



Food and Agriculture Organization  
of the United Nations

# How to Display a Shapefile and Use it for Analysis on the Agrolnformatics Platform

# How to display a shapefile and use it for analysis

This tutorial explains how you can display an ESRI shapefile on the geospatial platform and use it for analysis. Note that the shapefile will only exist in your browser and cannot be seen by anyone else. If instead you wish to share shapefile, you will need to publish it the geospatial platform catalog. See related tutorial or contact [fao-data@fao.org](mailto:fao-data@fao.org) for assistance.



Unlike for other types of local data, you can NOT simply drag and drop shapefiles archives into the geospatial platform as they are not

1

Prepare your shapefile in WGS84, preferably with the first attribute field containing the name to be displayed for the feature and named "name".



Note the shapefile must be in World Geodetic System (WGS84 ).

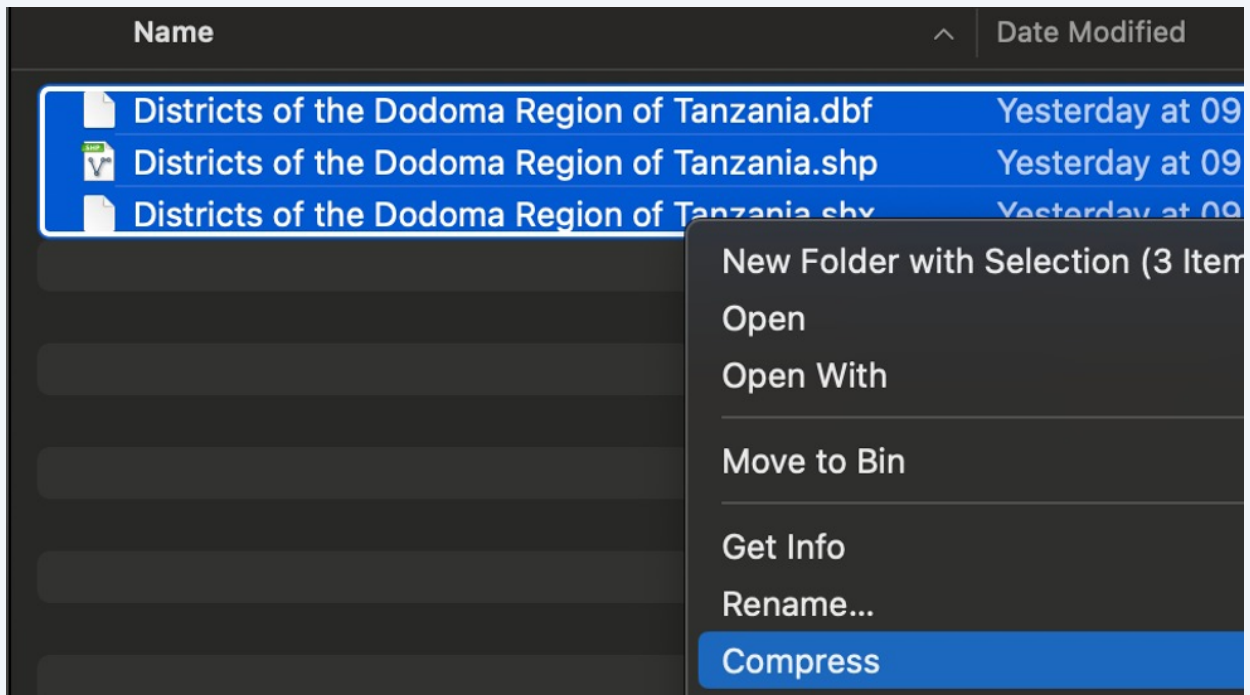


Note the geospatial platform identifies features using the "name" attribute field. if it there is no "name" attribute the first attribute is used. This attribute is displayed in the feature information pop-up when you click on

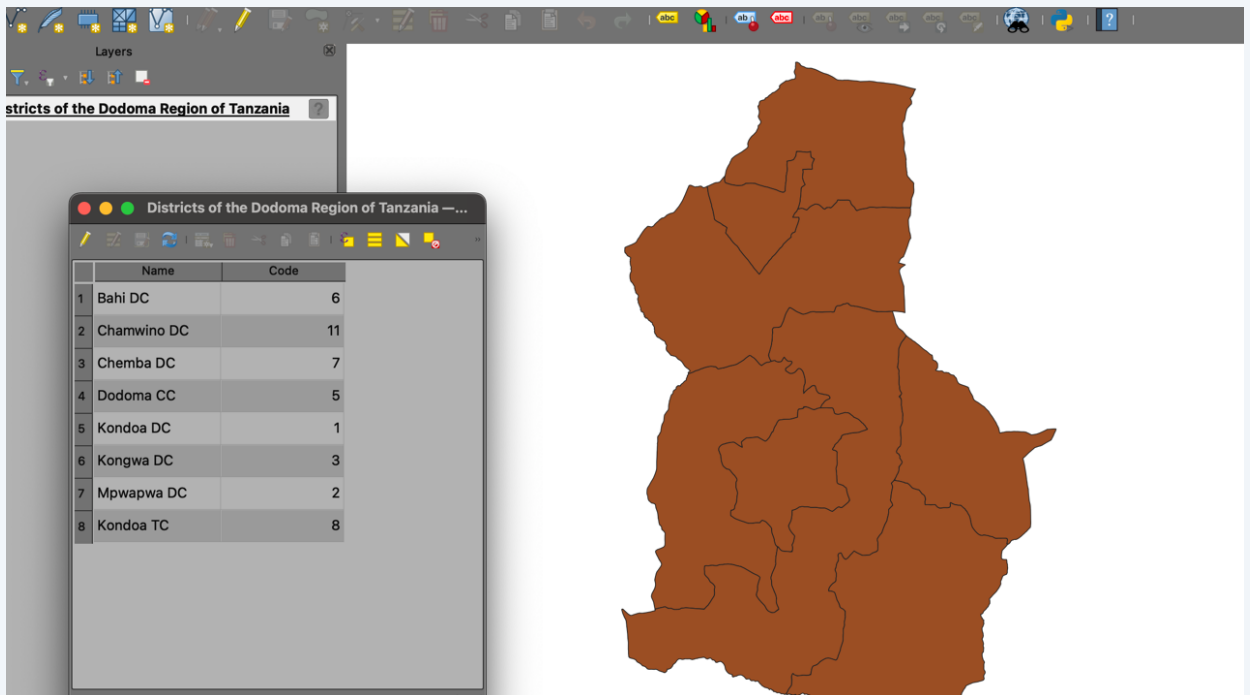


Note analysis function always uses the first attribute field to identify the feature in the result.

- 2 Compress the component files of the shapefile (.shp, .dbf, .shx) in a ZIP archive.

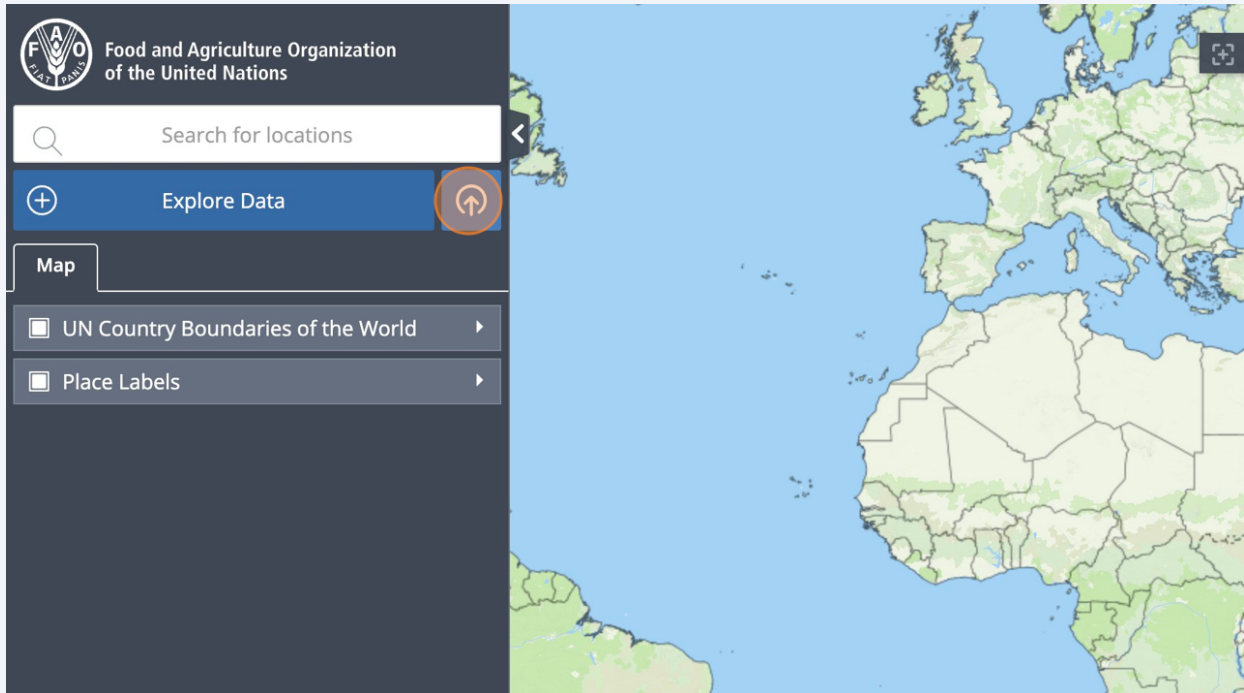


- 3 An example shapefile archive [bit.ly/shp\\_eg](http://bit.ly/shp_eg)



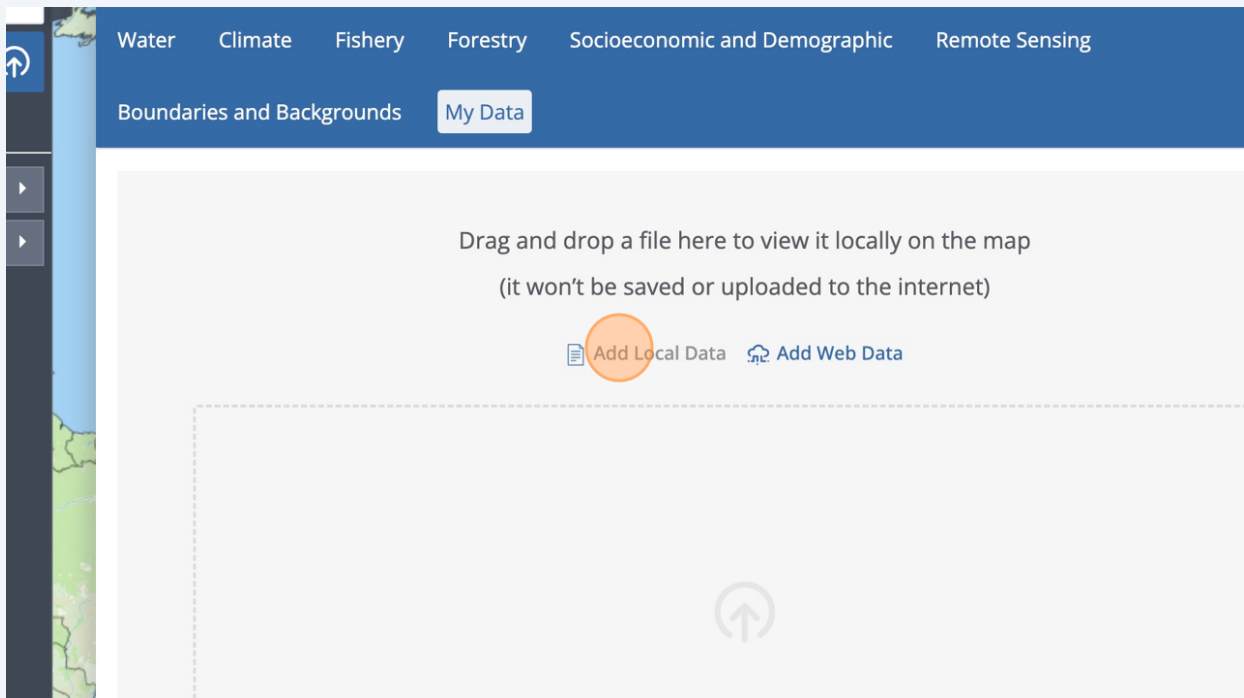
4 Navigate to the geospatial platform [data.apps.fao.org](https://data.apps.fao.org)

