Local Capacities for Climate Services in Urban Areas

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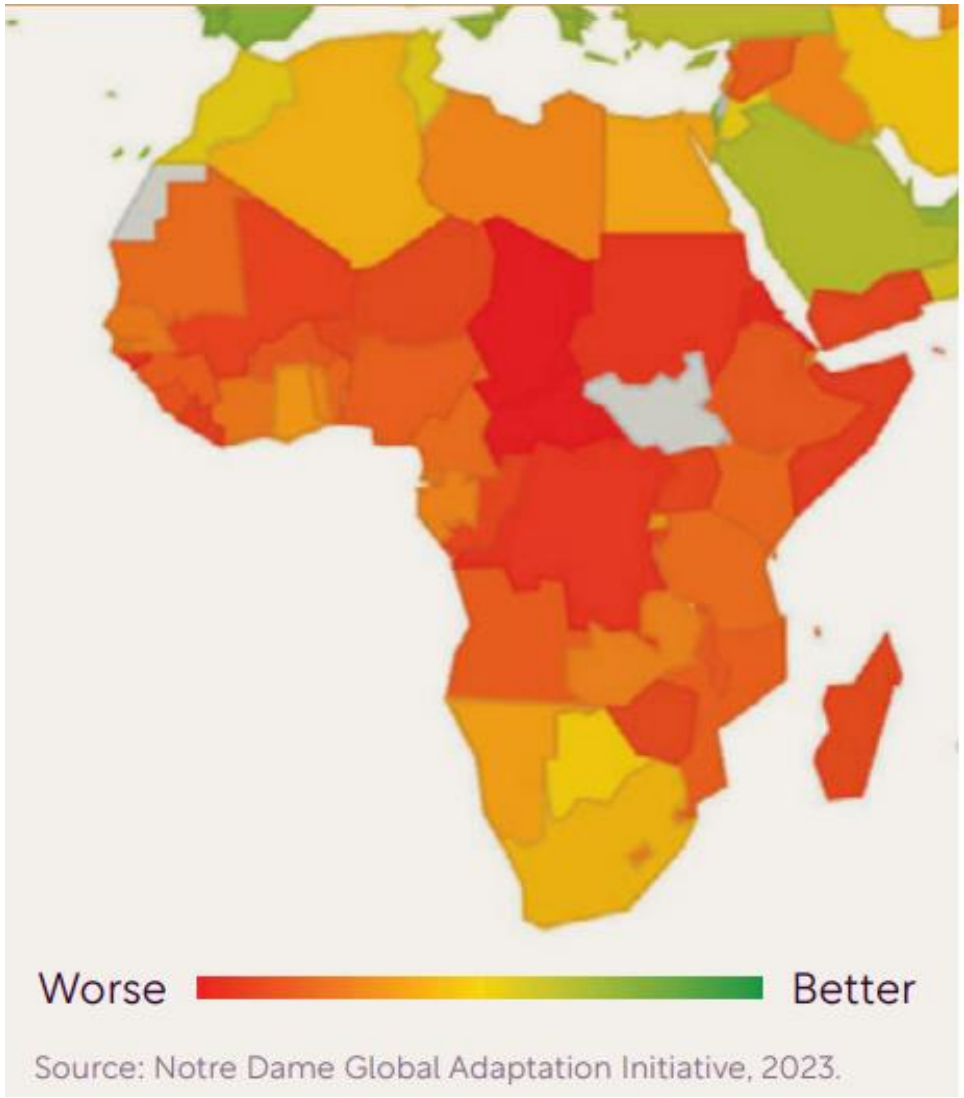
Africa in Context

- African countries are classified as the most vulnerable to climate change and climate risks
- Have very limited capacity to adapt to climate impacts.



Africa Urbanization

Most rapidly urbanizing region globally; urban population expected to exceed 60% by 2050.

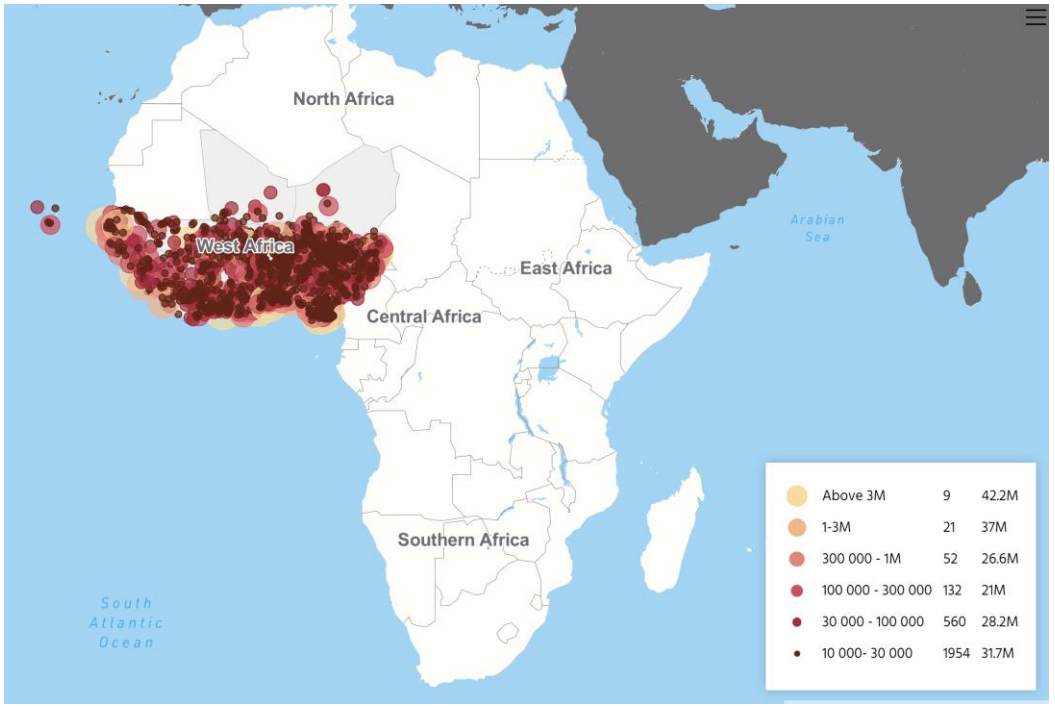
Source: IPCC WGII Report, Chapter 9, Section 9.9.1

- **West Africa**
  - Urban population (2020): 200,487,229
  - Level of urbanization: 50.66 %
  - 27% of total population reside in coastal areas

Source: OECD/SWAC, 2020

- Urbanization trends compound the increasing exposure to climate hazards, particularly floods and heatwaves

Source: IPCC WGII Report, Chapter 9, Section 9.9.1



CLIMATE RISKS

- About one-third of African cities with populations of 300,000 or more are located in areas of high exposure to at least one natural hazard, including floods (12%) and droughts (20–25%).

- The extent of urban areas in Africa exposed to climate hazards will increase considerably and cities will be hotspots of climate risks, which could amplify pre-existing stresses related to poverty, exclusion and governance (high confidence) (IPCC, 2018).

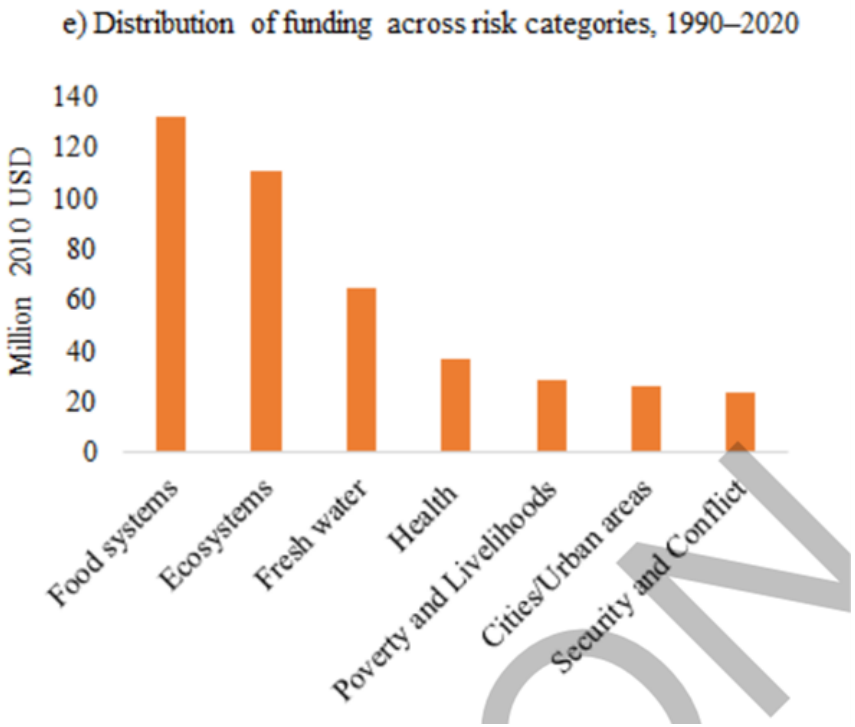
Source: IPCC WGII Report, Chapter 9, Section 9.9.3

PROJECTED RISKS

- Urban land exposed to high frequency flooding is projected to increase significantly by 2030 compared to 2020.
- Global warming is projected to increase frequency and magnitude of river floods in East, **West** And Central Africa
- Projections for 173 African cities show that around 25 cities will have over 150 days per year with an apparent temperature above 40.6℃ for 1.7℃ global warming, increasing to 35 cities for 2.1℃ and 65 cities for 4.4℃ warming, **with West African cities most affected.**
- Increased vulnerability to risk of heat stress in big cities of Central, East and **West** Africa.

Source: IPCC WGII Report, Chapter 9, Figure 9.9.4.1

The Urban Gap



Focus mostly on food systems, ecosystems and freshwater, while urban areas have received comparatively very little.

Source: IPCC WGII Report, Chapter 9, Section 9.1.5

- Need to dissolve mismatch between research funding and development aid funding which currently run in parallel.
- More funding support required for applied research and action research

Table 1: International public and philanthropic climate finance flows to selected priority sectors in Africa (2011-2021) Source: UNDP 2024

Sector	Total (%)	Mitigation (%)	Adaptation (%)
Energy	23.7	54	1.4
Agriculture, Forestry & Fisheries	19.2	6.0	32.7
Water & Sanitation	11.1	4.0	20.0
Environment Protection	5.7	4.0	-
Social services	5.2	3.0	7.1
DRM and response	4.0	-	8.7
Urban Development	2.5	2.0	3.1

Advances in Climate Change Adaptation using Climate Services

Project	Focus Region/Countries	Focus Sector
CONFER	East Africa	Water, Energy, Agriculture
DOWN2EARTH	Ethiopia, Somalia & Kenya	Water, Agriculture
ALBATROSS	Ghana, Kenya, S Africa, Tanzania, Madagascar	Ecosystem Health, Agriculture, Socio-economic vulnerability
Focus-AFRICA	Malawi, Mozambique, Mauritius, South Africa and Tanzania,	Agriculture, Water, Energy and Infrastructure
TEMBO-Africa	Kenya, Ghana, S Africa, Mozambique, Zambia	Agriculture, Water, FEWS (smaller towns and cities <700,000)
HABITABLE	Ethiopia, Ghana, Mali, Sudan, Senegal, S Africa	Climate change impacts, migration and displacement patterns
SAFE4ALL	Ghana, Kenya and Zimbabwe	Migration, Agriculture & Disaster Management in rural-urban continuum

FUTURE RESILIENCE FOR AFRICAN CITIES AND LANDS (FRACTAL)

Growing Climate Knowledge for Action in Urban Africa

climate
better understand southern Africa's climate, its drivers and systemic impacts on city-regions

multiple scales
Explore connections between climate sensitivities and decision-making at urban, national and regional scales

governance
better understand decision-making in southern African city-regions on water, energy, food and climate issues

learning labs
multi-stakeholder learning processes to co-explore and co-produce knowledge on climate-sensitive *'burning issues'*

city dialogues
various city-based trans-disciplinary engagements beyond and between the Learning Labs

city regions
fostering context-relevant yet transferable learning within and between 9 city-regions, to varying degrees

City learning
ongoing and iterative learning processes (including learning labs and dialogues) that drive the co-production of relevant climate knowledge

Priorities for Climate Services in Africa

- Investment on research, innovation and capacity development for climate risk reduction in urban areas, particularly small and medium sized towns.
- Focus on Disaster Risk Reduction, climate proofing of infrastructures, and improved spatial planning.
- Provision of tailored and needs-based climate services depending not only on the needs but also knowledge of the end-users.
- Different types of knowledge required to co-produce meaningful and useful climate information for users.
- Development of climate services in the context of the risk perception of the users.

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