

Note:

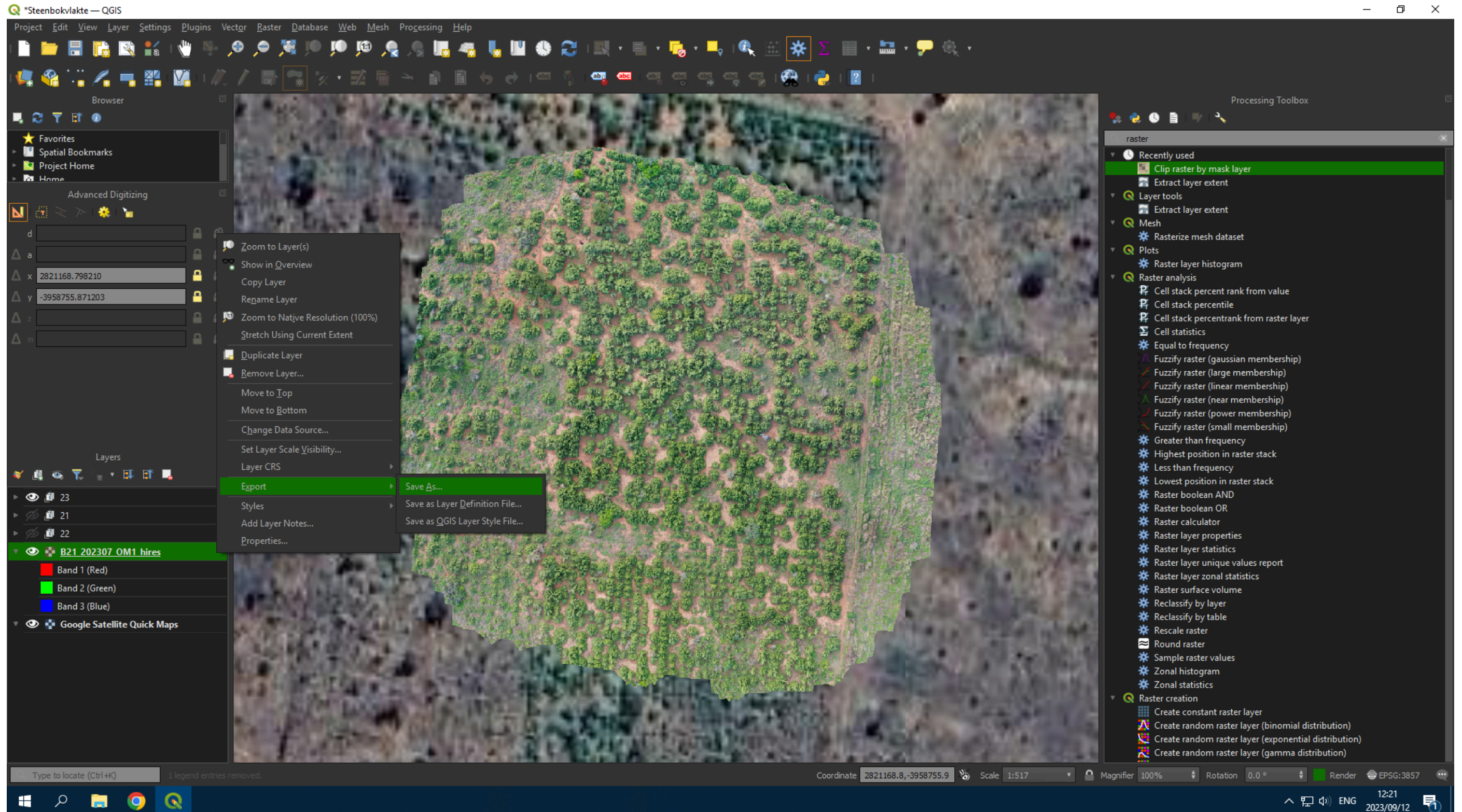
Make sure the square AOI is parallel to the screen, and not set at an angle, even if it is a true square with 90° corners

Make all the AOIs first, then click change parameters after running the clip.

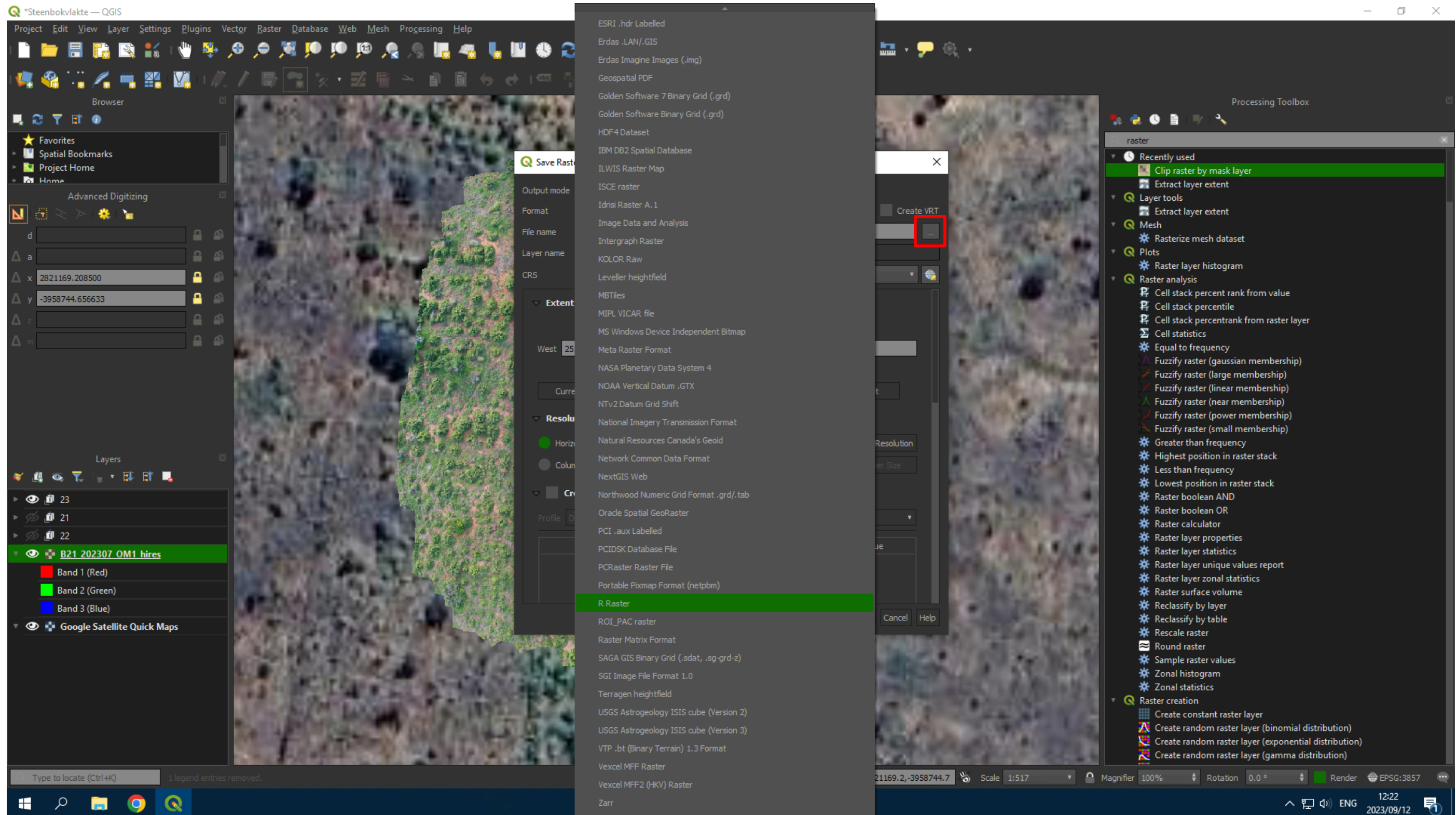
Making Area of Interest (AOI) squares for CNN training

Prep work

Drag and drop the geotiff orthomosaic into QGIS. Then right click on the layer, go to Export and then Save as



Under format select R Raster. Select the ... box at the end of File Name to select where the file is going to be saved.