5 Click on "add local/web data" icon.





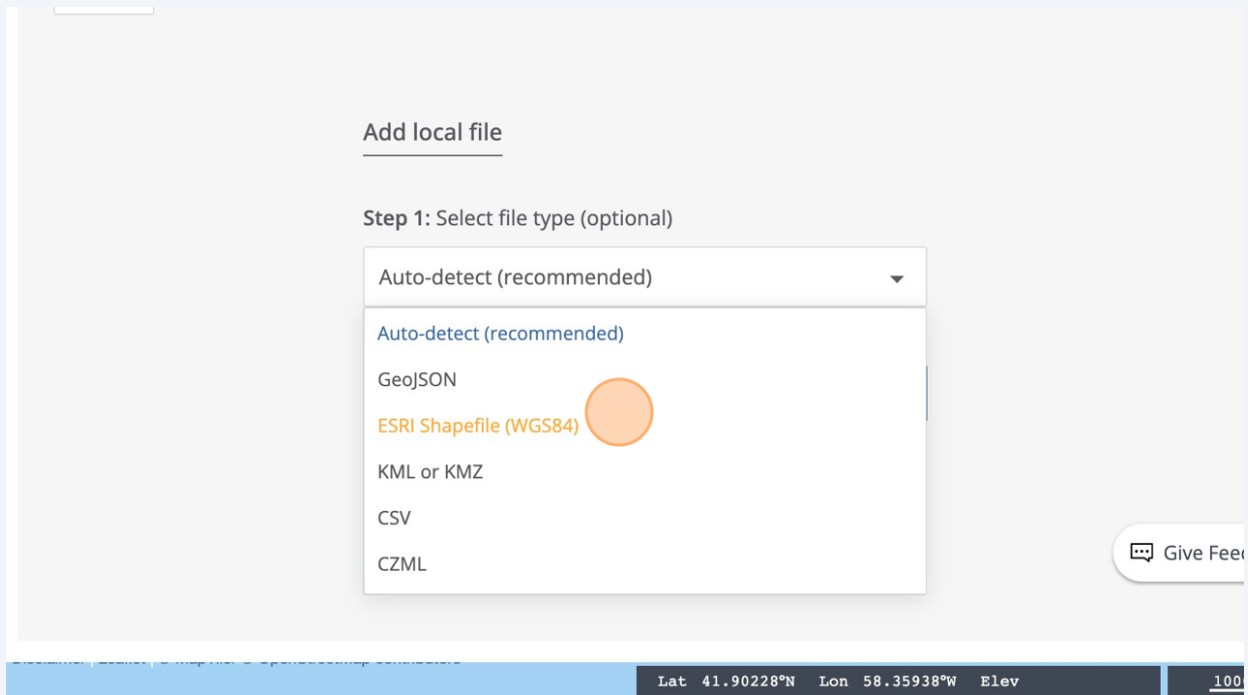
## 6 Click "Add Local Data"



Note you can get to the same place by clicking "Explore Data" button and then "My Data"

7

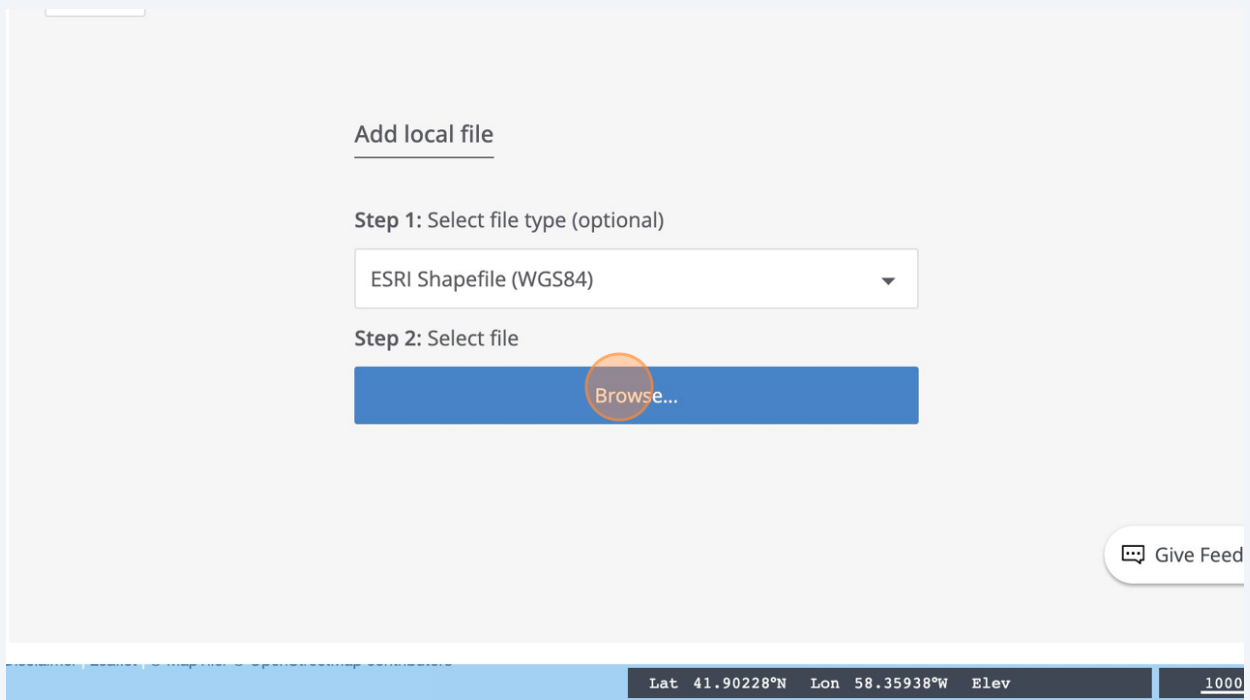
Select "ESRI Shapefile (WGS84)" as the file type.



Note shapefile archives are NOT auto-detected. Therefore please do NOT select the default option "Auto-detect (recommended)"

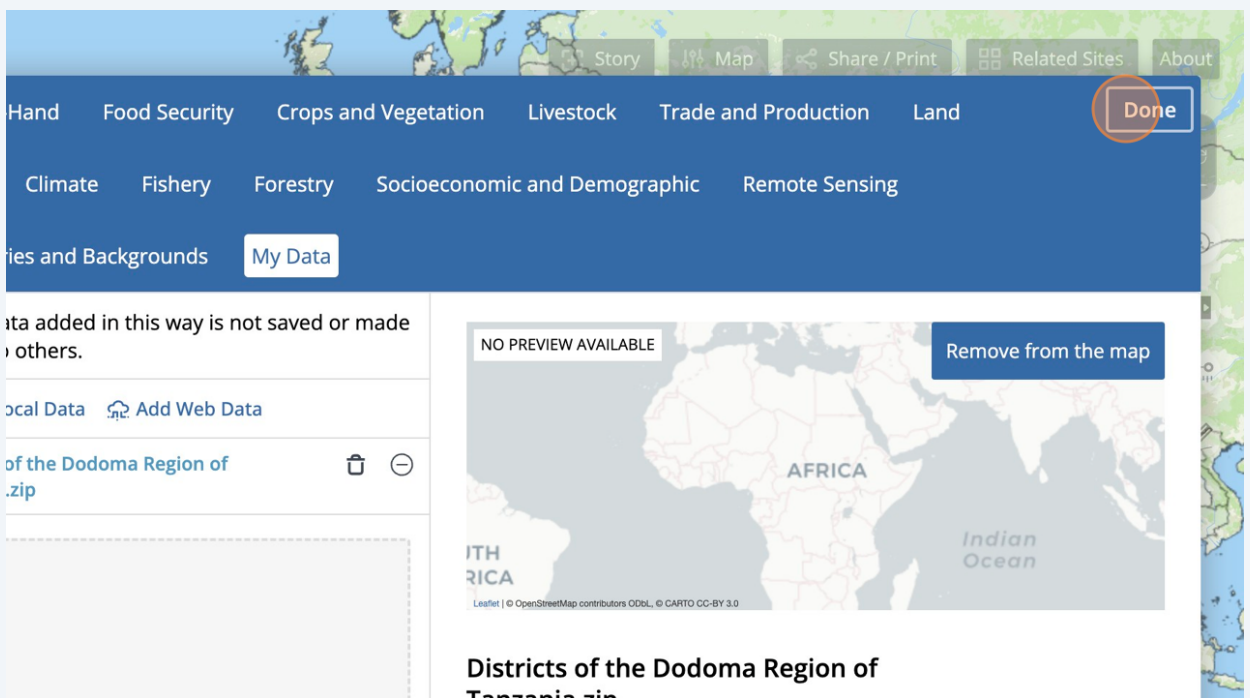
8

Click this "Browse", find and upload the shapefile archive (ZIP file) you prepared earlier.

