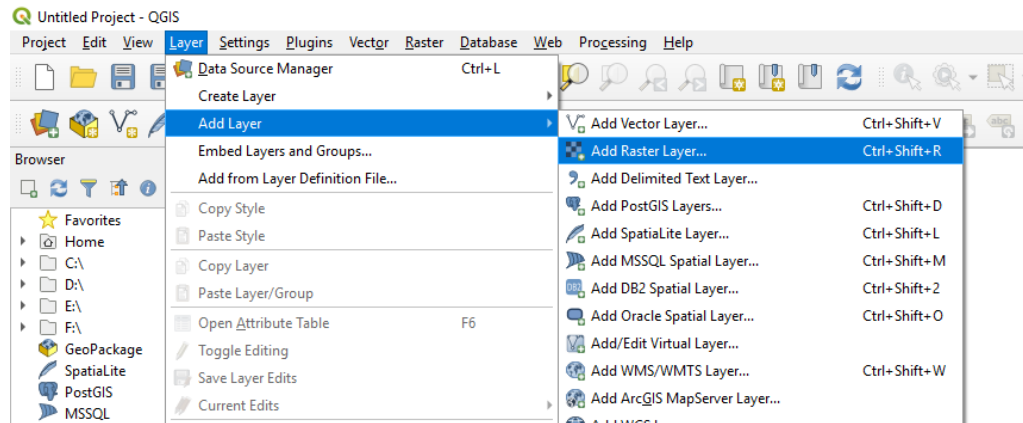


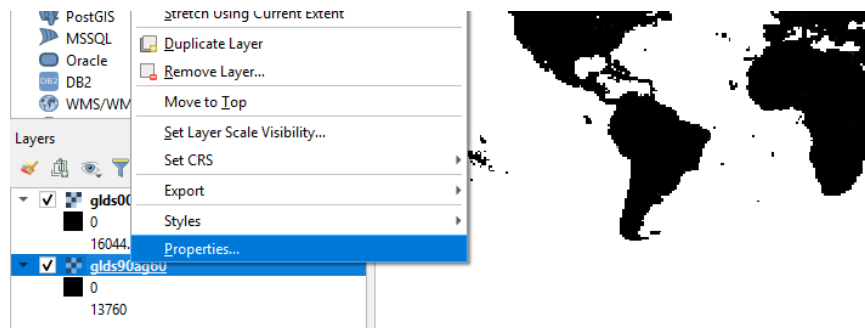
Practical No.: 2

A) Exploring and Managing Raster data: Adding raster layers, raster styling and analysis

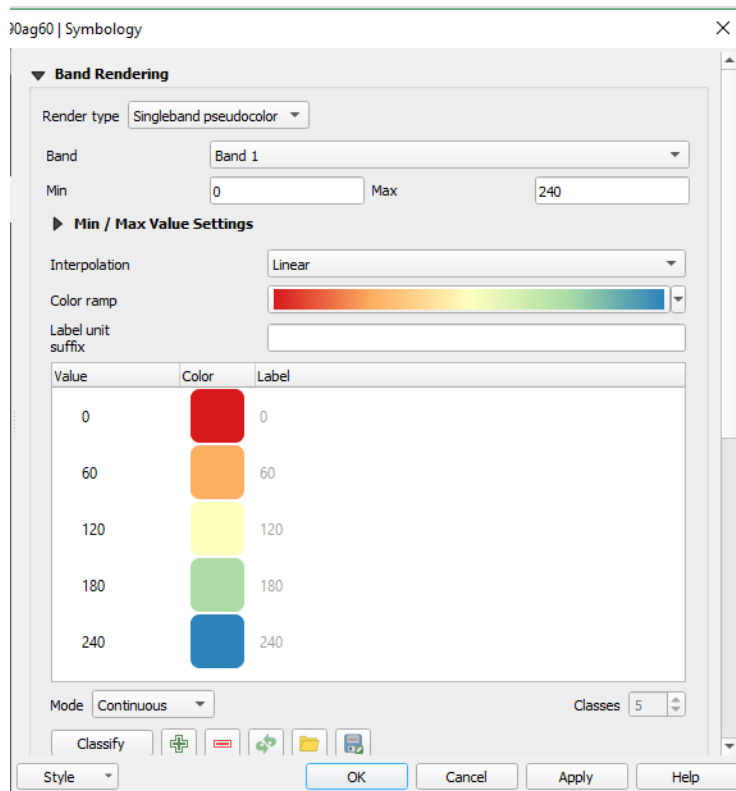
1. Add Raster layer.



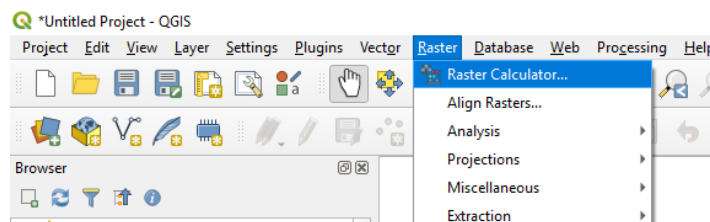
2. Browse a file “glds90ag60.asc” and click on Add button, similarly add “glds00ag60.asc” file and click on Add button.
3. On the next screen set CRS as EPSG:4326.
4. Right click on “glds90ag60” layer and select “properties”.



