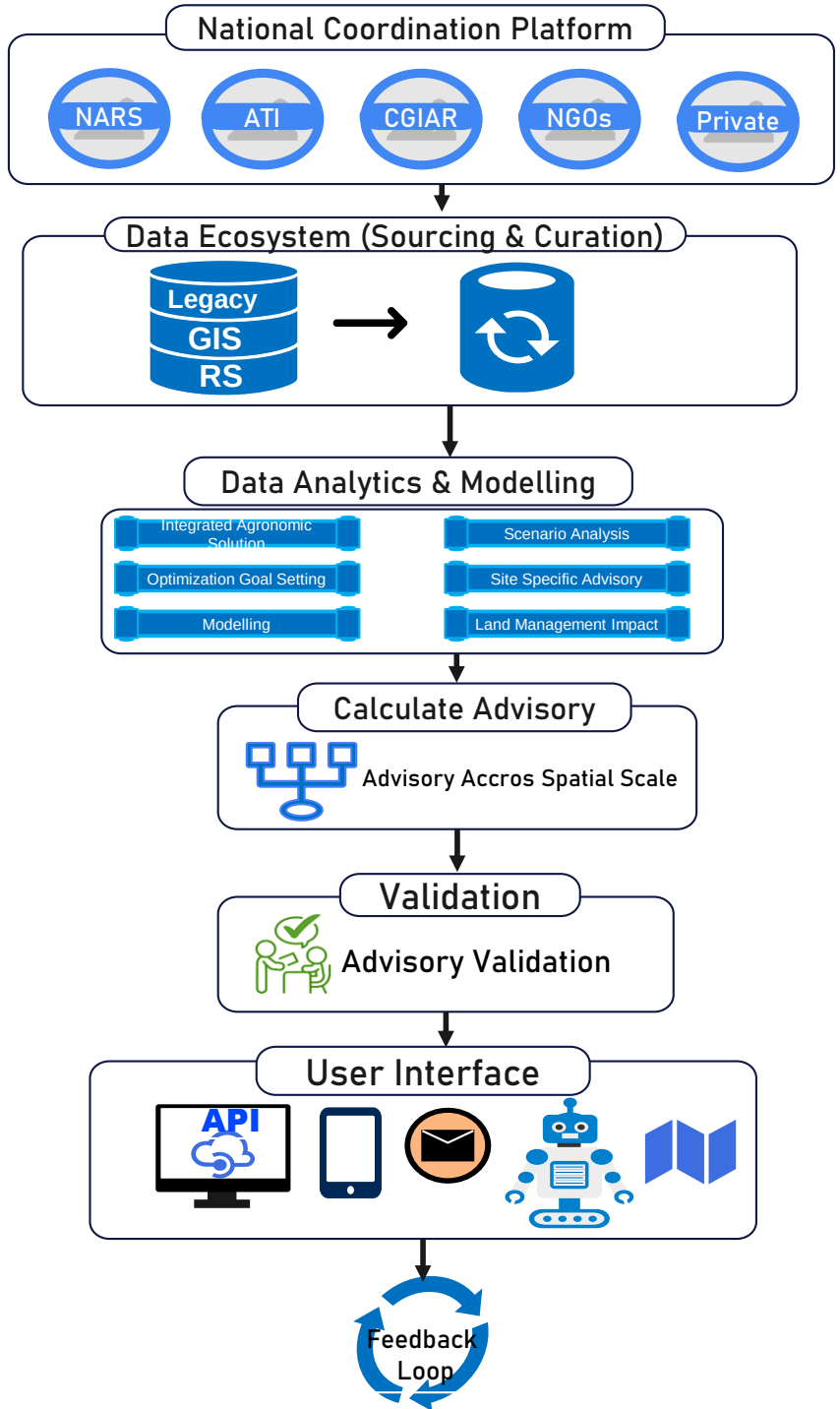
Eth. DST Harmonization Data Ecosystem Module

