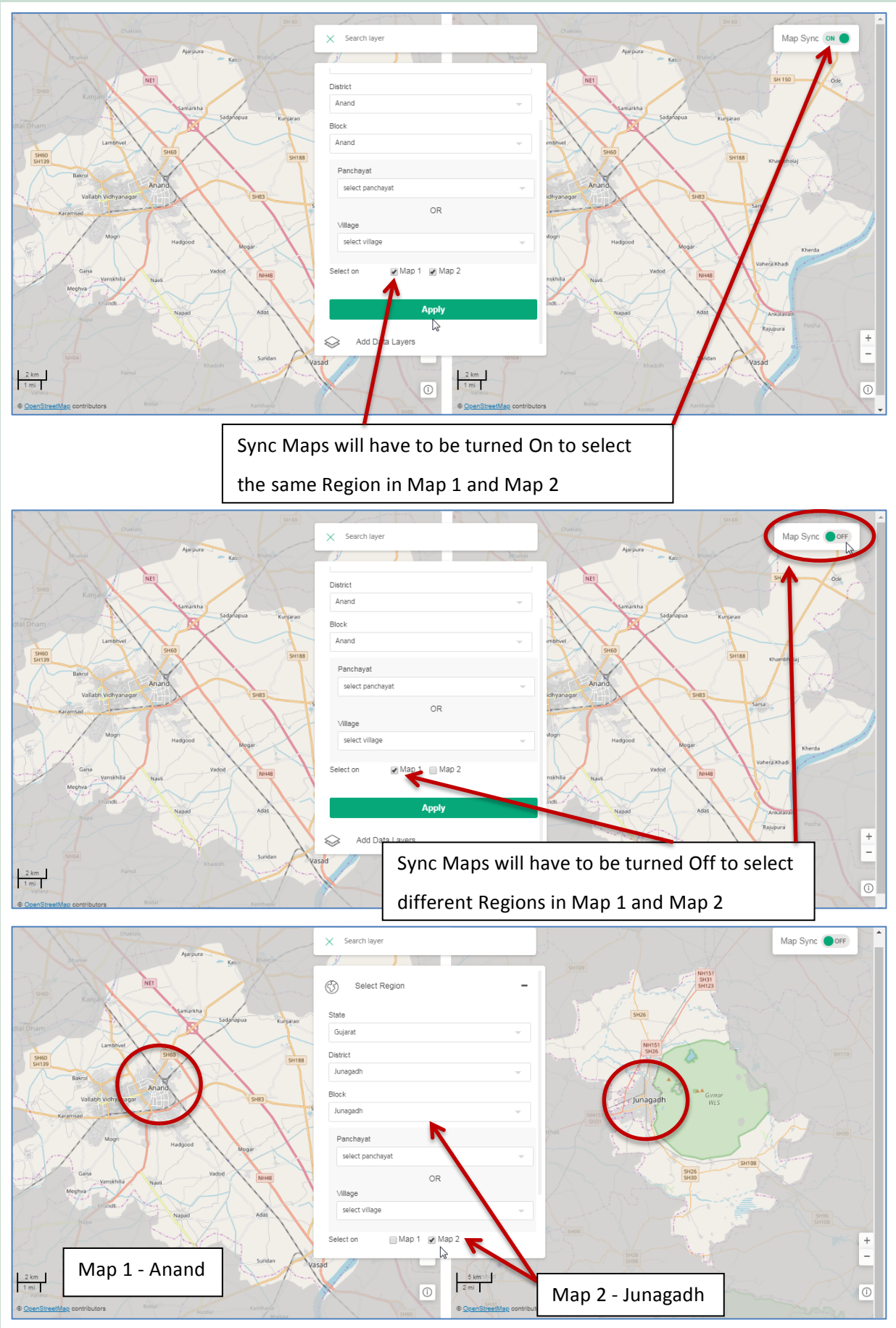
This feature allows the creation of two maps of the same location or different location. It allows the user to compare two parameters, two regions or two time-periods.

For example: A comparative study of literacy in year 2001 and 2011 of a block or change in vegetation index over the years

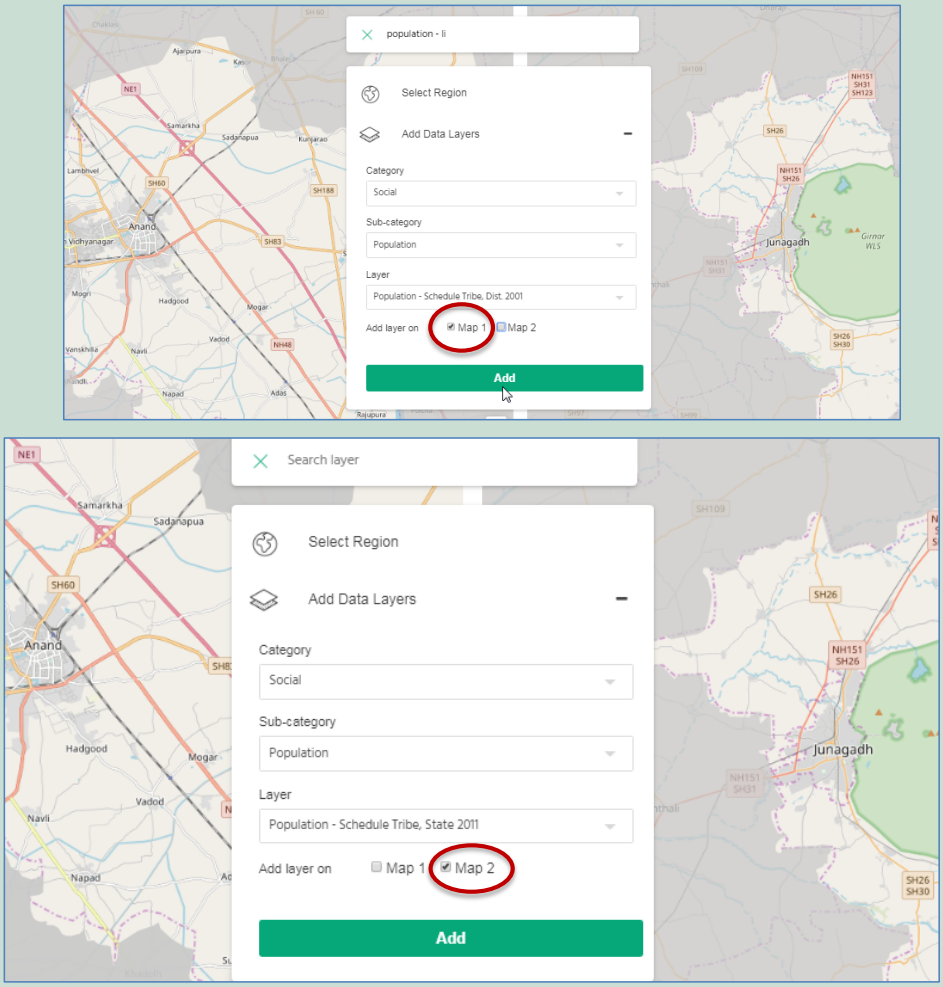
Click on Tool Bar Option  which displays as 'Compare Layers' on hovering the mouse.



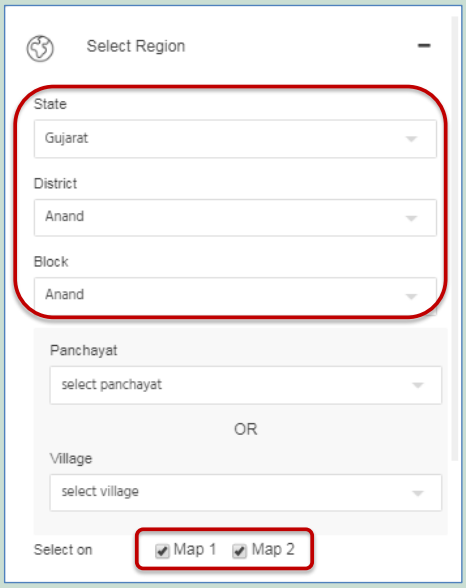
- Left hand side map is referred to as 'Map 1' & right-hand side map is referred to as 'Map 2'.
- **Sync Maps - On / Off** : If the user wants to select different regions in both the maps, then the Sync Maps option needs to be turned Off. If the user wants to select the same regions for both the maps, then the sync maps option needs to be turned on. This function helps user to apply the same changes (e.g. zooming levels, map movement etc.) in both the maps if Sync map is On. If Sync map is off, then the user can apply different changes to both the maps.
- Select Region for Map 1 and Map 2:


Search layer
District
Anand
Block
Anand
Panchayat
select panchayat
OR
Village
select village
Select on
Map 1
Map 2
Apply
Add Data Layers
Map Sync
ON
Sync Maps will have to be turned On to select the same Region in Map 1 and Map 2
Search layer
District
Anand
Block
Anand
Panchayat
select panchayat
OR
Village
select village
Select on
Map 1
Map 2
Apply
Add Data Layers
Map Sync
OFF
Sync Maps will have to be turned Off to select different Regions in Map 1 and Map 2
Search layer
Select Region
State
Gujarat
District
Junagadh
Block
Junagadh
Panchayat
select panchayat
OR
Village
select village
Select on
Map 1
Map 2
Map Sync
OFF
Map 1 - Anand
Map 2 - Junagadh

Similarly, the user can add same or different data Layers in Map 1 and Map 2. There is no need to use Sync Map function while selecting Data layers. Even if Sync Map is On, you can select different data layers for Map 1 and Map 2.

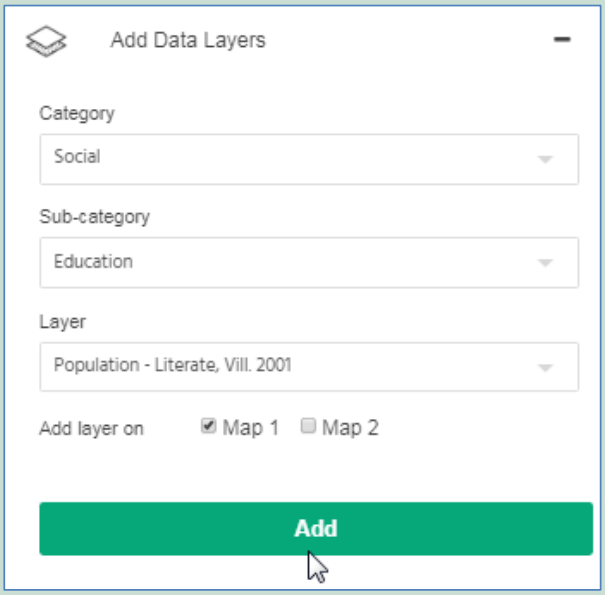


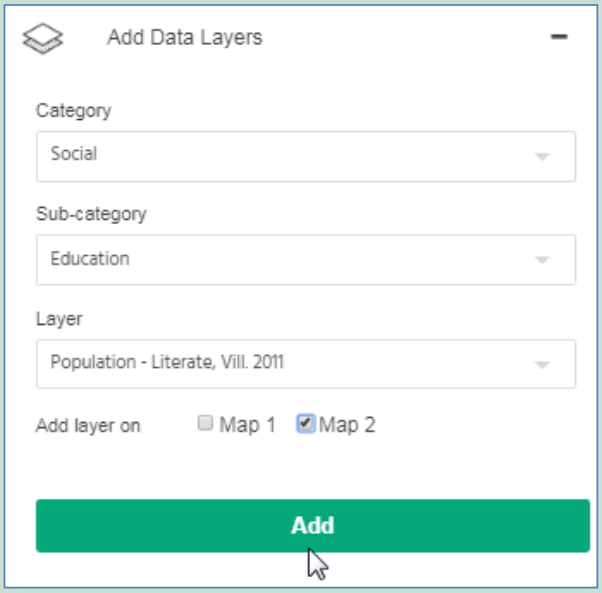
Following is an example showing the comparison of Literacy rate during the year 2001 and 2011 in Anand Block, Gujarat State.
Select Region for both the maps i.e. – Map 1 and Map 2 as shown below:
Click on 'Apply' button to load the region in both the maps.