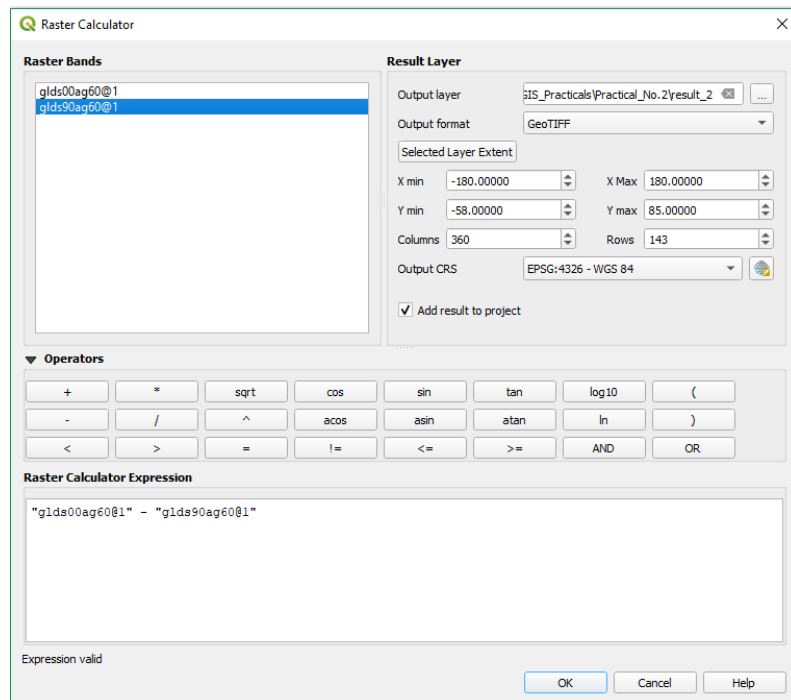
5. Select “Symbology”. In “Render type” select “Singleband pseudocolor”. Set 0 in min textbox and 240 in max textbox. In “Interpolation” select “Linear”. In “color” menu select “Spectral”. Click on Apply and then Ok buttons.



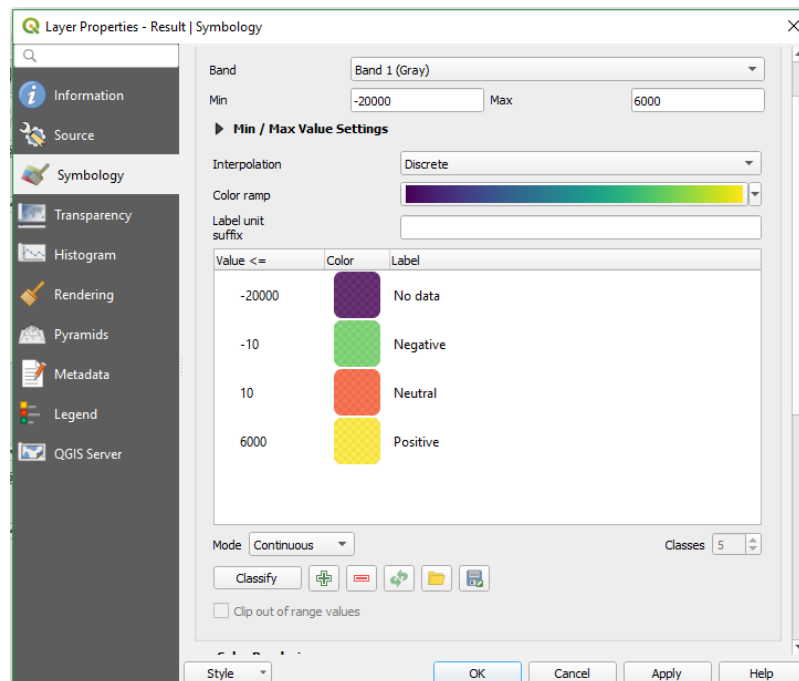
6. Go to Raster → Raster Calculator...




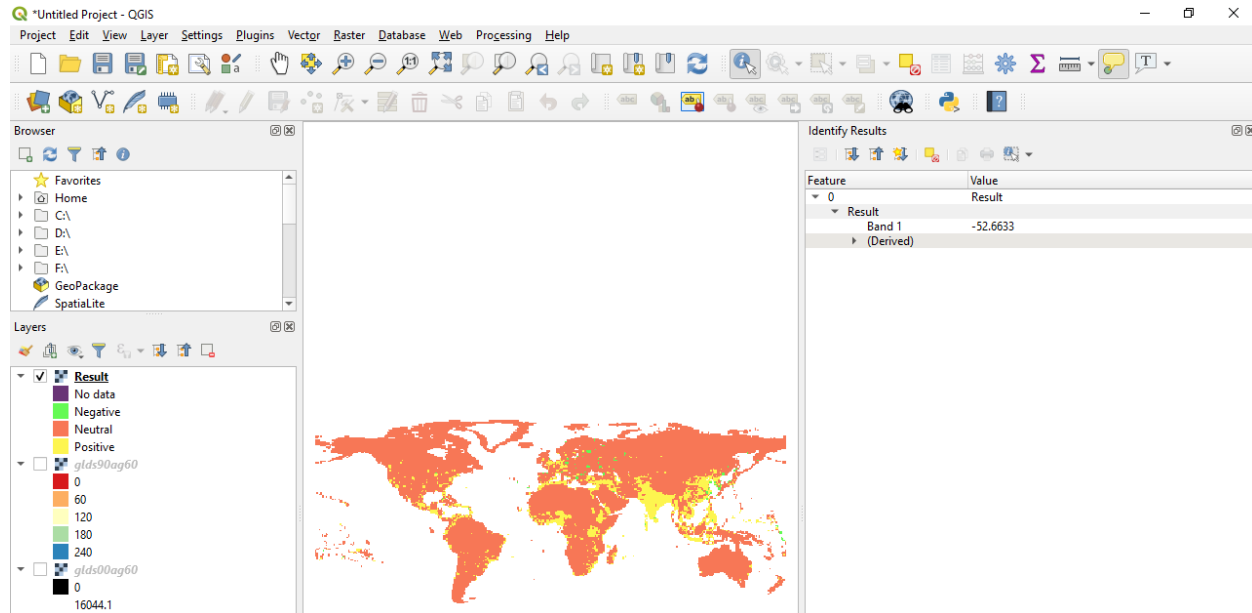
7. Click on ... button, menu will appear select the path where you want to save output. Enter name for output file and click on "Save". Double click on "glds00ag60@1" then click on "-" and then double click on "glds90ag60@1".



8. Click on “OK”. It will create new layer. Select that layer “Right click” on it and select properties. In properties select symbology tab.
9. In “Render type” select “Singleband pseudocolor”. Set -20000 in min textbox and 6000 in max textbox. In “Interpolation” select “Discrete”. In “color” menu select “Spectral”. Remove all classification and add as below using + and – buttons.

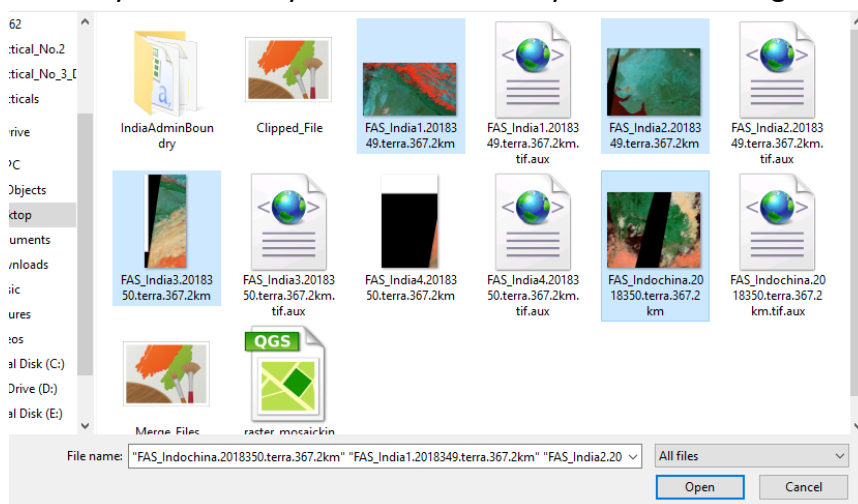


10. Explore an area of your choice and check the raster band value using  to verify the classification rule. The green pixel shows negative changes and yellow shows positive changes.

