

USIT 6P4 Principles of Geographic Information Systems Practical #2&3

Name	Sanjeev Gupta	Roll Number	21302B0023
Class	TY BSC IT	Division	C
Subject/Course	USIT 6P4 Principles of Geographic Information Systems		
Topic	Exploring and Managing Raster data, Raster Mosaicking and Clipping of Indian satellite images and India Admin, making a Map, Working with Attributes, Importing Spreadsheets or CSV files Using Plugins, Searching and Downloading OpenStreetMap Data		

Explain about Plugins and Open Street map.

- Plugins and OpenStreetMap are two distinct concepts, but they can be related when it comes to enhancing the functionality and features of mapping applications or tools.

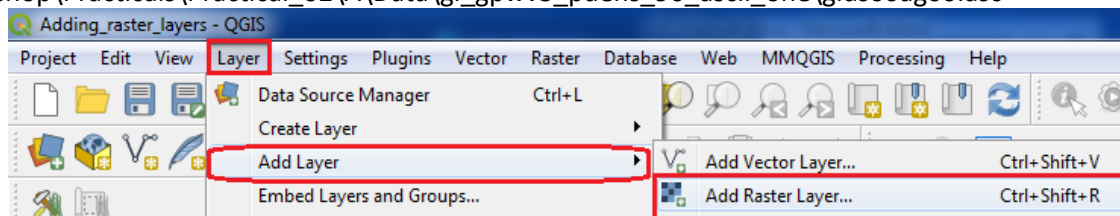
- Plugins are extra software components added to applications for custom features. In mapping apps or GIS tools, they enhance capabilities like analysis and visualization. For instance, users can add plugins to conduct advanced geospatial analysis, include custom layers, or integrate external data sources, expanding the mapping tool's functionality.

- OpenStreetMap is a collaborative project, often called the Wikipedia of maps, where a community of mappers contributes to creating a free, editable global map. Users can freely add, edit, and use geographic information, making it a valuable resource for diverse applications. OSM data is openly accessible, widely used as a base layer in mapping services, and supports applications ranging from basic map viewing to intricate geospatial analysis.