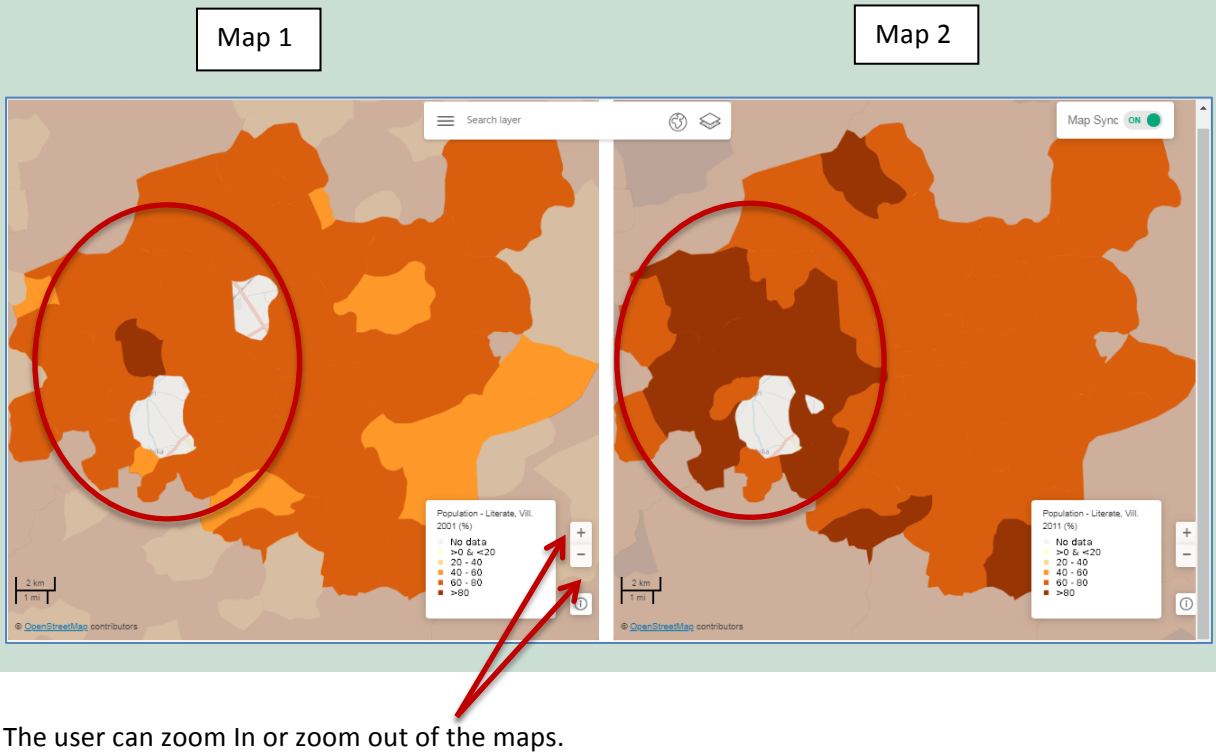
Add data layer in both the Maps as shown below. In this example, Literacy rate of 2001 (village level) is added for Map 1.

Literacy percentage of 2011 (village level) is added for Map 2.





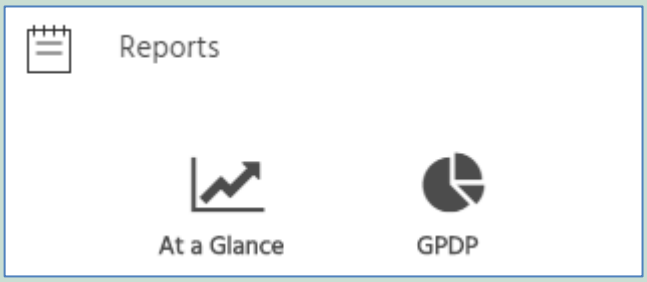
Comparison of Literacy percentage is clearly visible in the following image:



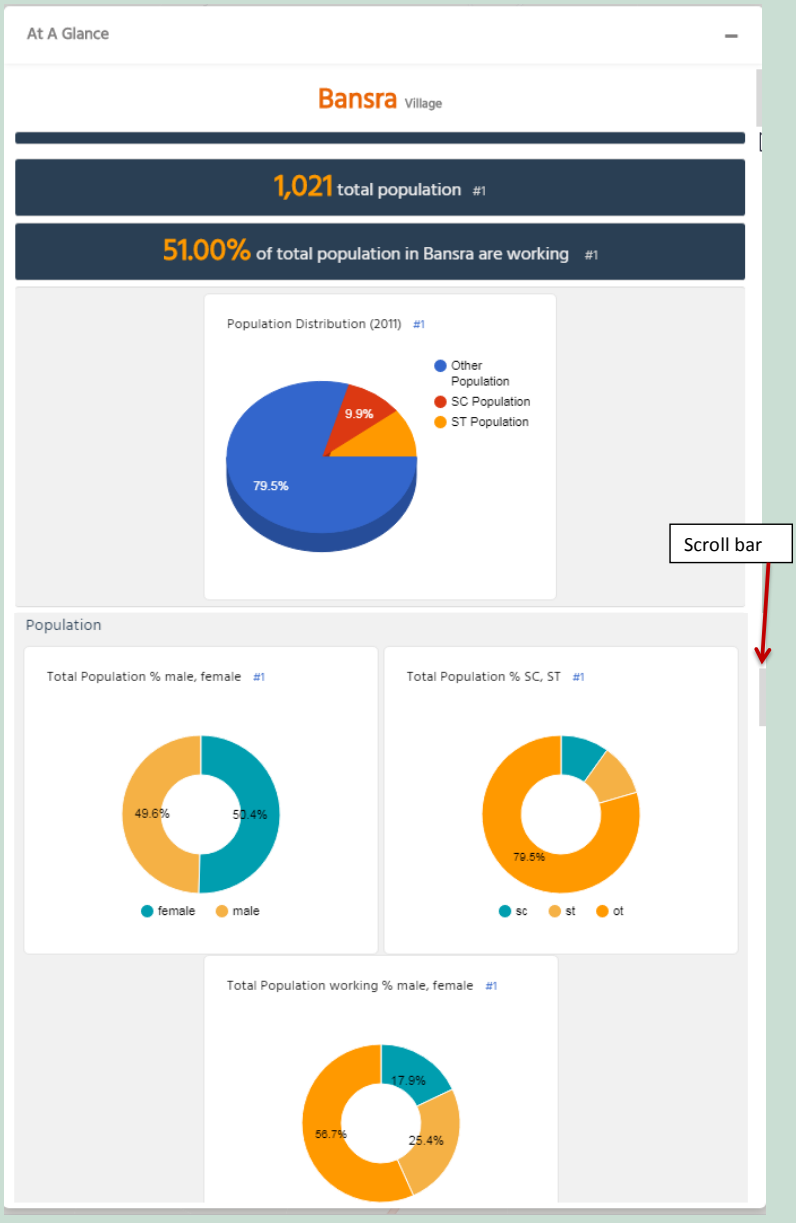
The user can zoom In or zoom out of the maps.

2.2.6 Reports

User can access infographic reports through this tool. In order to do that the user needs to Select Region and then view Reports. Reports will be displayed in a new window as shown in the following image:

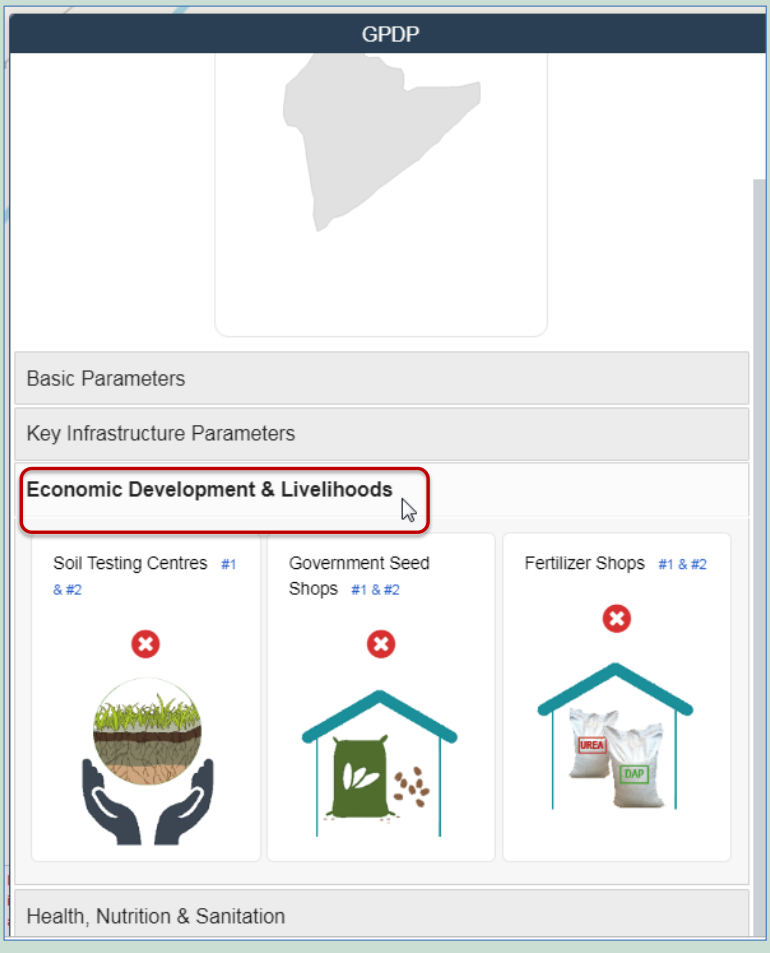


Currently there are two reports namely – 1] At a Glance and 2] GPDP
At a Glance - Provides a quick summary on the socio-economic and ecological parameters of any chosen state/ district/block in India in an easy to understand info-graphic format. The following example shows the 'At A Glance' Report of Bansra Village.



- **GPDP Report** – The Gram Panchayat Development Planning (GPDP) Profile of a village can be generated using this option. The following example shows GPDP profile of Bansra village. User can click on each category to view the visualizations.

The following example shows the expanded versions of 'Economic Development & Livelihoods' option.