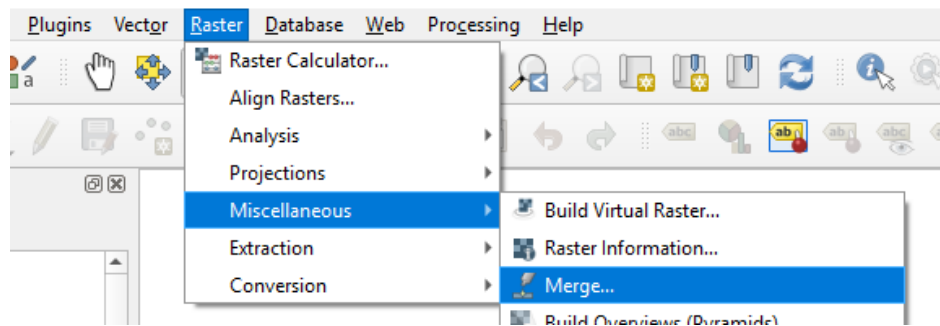


B) Mosaicking and Clipping

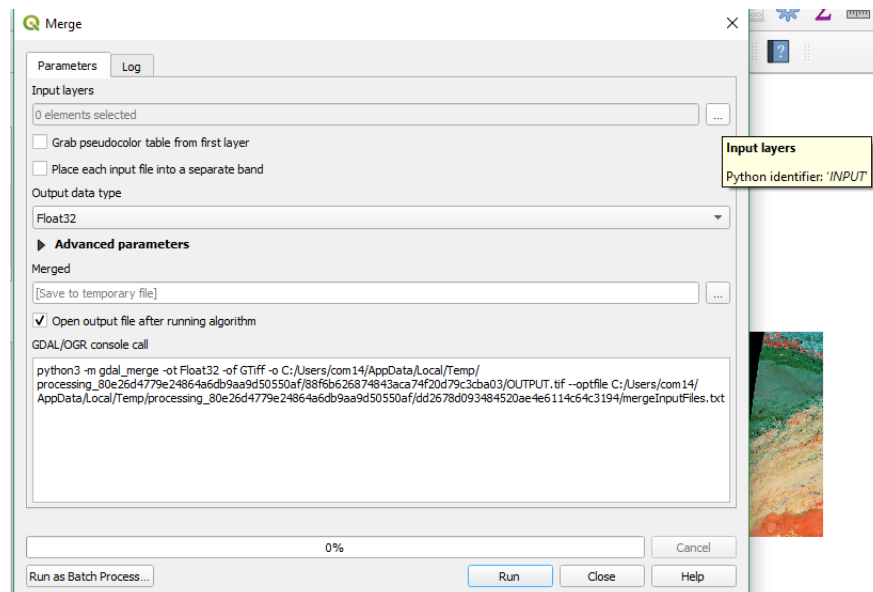
11. Go to Layer → Add Layer → Add Raster Layer... Add .tif images.

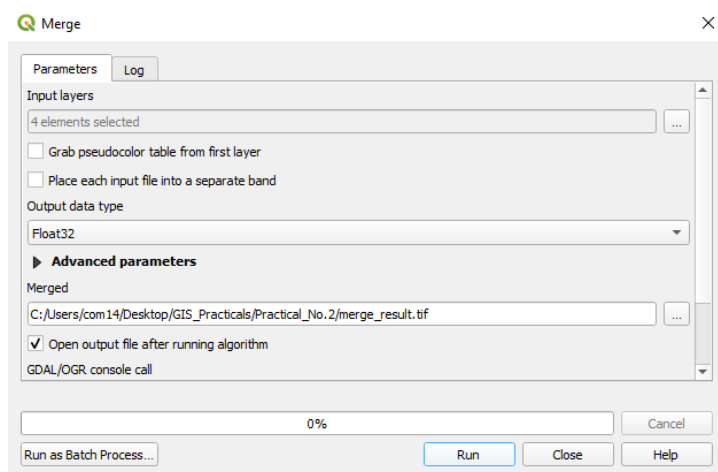
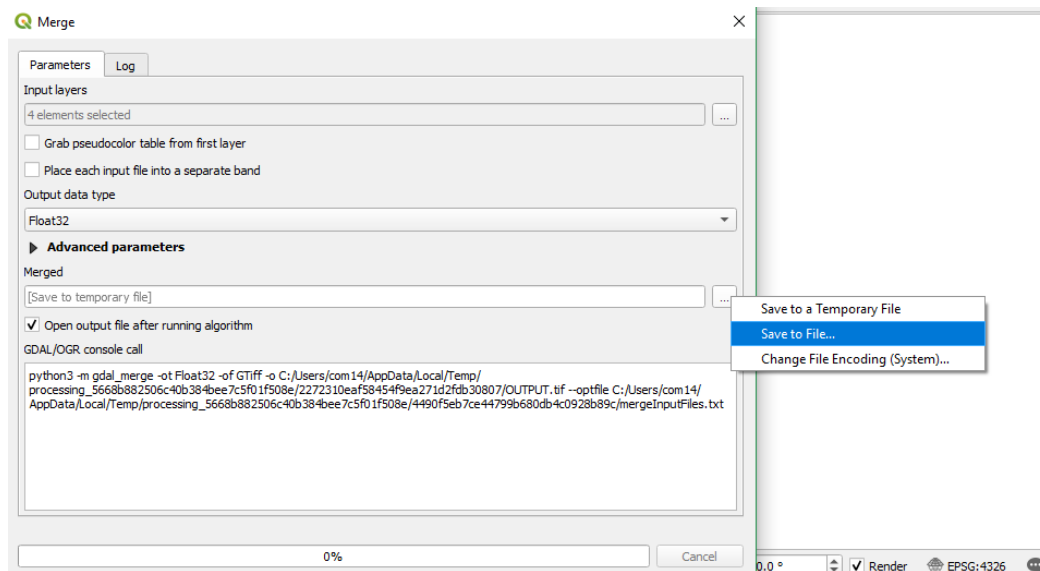
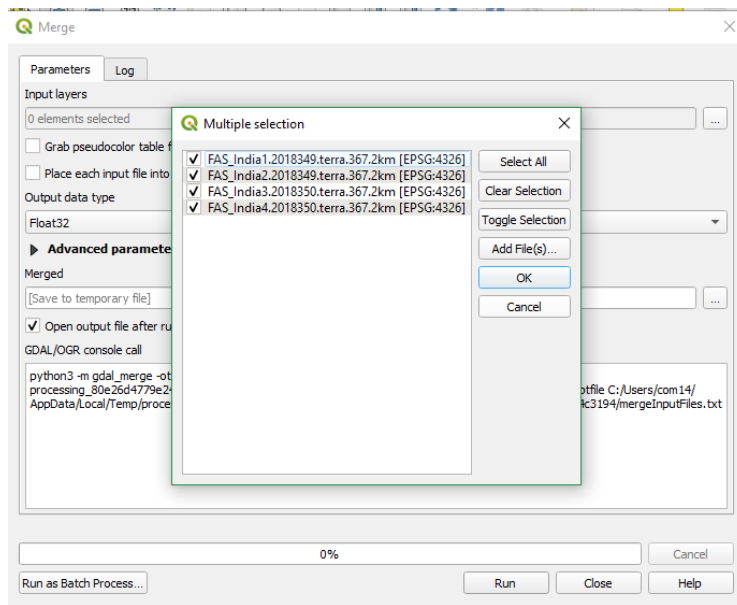


