



Urban Development and City Resilience

Africa is urbanizing fast. Sub-Saharan Africa is the region with the fastest urbanization rate globally, with about 40% of its population living in urban areas, up from 22% in 1980.

The vulnerability of African countries to climate change, relative to their readiness to adapt, ranks them among the lowest on the Notre Dame Global Adaptation Index (ND-GAIN): 16 of the 20 countries ranking lowest in the Index are in Africa.

A total of 15 African capitals, and many of the continent's key commercial hubs, have significant combined risk factors stemming from rapid population and economic growth and climate risk. In urban areas of Sub-Saharan Africa, climate risks include floods, droughts, sea-level rise, heat waves, tropical cyclones, and increased changes of contracting diseases. The impacts are experienced most especially among the urban poor. They are the least protected against climate impacts because of the high levels of social vulnerability and limited access to safeguarding means.

While climate risks and vulnerabilities abound in African cities, there nevertheless remains a unique opportunity to get things right, as approximately 40% of Sub-Saharan Africa is still in the early stages of urbanization. Climate risk assessments can help decision-makers understand the climate risks associated with current and future urban development, and identify, prioritize, and implement low-cost actions.

11 SUSTAINABLE CITIES AND COMMUNITIES



KEY NUMBERS

Today, as many as **79 African cities** rank among the 100 fastest-growing cities in the world, but also fall within the "extreme risk" category of climate hazards.



About **40%** of Sub-Saharan Africa population lives in urban areas, up from 22% in 1980.



At **4.4%**, annually, Sub-Saharan Africa is the region with the fastest urbanization rate globally.



MAIN PRESENT AND PROJECTED CLIMATE CHANGE IMPACTS ON AFRICAN CITIES



Climate impacts, in particular **floods**, fall disproportionately on the urban poor.



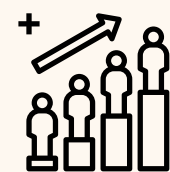
Droughts will have a significant impact on water services.



Sea-level risk, while not a dominant factor today, will exacerbate the impacts of coastal erosion.



In urban settings, **heatwaves** have particularly strong impacts on residents of informal settlements, those who work outdoors, children, and the elderly.



With close to **one billion urban residents**, the growth will continue and double in number by 2050.

MAIN BARRIERS AND OPPORTUNITIES TO CITY RESILIENCE AND URBAN DEVELOPMENT IN AFRICA

- A combination of **high levels of social vulnerability** among Africa's rapidly growing urban poor, coupled with the increasingly **frequent impacts of extreme weather events**, is creating an **urgent need for adaptation responses**.
- The current **low levels** (40%) of **urbanization** of the region and the **low density of its large cities** offer **opportunities for low-cost adaptation actions** that can prevent locking-in errors made by other highly urbanized regions of the world.
- **African cities can undertake a range of adaptation opportunities that require fewer financial resources and can generate immediate and significant benefits.** The following activities are key elements for building resilient cities: (I): rapid climate risk assessments that gather recent disaster information, (II) infrastructure bottlenecks and information gaps, (III) community engagement, including young people, for resilient action, (IV) basic urban planning to manage areas with high climate risk, (V) early warning systems by connecting the city to the national warning systems and hydrometeorological agencies, and (VI) enhance land and property rights and (VII) urban planning.
- **Understanding the current context of climate-related risks is fundamental to all strategies aimed at adapting to climate change.** Solutions include climate-adaptive planning and infrastructure investment to service delivery, community development, land management, and nature-based solutions. Cities, especially, are where this downscaled knowledge is needed—to inform the prioritization, design, implementation, and operations and maintenance of localized action.
- It is in this context that the **Rapid Climate Risk Assessment (RCRA)** methodology has been developed and implemented. RCRA's are meant to develop **an overall picture of the city**, including background information of the city and country relevant to expected climate change and its impacts and risks; and they provide **rapid insight** into what has been done in the city regarding climate hazard and risk assessments as well as **more locally focused assessments of vulnerability and adaptive capacity**.

KEY MESSAGES: RAPID CLIMATE RISK ASSESSMENT (RCRA)

The Rapid Climate Risk Assessment (RCRA) is an approach for urban climate risk assessment developed by the Global Center on Adaptation (GCA).

An RCRA gathers key information on climate hazard and risk, development context, infrastructure bottlenecks, past and current city resilience initiatives, and relevant policies and institutions.

To keep costs down and to ensure time efficiency, the approach uses primarily globally available free data.

RCRA can serve as a codified document summarizing the overall state of climate adaptation within a city.

An RCRA can provide a basis for collaborative governance, promote collaboration and knowledge sharing, and build consensus among different interests in a city.

GLOBAL GOOD PRACTICES: YOUTH-LED ADAPTATION SOLUTIONS

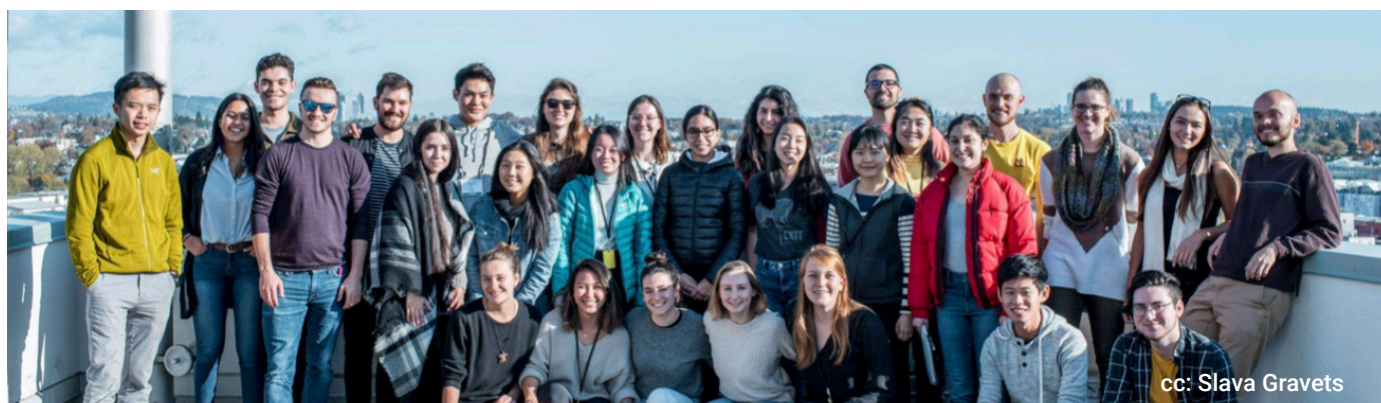


Envirolab – Vancouver, Canada

CityHive's Envirolab is a knowledge and capacity-building 'think-and-do-tank' started in 2019 in Vancouver to close the gap between young people and municipalities and support meaningful youth engagement. This initiative gathered over 140 young people aged 18-30 to learn about urban sustainability issues, and build skills to place young people as collaborators alongside local governments and organizations to design innovative solutions. The Envirolab contributed to placing young people at the intersection of learning, relationship building, and solutions design.

The fourth Envirolab cohort centered on climate adaptation. Participants examined challenges and opportunities for cities to proactively collaborate between young people and civic institutions and creatively adapt to climate impacts, aiming to build a climate-resilient future. Guided by local knowledge keepers and interdisciplinary experts, participants designed projects, actions, and products addressing the urgent need to reimagine urban climate adaptation initiatives in their community.

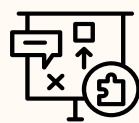
Website: www.cityhive.ca/innovation-labs/envirolab/
Social media: www.instagram.com/cityhivevan



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KEY POLICY RECOMMENDATIONS

GCA's research State and Trends in Adaptation reports indicates that African cities need to undertake comprehensive adaptation and resilience strategies. , based on the following areas: This can be achieved through the following activities:



1. Conduct scenario planning, based on continuous data collection and partnership with scientific bodies and others with experience in robust planning and climate projections at the local level. This also requires continuous data collection of climate, environmental, and urban growth trends.



5. Foster multi-level government coordination, as many of the climate risks of the city require coordination and action with other jurisdictions such as neighboring municipalities in metropolitan areas, or river basins for watersheds providing water to the city or flood protection.

2. Seek new alliances to ensure adaptation and resilience.

The ability of municipal administrations to connect vertically with higher and lower levels of government, and horizontally with sectoral ministries and neighboring municipalities, is critical. Equally important are the partnerships with expert bodies, universities, and researchers, as well as international financiers, city networks, and UN agencies.



8. Leverage new technologies and bring the best elements of smart cities and disruptive digital technologies

such as smart metering to improve the preparedness of citizens and enterprises to climate disasters, expand the data and knowledge base of climate risks, and reduce the cost of adaptation measures. Examples include Advanced Climate Modeling and Prediction, Remote Sensing, Internet of Things Sensors, Decentralized Energy Systems, and other climate-resilient technologies.



3. Strengthen the capacity of all city stakeholders

through early planning, preparedness programs, community engagement, and rapid reconstruction using 'build-back-better' principles to minimize the economic impact of disasters. The shorter the interruption of economic activity caused by climate disasters, the smaller will be the economic impact on the city, its residents, and businesses.



6. Deepen the resilience of the private sector. The municipality can take an active role to encourage and support plans for climate disasters through information and training, ideally in partnership with enterprises with more knowledge and capacity.

4. Incorporate inclusive approaches to adaptation

to ensure that socially vulnerable groups, from persons with disabilities to unemployed youth, migrants, and internally displaced populations, are all part of the resilience plans and programs of the city.



7. Explore new financial mechanisms for enhanced resilience,

beginning with simple ones such as insurance for the most critical municipal assets, public-private partnerships for resilient infrastructure, and land-value capture to finance flood control infrastructure.



MORE INFORMATION

GCA's Youth Leadership & Education Program

The Global Center on Adaptation (GCA) is a solutions-broker for adaptation action. The Youth Leadership & Education Program aims to make young people central to driving the adaptation agenda.

Factsheets for young people

This factsheet is part of a series that presents information from GCA's flagship reports State and Trends in Adaptation in Africa 2021 and 2022. It aims to disseminate key adaptation information to young people and showcase youth-led adaptation action from across Africa.

The factsheets are produced under the leadership of Prof. Dr. Patrick Verkooijen Chief Executive Officer of

GCA, and the authors of State and Trends' reports Dr. Ede Ijjasz-Vásquez and Dr. Jamal Saghir.

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