Food and Agriculture Organization
of the United Nations

Annual LANDSAT snippet imagery clips

SEPAL instructions

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Check your budget, kill any “t2 instance”

Open the terminal and start a #4 instance

Step 0: If needed, generate a sampling with Stratified Area Estimator - Design application

Load your map of interest and follow the steps described below to generate a stratified random sampling over the map:

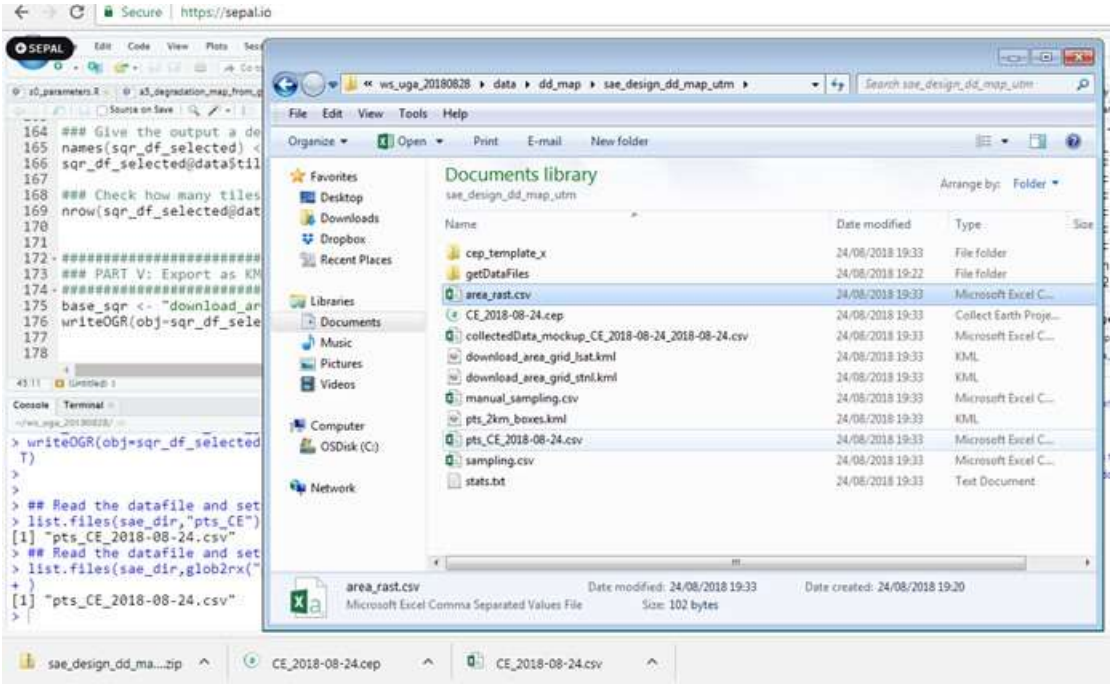
https://github.com/openforis/accuracy-assessment/blob/master/presentations/p_sae_design.pdf

The main output of the process is a CSV file containing the points coordinates with the class they belong to.

Step 1: Open, modify for your sampling and source() *aa_config.R*

Open and source() *aa1_generate_ft_for_gee.R*

This script takes the point CSV file as an input, generates 2km boxes around each point, produces a grid for easy download of Landsat and Sentinel data inside GEE and exports them as KML. Once this is finished, download the whole sae_design folder to your desktop.

