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# Rasterizing GADM Data for Uganda and Rwanda

Steps to Rasterize the data from GADM Data is as follows:

## Downloading GADM Data:

* Open <https://gadm.org/data.html> for GADM Countrywide shapefiles.
* Graphical user interface

  Description automatically generated with low confidenceClick on Download Data by Country
* Map

  Description automatically generatedSelect Country from the drop-down menu
* Download shapefiles in to a specific folder. Since we have level 4 for Uganda, we will be using level4 shape file for Rwanda.

Map

Description automatically generated with medium confidence

* Extract the data from zipped folder.

## Converting Polygon to Line in QGIS:

* Open QGIS Application
* Map

  Description automatically generatedAdd “gadm36\_RWA\_4.shp” file to layers section in QGIS Application. This is level four shape file.
* Since the shape file is of polygons
* We must convert this to line for creating raster.
* To convert polygon to lines in QGIS
  + Go to Vector tab
  + Select Geometry Tools
  + Graphical user interface

    Description automatically generatedSelect Polygon to Lines
* You will get a dialog box to execute the conversion. Do not change anything and run the command.
* Graphical user interface, application, map

  Description automatically generatedAfter execution, we will get a temporary file(Layer) added to the layers section.
* We will be using this to create raster data.

## Raster Creation:

* To create a raster, go to “Raster” tab 🡪 Conversion 🡪 Rasterize (Vector to Raster)Graphical user interface, application, website

  Description automatically generated
* A screenshot of a computer

  Description automatically generatedUpdate parameters for raster and run the program.
* You will get the raster file added to the Layers section and tiff file added to specified folder.
* Follow the same process for Uganda shape files as well.

## Parameters for Raster Creation:

* Resolution: 1/3600 : 0.0002777 : This is the **fixed value to burn** in Raster Parameters.
* Output Raster Size Units: Georeferenced Units
* Width/ horizontal Resolution: 0.00030 for 30 mts width
* Height/ vertical resolution: 0.00030 for 30 mts height
* Output Extent: Calculate from Layer and select the line file we have created
* Rasterized: Save data to a specific folder with required name.