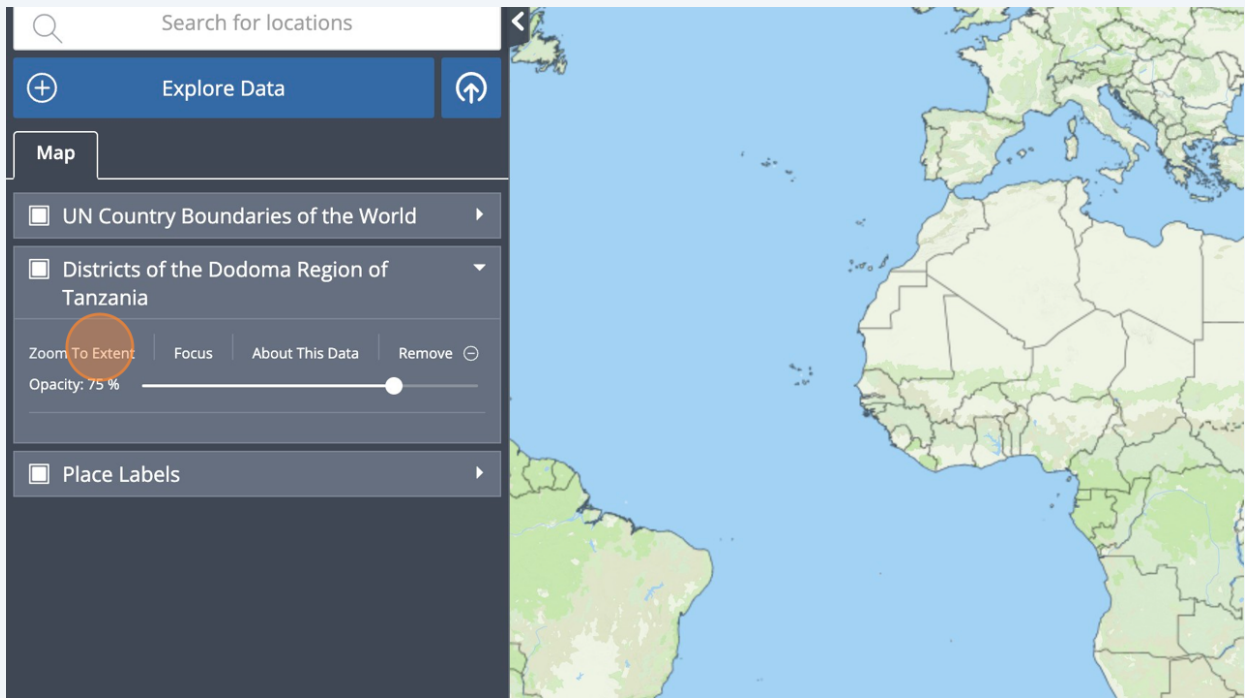


9

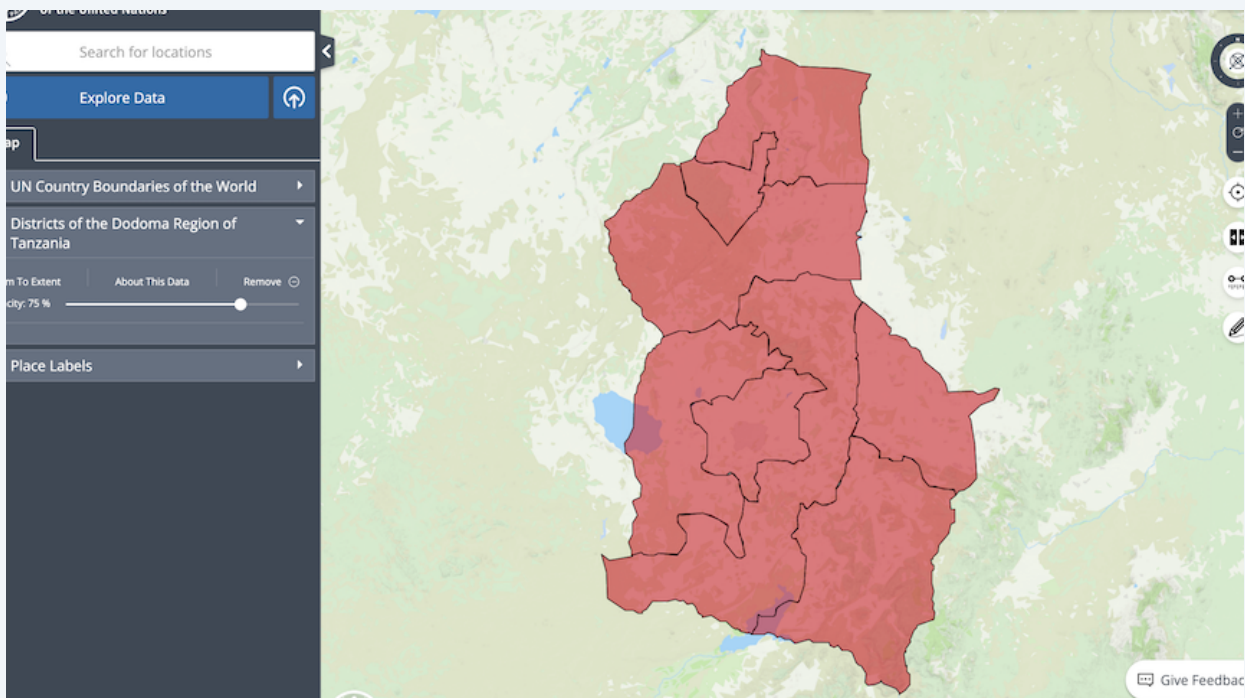
On successful upload, you will see a summary record. You can now click "Done" to return to the map.



**10** Click "Zoom To Extent" to move the map to view to see your shapefile.



**11** You can now see your shapefile on the map

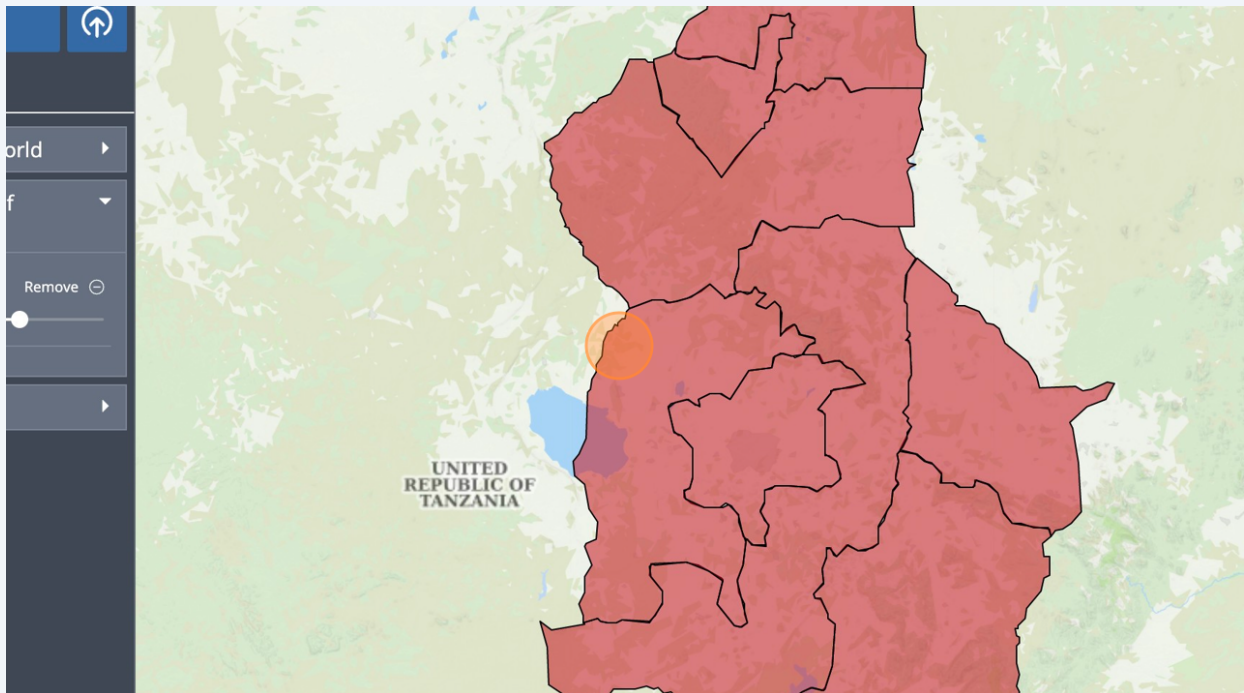




The style used to display the shapefile is automatically selected and can not be modified. e.g. the fill colour and line width and colour.

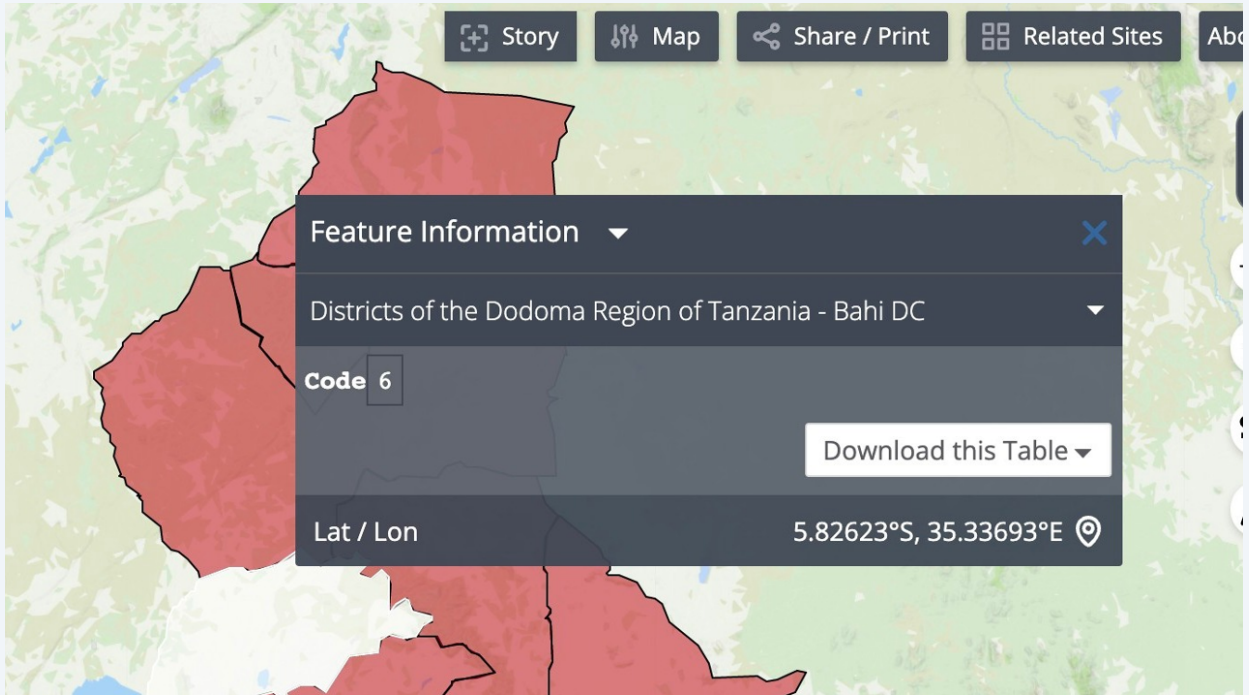
**12**

You can inspect your shapefile by clicking on a district. Click here.



13

The title displayed in the Feature Information pop-up is composed of the shapefile filename and the "Name" attribute. In this case; "Districts of the Dodoma Region of Tanzania" plus "Bahi DC". The other attributes are displayed in the body of the pop-up. Click to close the pop-up,