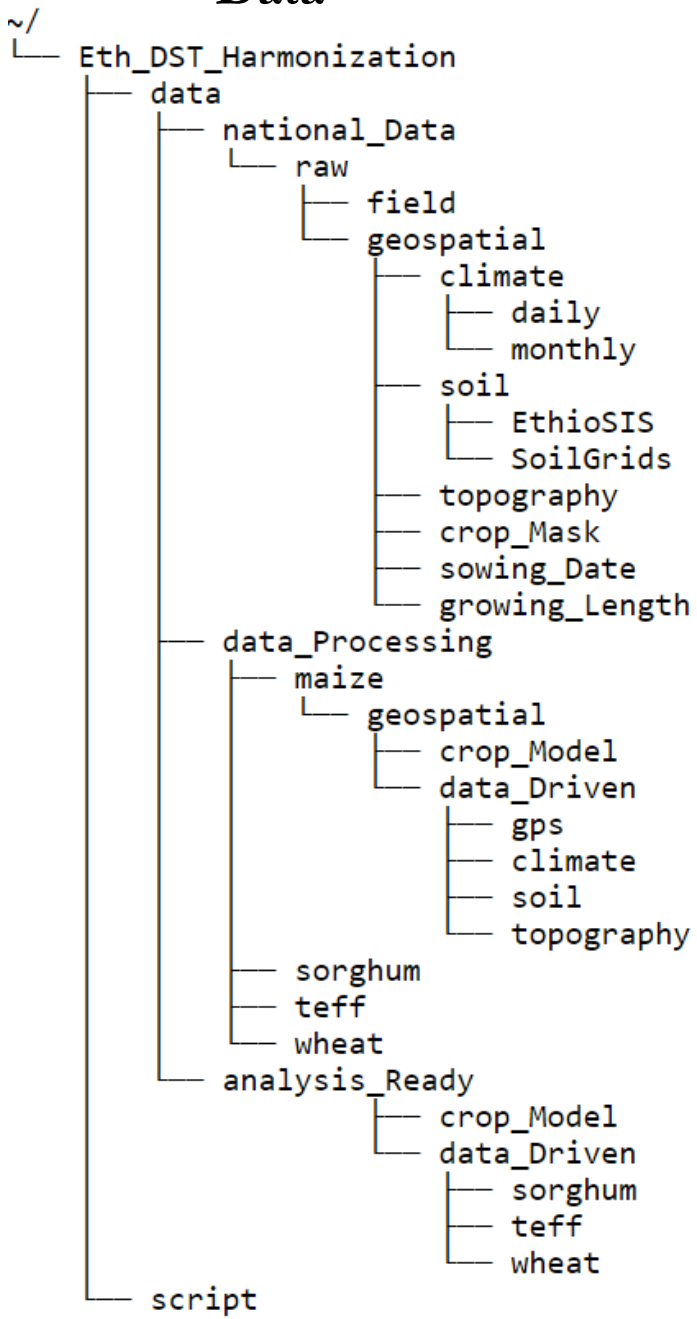
November 2023

1. Modules of DST Harmonization

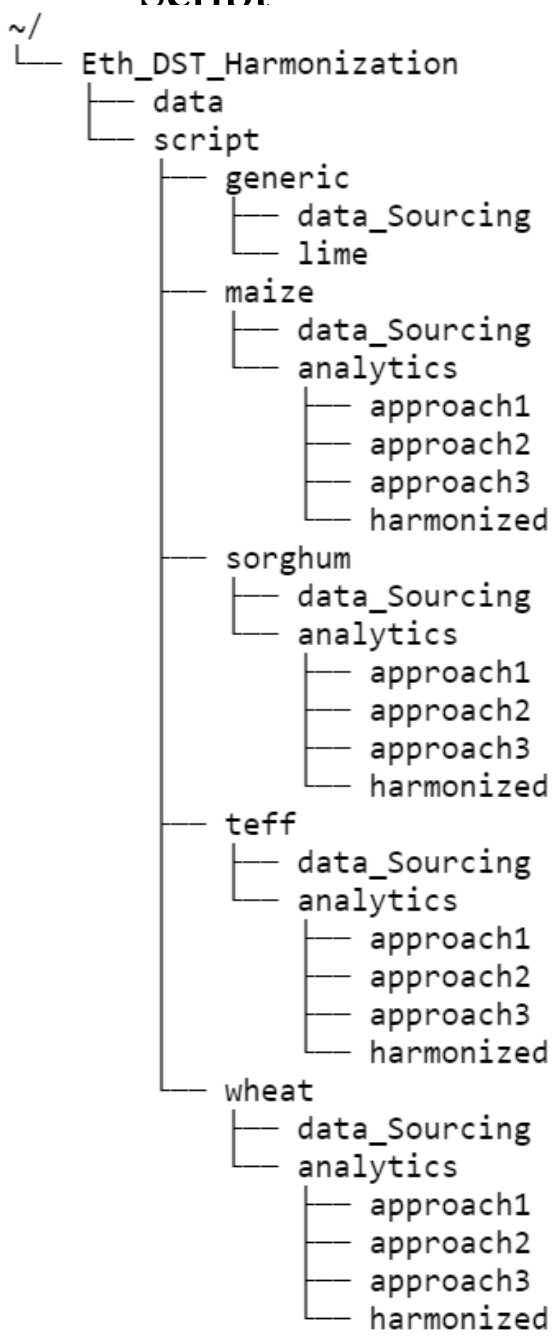


2. Directory Structure

Data



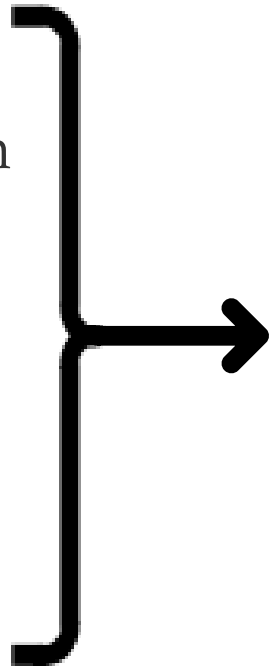
Script



As agreed with the DST Harmonization team, a directory structure for data and the script was created. The data directory contains the input geospatial and field trial data, the intermediate outputs and the final results that are ready for data