

Unsupervised Classification

Aim: To download Data and perform Unsupervised classification for

- a) Forest
- b) Agriculture
- c) Water
- d) Build-Up area
- e) Open area

Symbol used: For the above mentioned areas we used colour scheme respectively


as follows: a) Dark Green

- b) Yellow
- c) Blue
- d) Red
- e) White

Procedure:

DATA DOWNLOAD

- 1) Search for the area in the earth explorer that we need.



EarthExplorer Manage Criteria

Search Criteria Data Sets Additional Criteria Results

1. Enter Search Criteria

To narrow your search area: type in an address or place name, enter coordinates or click the map to define your search area (for advanced map tools, view the [help documentation](#)), and/or choose a date range.

Geocoder KML/Shapefile Upload

Select a Geocoding Method

Address/Place

Show **Clear**

Click on an Address/Place to show the location on the map and add coordinates to the Area of Interest Control.



Num	Address/Place	Latitude	Longitude
1	Jammu	32.7266	74.8570

Polygon Circle Predefined Area

2) After finding area select the date range of the collected data also set cloud cover range and click on Data Sets.



Polygon Circle Predefined Area

 Decimal

1. Lat: 32.6818, Lon: 74.8618  

Use Map **Add Coordinate** **Clear Coordinates**

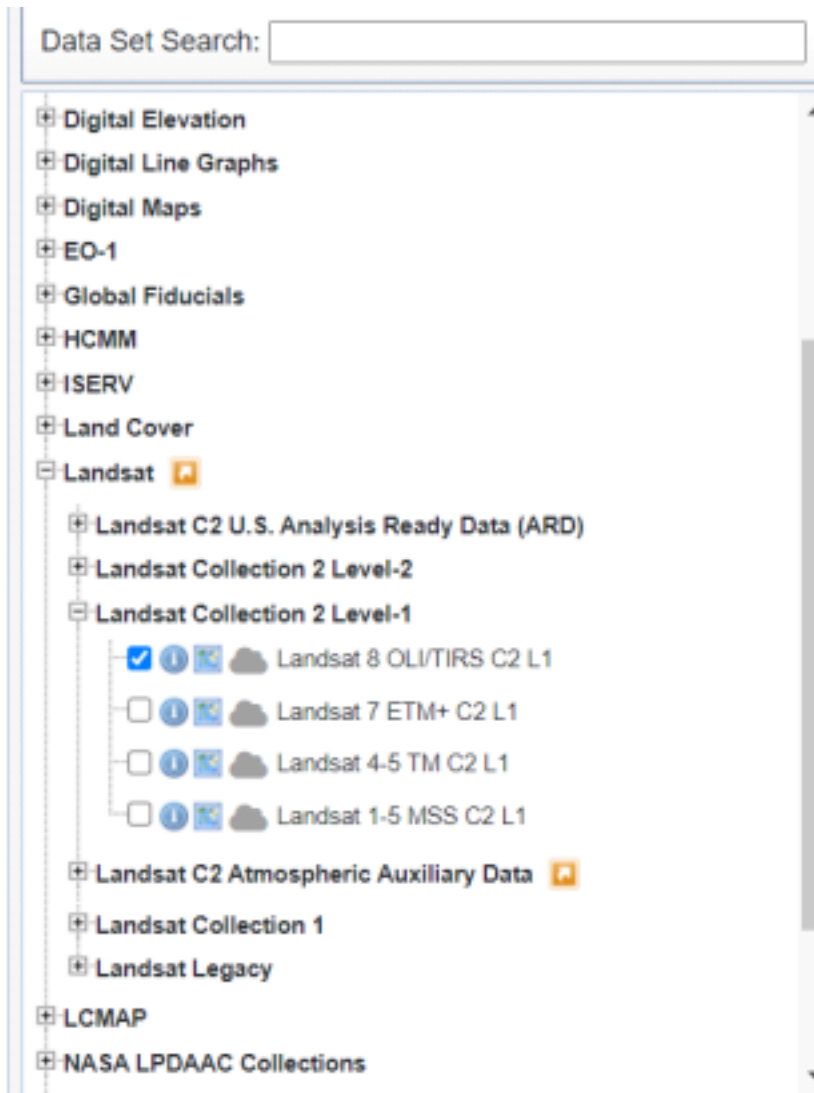
Date Range Cloud Cover Result Options

Search from:  to: 

Search months:

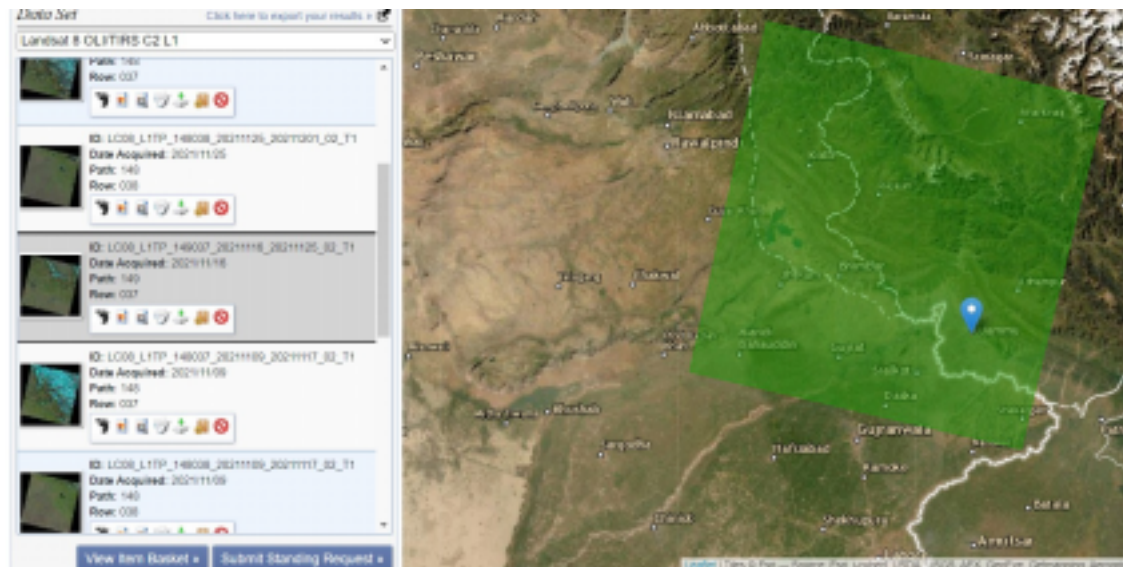
Data Sets » **Additional Criteria »** **Results »**

3) Select the below Data set and get results.



4)

Look for the suitable data set by seeing it's footprint and then download it.