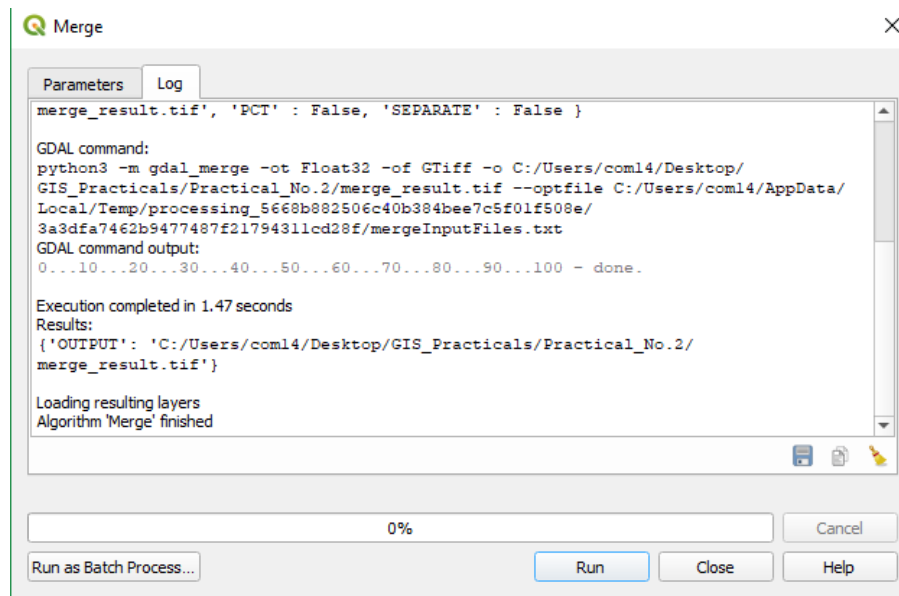
12. Go to Raster → Miscellaneous → Merge



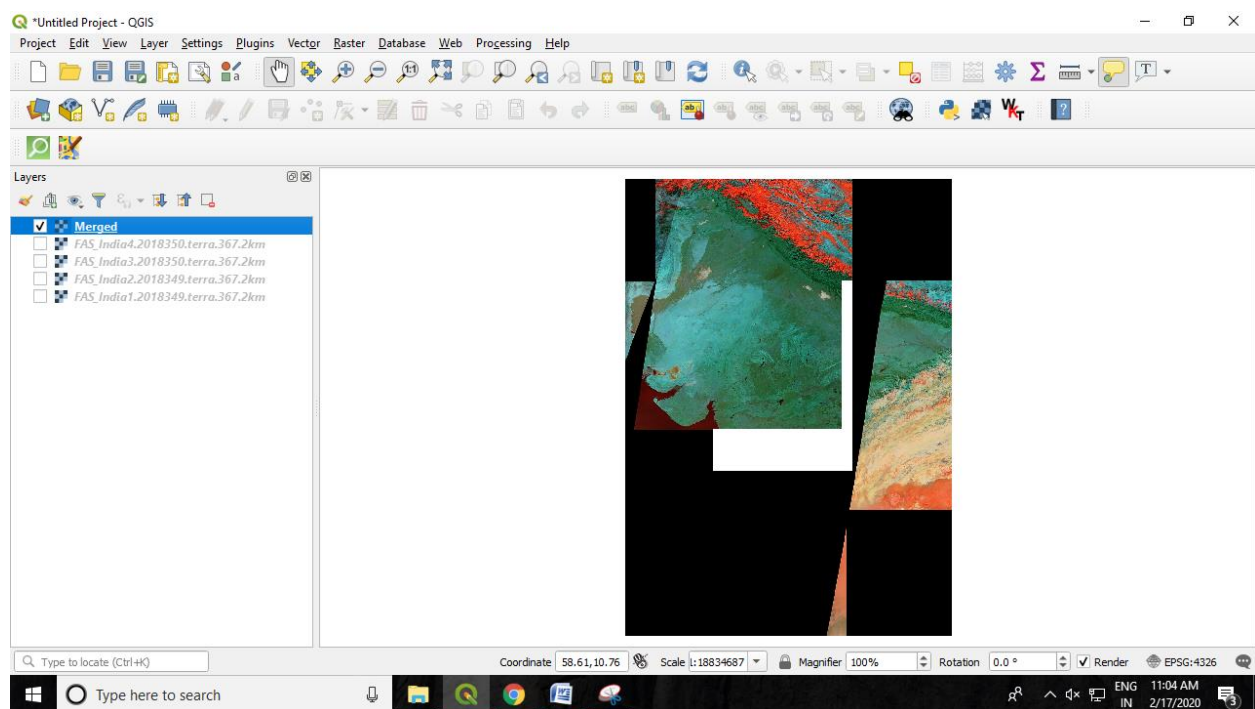
13. In the Merge dialog window provide input layers (select all layers and Press OK). Also, In Merge dialog window select a file name and location to save merged images. Press Run button and after successful execution click on close button.