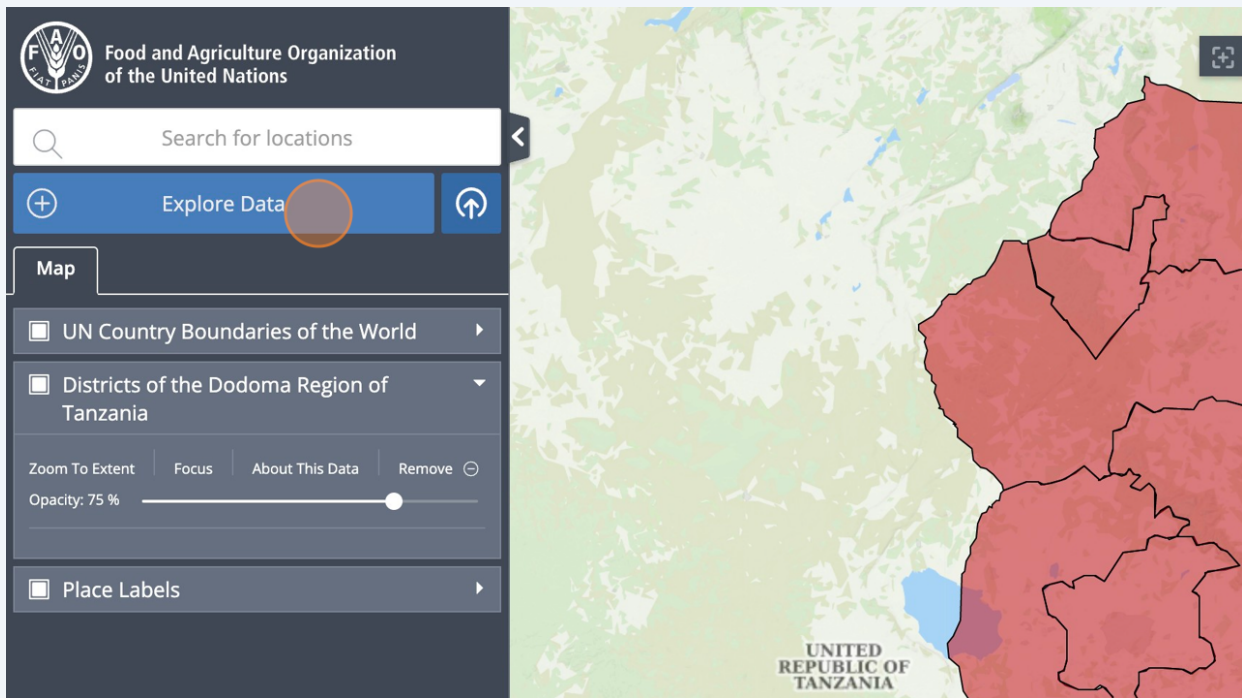


Note feature "Focus" is not supported for user uploaded shapefiles



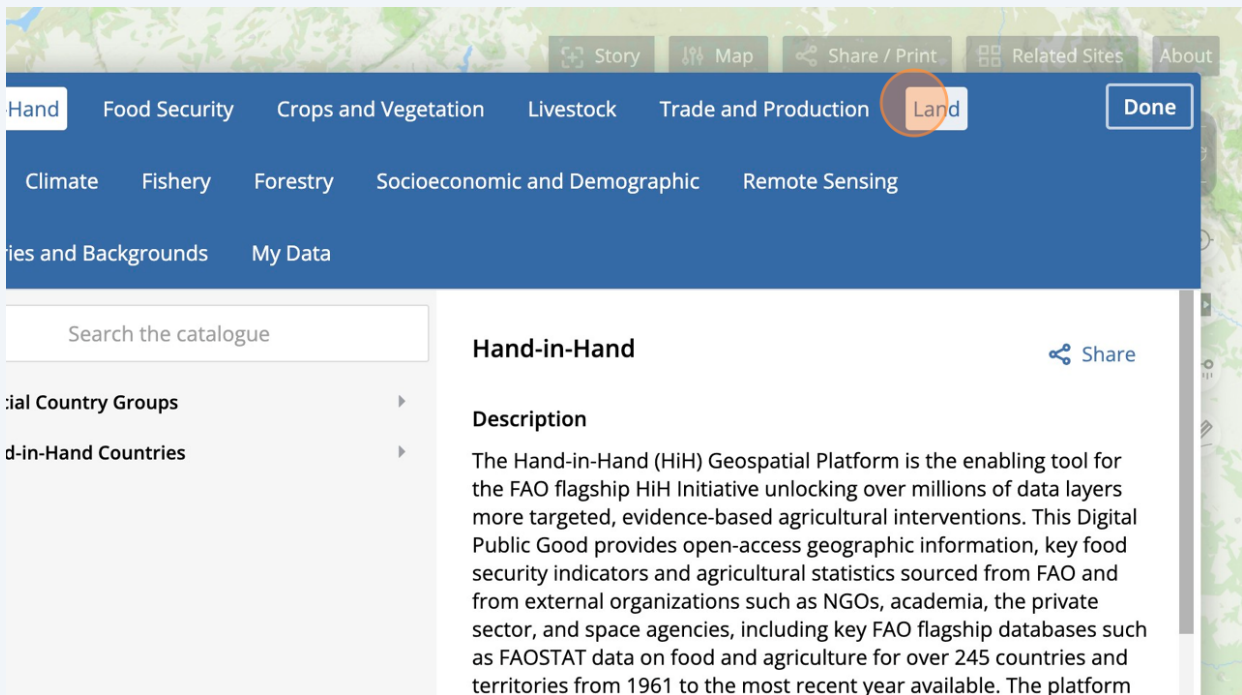
14

Next a layer that supports Analysis. We use Land Cover for this tutorial. Click "Explore Data"

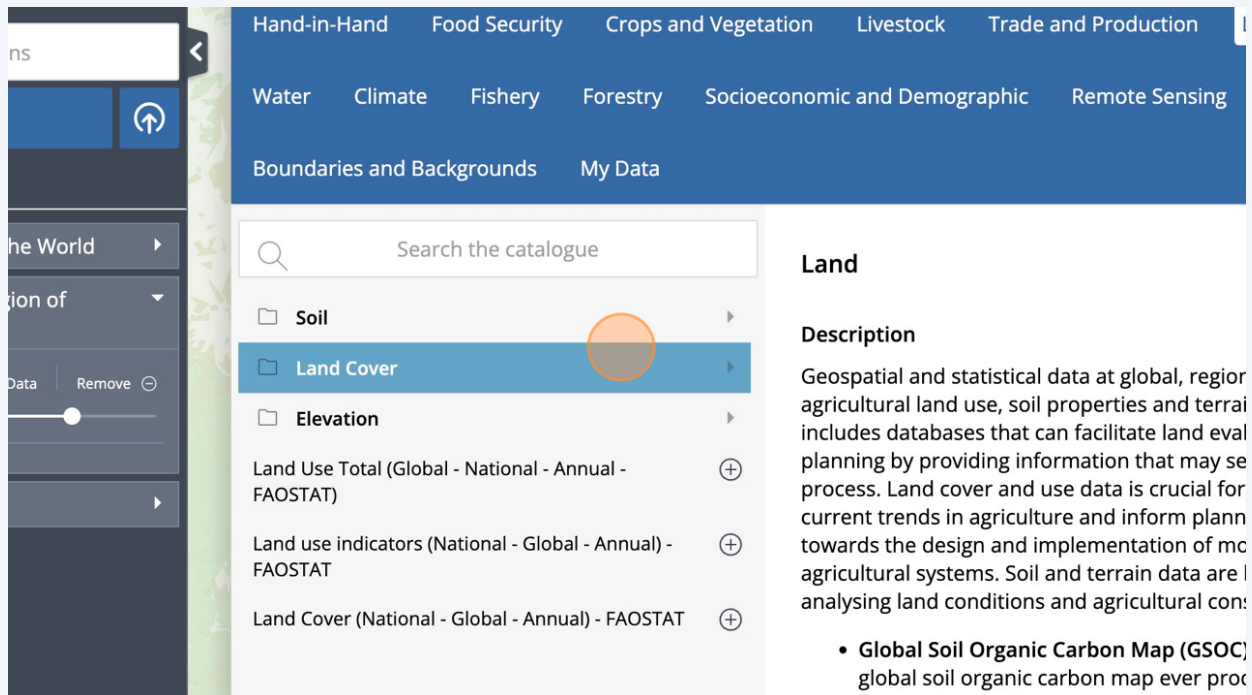


15

Click "Land"



## 16 Click "Land Cover"



Hand-in-Hand Food Security Crops and Vegetation Livestock Trade and Production

Water Climate Fishery Forestry Socioeconomic and Demographic Remote Sensing

Boundaries and Backgrounds My Data

Search the catalogue

- Soil
- Land Cover**
- Elevation

Land Use Total (Global - National - Annual - FAOSTAT) (+)

Land use indicators (National - Global - Annual) - FAOSTAT (+)

Land Cover (National - Global - Annual) - FAOSTAT (+)

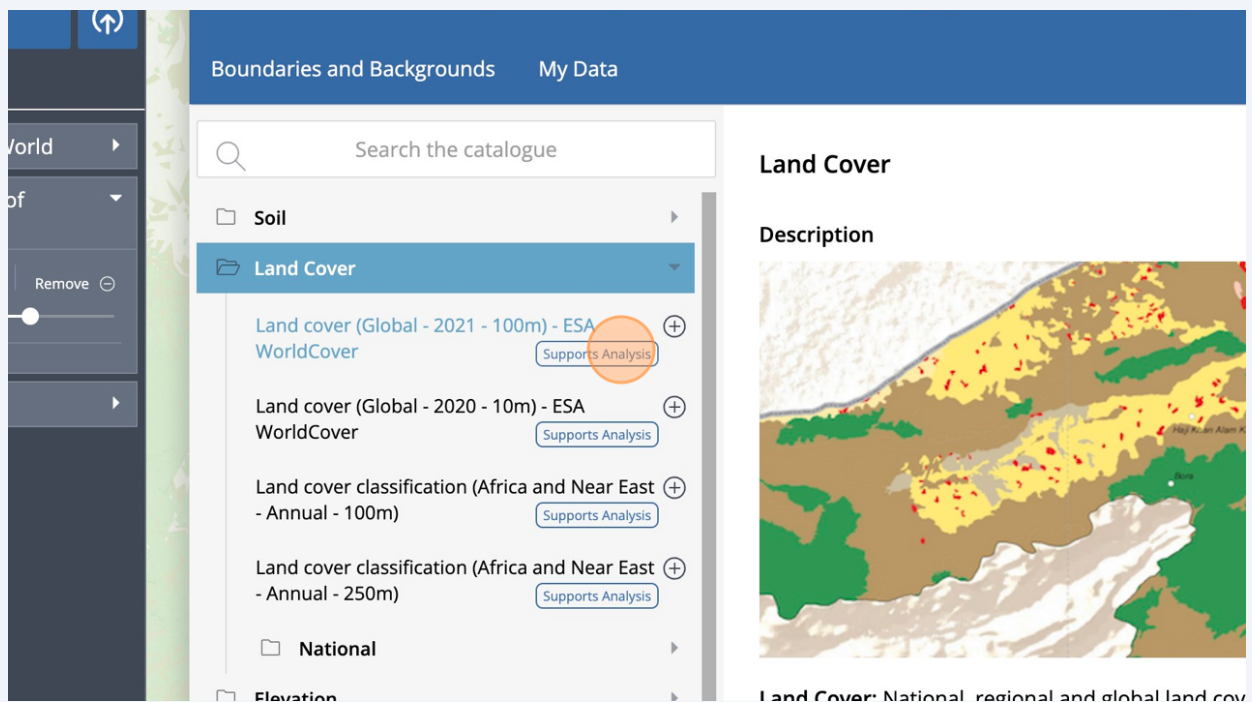
### Land

#### Description

Geospatial and statistical data at global, regional, agricultural land use, soil properties and terrain includes databases that can facilitate land planning by providing information that may be used in the process. Land cover and use data is crucial for current trends in agriculture and inform planning towards the design and implementation of more sustainable agricultural systems. Soil and terrain data are used for analysing land conditions and agricultural conditions.