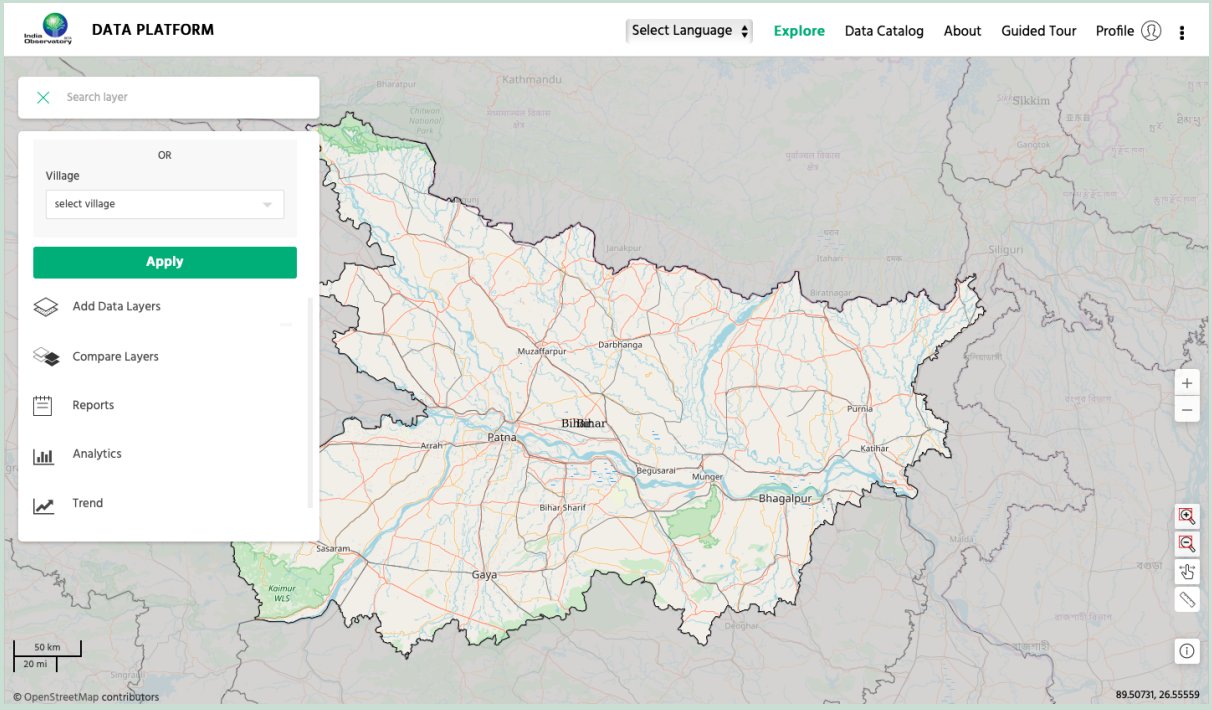


2.2.7 Analytics

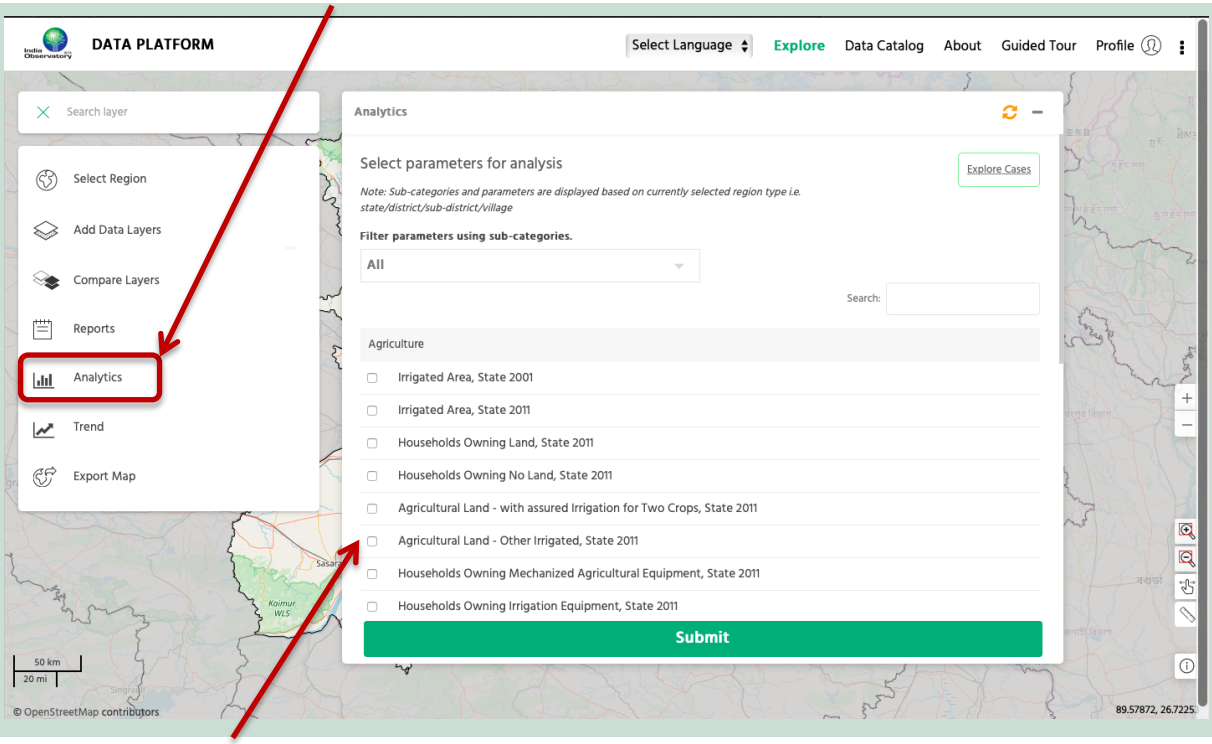
The analytics feature provides the option to choose parameters, view them in tabular format, perform statistical operations like mean, median, mode etc. on them and visualize them in the form of bar graphs, pie charts etc.

To run the analytics of his/her choice, the user needs to start by selecting the region by clicking on Refer to section 2.2.1 to see the process of selecting a region.

In the example below, Bihar has been selected as the region.

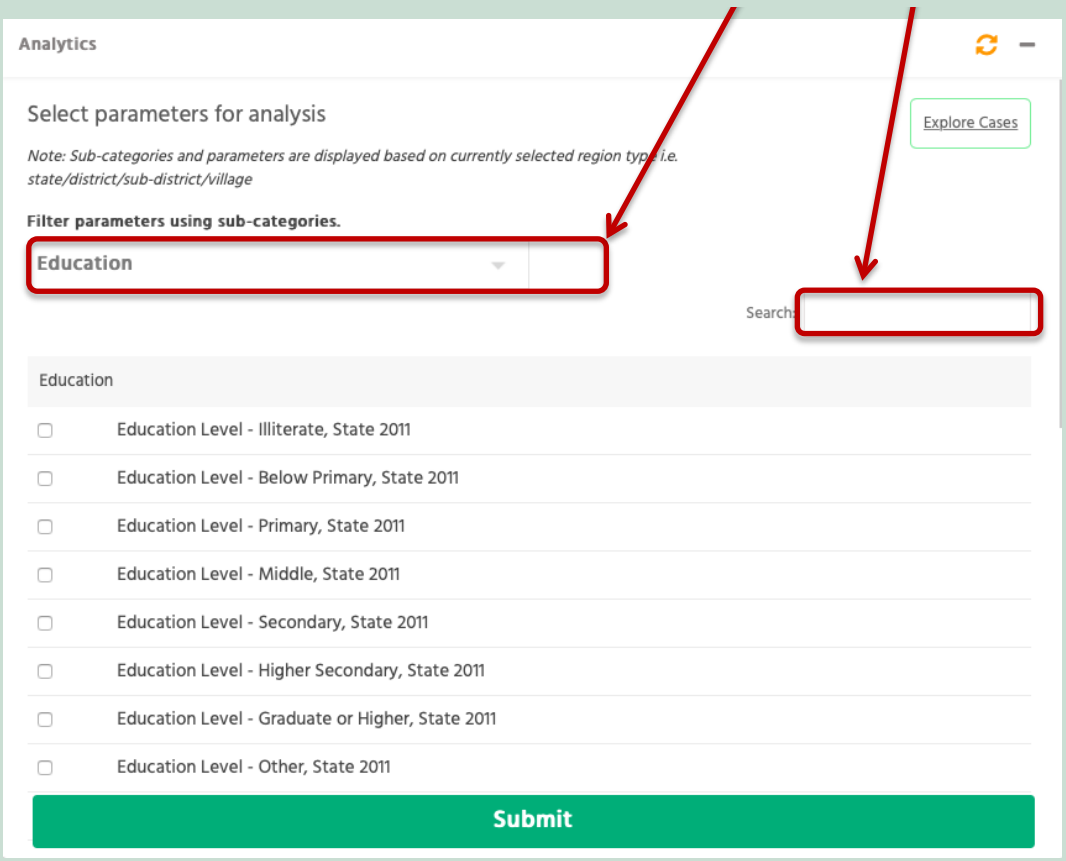


Click on analytics to view the analytics window as shown below.

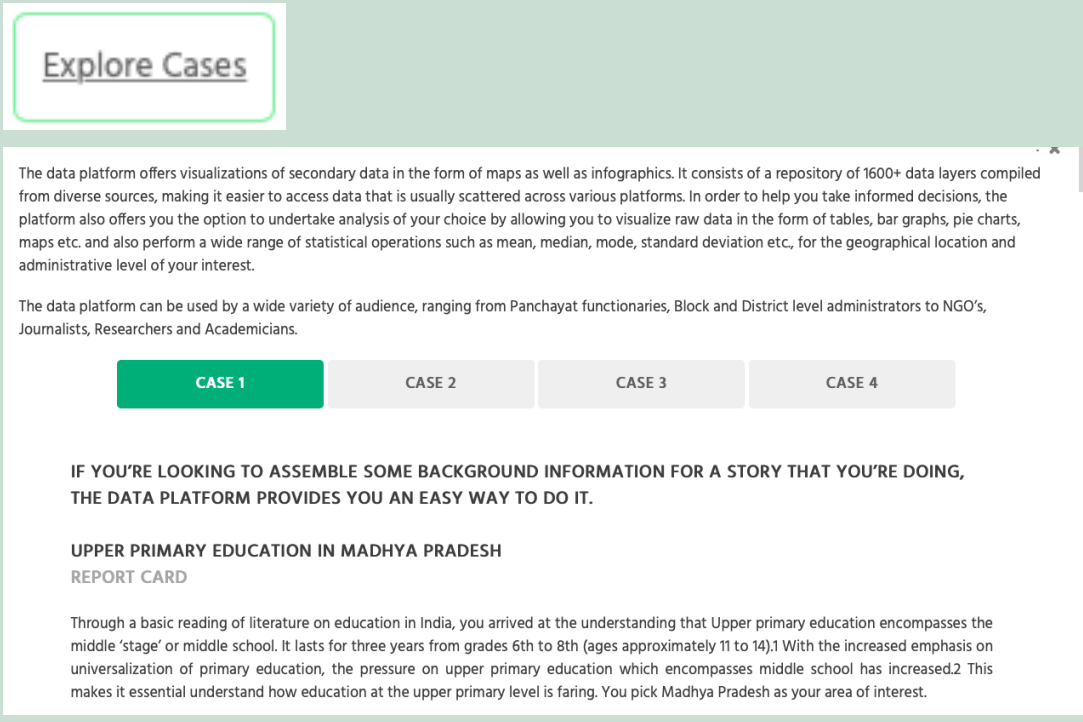


Start by selecting parameters for analysis, by checking the boxes, as per preference. A maximum of ten parameters can be selected at one point of time.

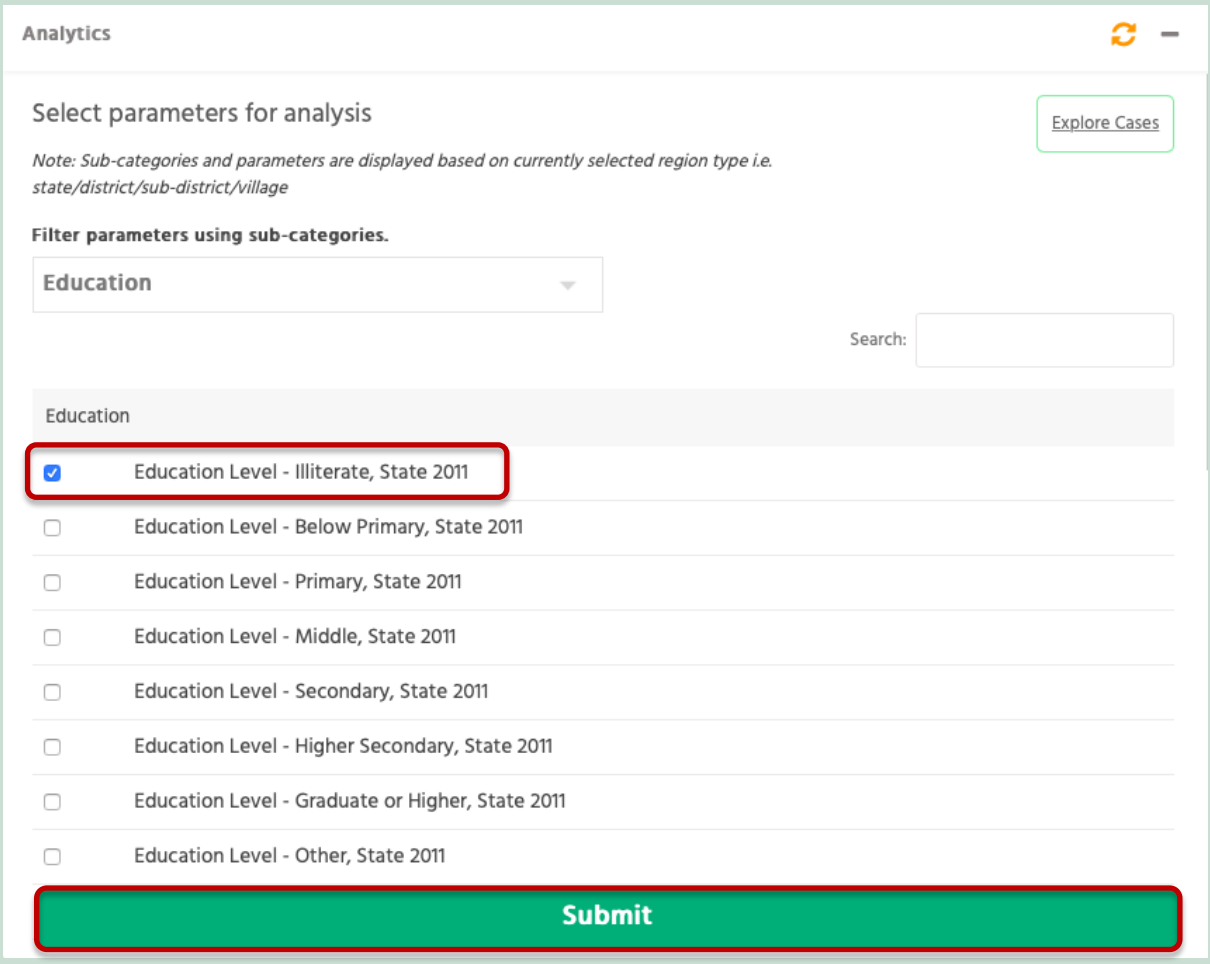
Parameters can also be filtered by choosing a sub-category from the drop-down menu or using the search bar.



