**Disaster Risk & Urbanization Analytics Dashboard – Sub-Saharan Africa**

*Methodological Note*

**Methodological notes and data sources**

* **Cities are delineated based on Africapolis (2023).** Consequently, city boundaries may differ from administrative borders or local definitions used to delineate city extents. “New cities” refers to those urban areas with 0 population in 2000 and more than 10,000 inhabitants in 2020.
* The pool of graphed cities is based on the national ranking in terms of population in 2020 according to Africapolis (2023) – the 5 largest cities within that ranking are plotted.
* **Country extents were retrieved from the GADM 4.1 dataset.**
* **Built-up surface data is derived from the Global Human Settlement Layer (GHSL)** of the European Commission’s Joint Research Centre.
* **Population data is derived from the population rasters of the GHSL product, as well as UN DESA’s World Urbanization Prospects (WUP) 2018 and World Population Prospects (WPP) 2022 datasets.**
* **The Fathom 3.0 dataset was used to estimate flood-prone areas by return period.** Built-up is considered exposed to floods if the water height for a given return period exceeds 30 cm. Flood hazard refers to both fluvial and pluvial.
* **Projections of climatic variables were retrieved from the World Bank’s Climate Change Knowledge Portal.** Median values were used.

1. Built-up is considered exposed to floods if the water height due to a fluvial or pluvial flood for a given return period exceeds 30 cm. These estimates are computed by overlaying built-up surface data with flood hazard maps.
2. Median values of the projections were used for future climate scenarios. Projections of built-up exposed to flood in 2050 assume that built-up per capita remains equal to its 2020 value. For demographic scenarios, Fig. 8 displays the estimates of exposed built-up based on probabilistic population projections. These correspond to estimates based on the probabilistic median, and the 80 and 95 percent prediction intervals of the population projections.
3. City boundaries may differ from administrative borders or local definitions used to delineate city extents. A total of 112 cities were identified in 2020. “New cities” refers to those urban areas with 0 population in 2000 and more than 10,000 inhabitants in 2020.
4. The analysis aims to gauge the effect of future hazard and demographic/urbanization scenarios on flood exposure rather than forecasting future flood risk due to significant uncertainties. Combining flood exposure projections from climate change and demographic scenarios for estimating future flood exposure is not recommended. Additionally, projections are spatially valid at the national level but are not disaggregated at the subnational level due to spatial heterogeneities.
5. Built-up surface data is derived from the Global Human Settlement Layer (GHS-BUILT-S R2023A) of the European Commission's Joint Research Centre. Flood-prone areas were derived from the Fathom 3.0 dataset. Population data is derived from the population rasters of the GHSL product, the UN DESA’s 2018 World Urbanization Prospects, and the 2022 World Population Prospects datasets. Data on population living in slums is from the World Development Indicators. Historical disaster data was retrieved from the EM-DAT dataset. Projections of precipitation variables were retrieved from the World Bank’s Climate Change Knowledge Portal. Cities are delineated based on Africapolis (2023).