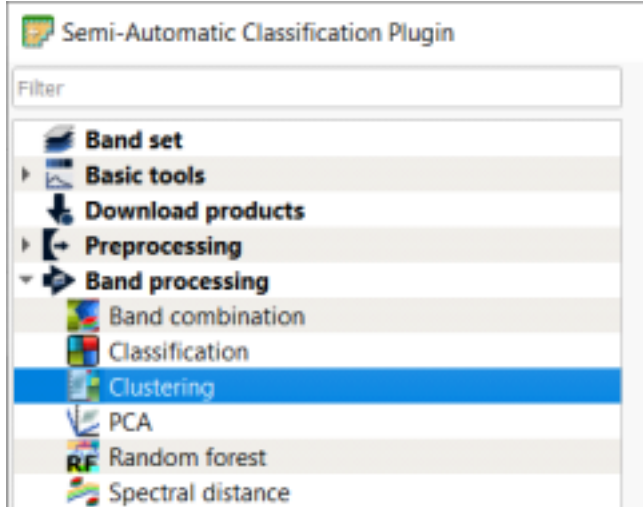
CREATING UNSUPERVISED CLASSIFICATION

1) Install the SCP plugin

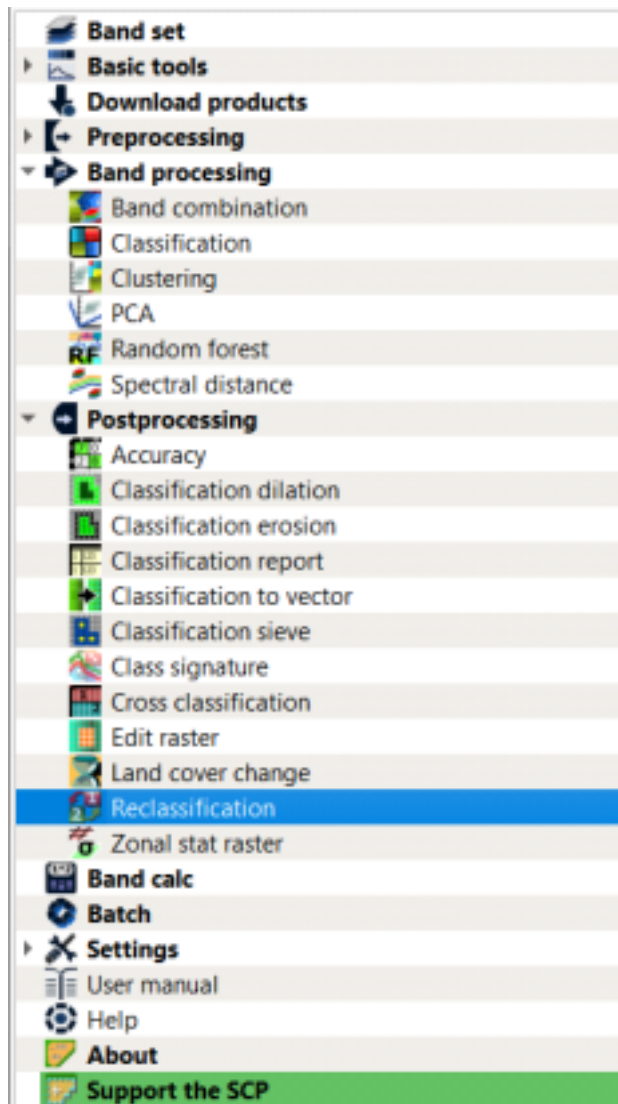


2) Unzip the downloaded file and browse the extracted files

3) Cluster the above downloaded data for one unsupervised classification



4) Now in post processing select reclassification to create a different layer which will be having the data of the required, provide the new values of the band set and then run.



5) Change the colour of the selected bands and label them with their name

Tool

Help

Redassification

Select the classification

unsupervised classification

Values

☐ calculate C ID to MC ID values

Calculate unique values

Incremental new values

	Old value	New value
1	-999.0	-999.0
2	1.0	1.0
3	2.0	2.0
4	3.0	3.0
5	4.0	4.0
6	5.0	5.0
7	6.0	6.0
8	7.0	7.0
9	8.0	8.0

+

-

Symbology

☐ Use code from Signature list

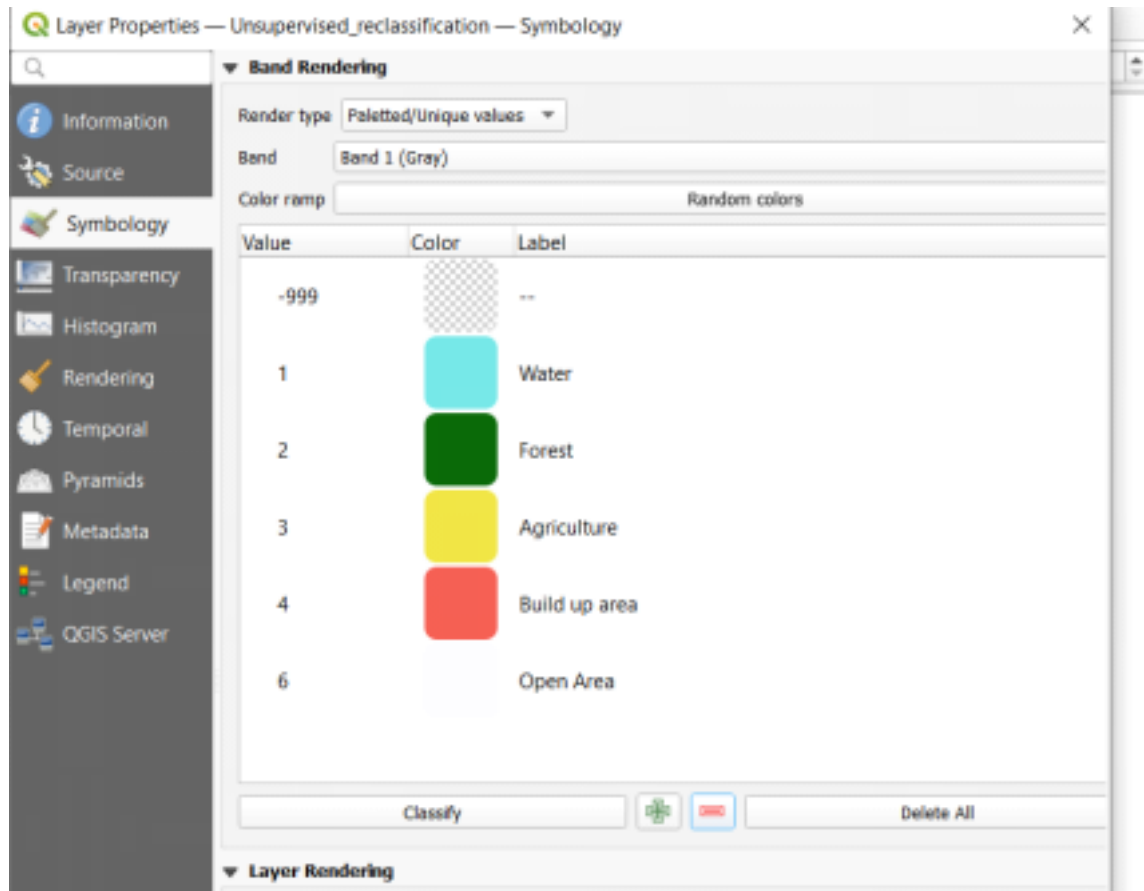
MC_ID

Run

BATCH

RUN

6)Print the layout (add north,grids,scale,legend,coordinates) and export it as image.



Conclusion: We created an unsupervised classification of an area whose exported image is attached below