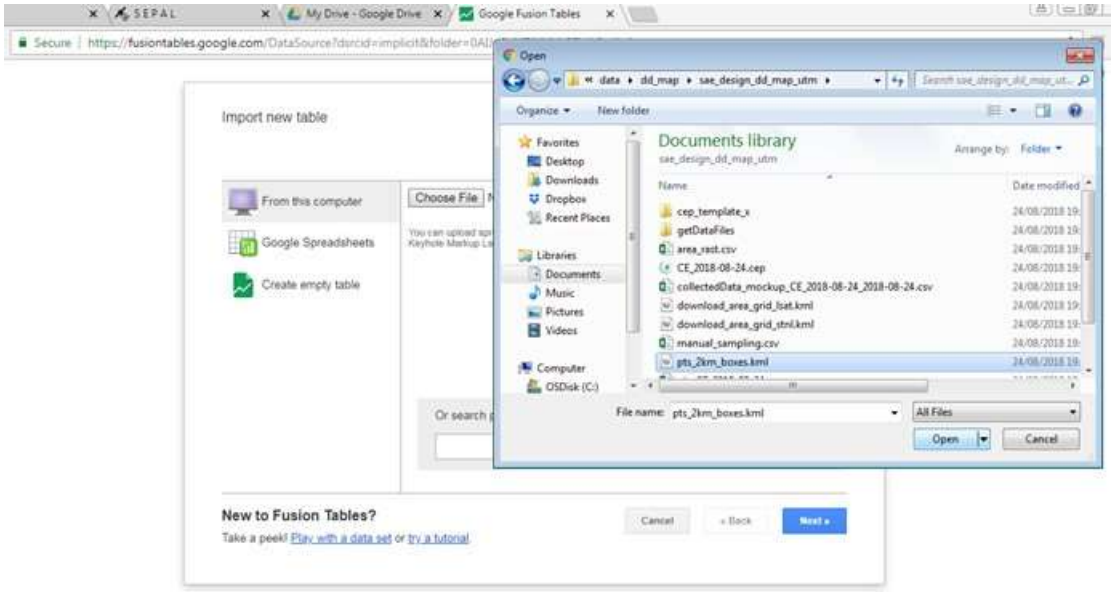


Step 2: Open Google Drive (www.drive.google.com), create three Fusion Tables using the 3 KML produced earlier:

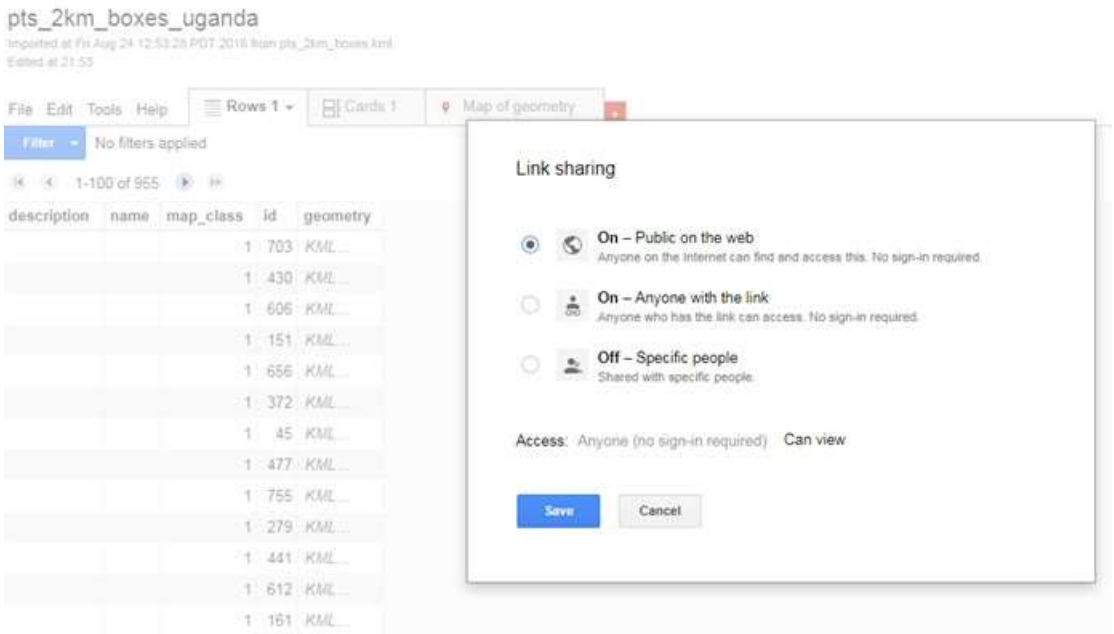
- pts_2km_boxes.kml

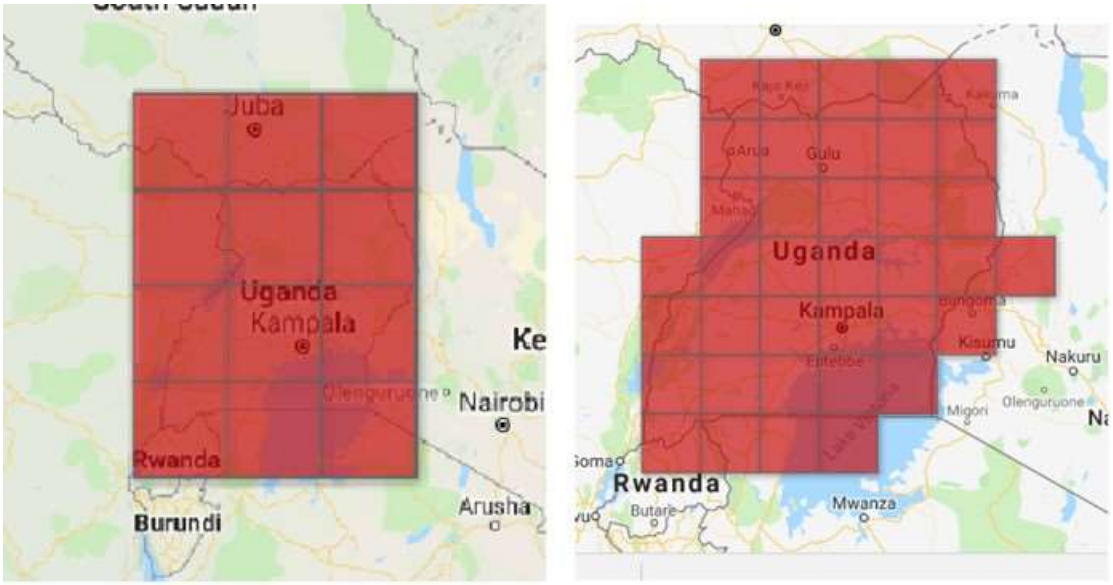
- download_area_grid_lsat.kml

- download_area_grid_stnl.kml



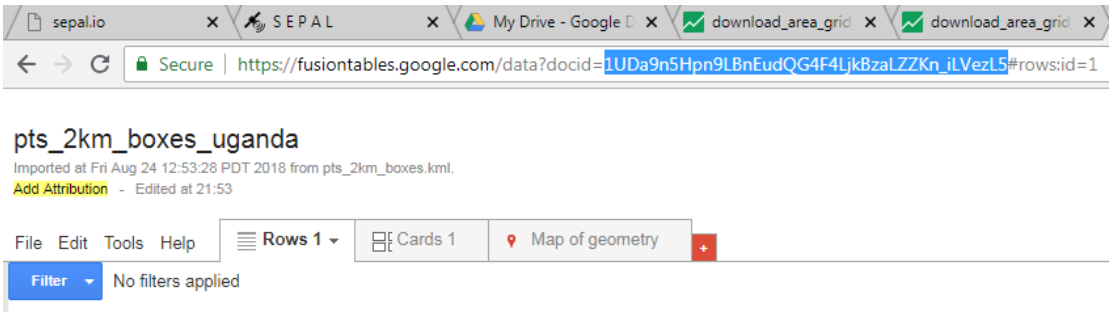
Once they are created, make the Fusion Tables public (Tools/Publish/Change visibility)



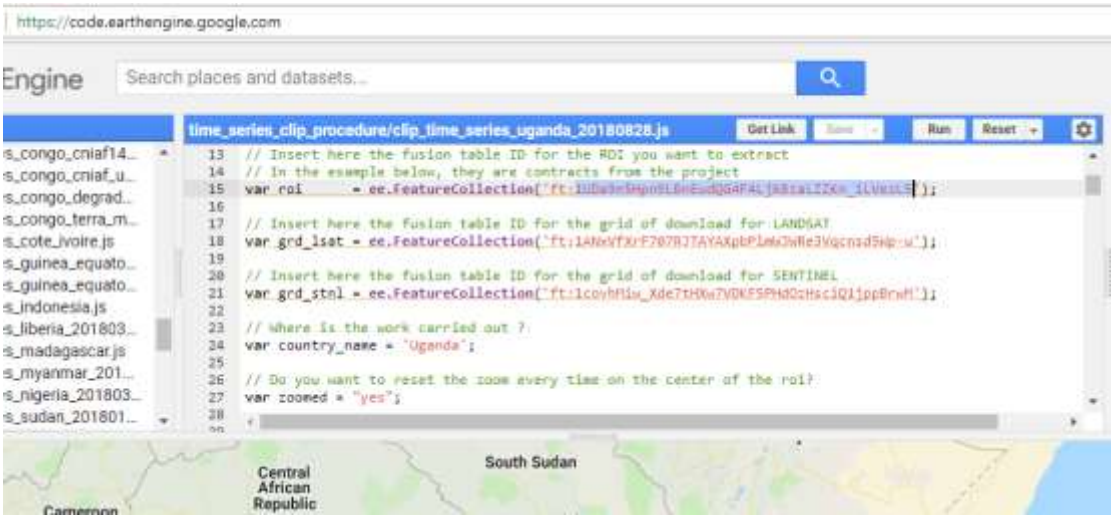


Optimum download grids for Landsat and Sentinel 2 data in Uganda

Open the GEE script https://code.earthengine.google.com/6349290af151862c244cac3bcdc44318 , replace the fusion table IDs in the script and run.