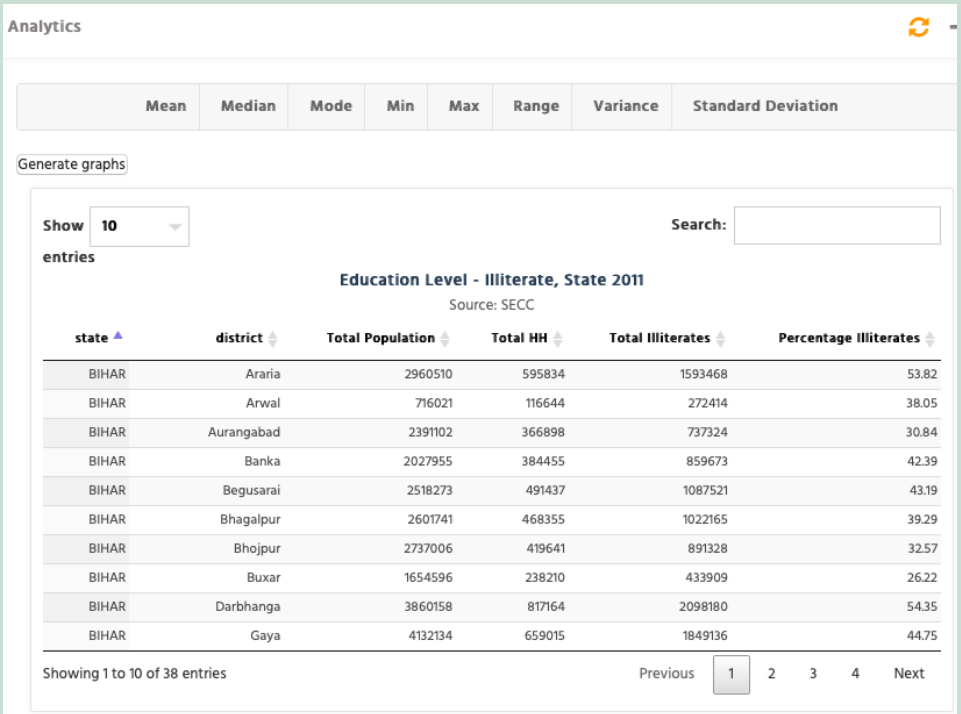
Before running the analytics the user can also view examples of how he/she can use the analytics feature, by clicking on explore cases.



After choosing the parameters, the user needs to click on submit to view the options of analytics that are present on the platform. In the example below, the layer education level-Illiterate, state 2011 has been chosen.

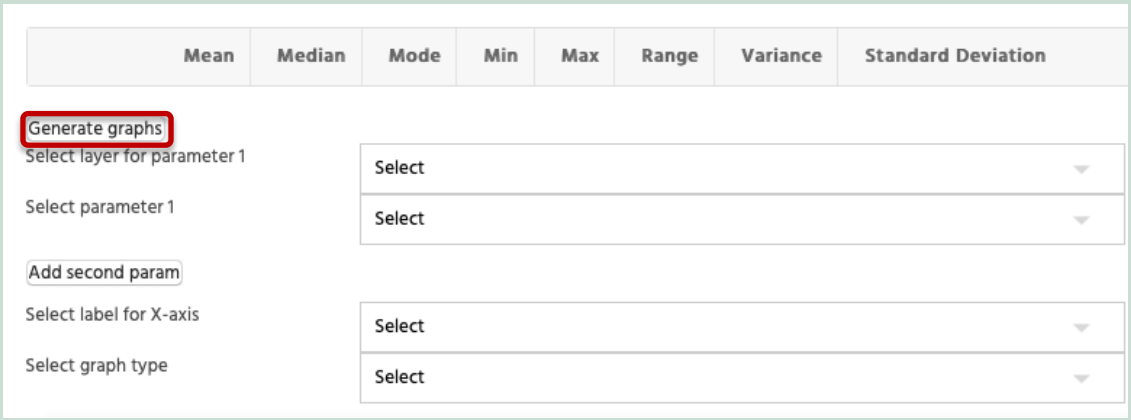


On clicking submit, the data table for the layer selected gets displayed.

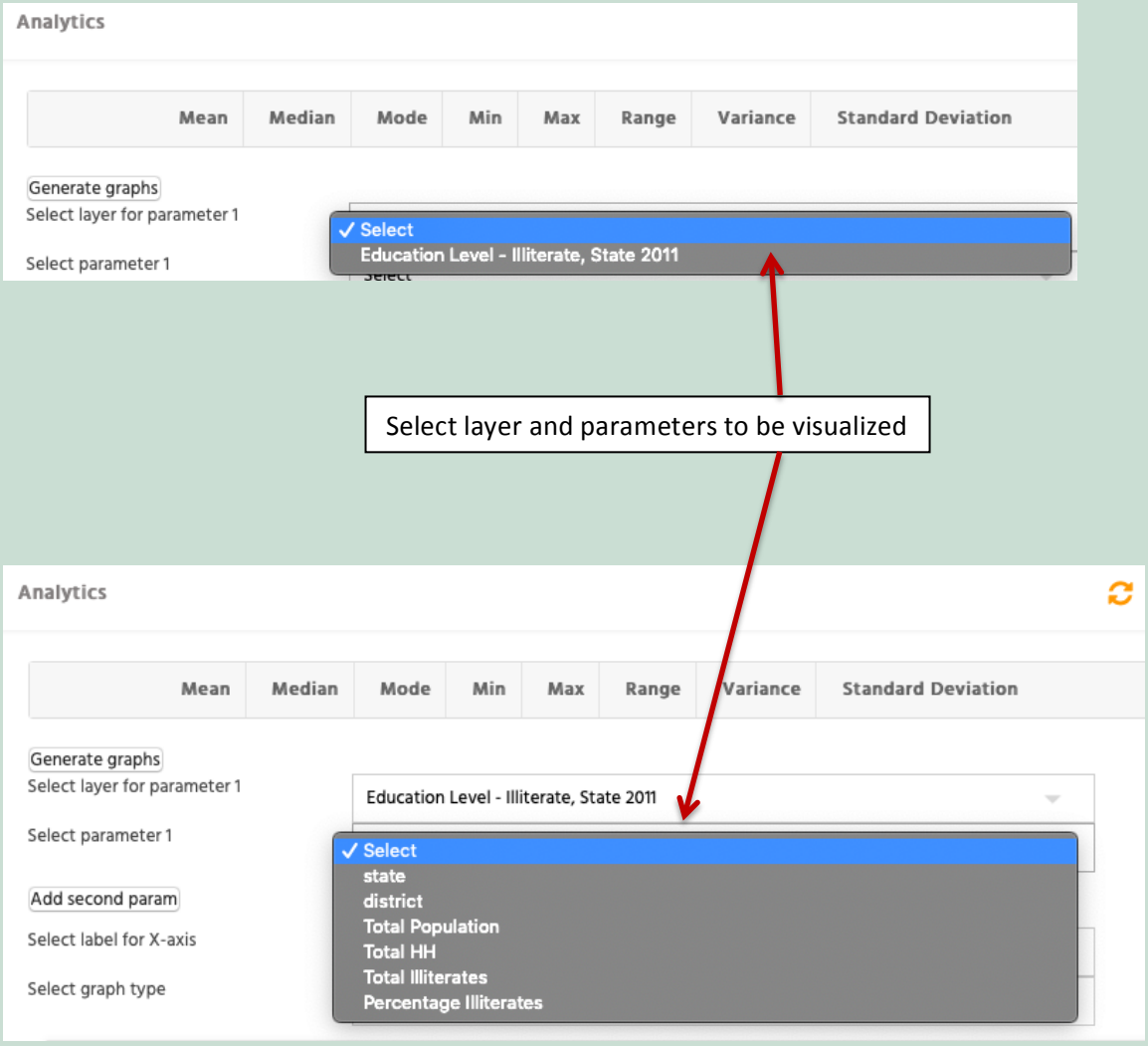


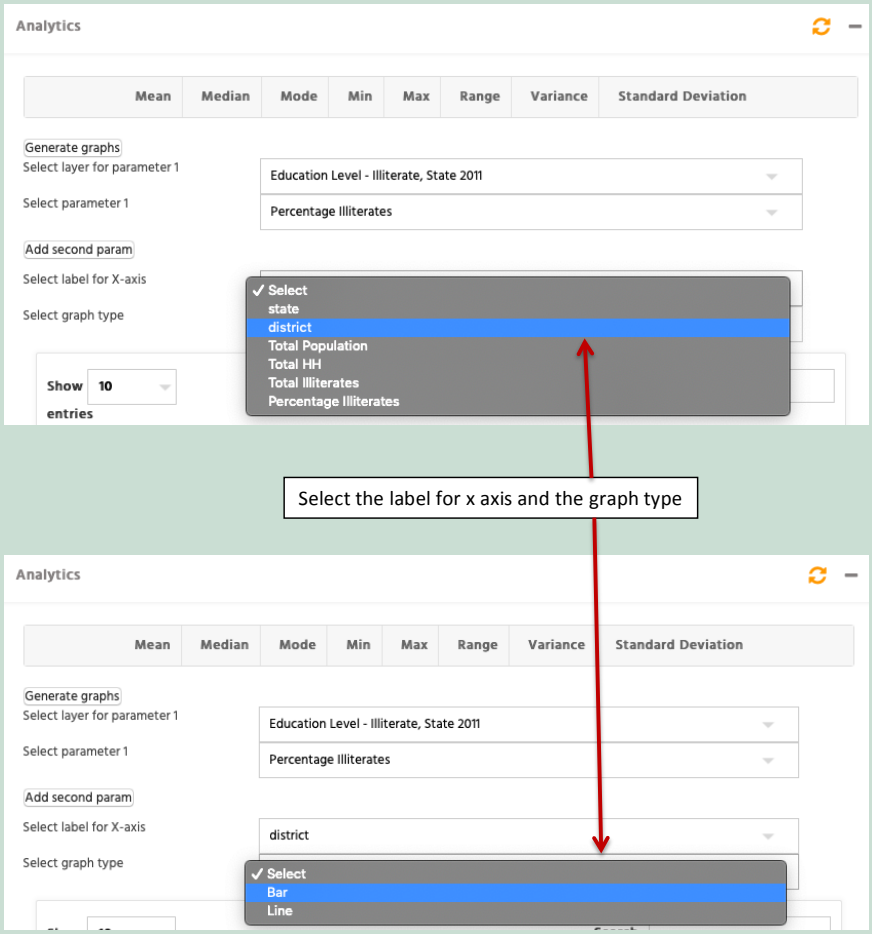
2.2.7.1 Generating Graphs

By clicking on generate graph, the user has the option to visualize the data in the form of a bar-graph, line graph, pie chart or a scatter plot.