- Global Soil Organic Carbon Map (GSOCC)** - global soil organic carbon map ever produced

## 17 Click "Supports Analysis"



Boundaries and Backgrounds My Data

Search the catalogue

- Soil
- Land Cover**
- Elevation

Land cover (Global - 2021 - 100m) - ESA WorldCover (+) Supports Analysis

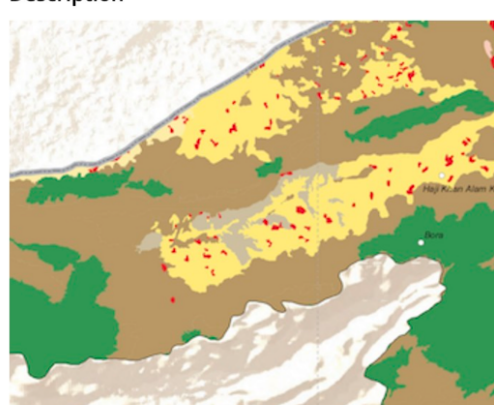
Land cover (Global - 2020 - 10m) - ESA WorldCover (+) Supports Analysis

Land cover classification (Africa and Near East - Annual - 100m) (+) Supports Analysis

Land cover classification (Africa and Near East - Annual - 250m) (+) Supports Analysis

### Land Cover

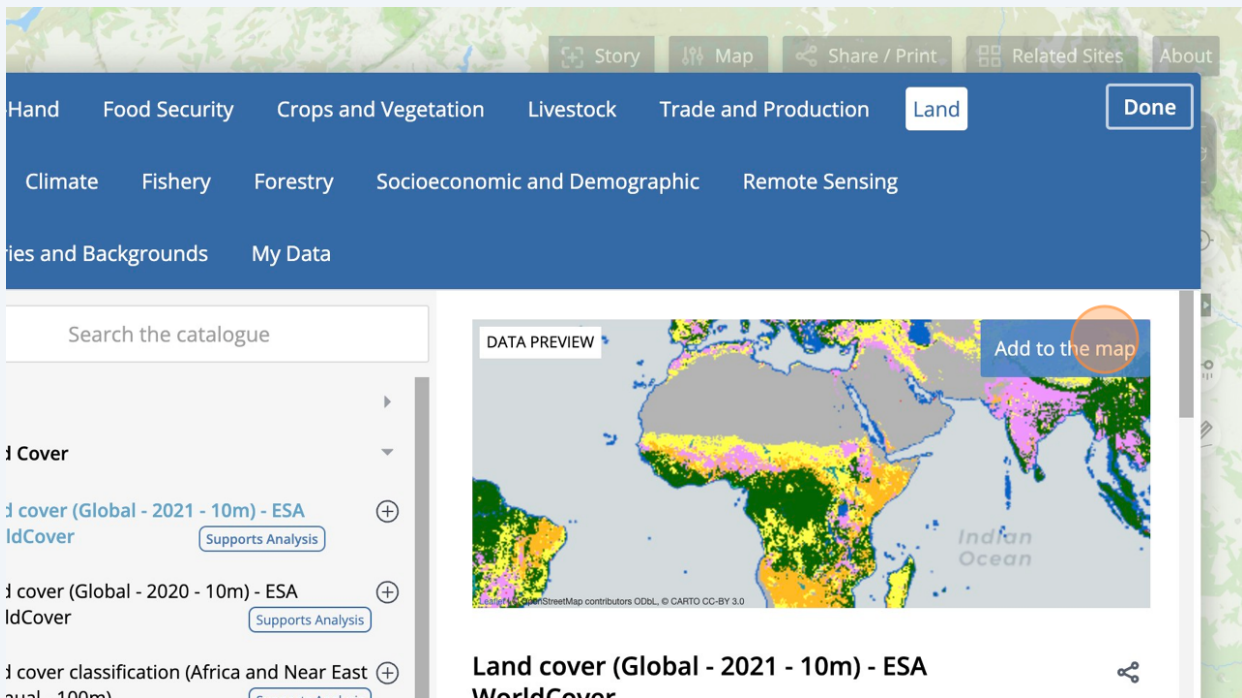
#### Description



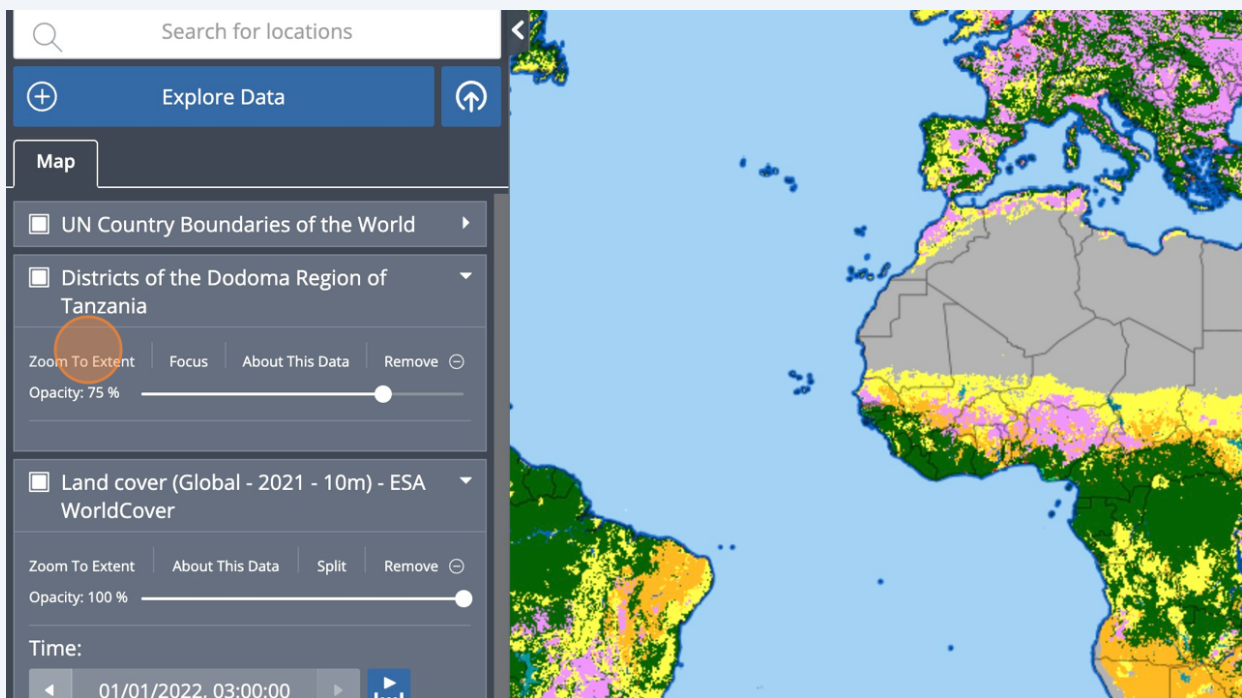
Land Cover: National, regional and global land cover



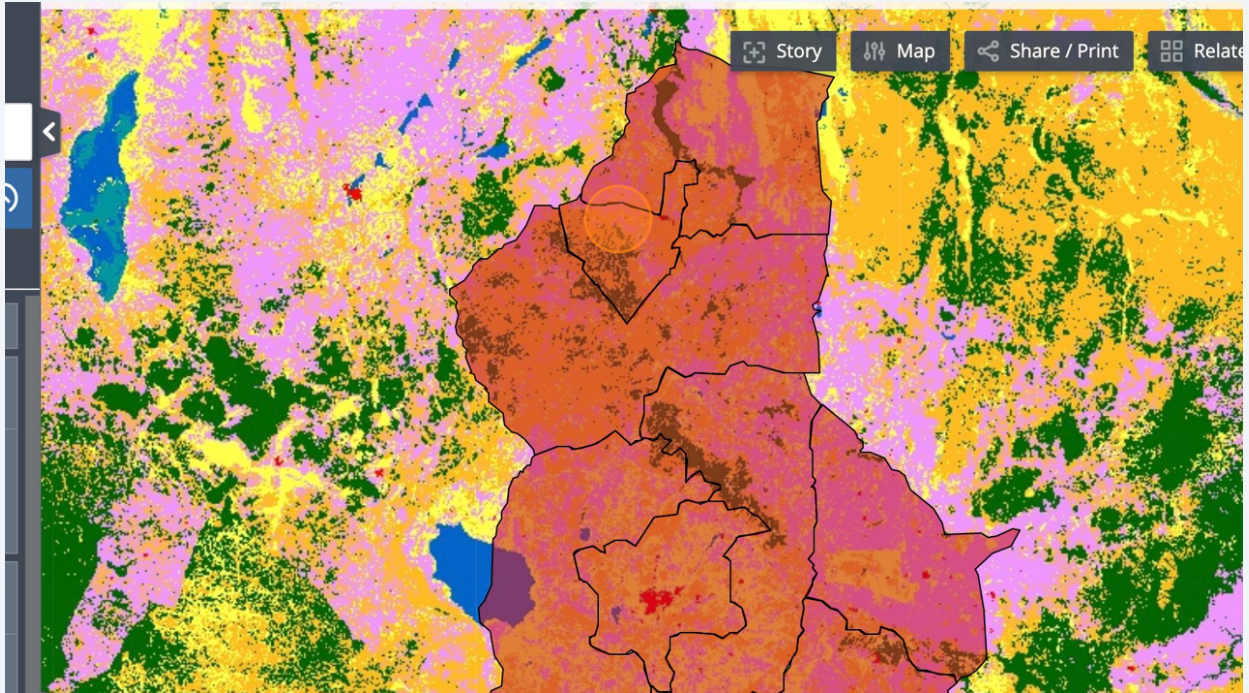
## 18 Click "Add to the map"



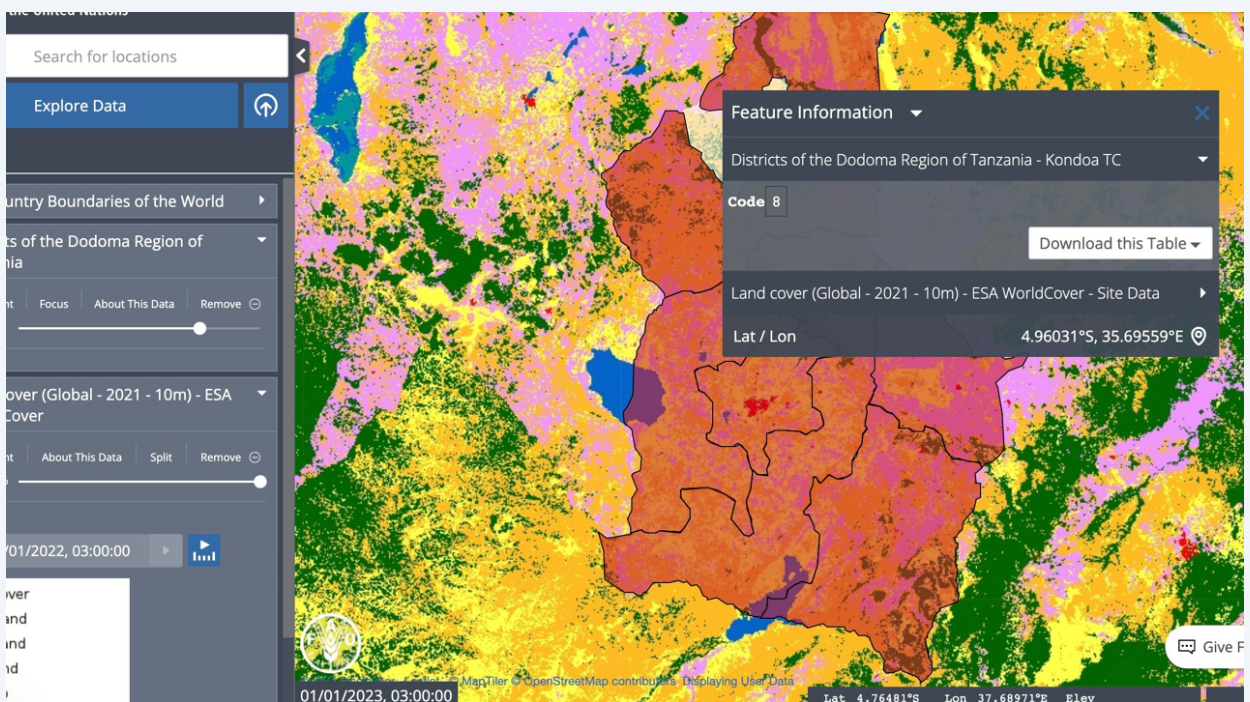
## 19 Click "Zoom To Extent" of the shapefile