analytics. The scripts directory contains all the R scripts for data sourcing and Analytics. CGLabs [Link]

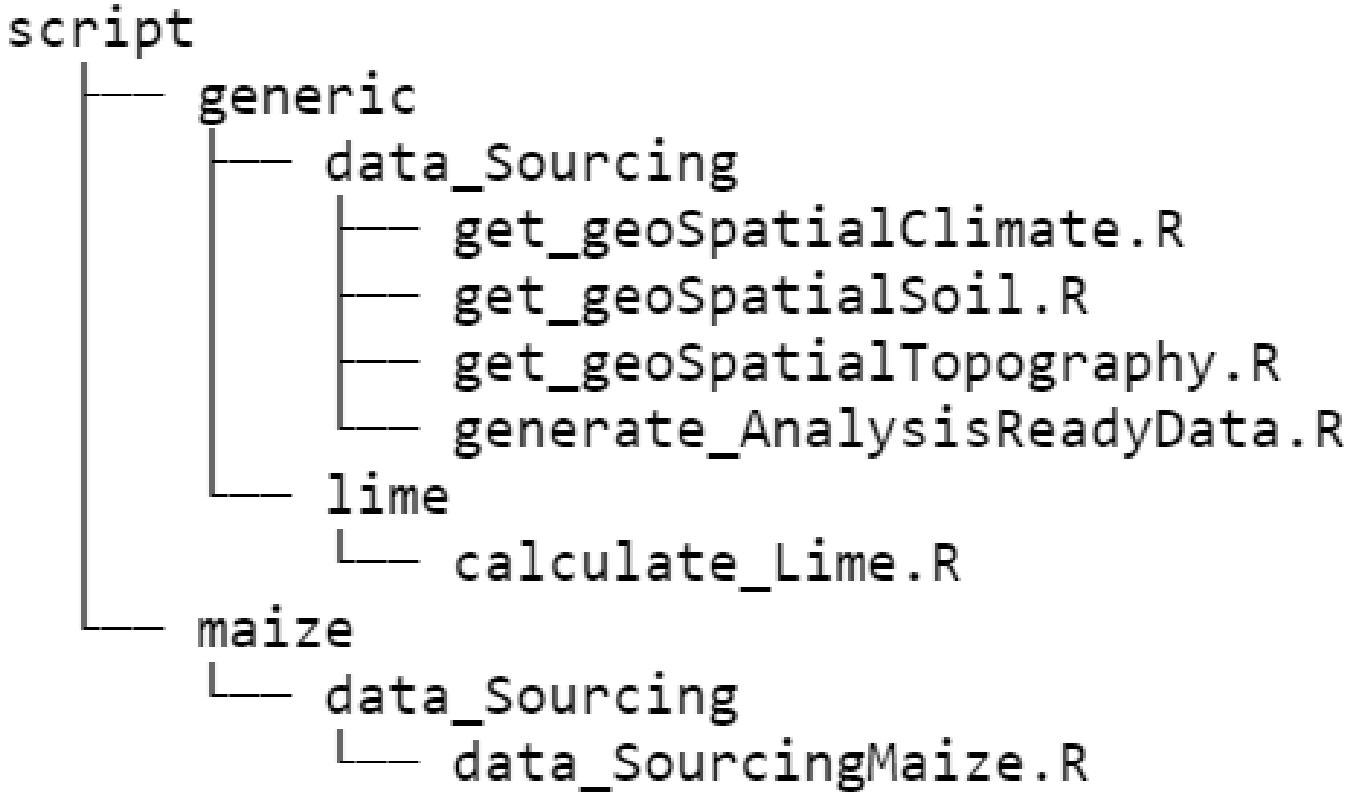
3. Geospatial Data

1. Soil (EthioSIS and Soil Grids (the 6 profiles and 0 - 20cm depth))
2. Topography (SRTM) – 30m
3. Rainfall (CHIRPS) ~ 5km
4. Relative Humidity (AgEra5) ~ 10km
5. Solar Radiation (AgEra5) ~ 10km
6. Temperature min (AgEra5) ~ 10km
7. Temperature max (AgEra5) ~ 10km
8. Wind Speed (AgEra5) ~ 10km

