

## Define the coordinate

In order to source soil and weather data to generate spatial recommendations, the study area need to be divided into grid cells of the desired resolution. According to the desired scale, a data frame with the GPS coordinates should be created. Currently the script processes

The steps to follow

1. Download the shape files for the country you want to work with from [https://gadm.org/download\\_country\\_v3.html](https://gadm.org/download_country_v3.html) and save the files in the server `/home/akilimo/lintul/lintul/dataSources/GIS_layers"`
2. Go to the `/home/akilimo/projects/AKILIMO_Modeling/DefineCoordinates` in the server and run `"Define_GPS.R"`
3. If you need to obtain the coordinates for the whole country, go directly to step 2 and run `getCoordinates()` function after changing the country name
4. If you need the GPS for part of a country, at step 1, among the level 1 list of names select the administration units in the country where your area of interest is located and then run `getCoordinates()` function after changing the country name and setting `listLevel1` to the list of your selected state/region names, see example for Nigeria and Tanzania.
5. Save the GPS in `"/home/akilimo/projects/AKILIMO_Modeling/DefineCoordinates/output"` as `"yourcountry_ Coordinates.csv"`