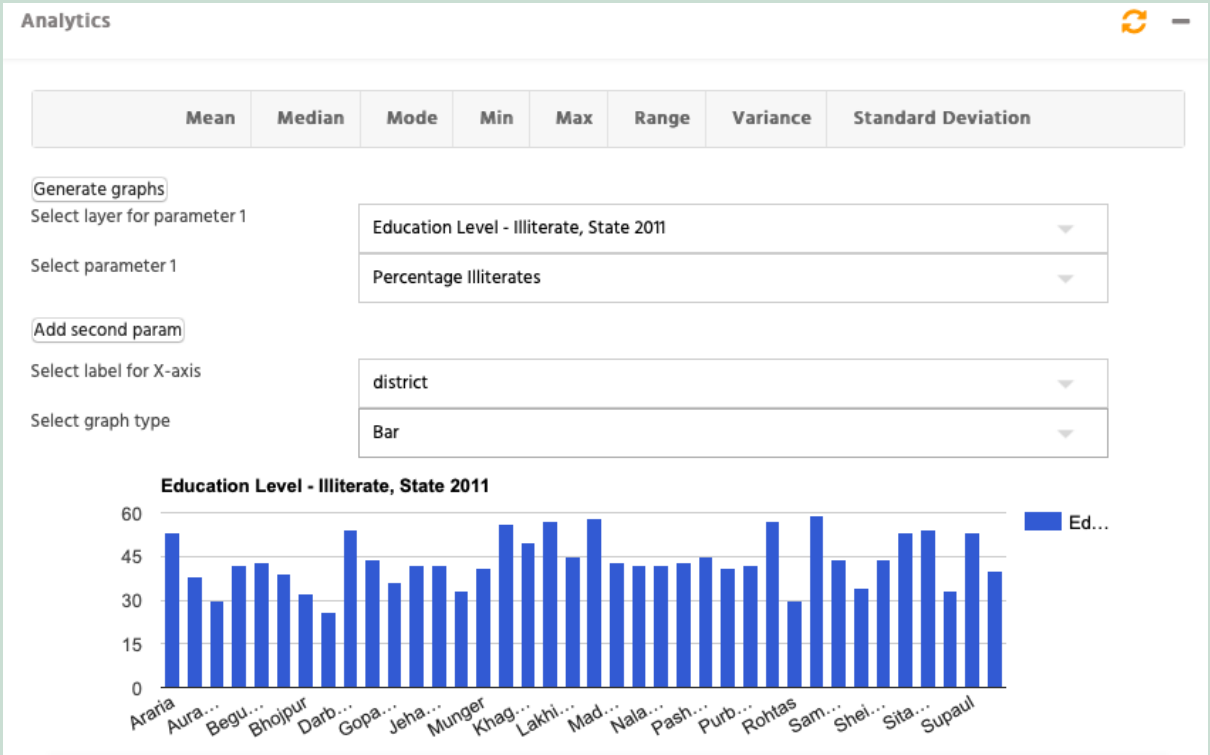


In the following example, Education level-illiterate state 2011 has been visualized in the form of a bar graph.

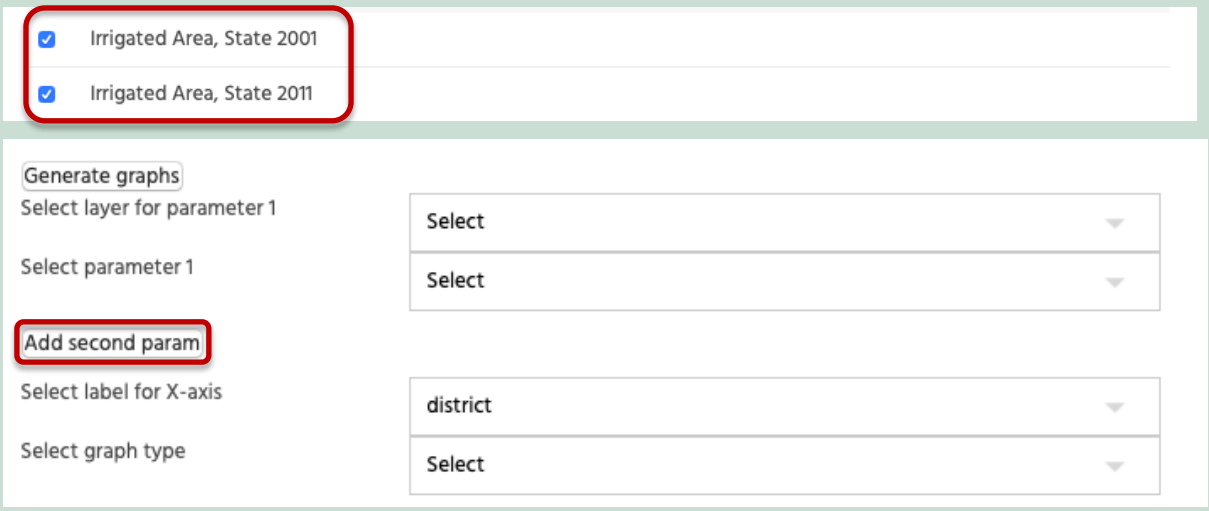




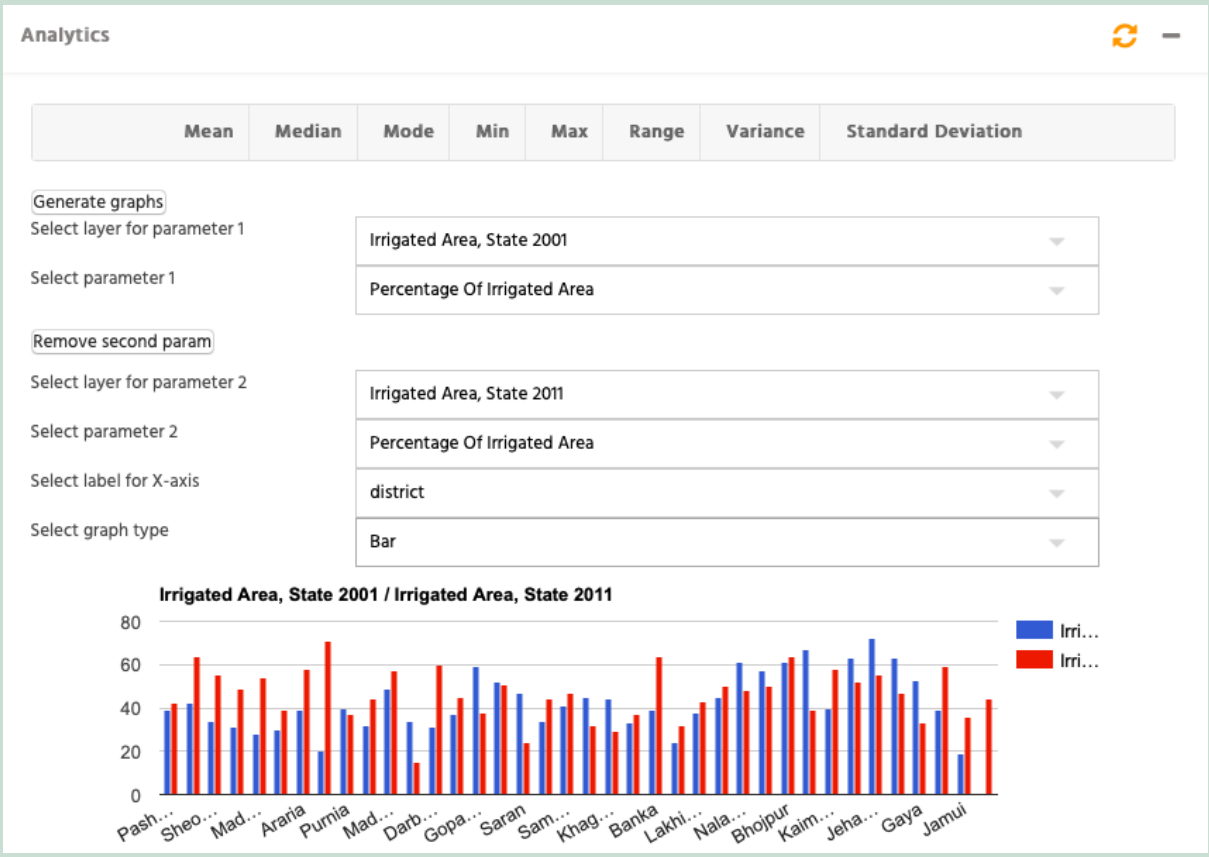
After selecting the graph type, the graph will automatically get generated.



In order to generate a graph with two parameters, the user needs select two parameters and add a second parameter. To generate the graph, the process described above needs to be followed.

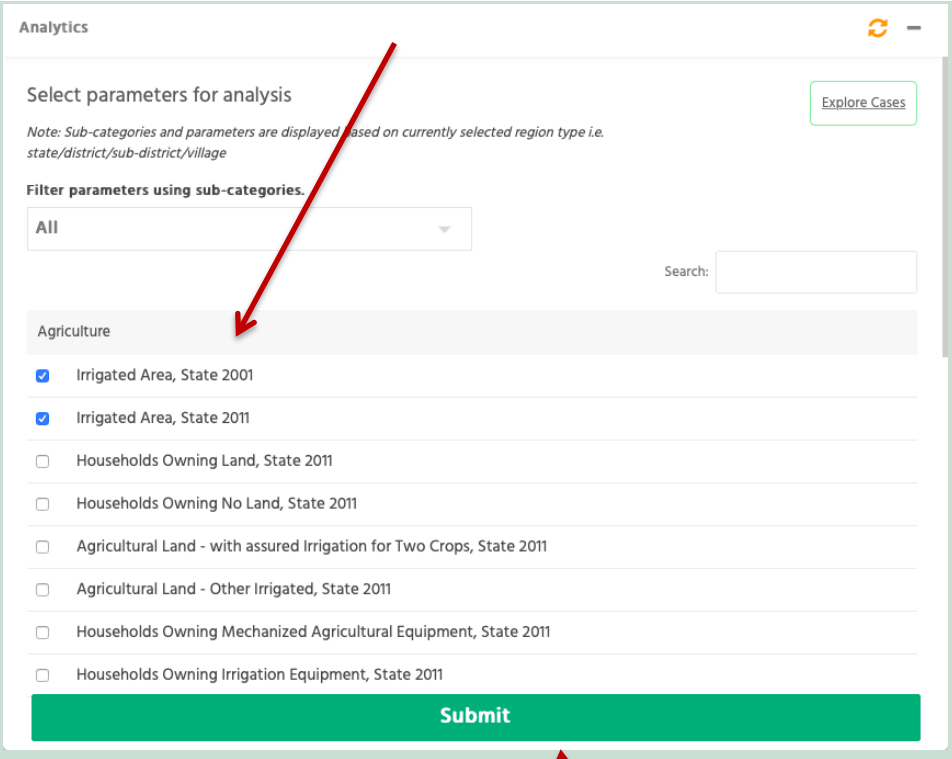


A multiple bar graph will be generated. Following is an example of the same.