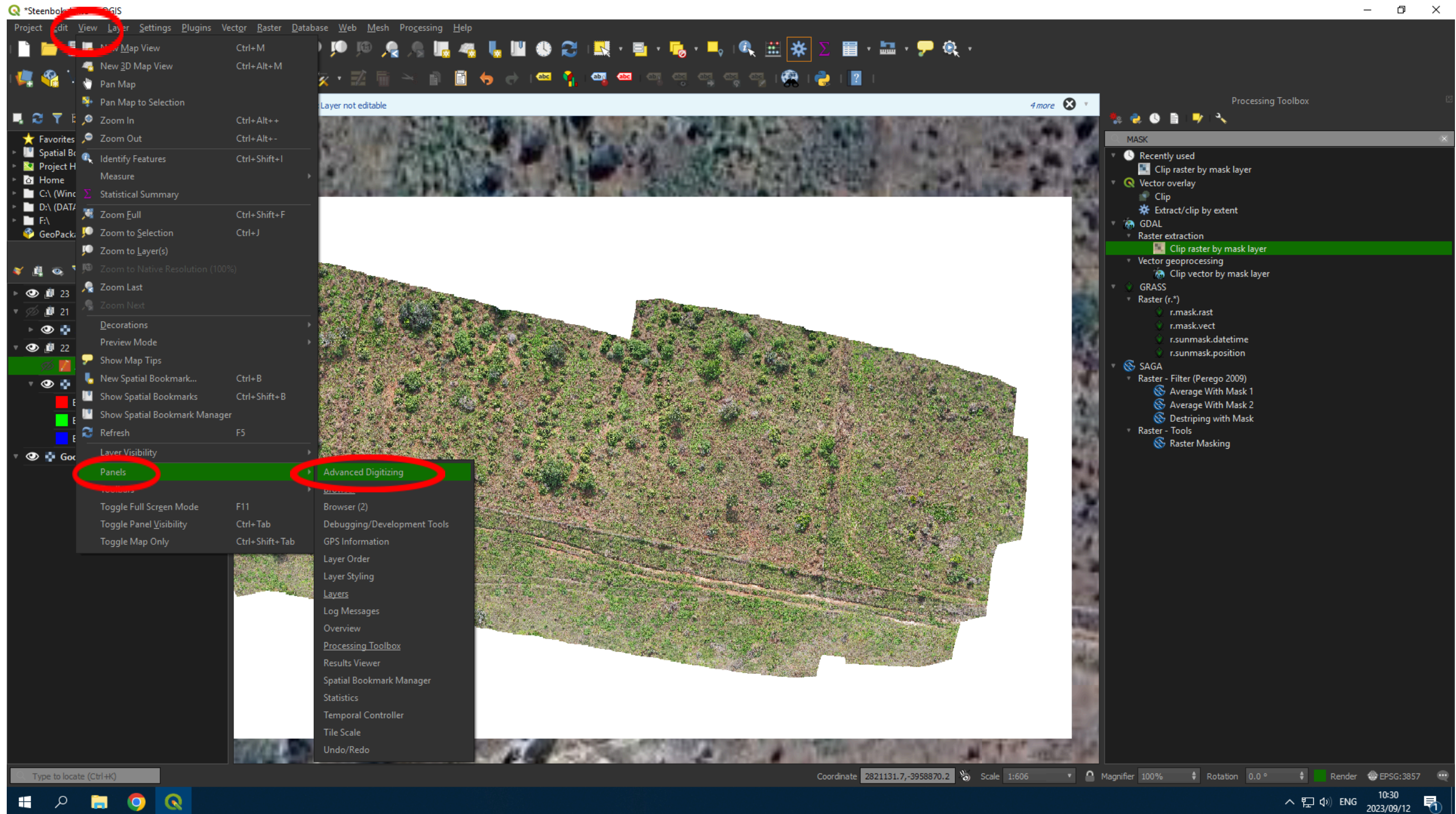


This will create the raster file that will be used to extract the area of interest from.

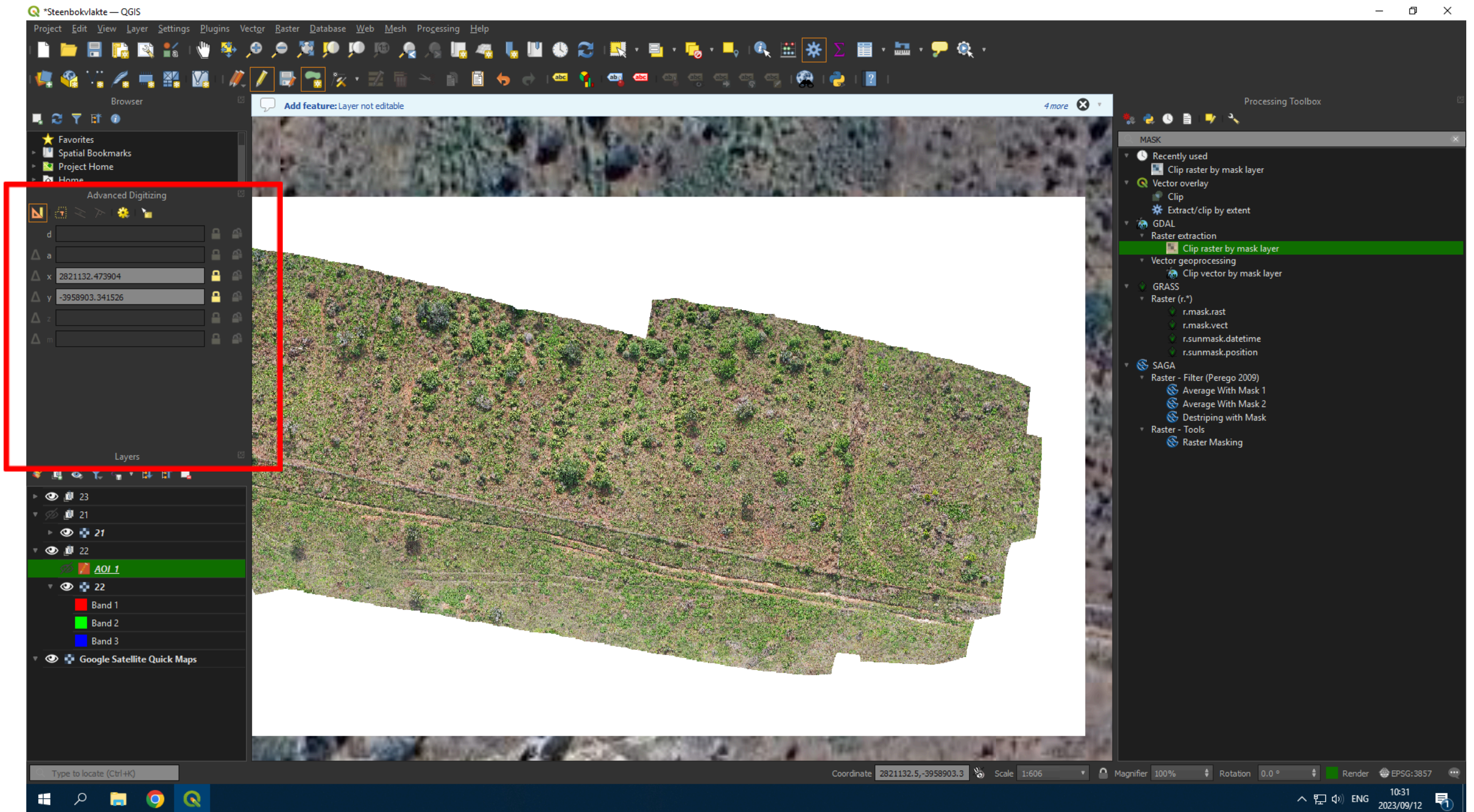
Making Area of Interest (AOI) squares for CNN training