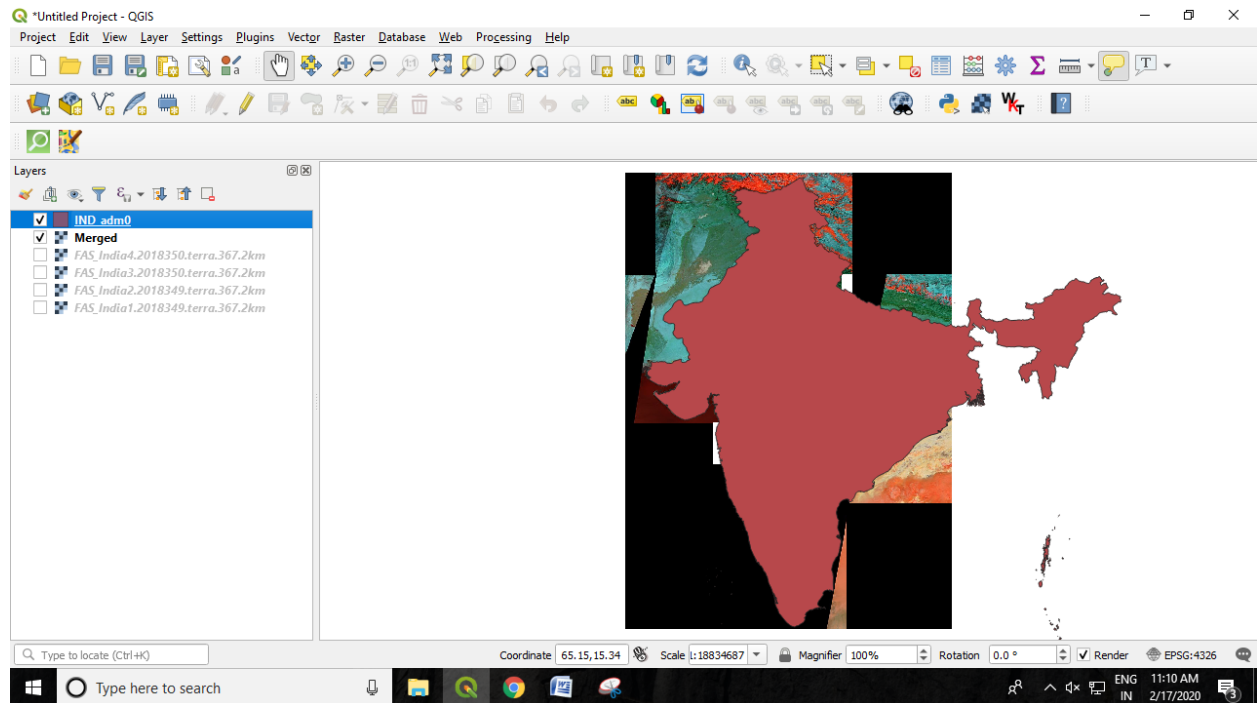




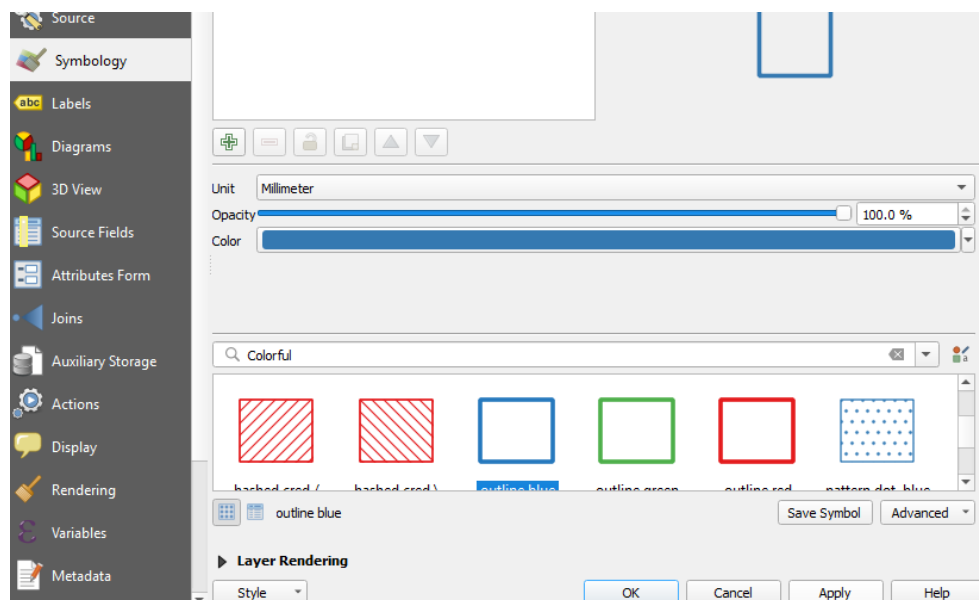
14. You can now deselect individual layers from layer pane and only keep the merged raster file

