pop_rur

National number of rural inhabitants.

Source : FAO, https://www.fao.org/faostat/en/#data/OA [1]

pop_urb

National number of urban inhabitants.

Source : FAO, https://www.fao.org/faostat/en/#data/OA [1]

net_imp

Net cereal imports in tons. Contains national imports minus exports quantities using categories Cereals and Cereal preparations defined by the Central Product Classification (CPC).

Source : FAO, https://www.fao.org/faostat/en/#data/TCL [1]

liv

Livestock in tropical livestock unit (TLU). The following species were considered : asses, camels, cattle, goats, horses or sheep.

Source : FAO, https://www.fao.org/faostat/en/#data/QCL [1]

rain

Yearly cumulated precipitation values in mm. Values corresponds to the mean of ERA5 31 km scale data for Senegal.

Source : ERA5, https://climateknowledgeportal.worldbank.org/download-data [2]

yield

Cereal yield in kilograms per hectare of harvested land. Considered cereals are the following : fonio, maize (corn), millet, rice and sorghum.

Source : https://www.fao.org/faostat/en/#data/QCL [1]

Data covers period 1974 to 2017.

pop_rur

Number of rural inhabitants in the groundnut basin. Dates not covered by ANSD reports were estimated through interpolation using splines.

Source : https://www.ansd.sn/Indicateur/donnees-de-population [3][4][5]

pop_urb

Number of urban inhabitants in the groundnut basin. Dates not covered by ANSD reports were estimated through interpolation using splines.

Source : https://www.ansd.sn/Indicateur/donnees-de-population [3][4][5]

net_imp

Net cereal imports in tons, calculated using national cereal imports [1], multiplied by the fraction of national urban population located in the groundnut basin.

Source : https://www.ansd.sn/Indicateur/donnees-de-population [3][4][5]

liv

Groundnut basin livestock in tropical livestock unit (TLU). Regional livestock values were extracted from the Gridded Livestock of the World (GLW) database for years 2009 and 2019. Species considered were cattle, goats, horses and sheep. The mean proportion of national livestock located in the groundnut basin was used to estimate regional livestock values for years 1974 to 2017.

Source : https://www.fao.org/livestock-systems/global-distributions/en/[6]

rain

Average yearly cumulated precipitation values in mm. We considered locations Dakar, Diourbel, Kaolack, and Kongheul, and months May to November. Rain is rare in Senegal December to April justifying the approximation.

Source : ANACIM data provided by Luc Descroix [7]

yield

Mil yield in kilograms per hectare of harvested land. The previously described regional rainfall data was used to estimate the mil productivity using the STICS model. Bambey's soil composition was used as reference, with approximately 5% of clay.

Source : STICS model (multidisciplinary simulator for standard crops) [8]

biom_prod

Forage crops biomass productivity in tonnes per hectare. Data was estimated using STEP, a simulation of the seasonal herbaceous layer in the Sahel. The previously described regional rainfall data as well as Bambey's soil composition were used as entry data.

Source : STEP vegetation model (Sahelian Transpiration, Evaporation and Productivity) [9]

VALIDATION_DATA \ SENEGAL_LU . XLSX

Data for years 1975, 2000, and 2013.

crop_prop

Proportion of national territory covered by cultivated lands and fallows. In the classification defined in [10], this corresponds to classes Agriculture, Agriculture in shallows and recessions, and Irrigated agriculture.

veg_past_prop

Proportion of national territory covered by forests, steppes, and savannas. In the classification defined in [10], this corresponds to classes Forest, Gallery forest and riparian forest, Degraded forest, Woodland, Swamp forest, Plantation, Mangrove, Thicket, Savanna, Herbaceous savanna, Sahelian short grass savanna, and Steppe.

Source: https://www.sciencebase.gov/catalog/item/5deffc05e4b02caea0f4f3fc [11]

VALIDATION_DATA \ GROUNDNUT_LU . XLSX

Data for years 1975, 2000, and 2013.

crop_prop

Proportion of regions Diourbel, Fatick, Kaffrine, Kaolack, and Thies covered by cultivated lands and fallows. In the classification defined in [10], this corresponds to classes Agriculture, Agriculture in shallows and recessions, and Irrigated agriculture.

veg_past_prop

Proportion of regions Diourbel, Fatick, Kaffrine, Kaolack, and Thies covered by forests, steppes, and savannas. In the classification defined in [10], this corresponds to classes Forest, Gallery forest and riparian forest, Degraded forest, Woodland, Swamp forest, Plantation, Mangrove, Thicket, Savanna, Herbaceous savanna, Sahelian short grass savanna, and Steppe.

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