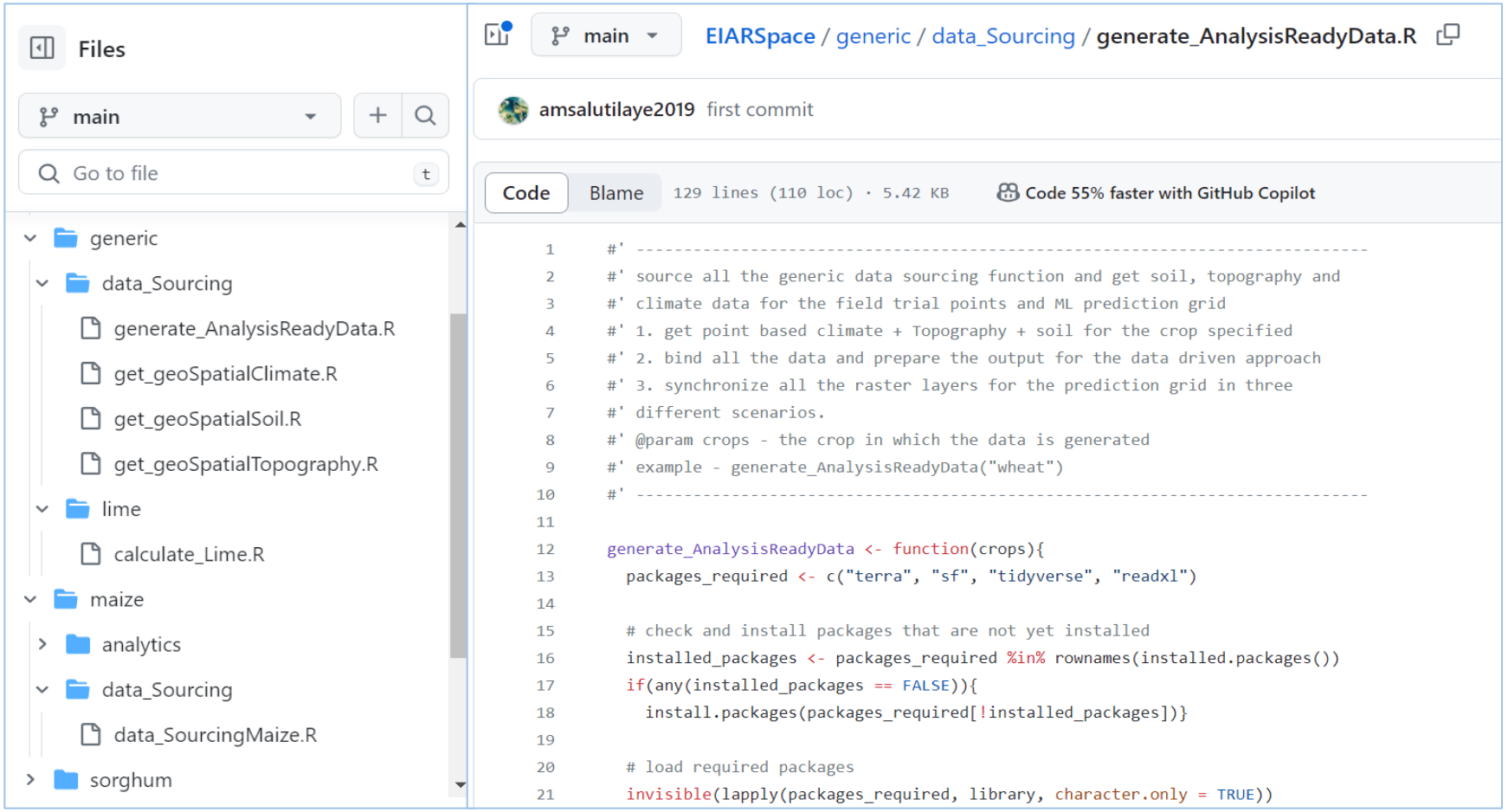


The geospatial covariates data consists the historical data (1981 – 2022). The data is sourced from CHIRPS and Agera5 with temporal resolution of both Daily & monthly data.

4. Scripts


script
generic
data_Sourcing
get_geoSpatialClimate.R
get_geoSpatialSoil.R
get_geoSpatialTopography.R
generate_AnalysisReadyData.R
lime
calculate_Lime.R
maize
data_Sourcing
data_SourcingMaize.R

5. Github



→ **Private github repo created and owned by EIAR**