20 Click on the district on the map you want to analyse.

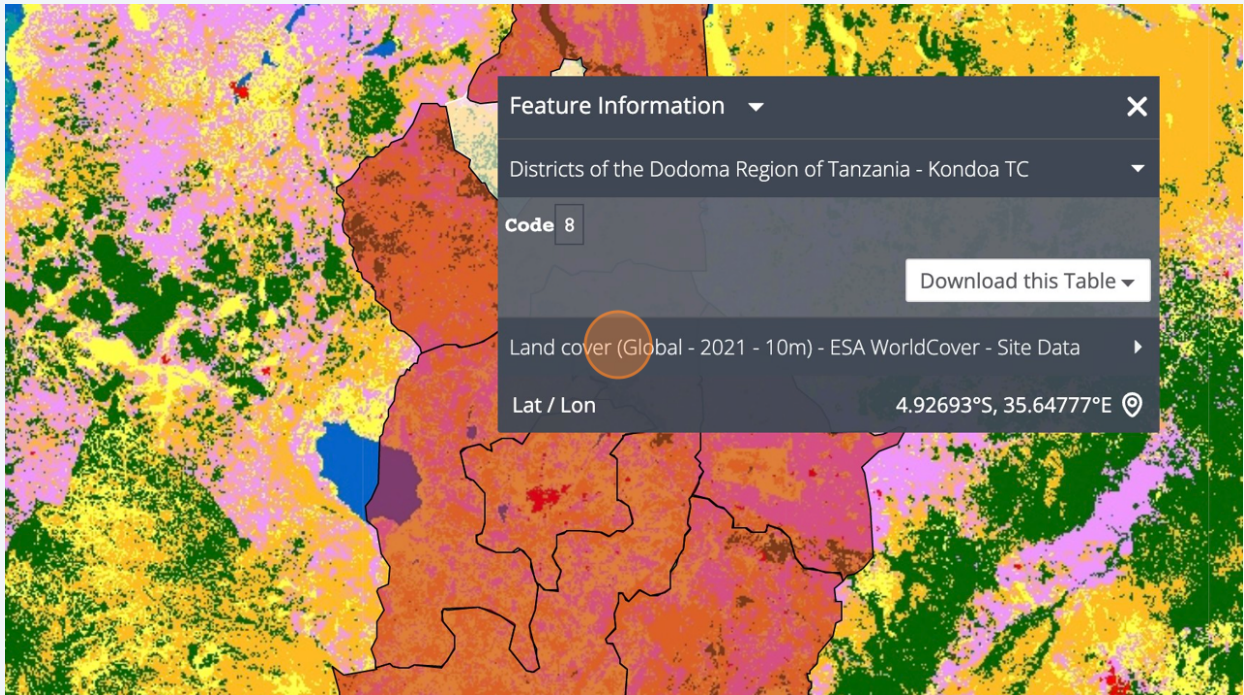


21 The information about the district is shown in the feature information pop-up window.

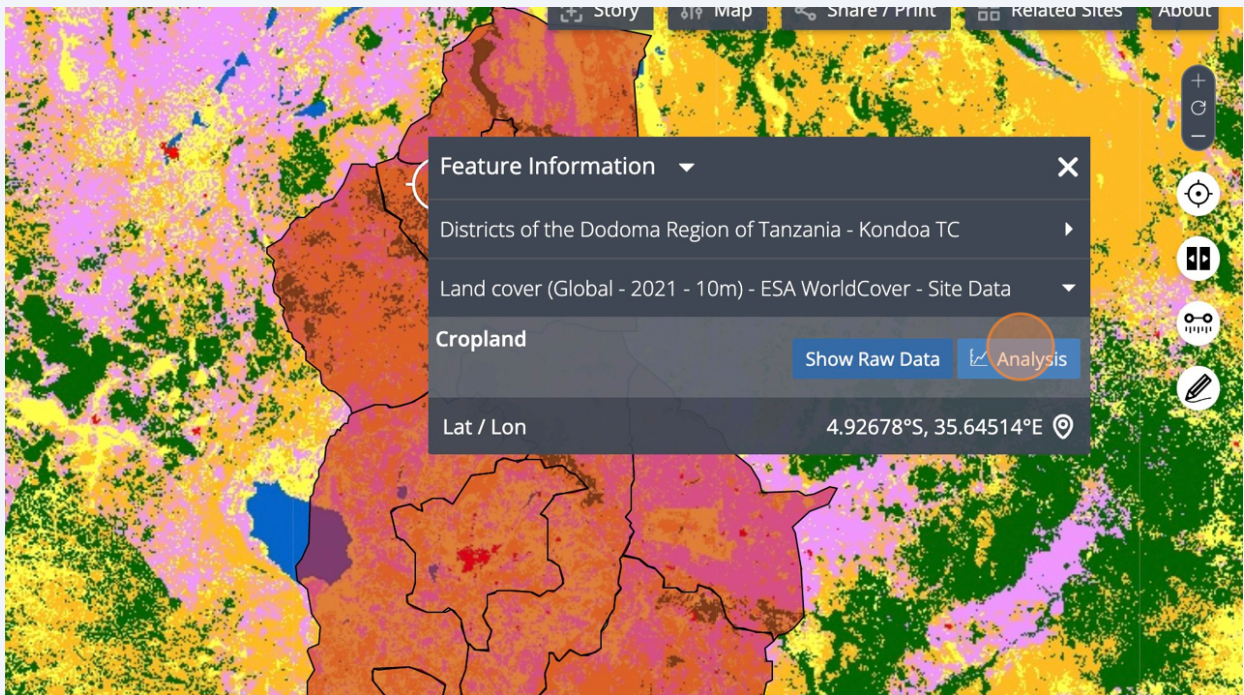




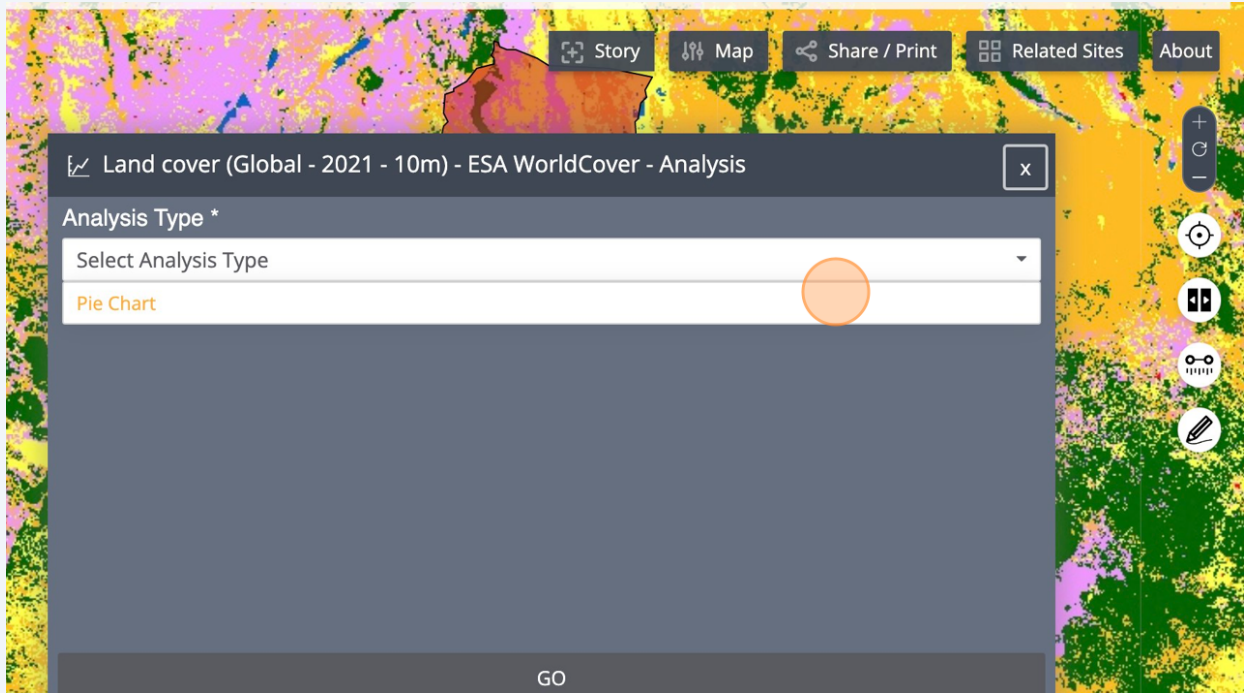
**22** Click "Land cover (Global - 2021 - 10m) - ESA WorldCover - Site Data"



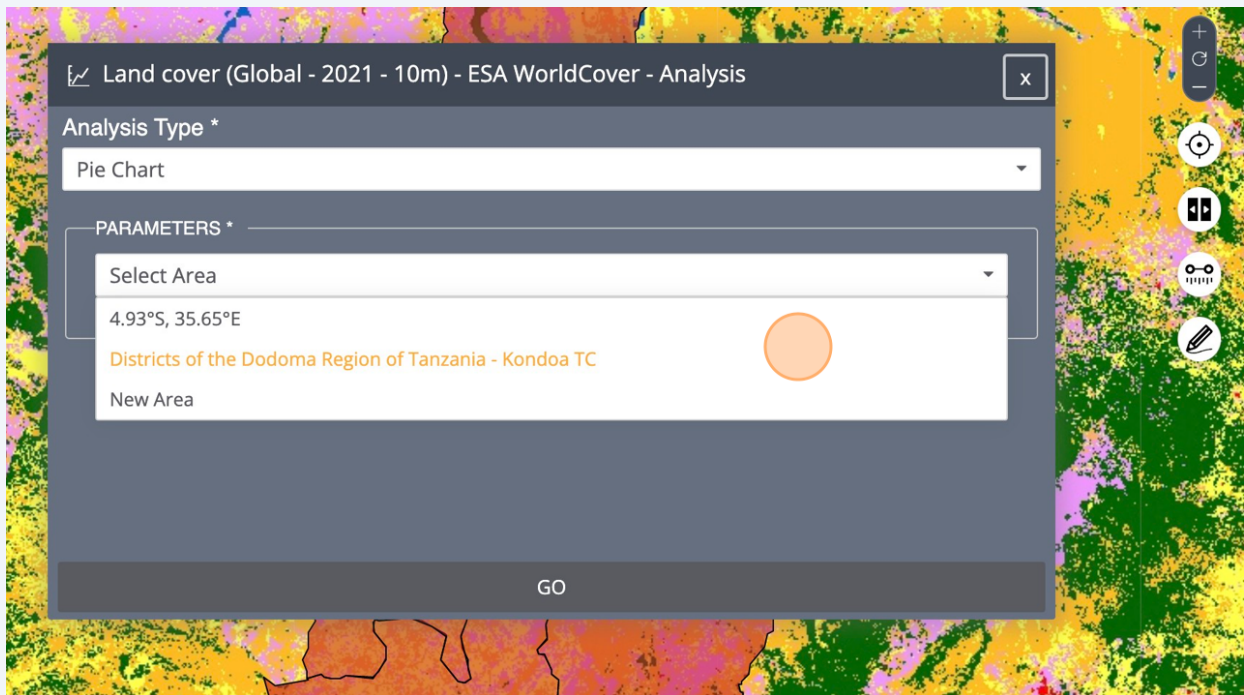
**23** Click "Analysis"