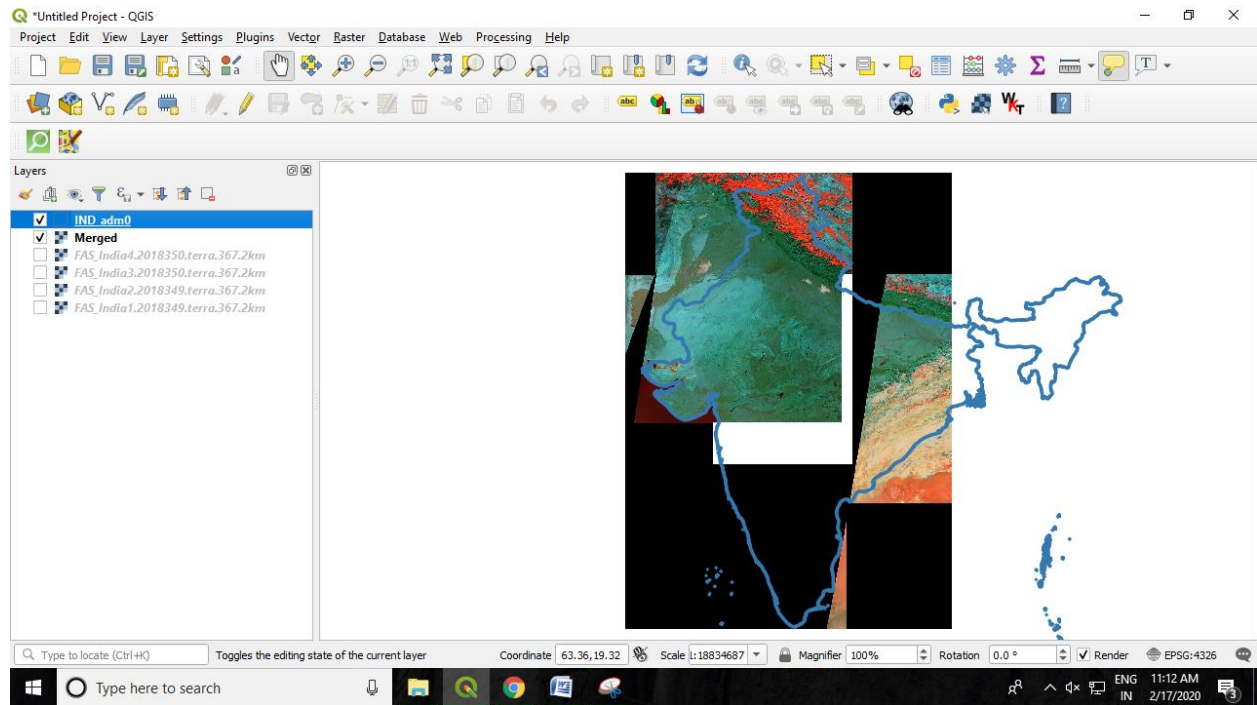


15. Go to Layer→ Add Vector Layer → select “IND_adm0.shp file” from “Practical_No_2_Data\IndiaAdminBoundry” then click on Add button and close it.