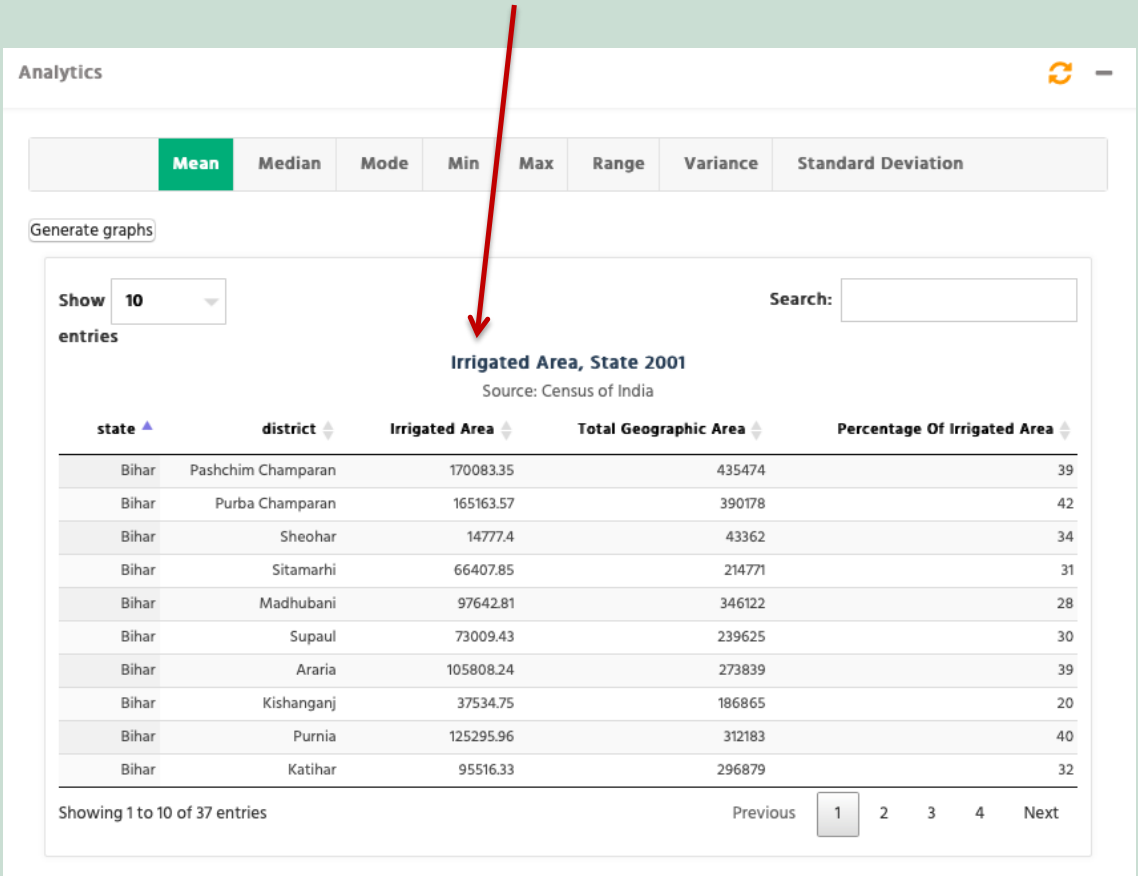
2.2.7.2 Statistical analysis

Start by selecting parameters to analyse.



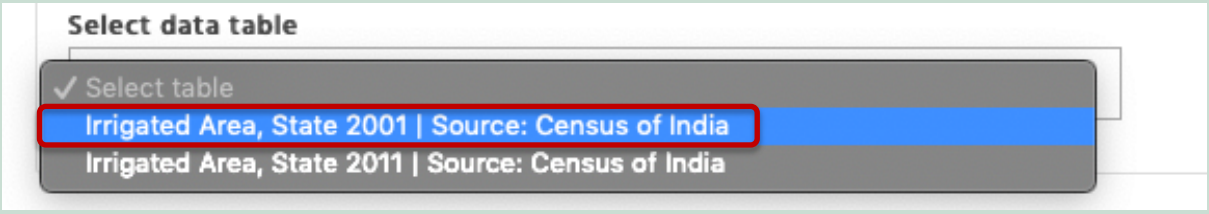
Click on submit to view the option available for statistical analysis.

On clicking submit, the data table of the selected parameters will get displayed.

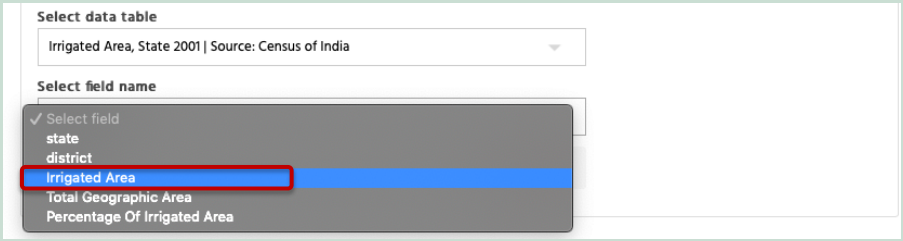


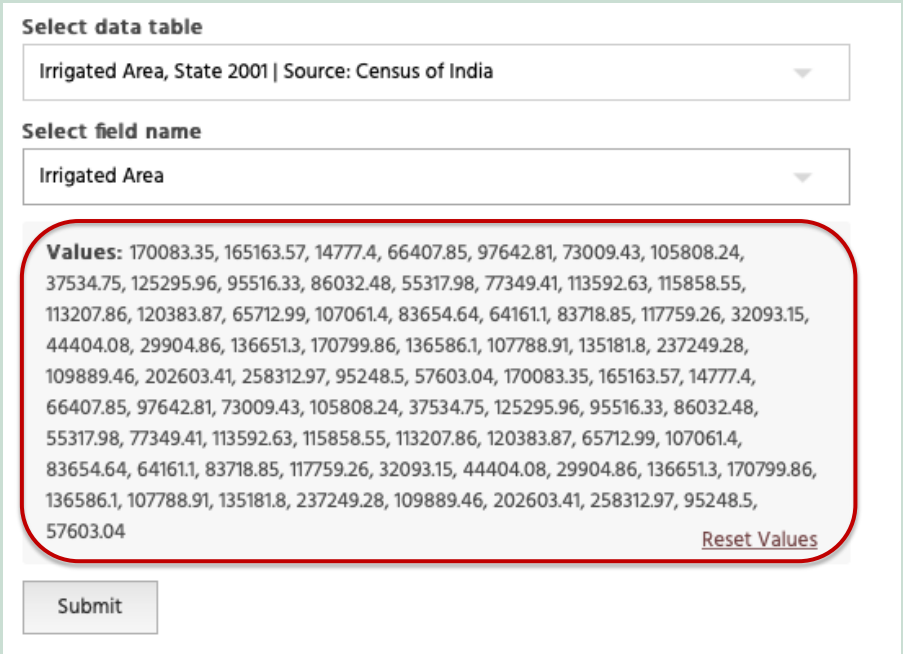
The user can then choose the statistical operation that he/she wants to undertake.

After selecting the statistical operation to be undertaken, the user needs to select the data table from the list of data tables generated for the parameters he/she selected in the first step, as shown below. The example below illustrates the calculation of mean of irrigated area state 2001 and irrigated area state 2011.

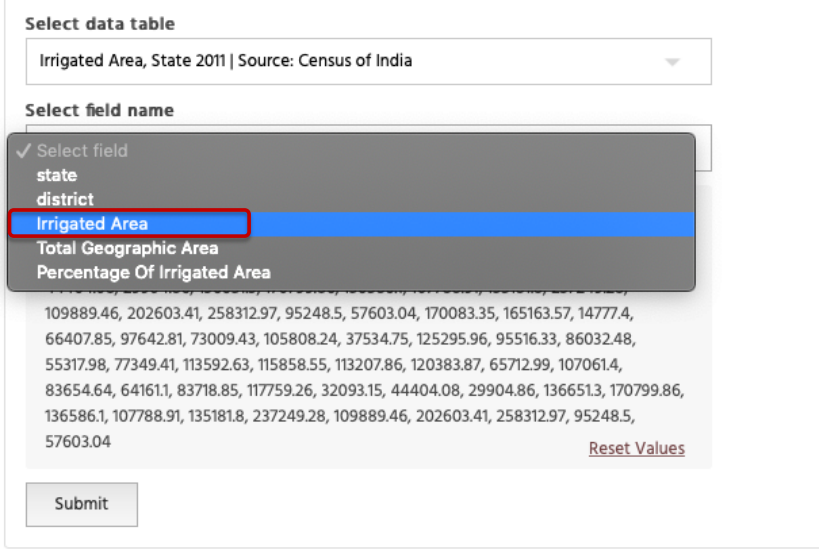


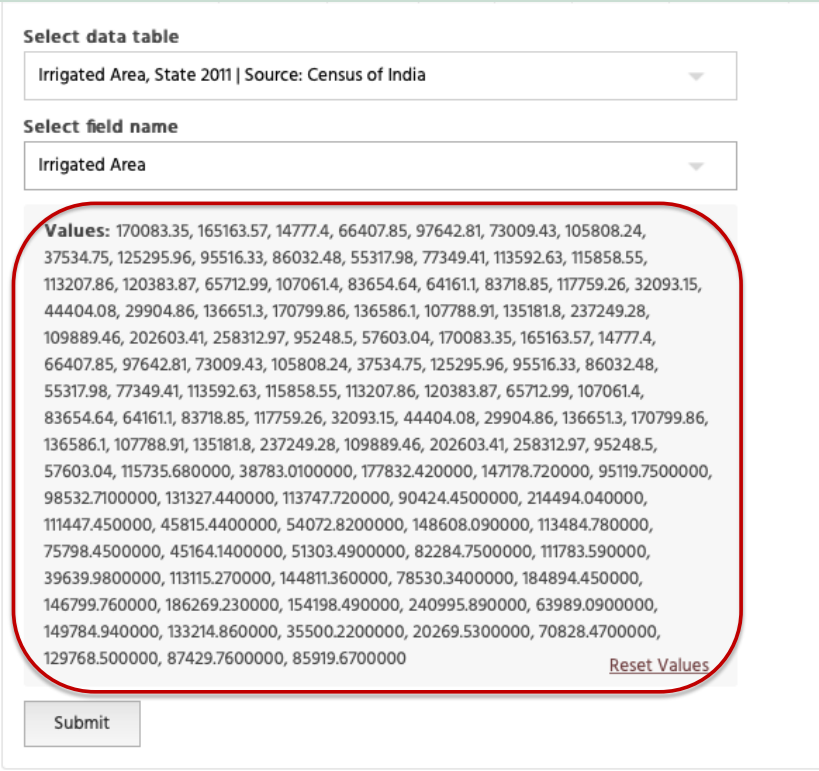
After selecting the table, the user needs to select the field from that table, to be taken into consideration while calculating the mean.