## 24 Select Analysis Type "Pie Chart"

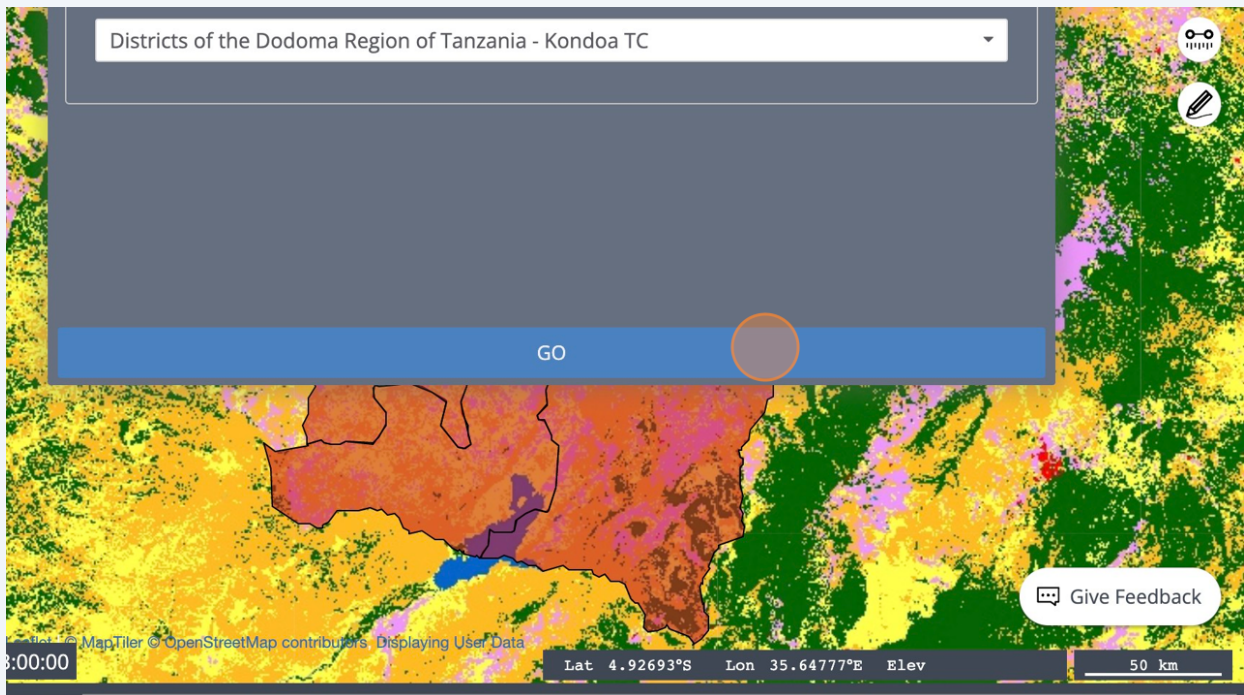


## 25 Select Area "Districts of the Dodoma Region of Tanzania - Kondoa TC"

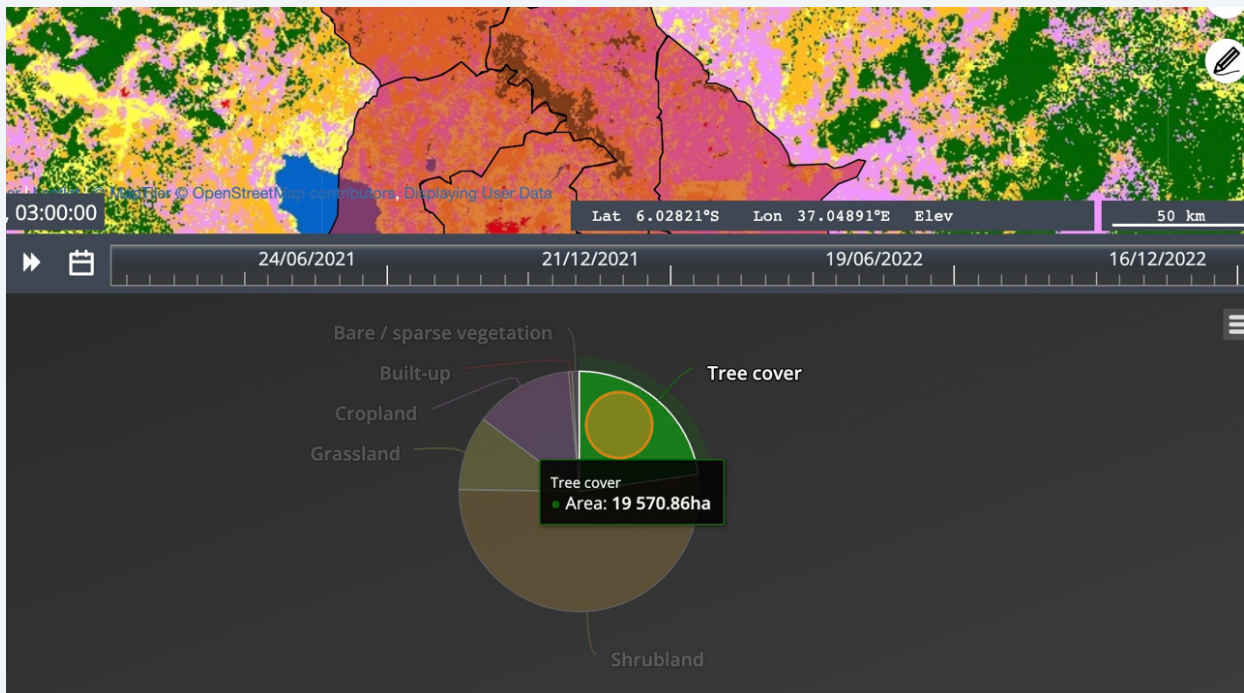




## 26 Click "GO" to launch the analysis



## 27 Explore the resulting analysis



## 28 Click "Table"

The screenshot shows the FAO Geo-Information Platform interface. The top left features the FAO logo and the text "Food and Agriculture Organization of the United Nations". Below this is a search bar labeled "Search for locations". A blue button labeled "Explore Data" is visible. The navigation menu at the bottom has three options: "Map", "Chart", and "Table", with "Table" highlighted in a red circle. The main content area displays a map of land cover data for the Dodoma Region of Tanzania, with a legend on the left showing "Land cover (Global - 2021 - 10m) - ESA WorldCover - Pie Chart - Districts of the Dodoma Region of Tanzania - Kondoa TC". The map includes a date and time stamp "01/01/2023, 03:00:00" and a timeline at the bottom with markers for "24/06/2021" and "21/12/2021".

## 29 Explore the analysis as a table

The screenshot shows the FAO Geo-Information Platform interface with the "Table" view selected. The table displays land cover data for the Dodoma Region of Tanzania. The table has two columns: "Filter by Name" and "Filter by Area". The data rows are as follows:

Filter by Name	Filter by Area
Tree cover	
Shrubland	
Grassland	
Cropland	
Built-up	
Bare / sparse vegetation	
Permanent water bodies	
Herbaceous wetland	



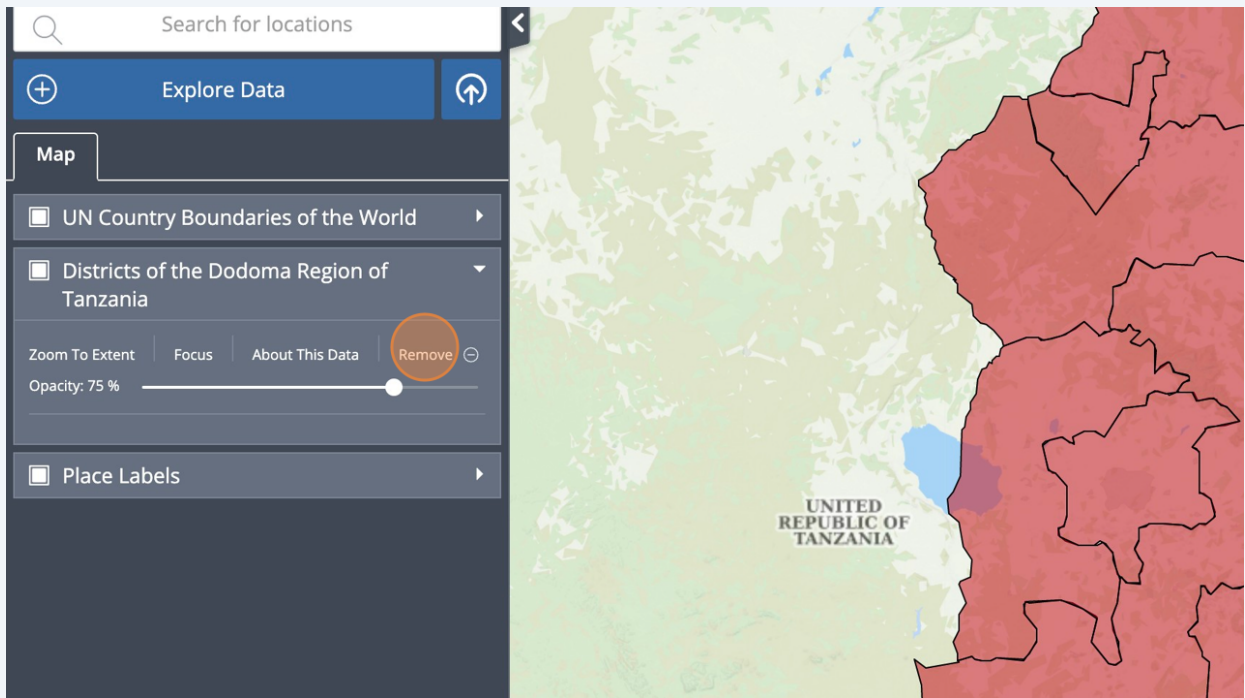
### 30 Now we remove the shapefile. Click "Map"

The screenshot shows the FAO Data Explorer interface. The top left features the FAO logo and the text 'Food and Agriculture Organization of the United Nations'. Below this is a search bar labeled 'Search for locations'. A navigation bar contains 'Explore Data' and a refresh icon. The main interface is divided into three tabs: 'Map' (highlighted with a red circle), 'Chart', and 'Table'. On the left, a layer list shows 'Land cover (Global - 2021 - 10m) - ESA WorldCover - Pie Chart - Districts of the Dodoma Region of Tanzania - Kondo TC' selected. Below the list are 'About This Data' and 'Remove' buttons. On the right, a legend titled 'Land cover (Global - 2021 - 10m) - ESA World' lists various land cover types: Tree cover, Shrubland, Grassland, Cropland, Built-up, Bare / sparse vegetation, Permanent water bodies, and Herbaceous wetland. A 'Filter by Name' dropdown is visible above the legend.