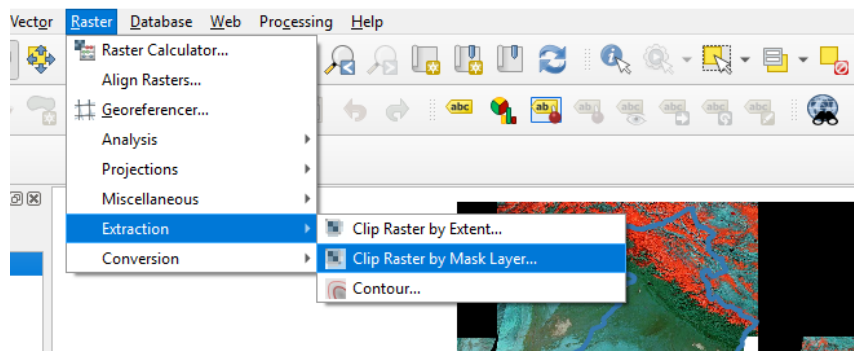


16. From layer properties → select Symbology → select any one of the following then click on Apply and ok buttons:

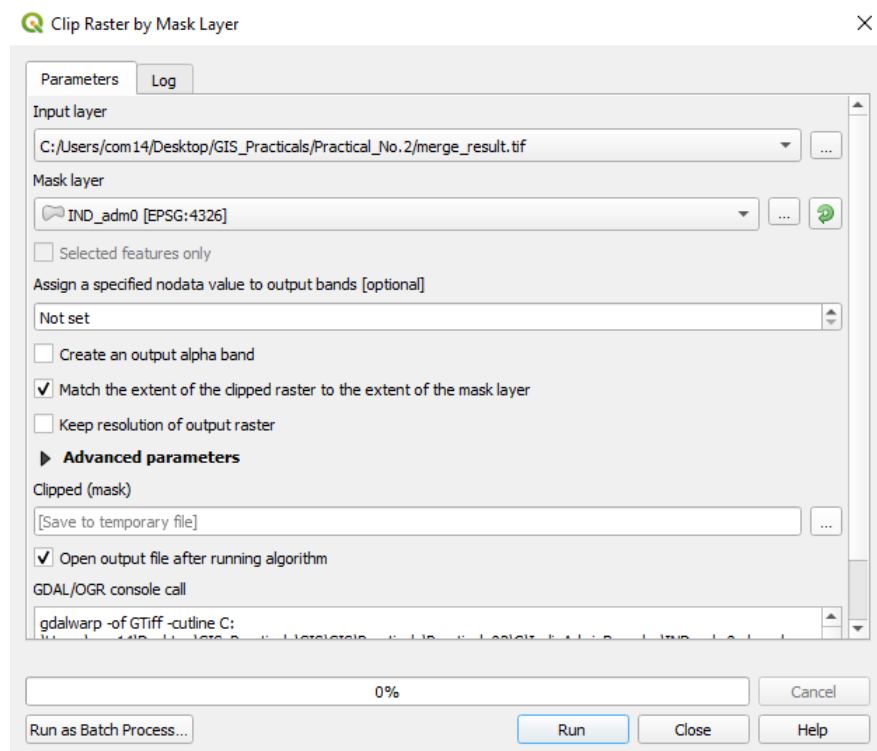




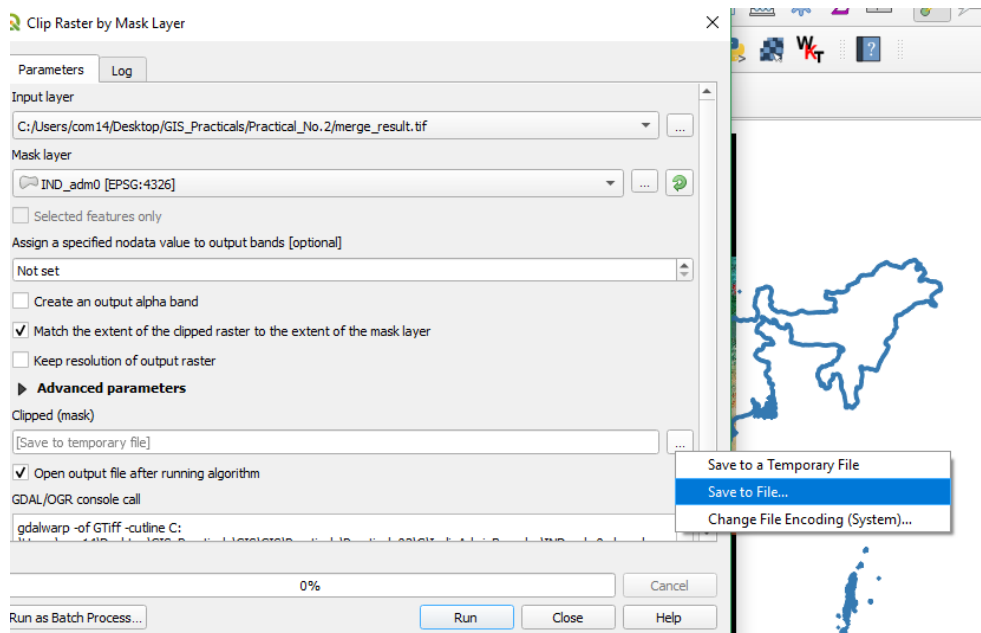
17. Go to Raster → Extraction → Clip Raster by Mask Layer



18. Select the merge raster image as input and Ind_adm0 as mask layer.



19. Select a file name and location for clipped raster.



20. Press RUN after successful execution click on Close button.