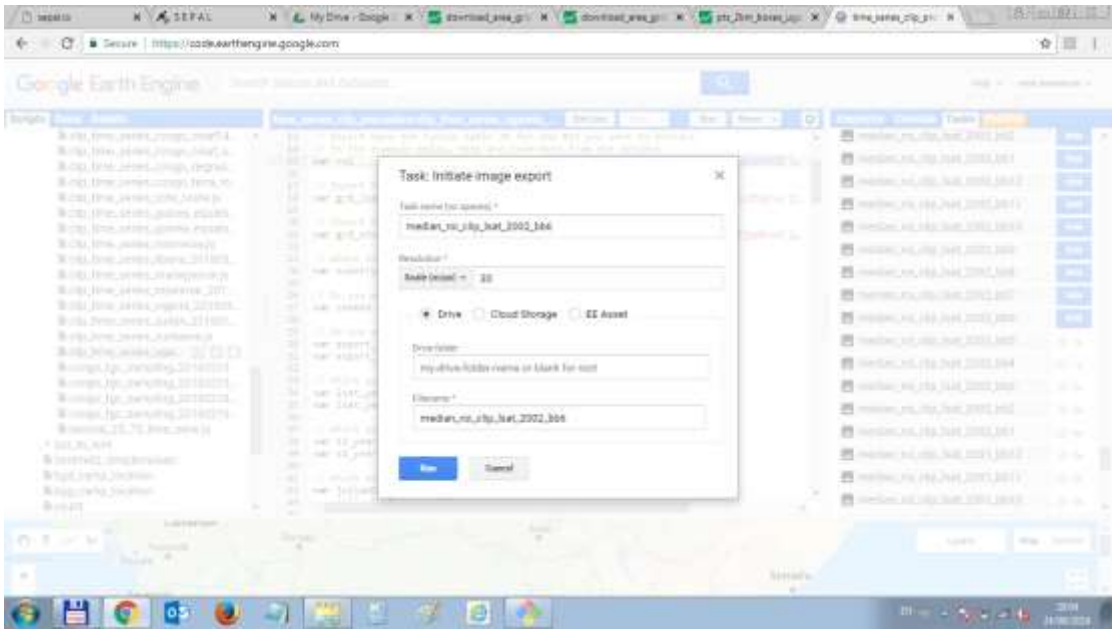


COPY FT ID



PASTE FT ID

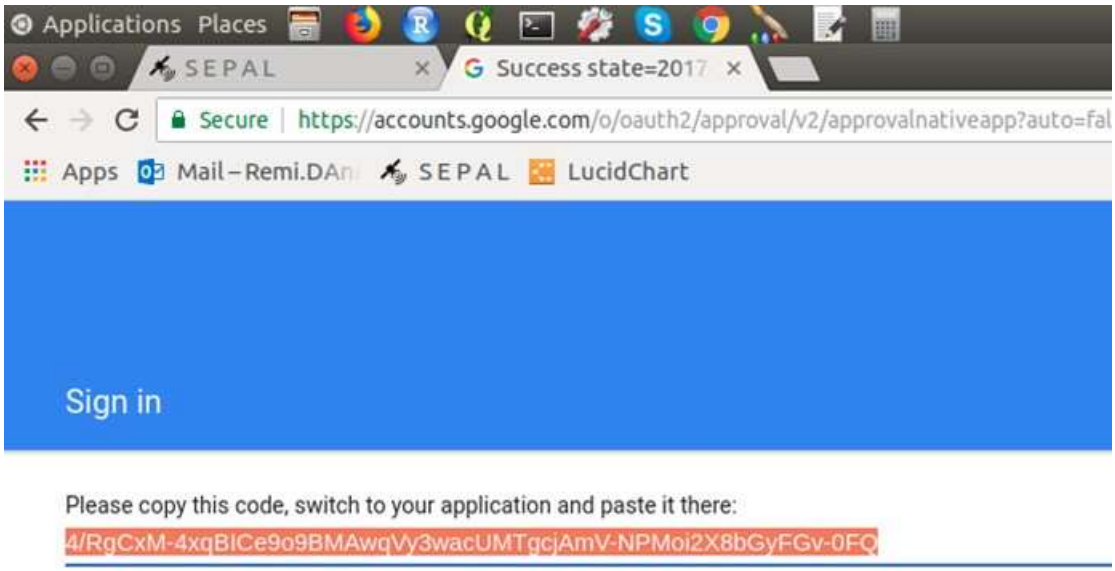
In “Tasks”, activate all the “Run” buttons



The process of getting the imagery will take some time, depending on the resources of the network. It can run even if you shut down your computer.

Once all the imagery is downloaded to your Drive, proceed to next step.

Step 3: In SEPAL, open the *auth_key.R* script, save it under ***my_auth_key.R***, follow the link and get an authorization key. Replace the value in the my_auth_key.R script and source() the script.



Now you can open and source() the aa*2_google_drive_to_desktop.R,* which will run with the updated authorization token.

This will automatically transfer the files from Google Drive to your sepal environment.

Step 4: Open and source() the *aa3_clip_time_series.R*

This will generate snippets of the downloaded imagery for each sample.

You can tweak the display of snippets, size of the boxes, band combination.