**EOCap4Africa – 9d Land Cover Classification**

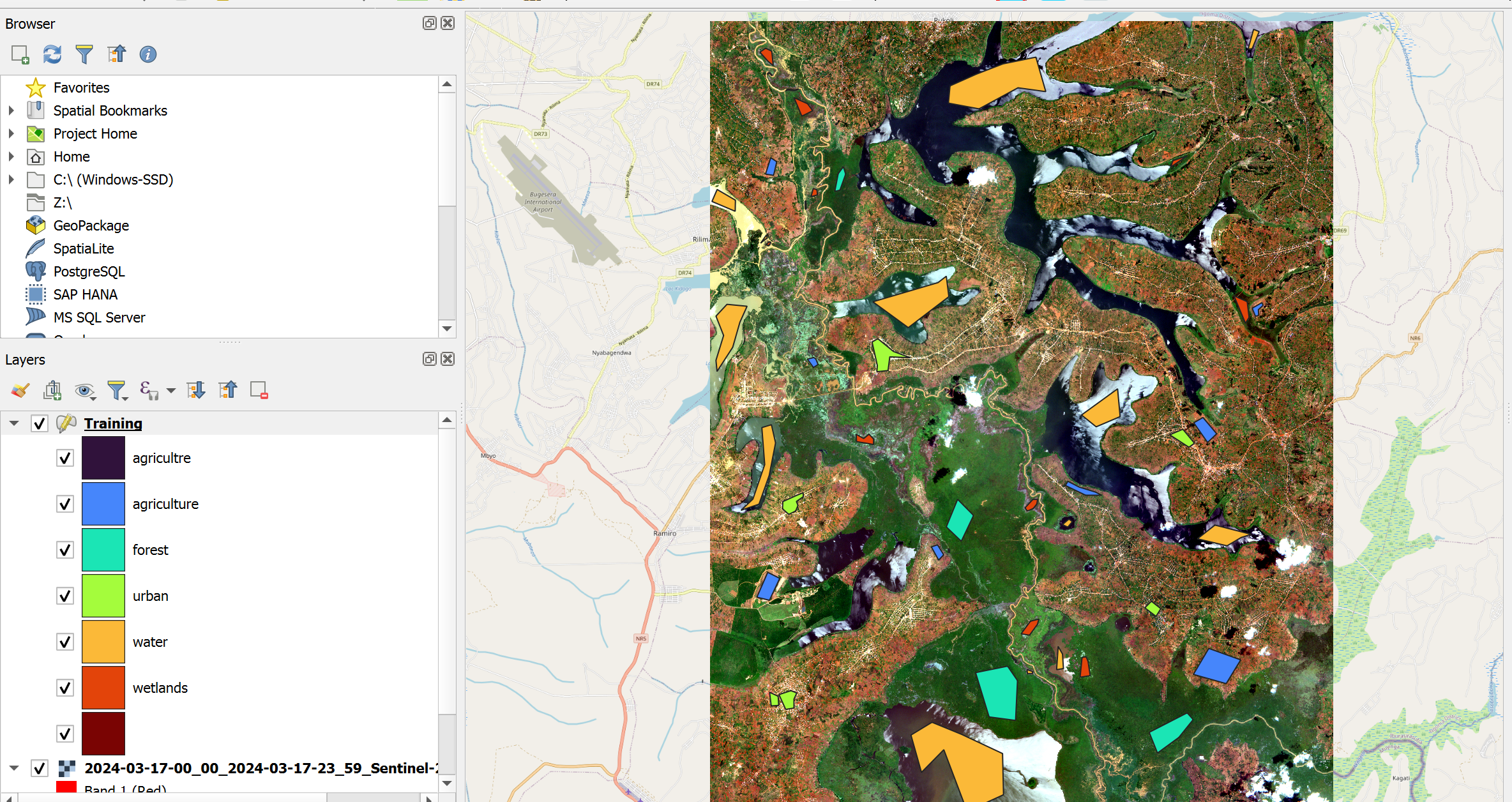
**Sample solution**

**Project setup**

* Start QGIS and create a new project file.
* Get a background map using **Web -> QuickMapServices -> OSM -> OSM-Standard**.
* Load the Raster file

**Create training data**

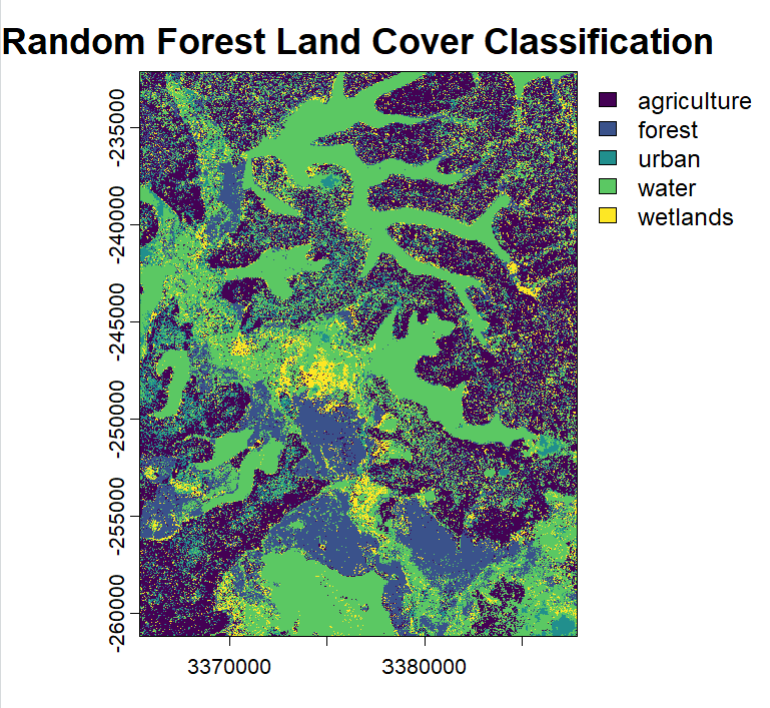
* First, we need to create a new shapefile for our training data. Select New Shapefile Layer and create a Polygon Shapefile layer.
* Access the Attribute table and switch into editing mode by clicking on the yellow pencil in the top left. Next, add a new Attribute called “Class” as a string.
* Now it is time to actually create the training data. Place polygons and assign them to a class (e.g. Water, Urban, etc.). Create multiple instances for the same class, and try to include diverse examples for each



**Random forest classification in RStudio**

* Next, we can run the Training Model. To do so use the R script provided to you. You will need to make adjustments to the folder path. I highly recommend using your own training data

Result:



* You could also visualise your results in QGIS