Step 1: Enable advanced digitising

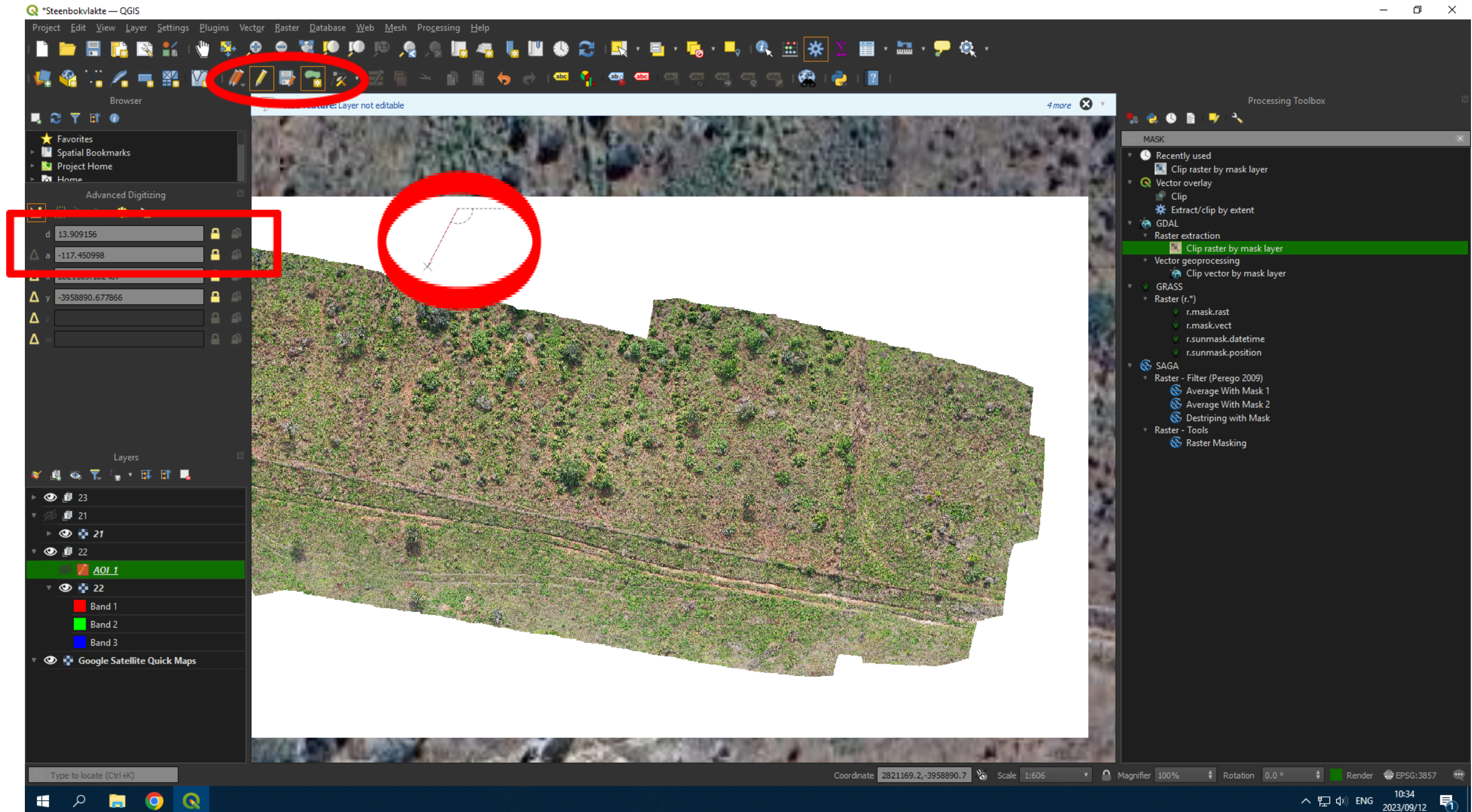
Click on View, then Panels, and Advanced Digitising.



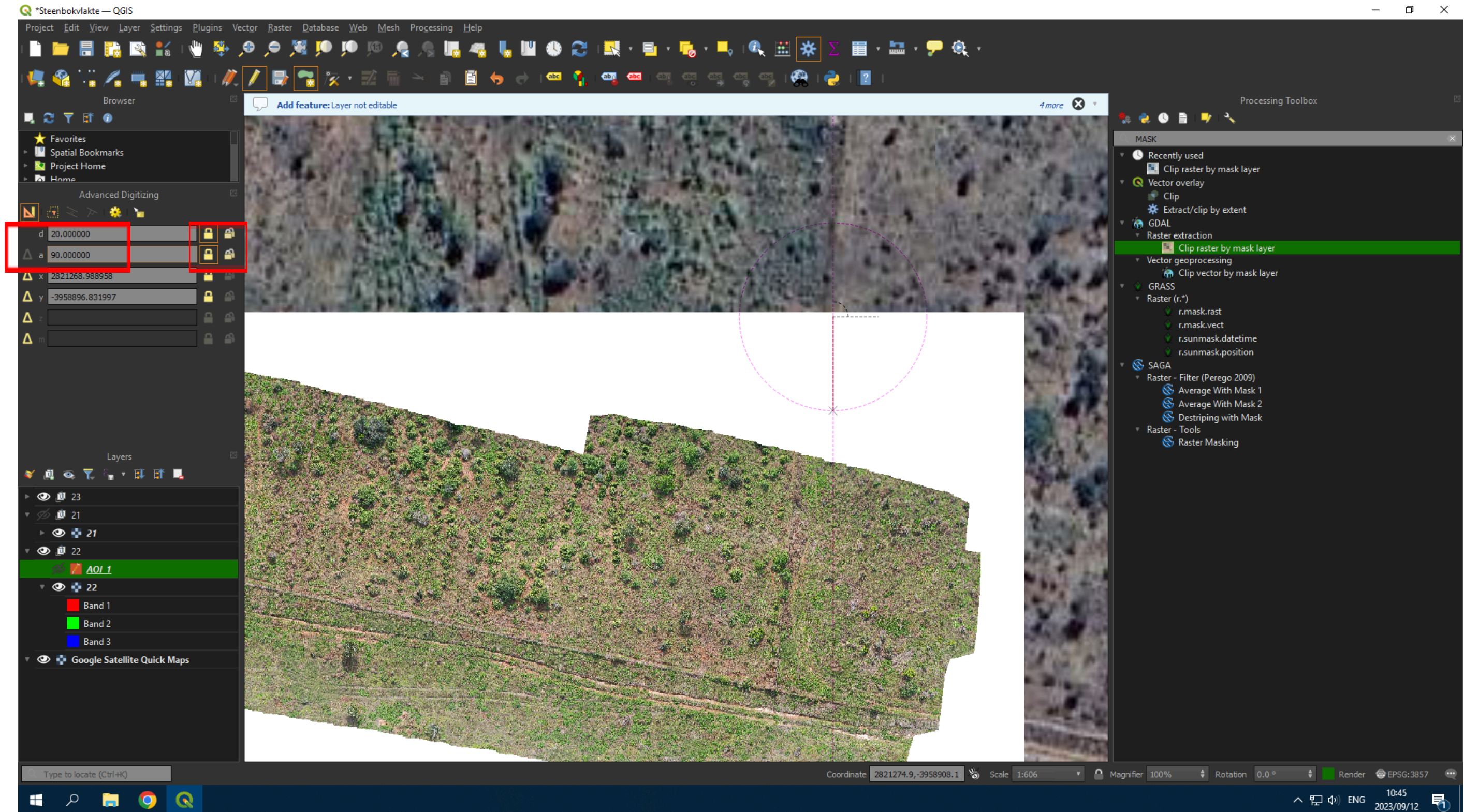
The panel below should now appear on the left side.



