Data description

***cereal\_imports\_exports.xlsx***

This file contains the imports and exports quantities of Cereals and Cereal preparations (categories defined by the Central Product Classification (CPC)) for years 1961 to 2022. The year is specified in the “*Year*” column; whether we are considering imports or exports is specified in the “*Element*” column with the labels “*Import quantity*” and “*Export quantity*”; whether we are considering cereals or cereal preparations is specified in the “*Item*” column with the labels “*Cereals*” and “*Cereal preparations total*”; finally the “*Value*” column contains the values of these variables in tons.

Source : <https://www.fao.org/faostat/en/#data/TCL>, elements = [“Export Quantity”, “Import Quantity”]

***pop\_rur\_pop\_urb.xlsx***

This file contains the rural and urban population of the country considered from 1950 to 2021. The year is specified in the “*Year*” column, the type of population considered is specified in the “*Element*” column (“*Rural population*” or “*Urban population*”), and the “*Value*” column contains the values of these variables in 1000 inhabitants.

Source : <https://www.fao.org/faostat/en/#data/OA>, elements = [“Rural population”, “Urban population”]

***animals.xlsx***

This file contains the number of livestock animals from 1961 to 2022. The year is specified in the “*Year*” column; the species is specified in the “*Item*” column (“*asses*”, “*camels*”, “*cattle*”, “*goats*”, “*horses*” or “*sheep*”); the “*Value*” column contains the quantity of each category in number of animals.

Source : <https://www.fao.org/faostat/en/#data/QCL>, elements = [“Stocks”]

***crop\_yield\_fao\_raw.xlsx***

This file contains cereal yield for all countries in the fao database from 1961 to 2022. Cereal yield, measured as kilograms per hectare of harvested land, includes wheat, rice, maize, barley, oats, rye, millet, sorghum, buckwheat, and mixed grains. For Senegal it includes Fonio, Maize (corn), Millet, Rice and Sorghum (weighted sum).

*Precision : yield = harvested production per unit of harvested area for crop products. In most of the cases yield data are not recorded but obtained by dividing the production data by the data on area harvested.*

Source : <https://www.fao.org/faostat/en/#data/QCL>

RAIN FILES

***rain\_ERA5.xlsx***

This file contains precipitations from 1961 to 2021. Time is specified in the “*Time*” column in datetime64 format (day/mounth/year hour:minute:second). Precipitation values are specified in the “*Precipitation (kg m-2 s-1)*” column in .

Source : ERA5, provided by Paul-Alain Raynal

***rain\_ERA5\_preprocessed.xlsx***

This file contains the ERA5 data ready to use. Year is specified in the “*Year*” column and precipitation values are specified in the “*rain*” column in .

Source : ERA5, provided by Paul-Alain Raynal

***rain\_world\_bank.xlsx***

This file contains precipitations from 1960 to 2022. Year is specified in the “*Year*” column. Precipitation values are specified in the “*rain*” column in .

Source : <https://climateknowledgeportal.worldbank.org/country/senegal/climate-data-historical> (link for Burkina Faso is dead)

***rain\_crudata\_preprocessed.xlsx***

This file contains precipitations from 1901 to 2022. Year is specified in the “*Year*” column. Precipitation values are specified in the “*rain*” column in .

Source : <https://crudata.uea.ac.uk/cru/data/hrg/>

***rain\_era\_wb\_raw.xlsx***

This file contains monthly precipitations for years 1950 to 2020. The column “*name*” contains the name of the country (“*Senegal*” or “*Burkina Faso*”). The other columns contains for each month in format year-month the precipitation in mm.

Source : <https://climateknowledgeportal.worldbank.org/download-data>

***rain\_era\_wb\_raw\_preprocessed.xlsx***

This file contains precipitations from 1950 to 2020. Year is specified in the “*Year*” column. Precipitation values are specified in the “*rain*” column in .

Source : <https://climateknowledgeportal.worldbank.org/download-data>

REGIONAL DATA

***reg\_ansd\_pop.xlsx***

Population data from ANSD reports (RGPH 1988, RGPH3, and the rapport projection de la population du Senegal, 2013-2063). The population is given in number of inhabitants for Diourbel, Fatick, Thies, and the combination of Kaffrine and Kaolack.

***full\_reg\_data.xlsx***

This file contains four sheets, one per region. In each sheet, regional data is stored :

* Livestock data : extrapolation for years 1961 to 2020 is done using a linear regression, using the points for 2009 and 2019 from GLW v4.
* Population data : extrapolation for years 1961 to 2020 is done using splines on the population data in reg\_ansd\_pop.xlsx.
* Rain data in mm from 1961 to 2017 (local data given by Luc Descroix). We took : Dakar rain data for Thies, Diourbel for Diourbel, Kaolack for Fatick and the mean between Kongheul and Kaolack for Kaffrine and Kaolack.