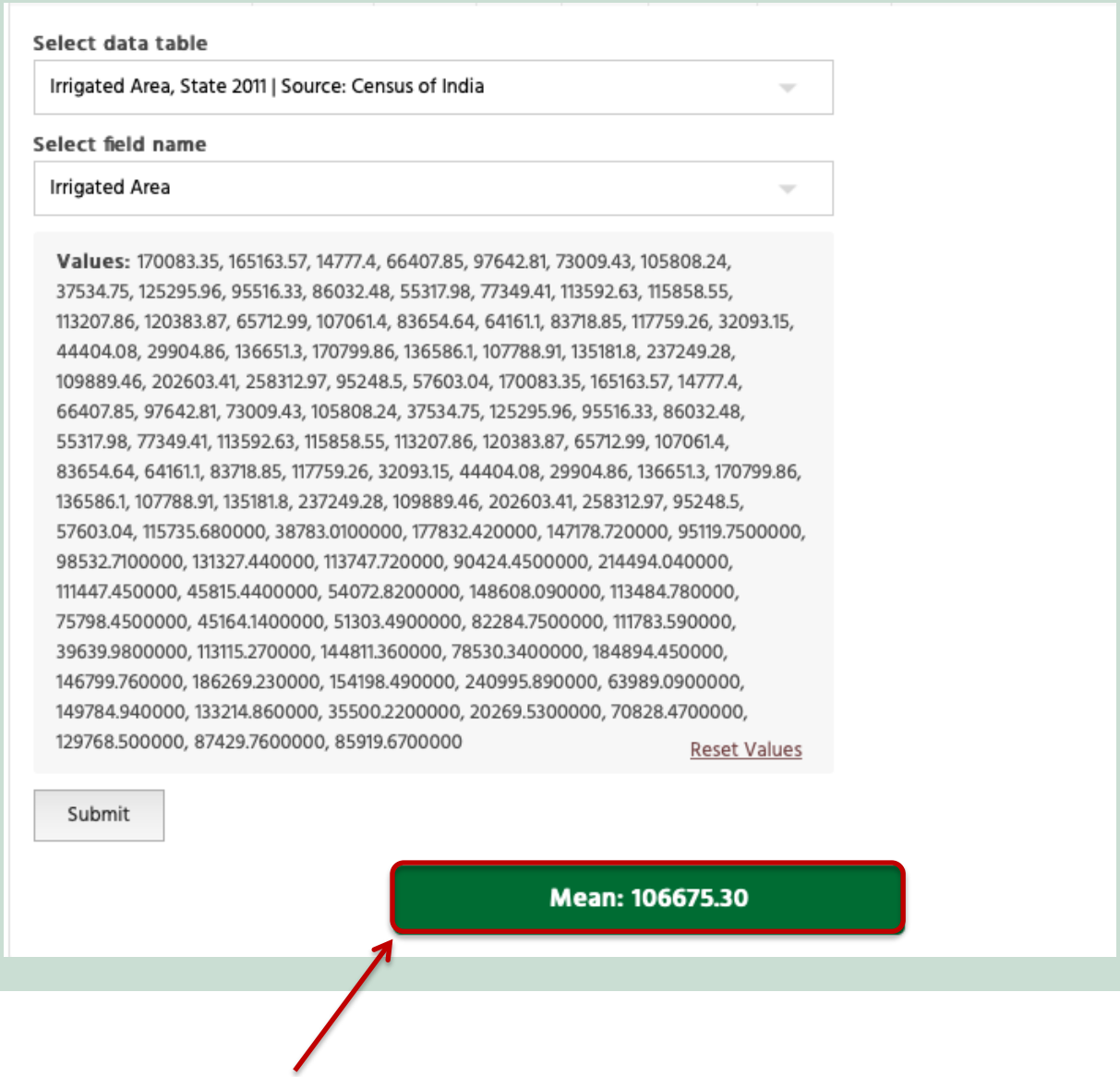


To add the values from the data table of the other parameters selected, select the other data table and field as shown below.





After adding all the values click on submit to generate the analysed value (mean in the case of this example)



On clicking submit, the mean will be generated as shown above.

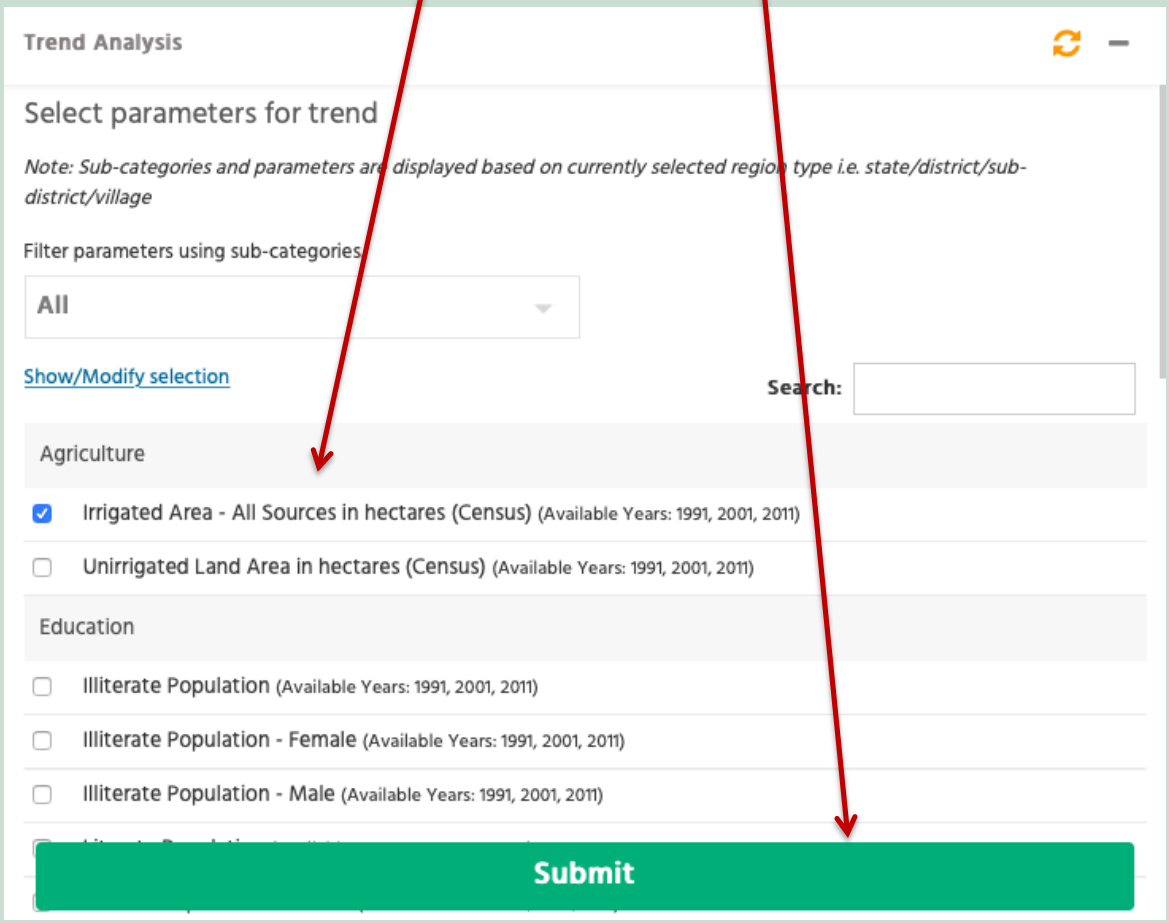
Following the same steps, the user can generate median, mode, minimum value, maximum value, range and standard deviation.

The user can calculate mean median, mode, minimum value, maximum value, range and standard deviation for a maximum of ten parameters. In order to do that, the user will have to select the data tables multiple times to add all the values that he/she needs to analyse.

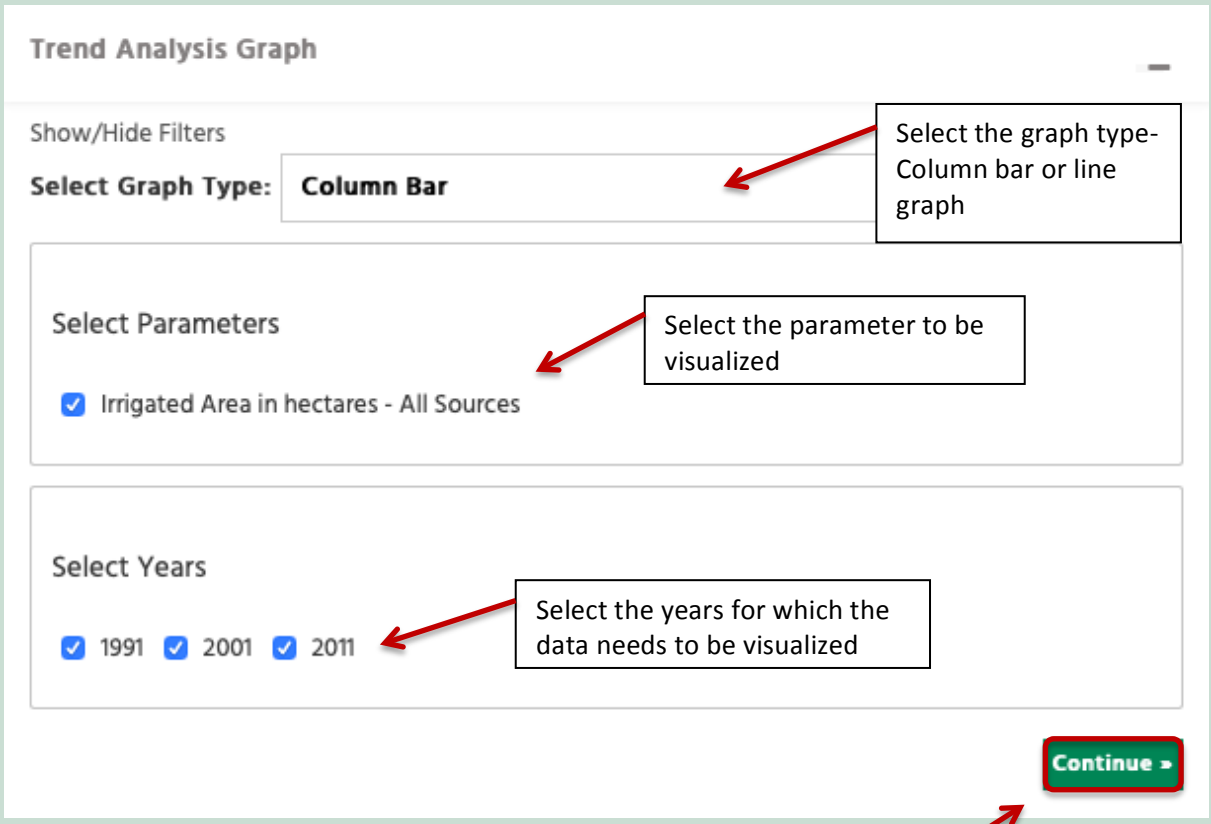
2.2.8 Trend

The trend analysis feature allows the user to visualize temporal trends in tabular or graphical format.

Start by selecting parameters to be visualized and click on submit.

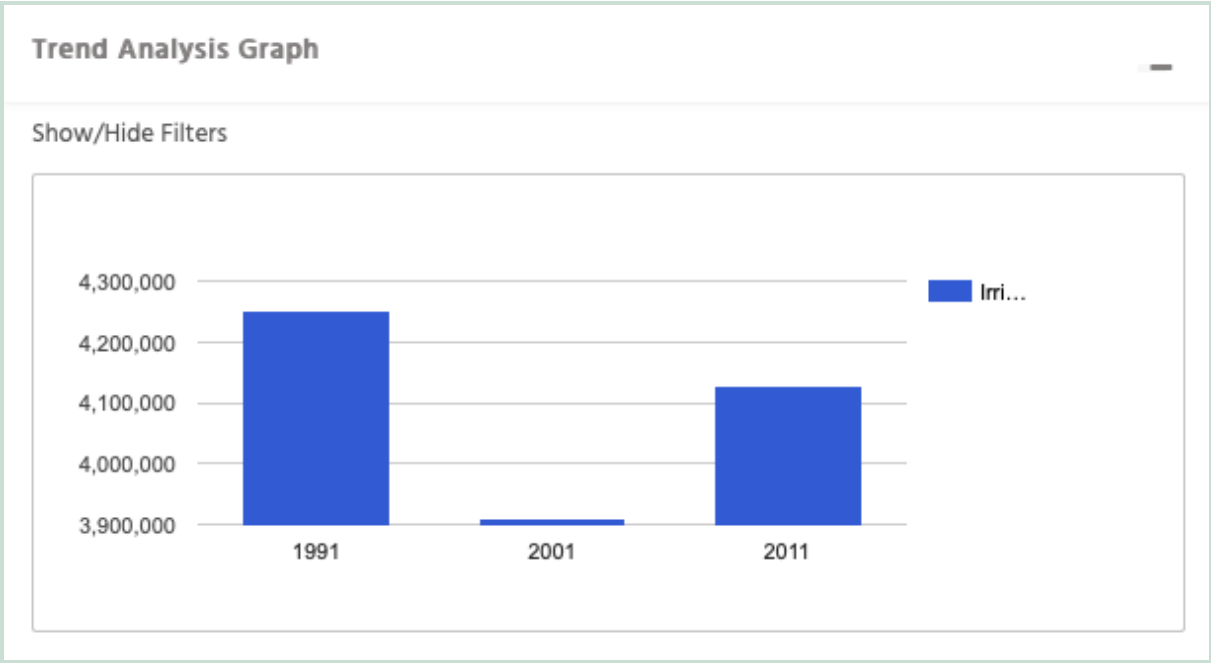


On clicking submit, the data table for the parameter or parameters selected gets displayed.