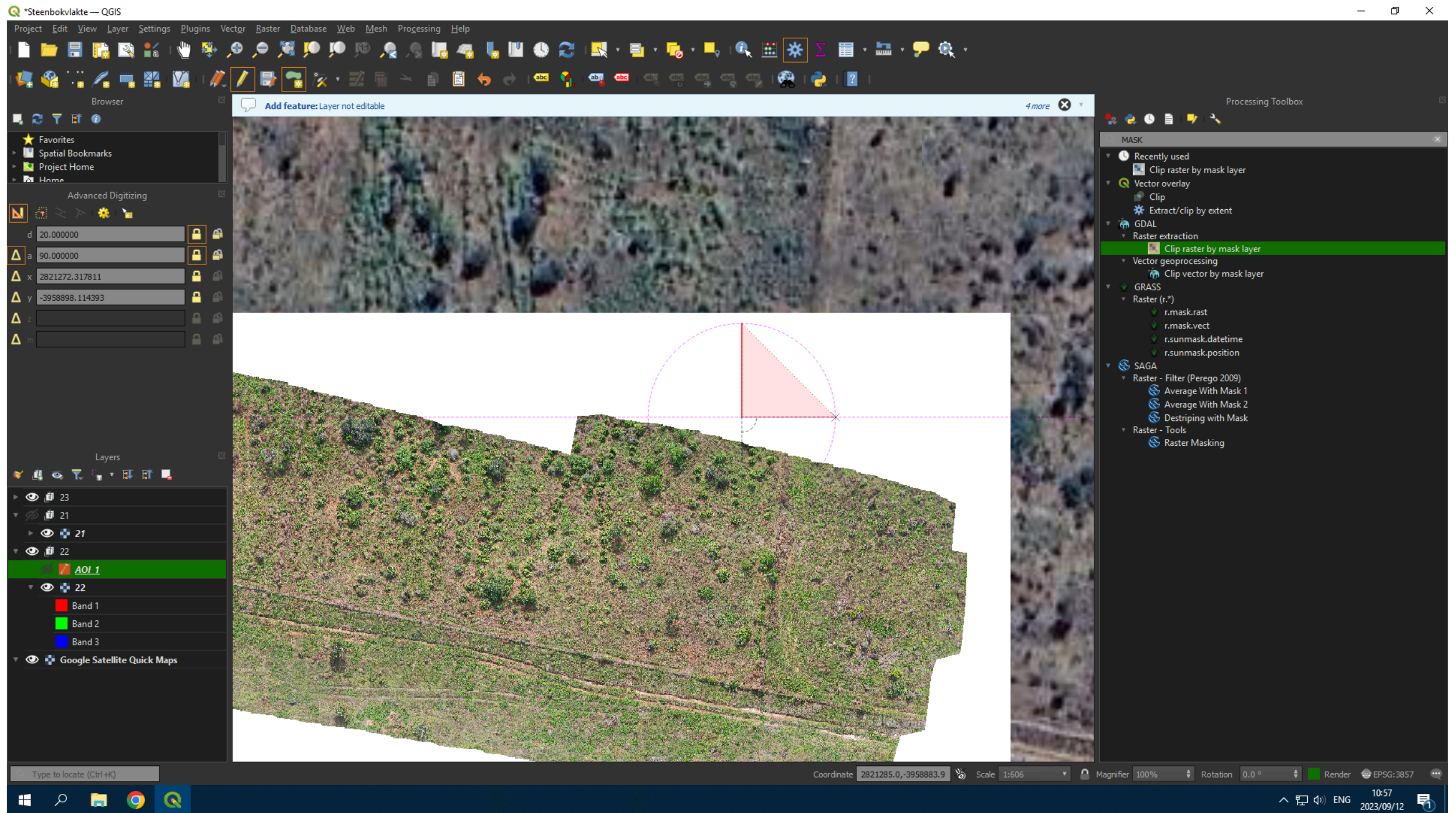
Step 3: Create a polygon shapefile named AOI_# (where # is the number of the AOI you are currently working on), then turn on editing and add a polygon feature. When you click to add the first corner of the square, the d and a boxes become activated. The pointer also changes to an X at the end of a red line.



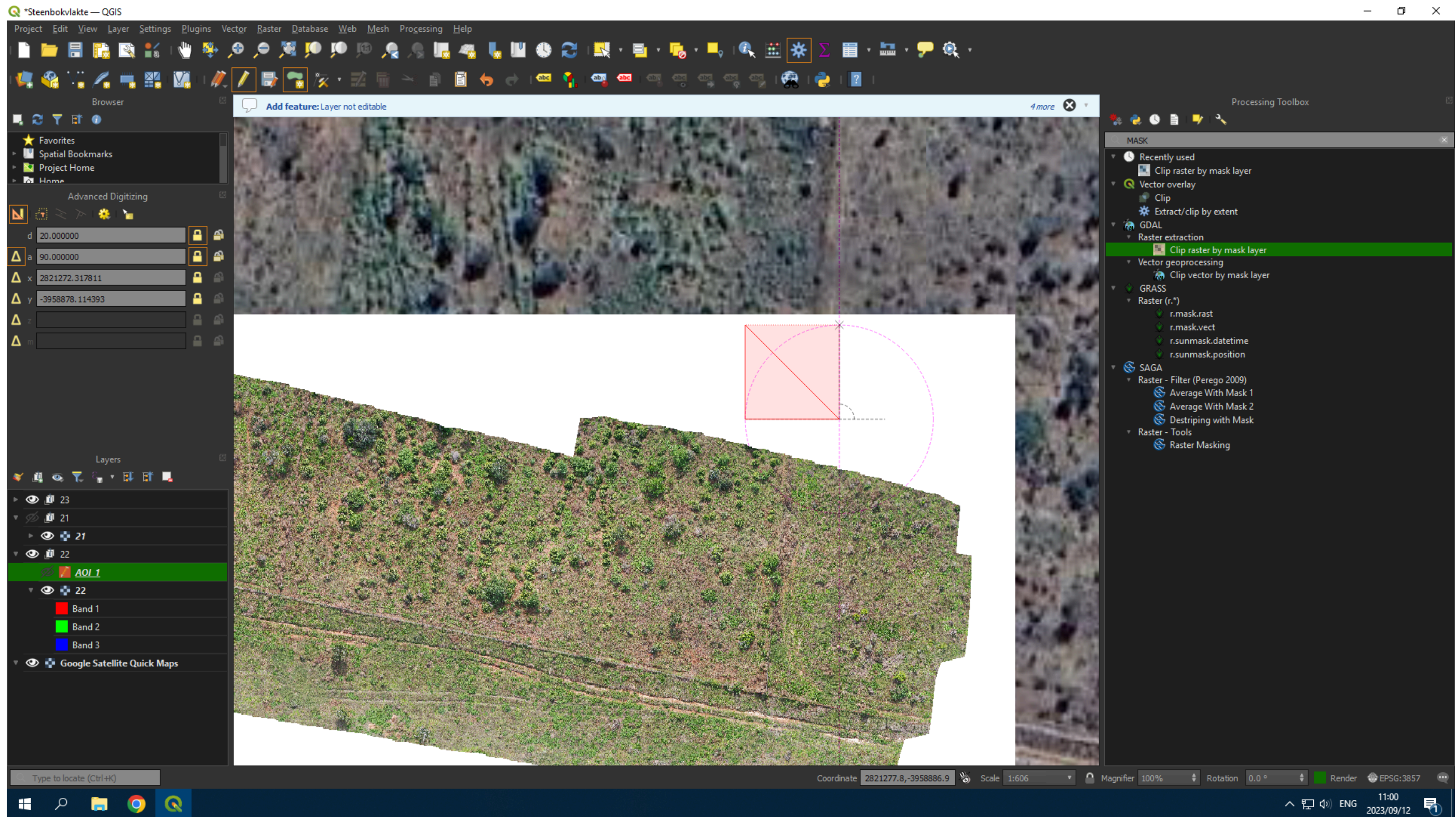
Step 4: Input parameters into the Advanced Digitising panel. The distance of the square is measured in the same units as the project's projection system, so make sure that WGS 84 is selected in order to make the AOI squares in metres. Input the required distance into the box labelled d (20 metres in this case), then put 90° into the box labelled a to specify the angle to be used. Make sure you activate the lock on the right hand side for both of the values, and that you don't accidentally move the mouse off the panel, or the values will change. Locking the values prevents them from changing when you add the other points of the square. Because 90° was selected, the only options for placing the next corner are either vertically above or below the first point.