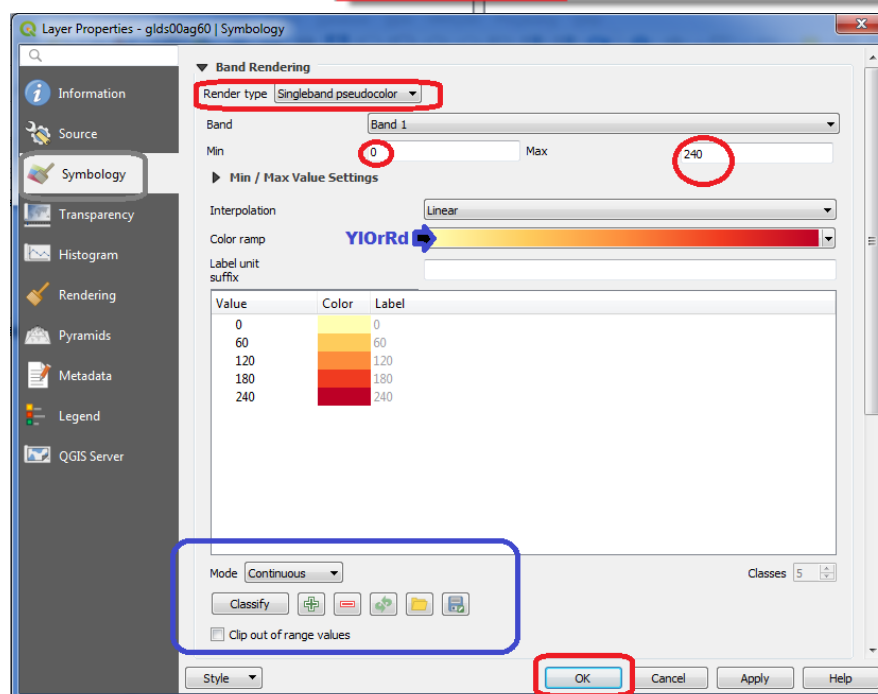
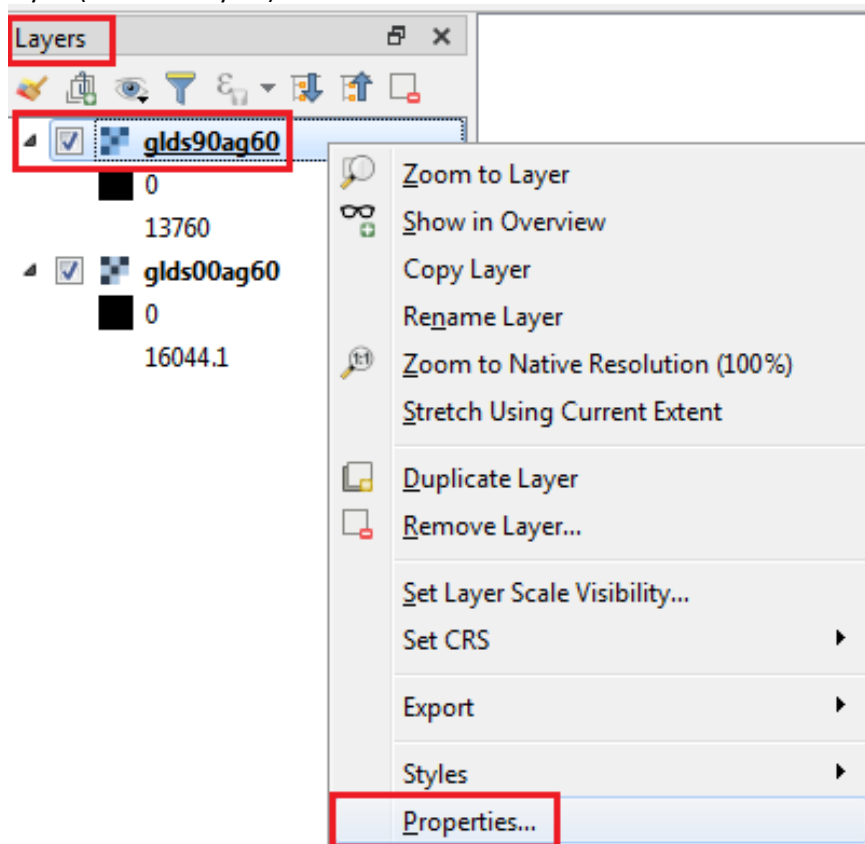
Exploring and Managing Raster data: Raster Styling and Analysis and Find the population difference [Write steps and insert screenshots]

1. Adding raster layers -

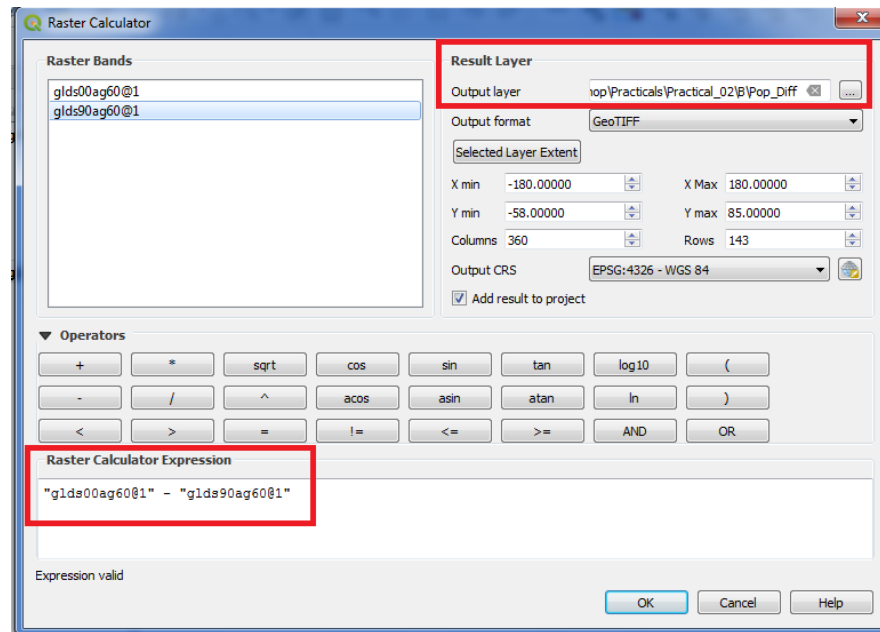
"\GIS_Workshop\Practicals\Practical_02\A\Data\gl_gpww3_pdens_90_ascii_one\glds90ag60.asc" and
"\GIS_Workshop\Practicals\Practical_02\A\Data\gl_gpww3_pdens_90_ascii_one\glds00ag60.asc"