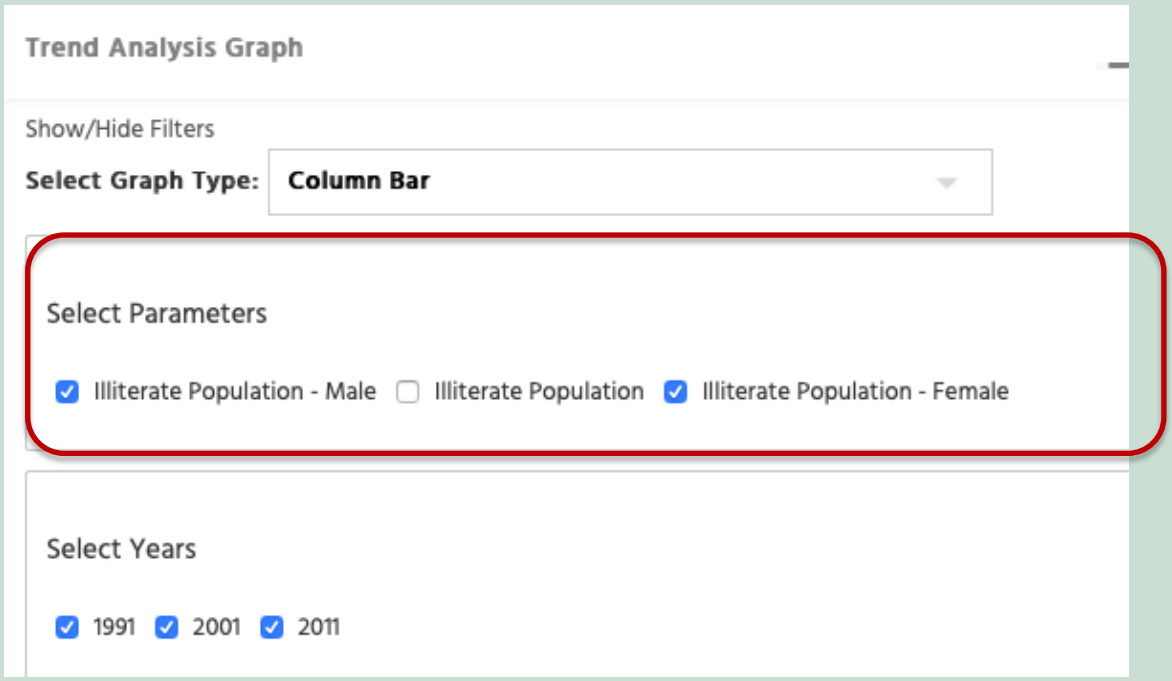


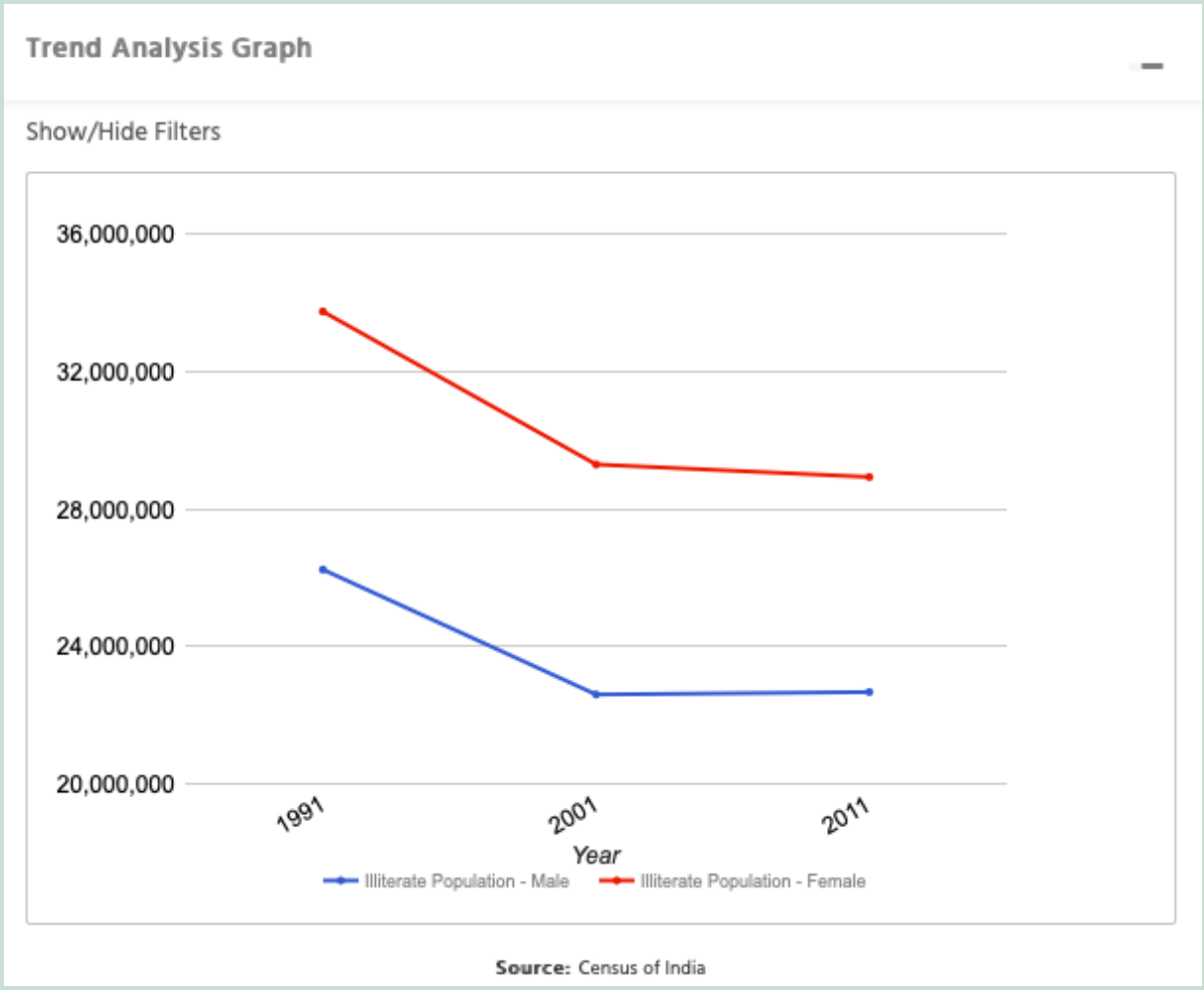
Click on continue after selecting the graph type, parameters and years.

After clicking on continue, the graph will automatically get generated.



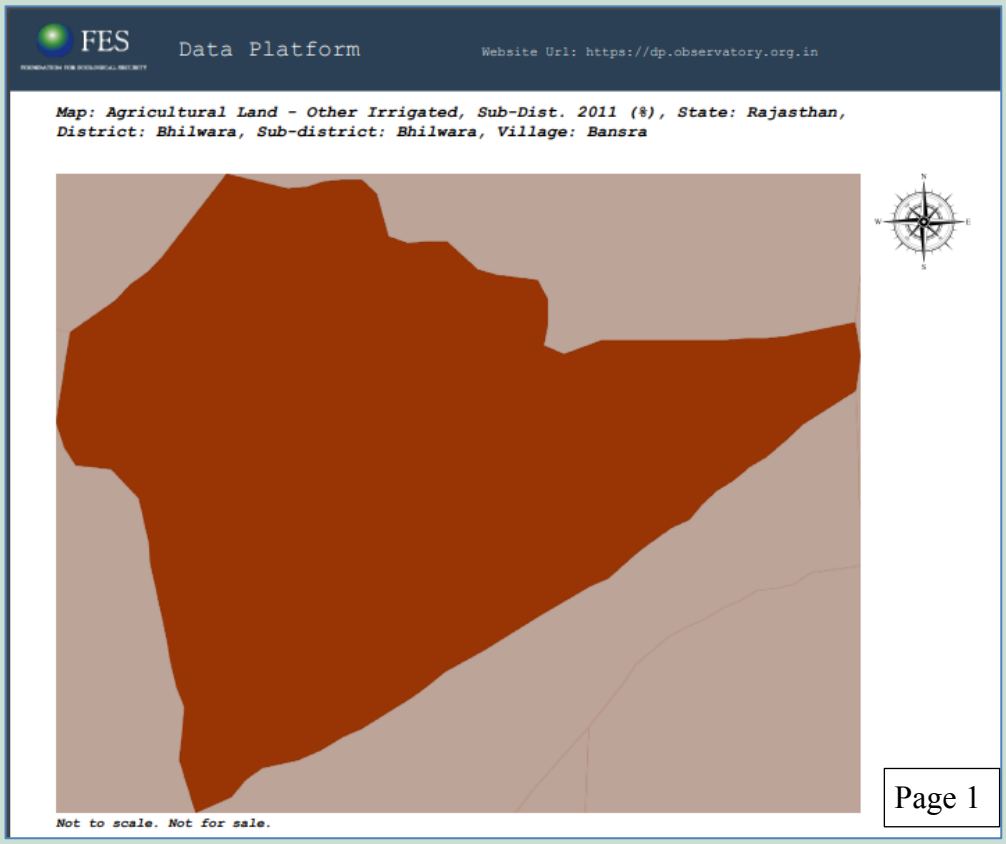
Similarly, a multiple bar graph or line graph can be generated by selecting more than one parameters.

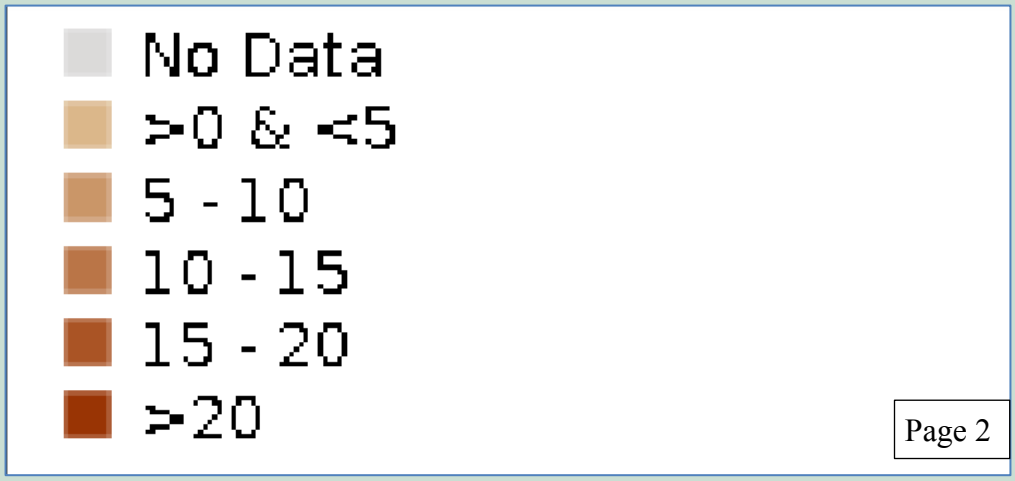

Trend Analysis Graph
Show/Hide Filters
Select Graph Type:
Column Bar
Select Parameters
Illiterate Population - Male
Illiterate Population
Illiterate Population - Female
Select Years
1991
2001
2011


Trend Analysis Graph
Show/Hide Filters
36,000,000
32,000,000
28,000,000
24,000,000
20,000,000
1991
2001
2011
Year
Illiterate Population - Male
Illiterate Population - Female
Source: Census of India

2.2.9 Export Map

Export Map will generate PDF file of the selected region as shown below.





FOUNDATION FOR ECOLOGICAL SECURITY

P B No. 29, Anand - 388 001, Gujarat, INDIA
Tel: +91 (2692) - 261402, 261238, 261239
Fax: +91 (2692) - 262087
email: *ed@fes.org.in*
Website: www.fes.org.in