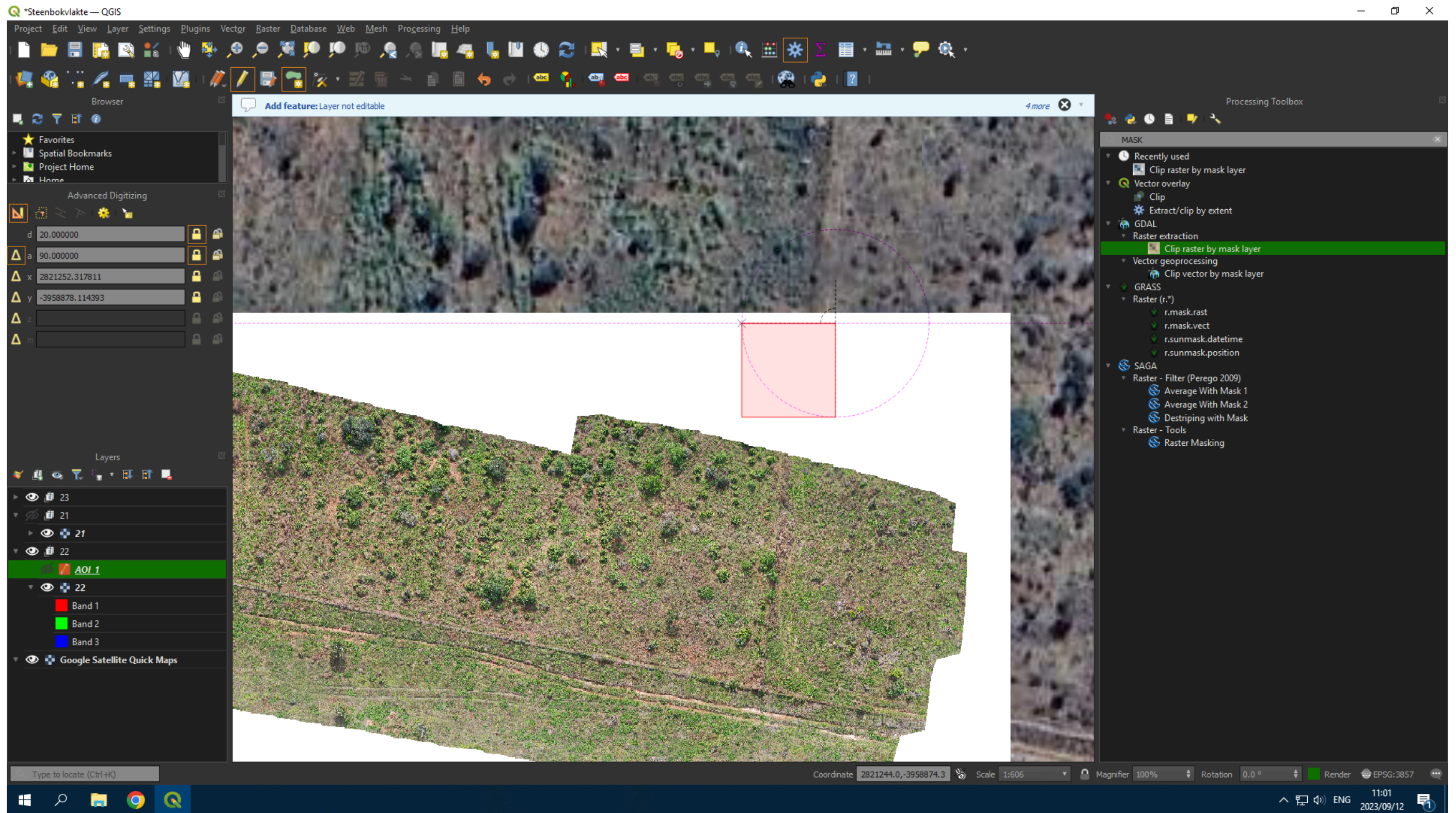
Once the second point (bottom left corner) is selected, the only options for the next point are either horizontally to the left or the right of the second point.



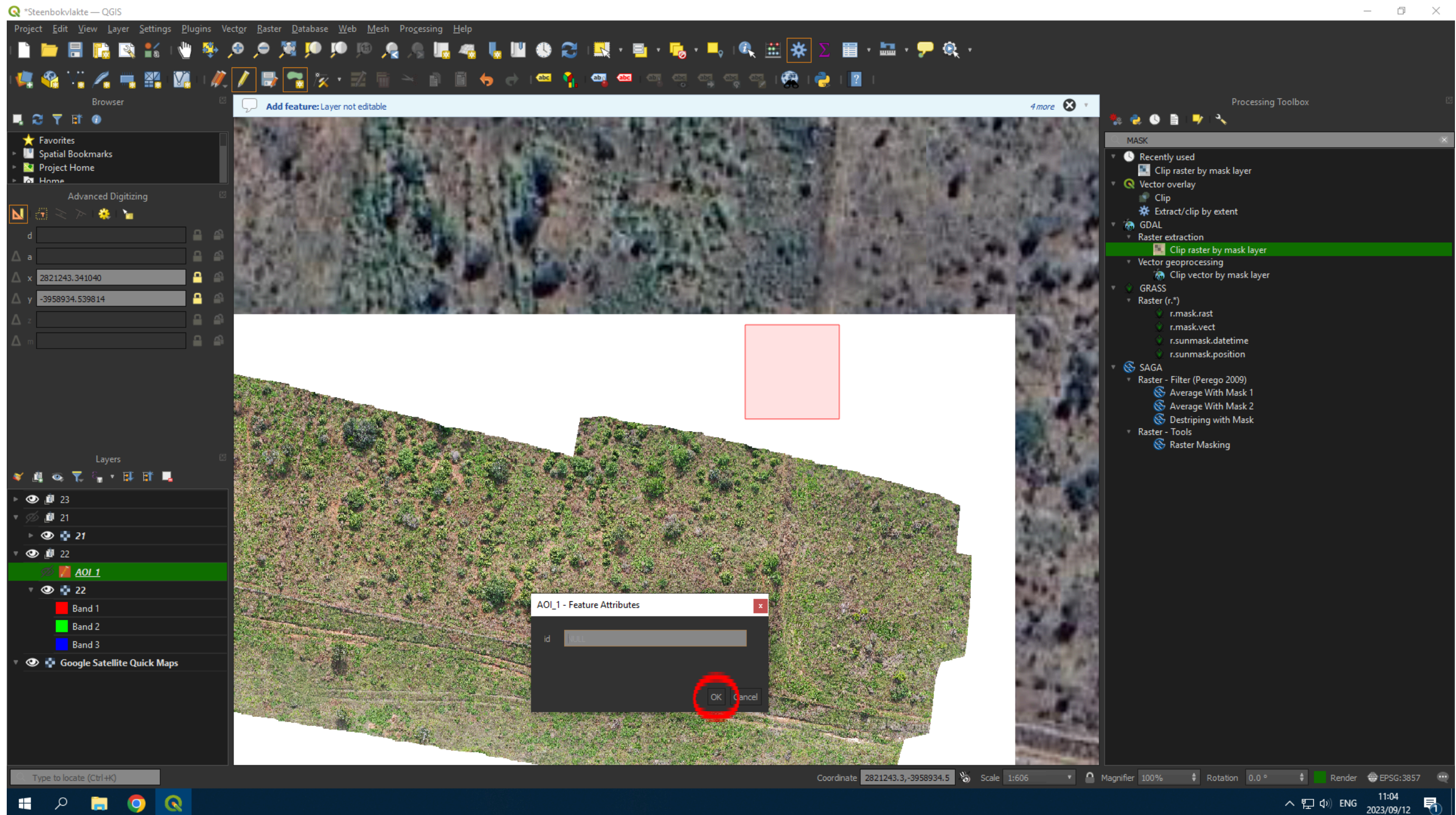
After the bottom corner (right in this case, but it could be the left corner) has been selected, make sure the next point is above the bottom corner.



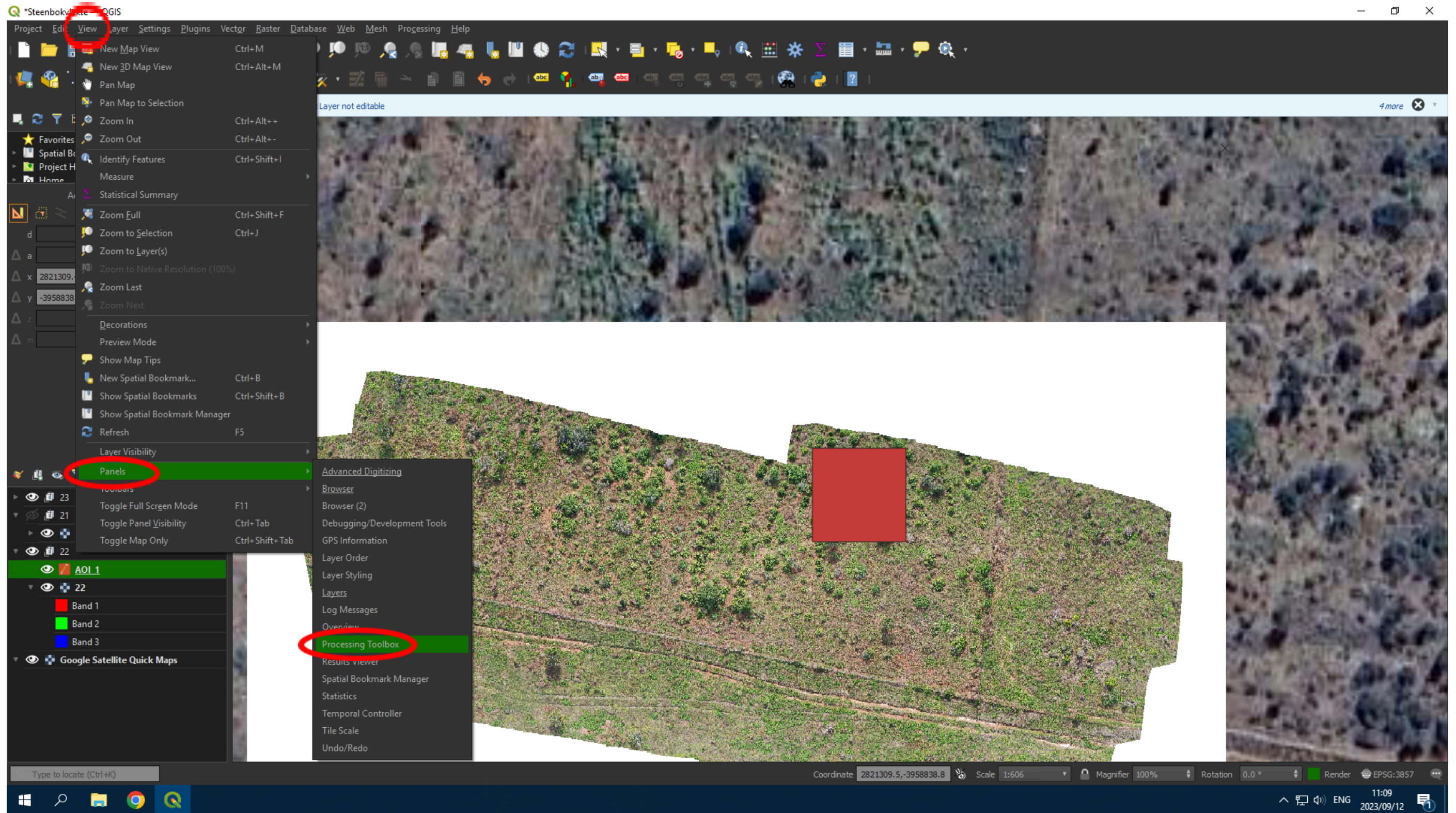
To close the square, click on the original point that you started the square with (top left in this case).



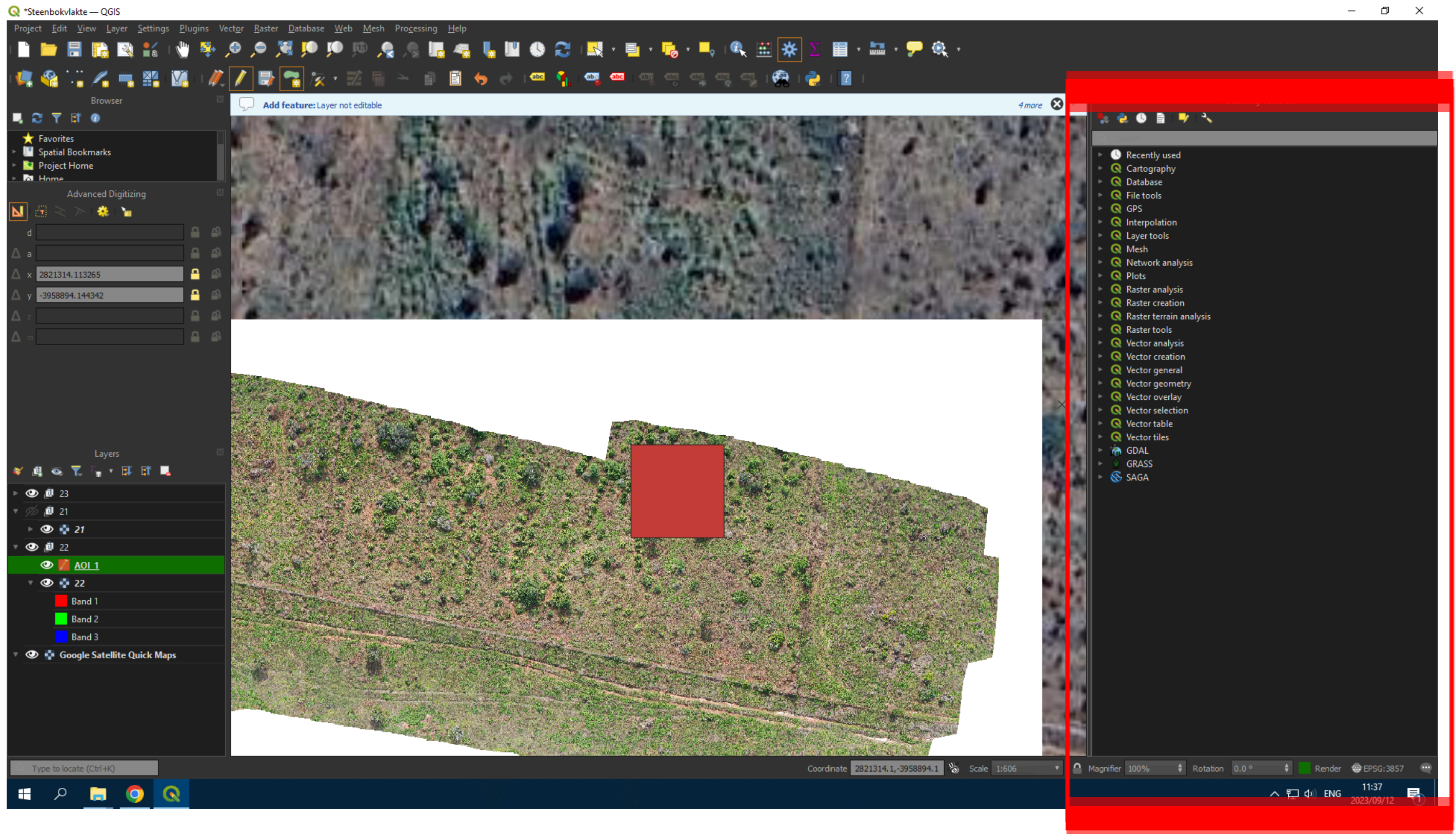
Step 5: Once all the square is completed, right click to complete the polygon. A feature attributes table opens up, but just leave it blank and press ok to add the AOI square to the layers.



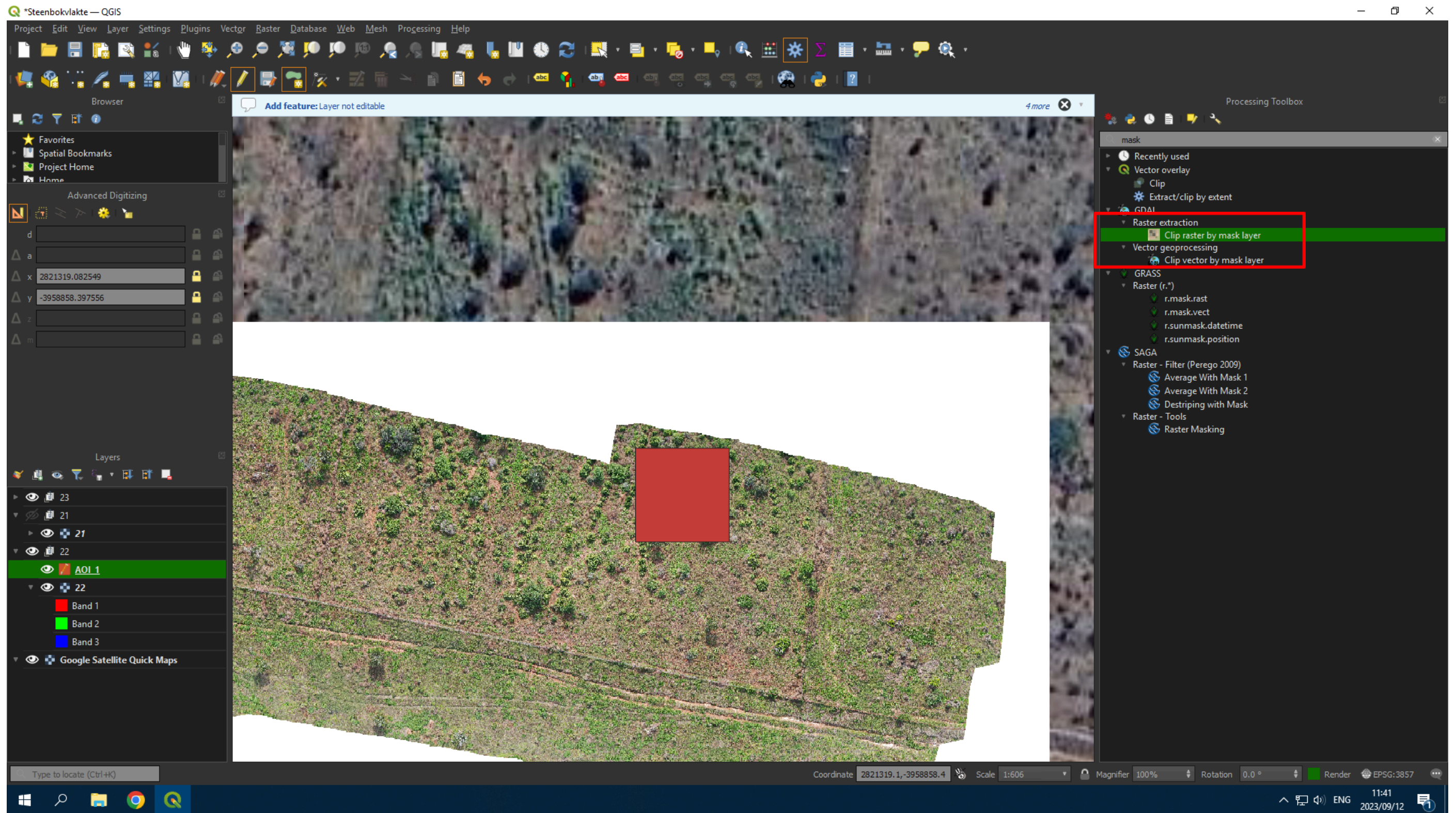
Step 6: To start extracting the section of the orthomosaic below the AOI square, activate the Processing Toolbox by going to View, Panels, Processing Toolbox.



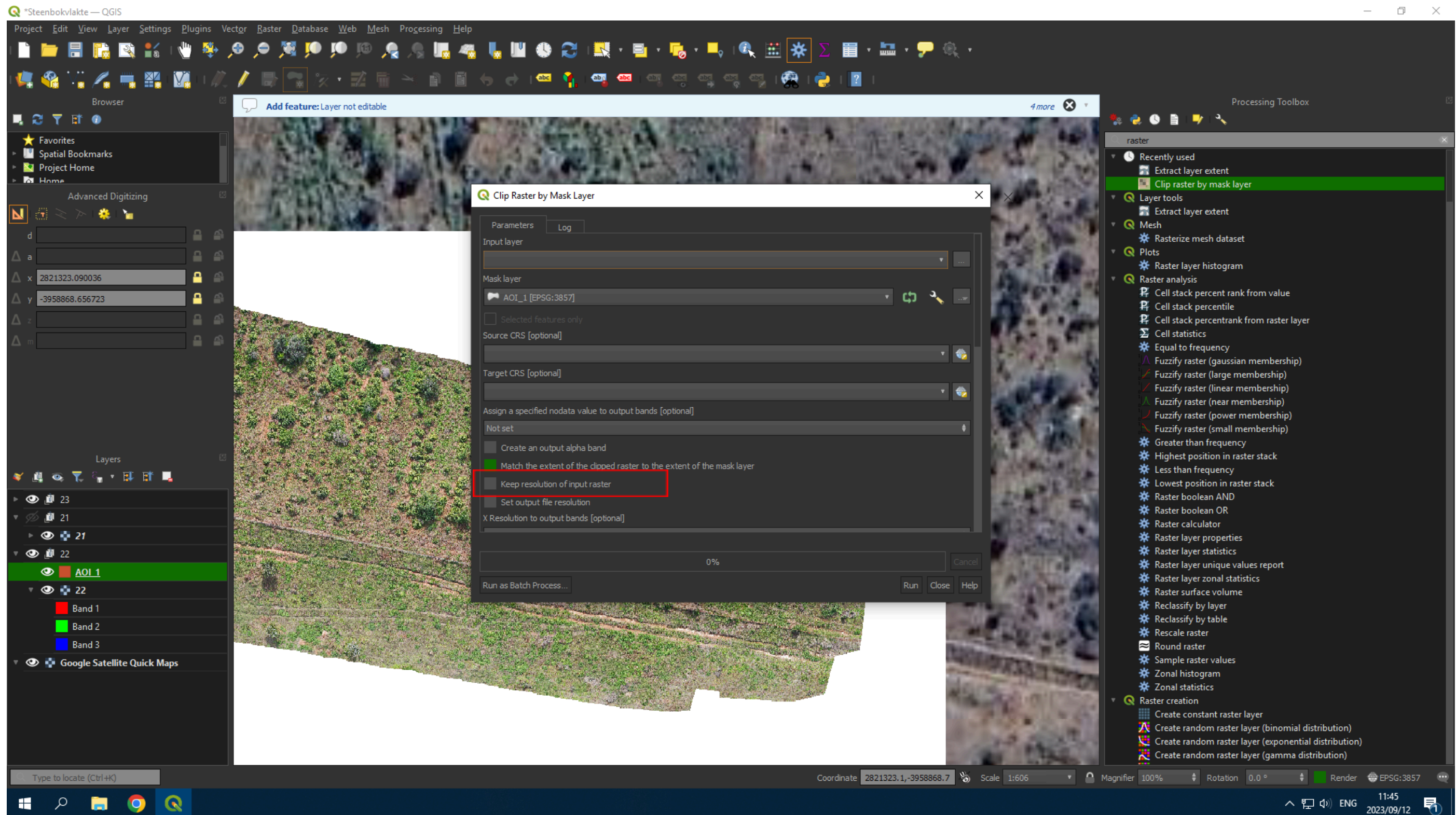
The Processing Toolbox will appear on the right hand side of the screen, and lists all the vector and raster processing tools in QGIS. in the search box (long grey box), type mask.



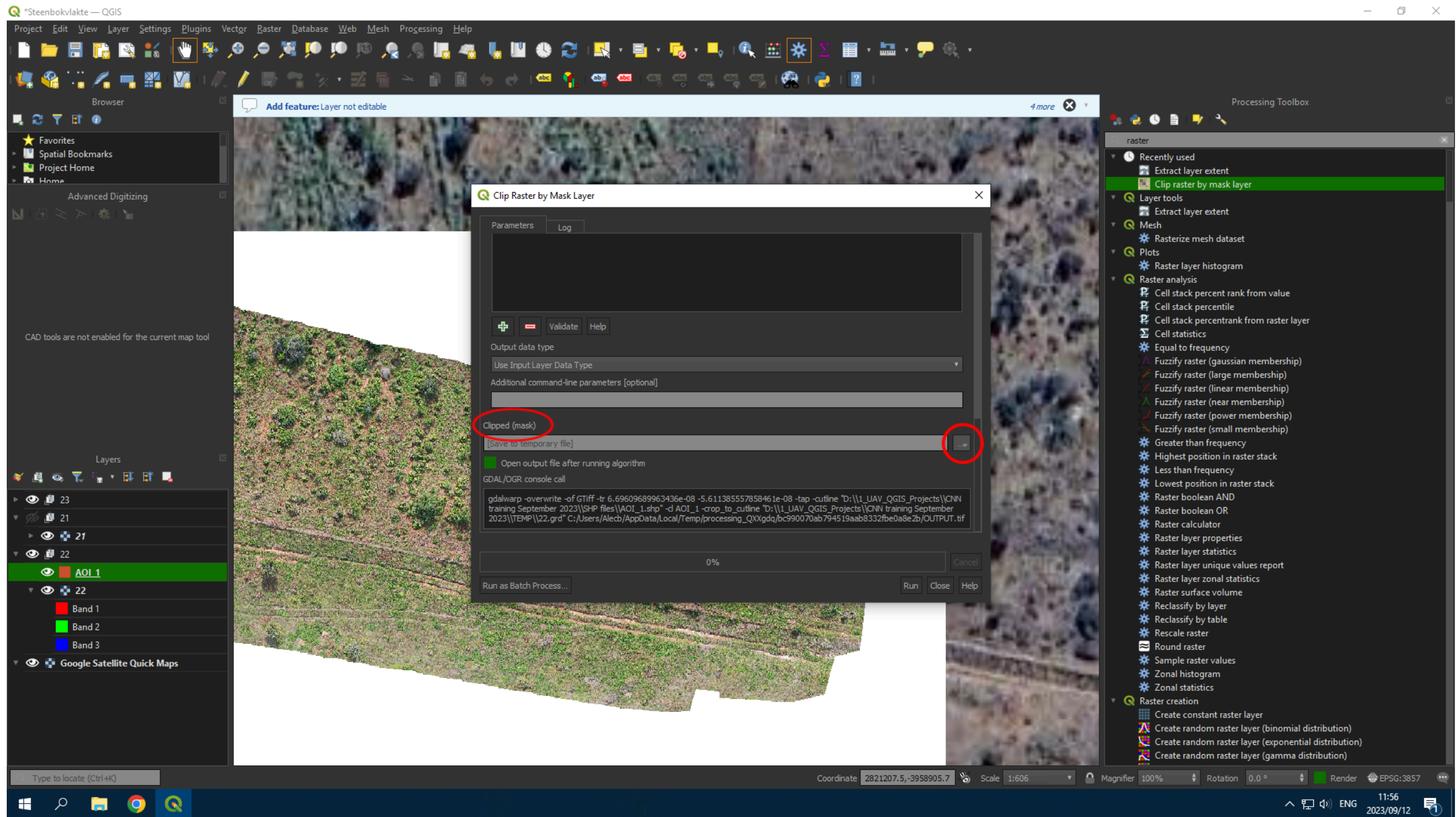
Then click on Clip Raster by Mask Layer in the Raster Extraction section.



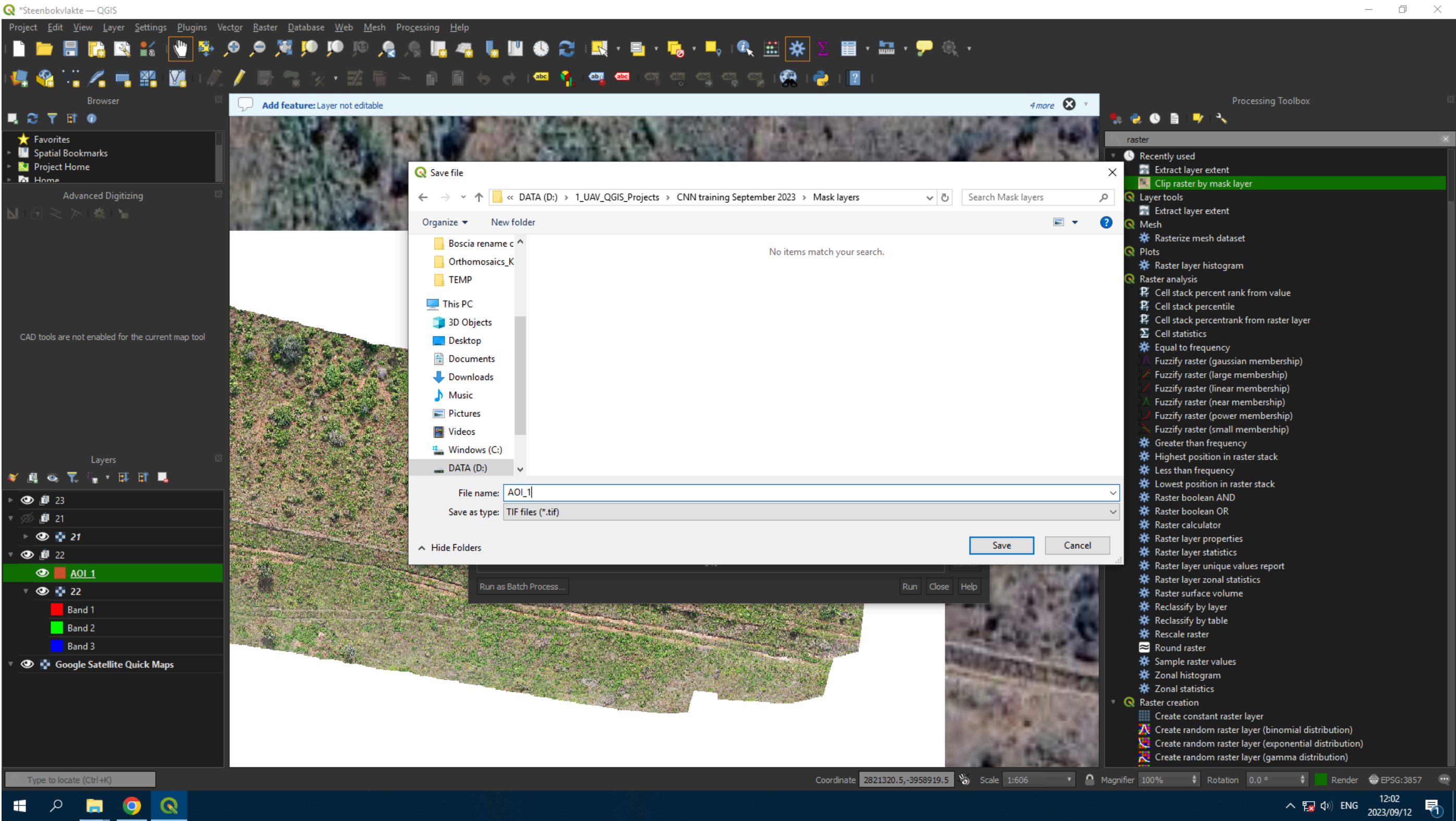
In Input Layer, select the name of the converted orthomosaic layer. For Mask Layer, select the relevant AOI layer. Make sure that Keep Resolution of the Input Raster checkbox is turned on.



Before pressing Run, scroll to the bottom to the Clipped (mask) section. Press the dropdown box and select Save to File.



Select the file name, and the folder where the extracted layer will be saved.



The square, extracted section of the orthomosaic.

QGIS *Steenbokvlakte — QGIS

Project Edit View Layer Settings Plugins Vector Raster Database Web Mesh Processing Help

Browser

Advanced Digitizing

Layers

Processing Toolbox

raster

- Recently used
 - Clip raster by mask layer
 - Extract layer extent
- Layer tools
 - Extract layer extent
- Mesh
 - Rasterize mesh dataset
- Plots
 - Raster layer histogram
- Raster analysis
 - Cell stack percent rank from value
 - Cell stack percentile
 - Cell stack percentrank from raster layer
 - Cell statistics
 - Equal to frequency
 - Fuzzify raster (gaussian membership)
 - Fuzzify raster (large membership)
 - Fuzzify raster (linear membership)
 - Fuzzify raster (near membership)
 - Fuzzify raster (power membership)
 - Fuzzify raster (small membership)
 - Greater than frequency
 - Highest position in raster stack
 - Less than frequency
 - Lowest position in raster stack
 - Raster boolean AND
 - Raster boolean OR
 - Raster calculator
 - Raster layer properties
 - Raster layer statistics
 - Raster layer unique values report
 - Raster layer zonal statistics
 - Raster surface volume
 - Reclassify by layer
 - Reclassify by table
 - Rescale raster
 - Round raster
 - Sample raster values
 - Zonal histogram
 - Zonal statistics
- Raster creation
 - Create constant raster layer
 - Create random raster layer (binomial distribution)
 - Create random raster layer (exponential distribution)
 - Create random raster layer (gamma distribution)

Add feature: No active vector layer

Coordinate: 2821216.73,-3958914.71 Scale: 1:179 Magnifier: 100% Rotation: 0.0 ° Render: EPSG:3857

13:09 2023/09/12