2. Raster Styling and Analysis (for Both Layers) -

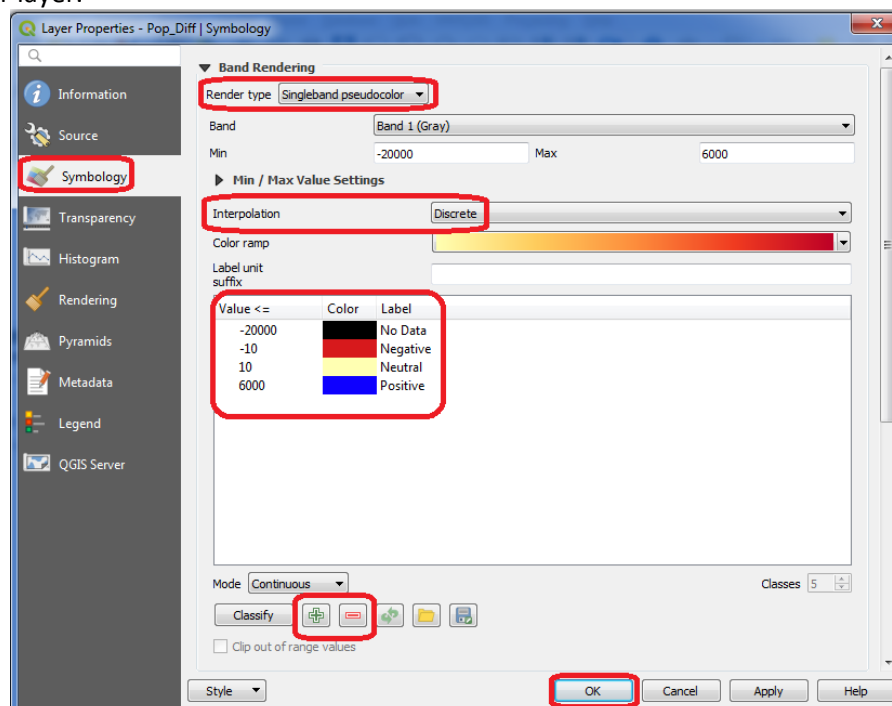


3. Go to Raster → Raster Calculator

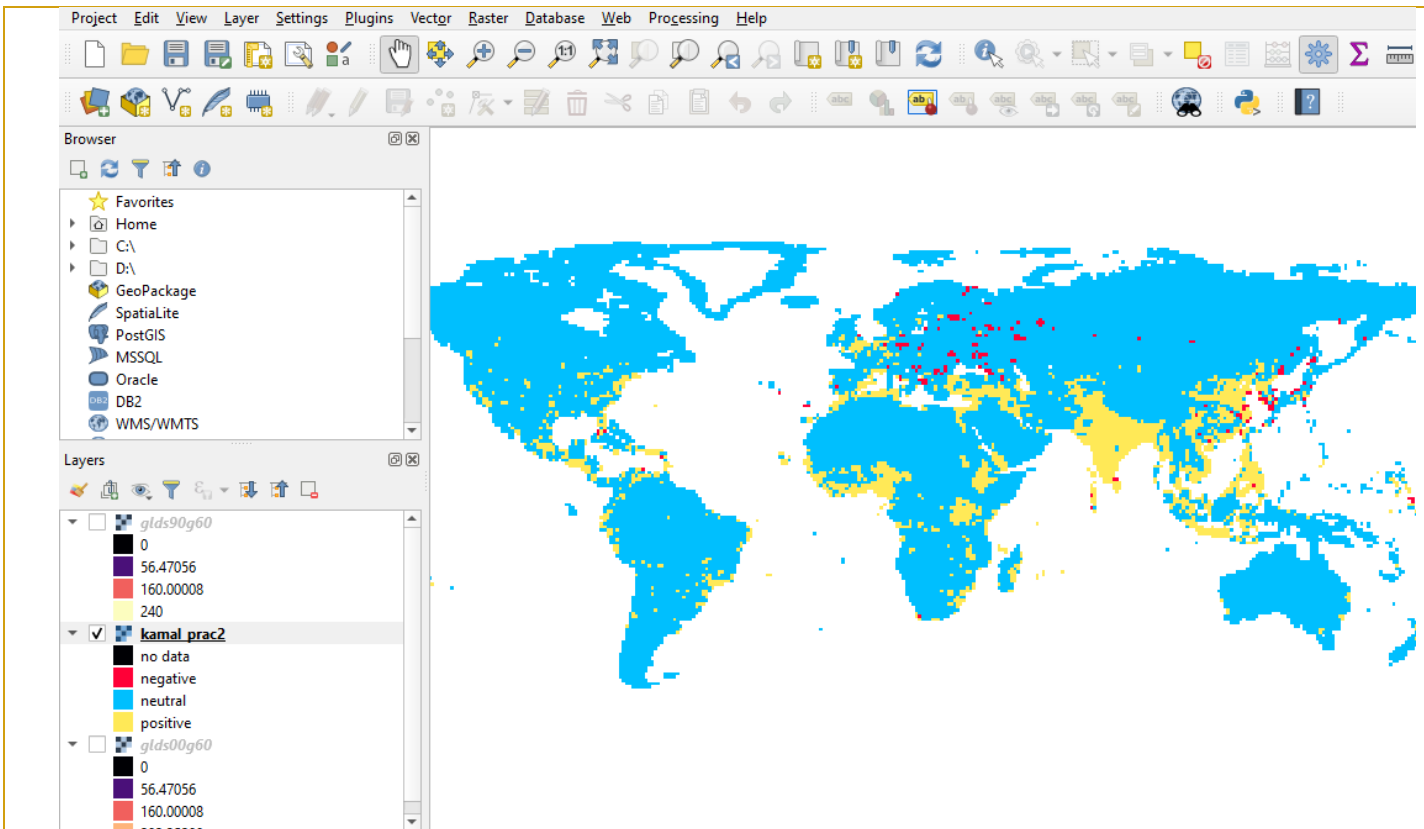


4. Remove the other two layers i.e. glds00ag60.asc and glds90ag60.asc

5. Double click on your layer.



Output -



Raster Mosaicking and Clipping of Indian satellite images and India Admin

[Write steps and insert screenshots]

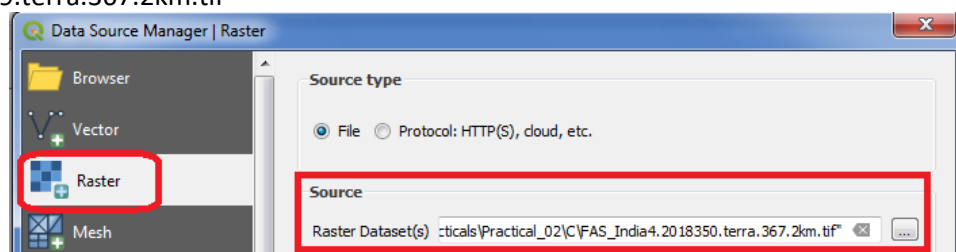
1. Go to Layer → Add Layer → Add Raster Layer.

FAS_India1.2018349.terra.367.2km.tif

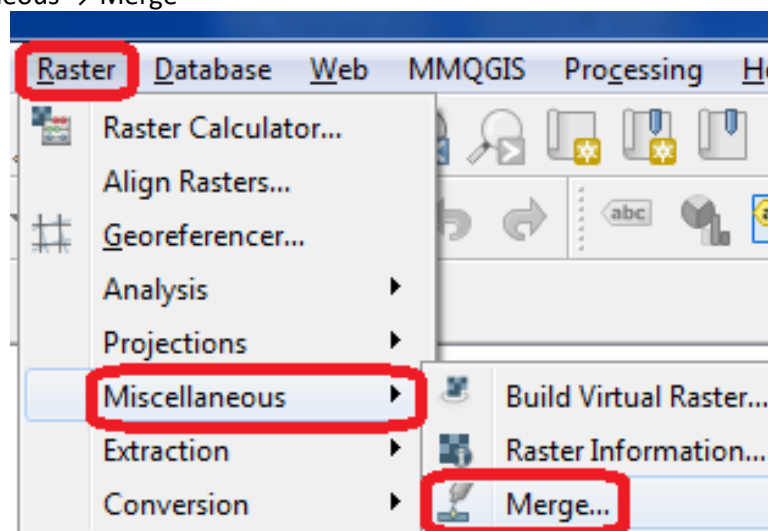
FAS_India2.2018349.terra.367.2km.tif

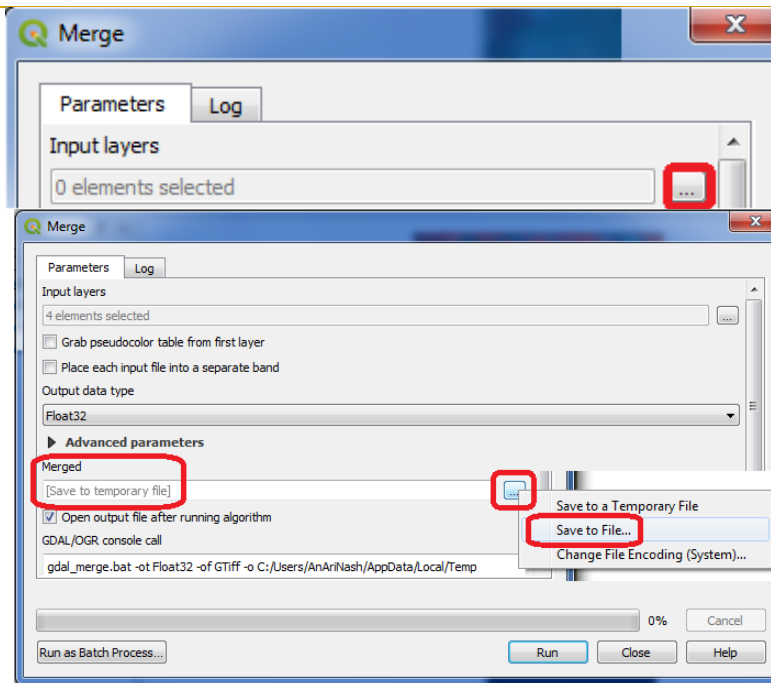
FAS_India3.2018349.terra.367.2km.tif

FAS_India4.2018349.terra.367.2km.tif

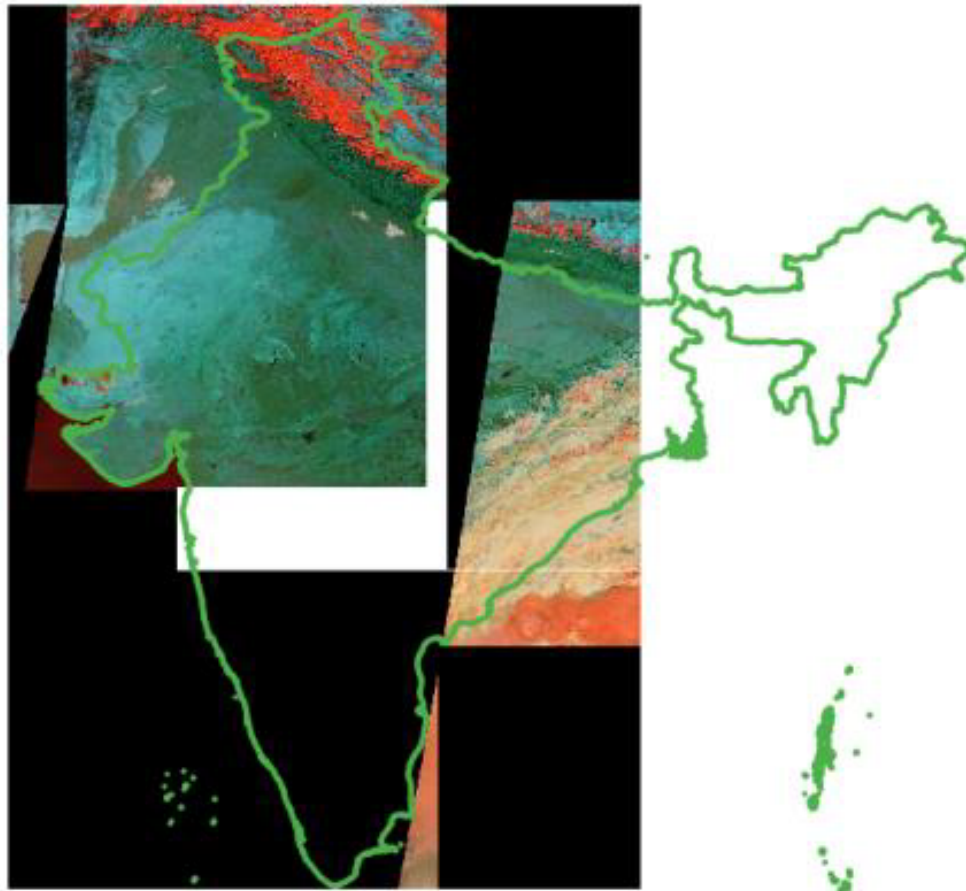


2. Go to Raster → Miscellaneous → Merge





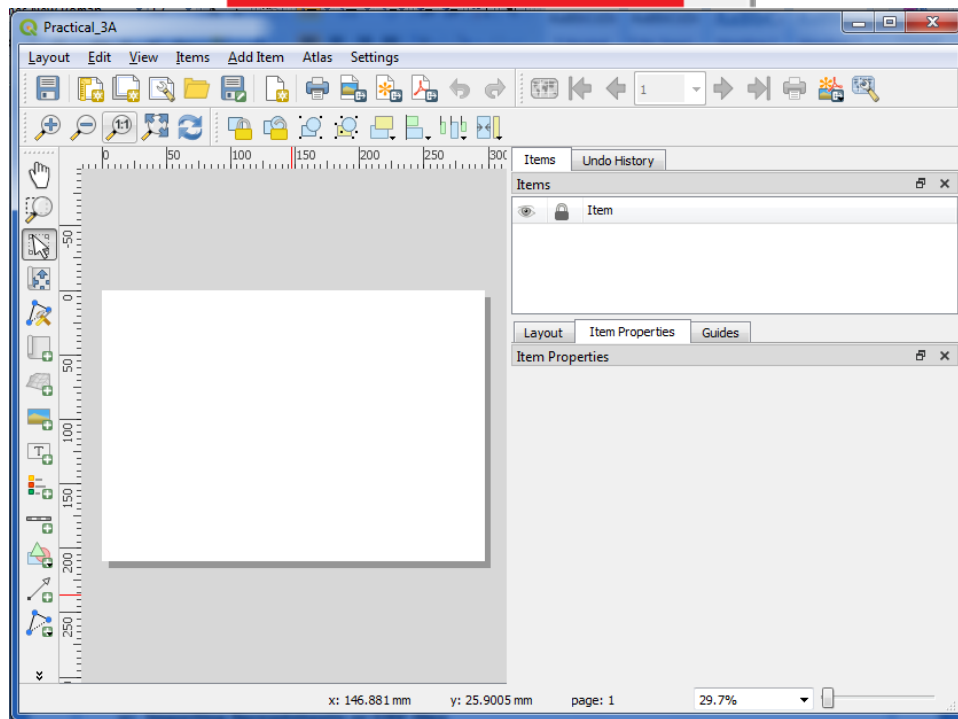
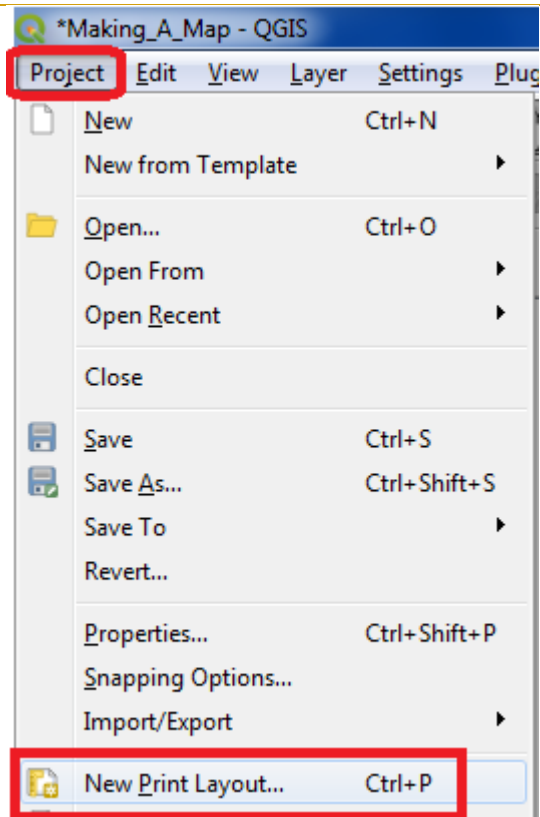
Output -



Making a Map

Create a new Thematic Map or open an existing one. [Write steps and insert screenshots]

1. Go to Project → New PrintLayout

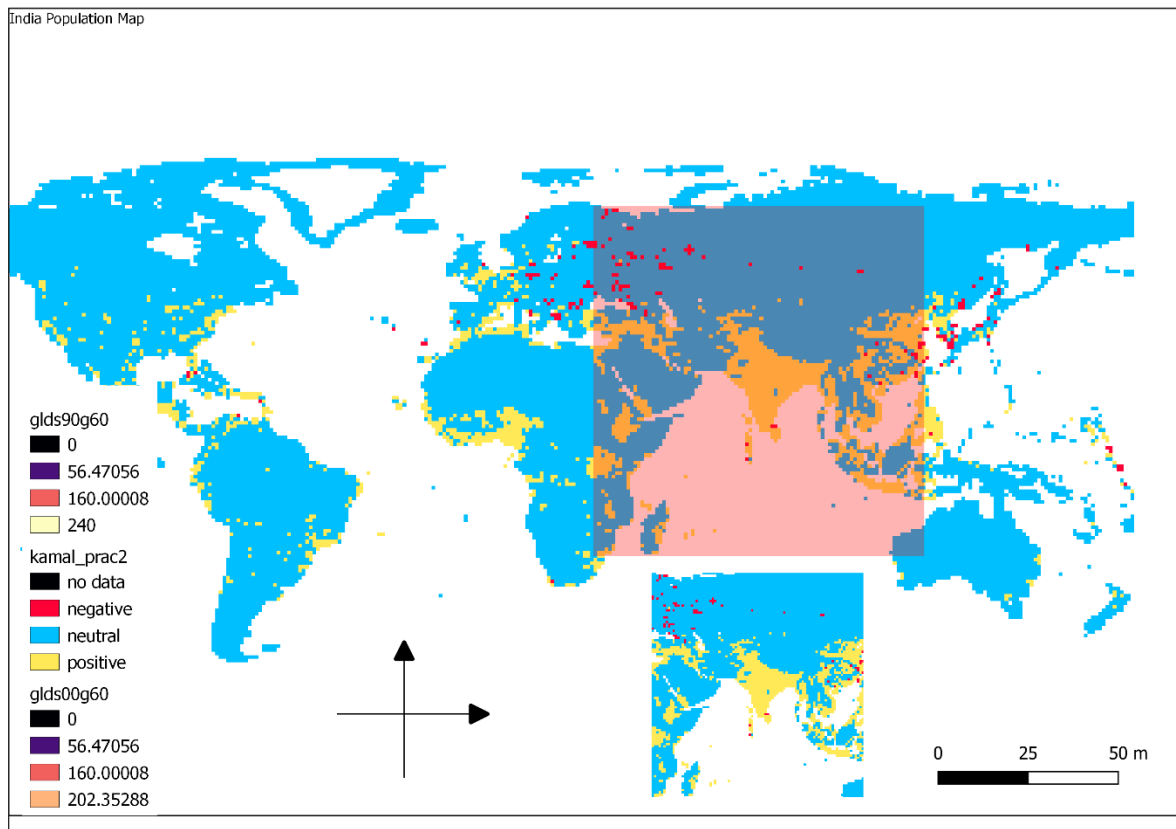


2. Select Add Item → Add Map



3. Add many other items

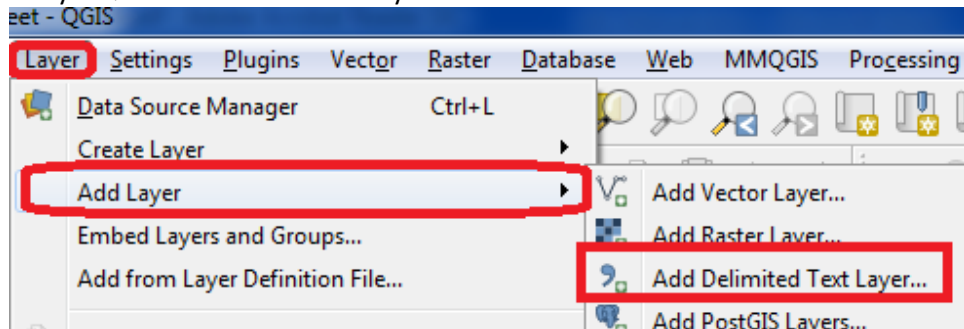
Output -



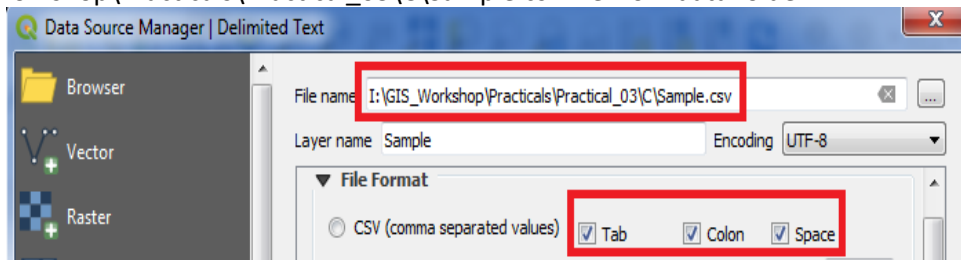
Problem Statement:

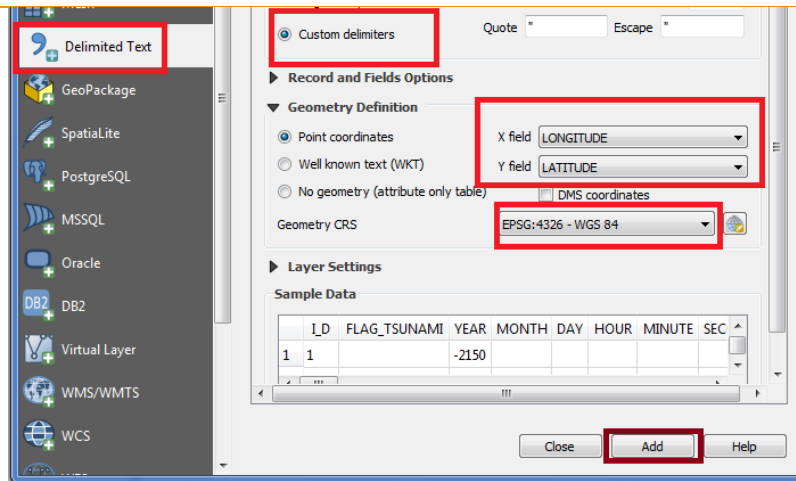
Importing Spreadsheets or CSV files. [Write steps and insert screenshots]

1. Go to Layer → Add Layer → Add Delimited text Layer

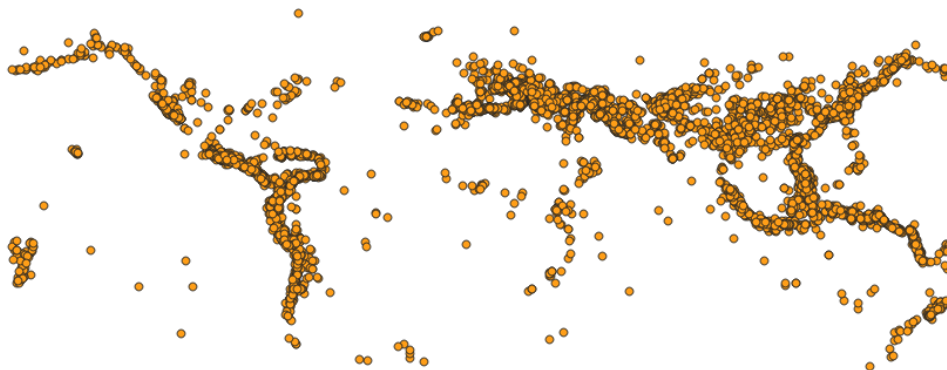


2. Select the \GIS_Workshop\Practicals\Practical_03\C\Sample.csv file from data folder.





Output -



Searching and Downloading OpenStreetMap Data. [Write steps and insert screenshots]

Steps -

Plugins->install and manage plugins->settings->check show also experimental plugins

Plugins->install and manage plugins->install osm place search and openlayer

web->openlayer plugins -> openstreetmap

view->panels->osm place search

Output -