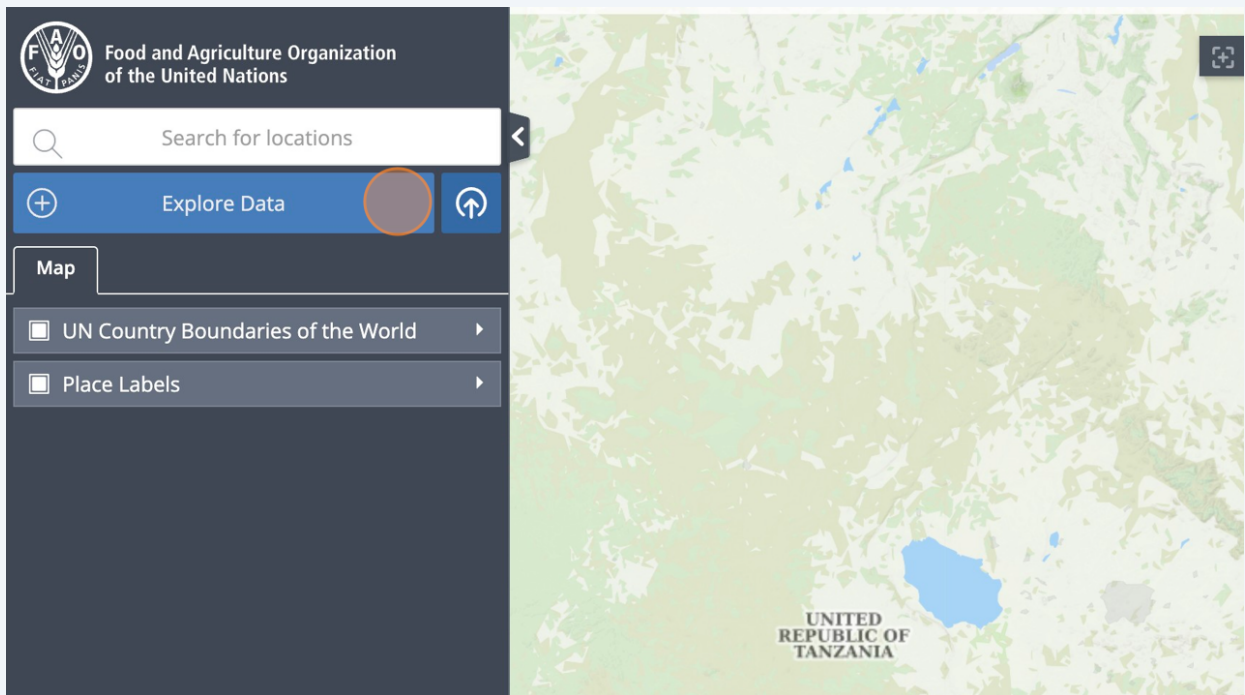
### 31 Click "Remove" on the "Land Cover"

The screenshot shows the FAO Data Explorer interface with a map view. The left sidebar displays a list of layers: 'UN Country Boundaries of the World', 'Districts of the Dodoma Region of Tanzania', and 'Land cover (Global - 2021 - 10m) - ESA WorldCover'. The 'Land cover' layer is selected, and its 'Remove' button is highlighted with a red circle. Below the layer list, there are controls for 'Zoom To Extent', 'About This Data', 'Split', and 'Remove'. A 'Time' slider is set to '01/01/2022, 03:00:00'. A legend at the bottom left shows color-coded categories: Tree cover (green), Shrubland (yellow), Grassland (orange), and Cropland (purple). The main map area displays a colorful land cover map of the Dodoma region. The bottom of the map shows the FAO logo, the date '01/01/2023, 03:00:00', and the text 'MapTiler © OpenStreetMap contributors. Displaying User Data'. The 'Lat' label is visible at the bottom right.

**32** Click "Remove" the shapefile "Districts of the Dodoma Region of Tanzania"

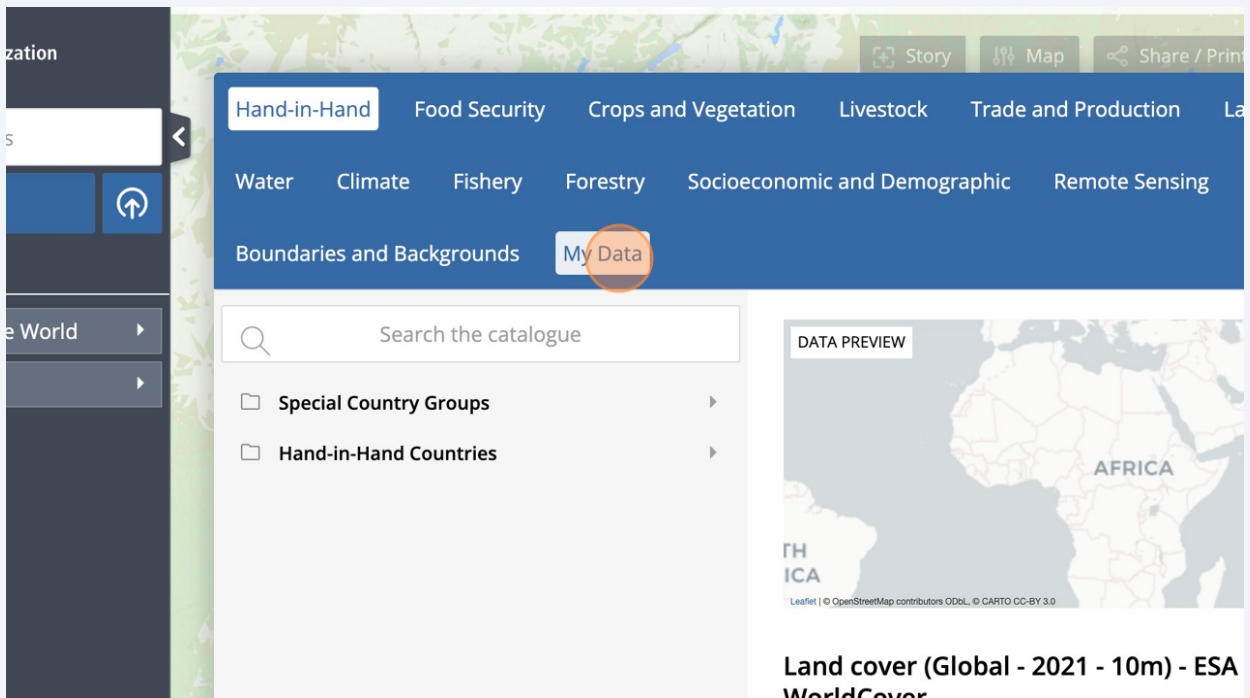


**33** Next we add back the shapefile. Click "Explore Data"

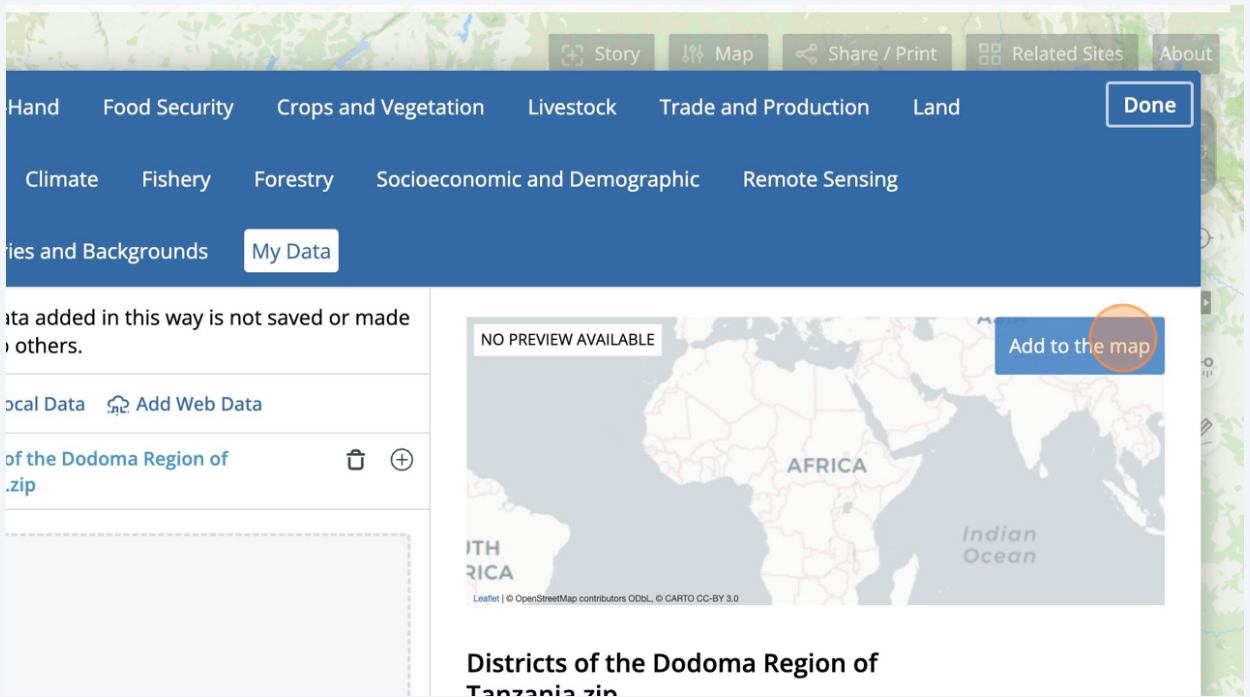




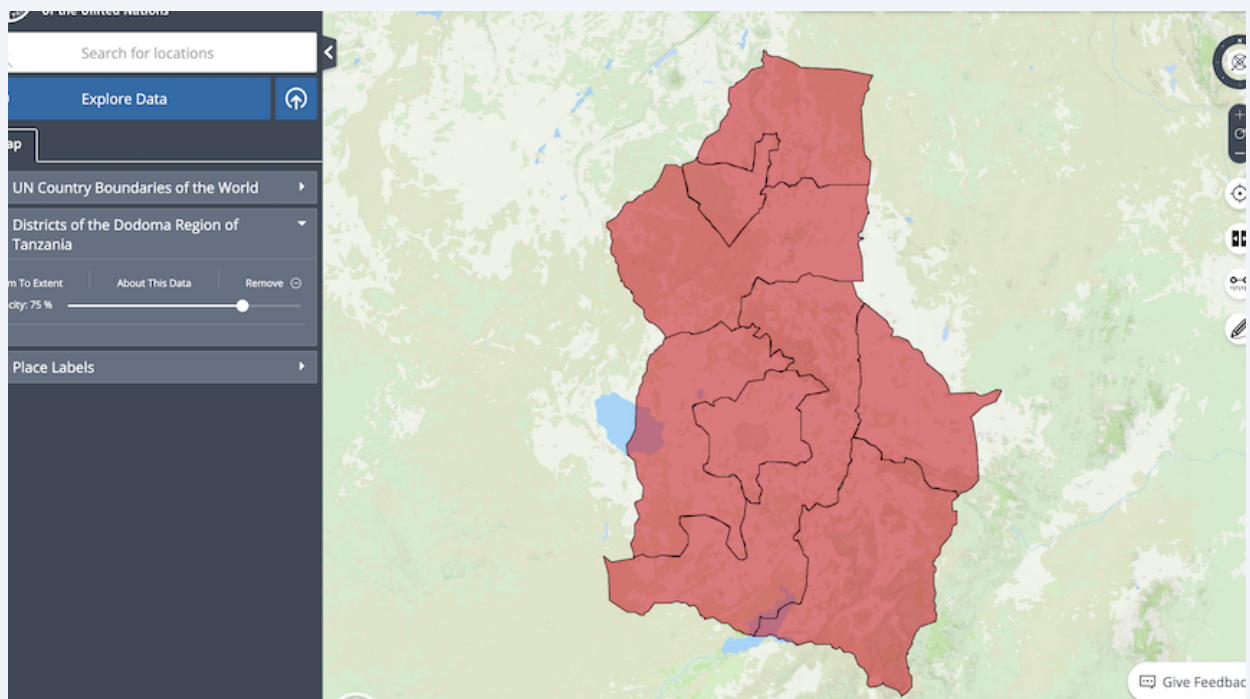
**34** Click "My Data"



**35** Click "Districts of the Dodoma Region of Tanzania" and then "Add to the map"



## 36 End of the tutorial



All maps in this publication have been created using shapefiles from the United Nations.

Source: FAO Hand-in-Hand Geospatial Platform. 2023. Map geodata [shapefiles]. New York, USA, United Nations.

The boundaries and names shown and the designations used on these map(s) do not imply the expression of any opinion concerning the delimitation of its frontiers and boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement.