
Global Center on Adaptation



GLOBAL
CENTER ON
ADAPTATION

Created as a Solutions Broker for Climate Adaptation



Ban Ki-moon
Chair



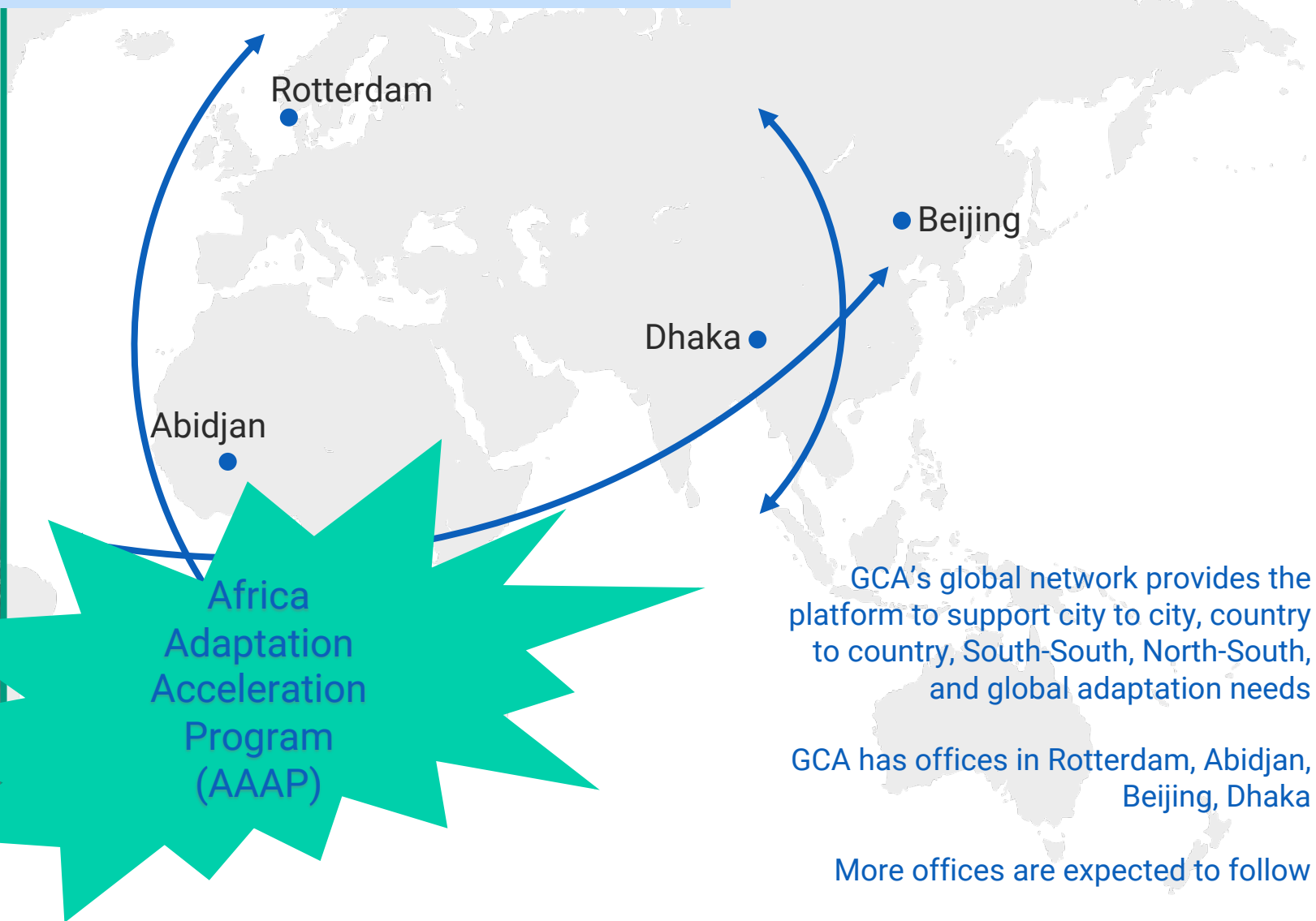
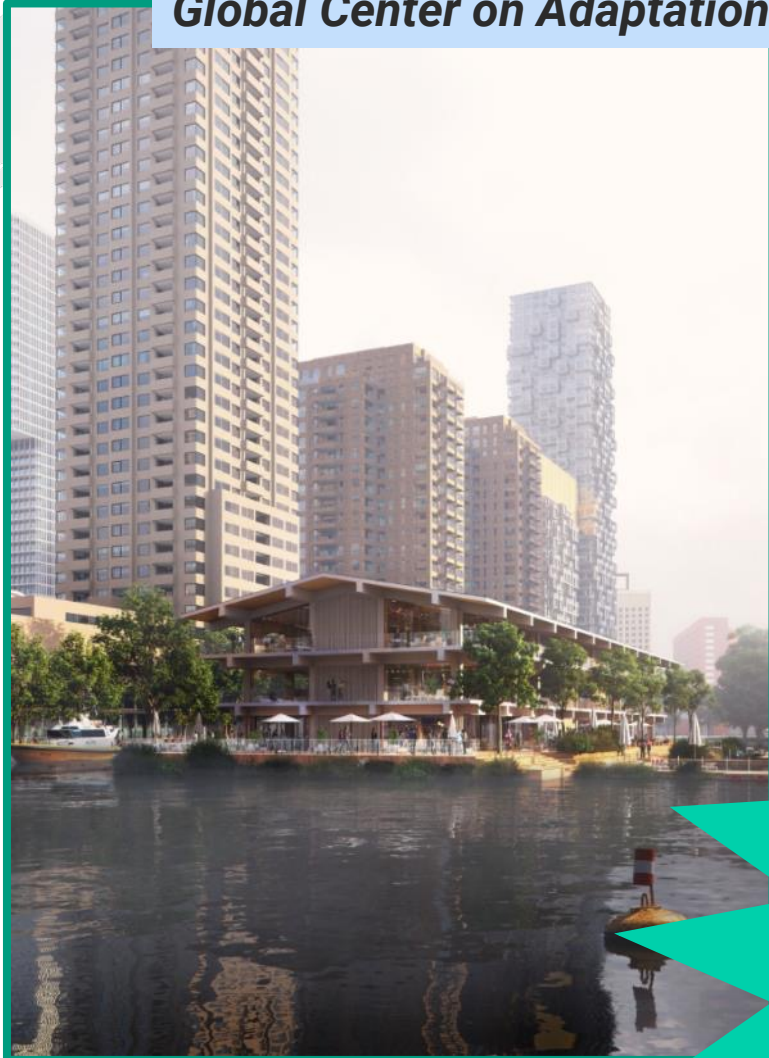
Patrick Verkooijen
CEO



GCA is building a pathway for a transformational decade for adaptation action

GCA Provides a Platform for Cooperation

His Majesty King Willem-Alexander of the Netherlands inaugurates Global Center on Adaptation's new floating office – Sept. 6, 2021





State and Trends on Adaptation in Africa 2021: A sample of findings

State and Trends in Adaptation 2021 (STA21) - Africa

- Second in the State and Trends in Adaptation Series
- First report of its kind for the continent:
 - Comprehensive overview of climate risks and adaptation solutions
 - Science-based, policy-focused, solutions-oriented



Present and Projected Climate Risks in Africa IPCC 2020 – Temperature

- Observed mean annual temperatures are increasing at 0.2°C to 0.5°C per decade.
- 1.5°C warming under all scenarios in the next decade; by mid-century 2°C or more
- Days above 35°C will increase by 20 to 160 days annually depending on scenario and region.
- Life-threatening temperatures above 40°C are projected to increase by 10 to 140 days depending on scenario and region.

IPCC 2020 - Precipitation, floods and droughts

- Frequency and intensity of heavy precipitation projected to increase
- 1 in 100-year floods could become:
 - 1 in 40 years under low-warming scenarios
 - 1 in 20 years under higher warming
- **Droughts** increase in all regions except northern parts of East Africa and Horn of Africa
- Changes in **total precipitation are small BUT** more rain in heavy rainfall events in most regions, increasing temperatures and evaporative demand
- **Overall picture:** drier conditions over most of the continent with more droughts but also more flooding



Africa Climate change, agriculture and water (2)



With populations rising and climate change, water-related stresses will mount.

- Agriculture accounts for the highest percentage of total water withdrawal in Africa, up to 81 percent.
 - In sub-Saharan Africa, **rained agriculture accounts for 95 percent** of the region's farmedland, more than 1.1 billion people are at risk due to water constraints.
 - Only **3 percent of the cropland in sub-Saharan Africa is irrigated** or equipped for irrigation, and many irrigation schemes suffer from water wastage.
- Irrigation infrastructure could be expanded to up to 38 million hectares compared to the current 7.7 million.



Africa Agriculture – The Critical Sector

With a 3°C trajectory climate change will:

- reduce income of poorest 40% by more than 8% by 2030
- by 2050, increase undernourished from 282 million today to 350 million
- reduce 30% of current growing areas for maize and banana and 60% for beans by 2050
- cause 1/5 loss in West African marine fisheries, half of all fisheries-related jobs, and US\$311 million annually in income across food system by 2050

Africa Climate change and food security

- A trajectory of global temperature rise of 3°C will cause catastrophic disruption to African food systems within the next 30 years.
- A 1.5°C trajectory provides greater options for the adaptation of African food systems but still demands urgent action.



Food insecurity increases by 5–20 percent with each flood or drought.

Adaptation is not an option, it is a must

- Financing adaptation to climate change will be more cost-effective than frequent disaster relief.
- Annual agricultural adaptation cost is \$15 billion (0.93% of regional GDP), but the cost of inaction could be more than \$201 billion (12% of GDP)

	Research and extension	Water management	Infrastructure and market access	Sustainable Land Management	Climate information services	Total
Cost of action (\$ billion)	3.88	6.12	2.08	3.35	0.053	15.48
Cost of inaction (\$ billion)	71.21	90.67	12.56	26.76	0.488	201.69
Cost of action as proportion of cost of inaction (%)	5.44	6.75	16.56	12.51	10.86	7.67

Source: Based on Nkonya et al. (2016); Alene et al (2010); Fenta et al. (2020); Fuglie (2018); Nin Pratt (2021) Venton et al. (2019); Ludwig et al., (2016); and various calculations. See the Annexe on Methodology for more details.



”

The Africa Adaptation Acceleration Program



AAAP: Leverage \$25 Billion in Adaptation Investments

- To accelerate and scale adaptation, GCA has joined forces with the African Development Bank to design of the Africa Adaptation Acceleration Program (AAAP). to mobilize \$25 billion to support Africa's adaptation plans.
- It will support all African countries in designing and implementing transformational adaptation of their economies and post-COVID recovery development paths.
- The AAAP is an Africa-owned and Africa-led response to the climate crisis. African leaders have asked for this Program and have endorsed its design.

**Climate Smart
Digital Technologies for
Agriculture and Food
Security**



**Africa Infrastructure
Resilience Accelerator
(AIRA)**



**Empowering Youth
through Jobs and
Entrepreneurship**



**Innovative Financial
Initiatives for Africa**



City Adaptation Accelerator



City Adaptation Accelerator

The goal of the City Adaptation Accelerator (CAA) is to support cities and countries to strengthen their urban climate adaptation and resilience outcomes.

City Adaptation Accelerator in 10 cities with \$1 billion in investments by 2022

Support	Technical Assistance	Cross Cutting Issues
<ol style="list-style-type: none"> Enhanced understanding of climate risks 	<ul style="list-style-type: none"> (Rapid) Climate Risk Assessment: Accra, Antananarivo, Bizerte, Conakry, Dodoma, Libreville. 	<ul style="list-style-type: none"> Scalability
<ol style="list-style-type: none"> Support to strategize, plan, and prioritize for urban resilience 	<ul style="list-style-type: none"> Toolkit for Locally Led Action: N'Djamena, Monrovia. 	<ul style="list-style-type: none"> Locally-led action and equity
<ol style="list-style-type: none"> Broker public and private investments in urban resilience 	<ul style="list-style-type: none"> Design support green-grey flood mitigation measures: N'Djamena, Monrovia. 	<ul style="list-style-type: none"> Partnership
<ol style="list-style-type: none"> Strengthen institutional capacities 	<ul style="list-style-type: none"> Mobilizing adaptation finance: Freetown 	<ul style="list-style-type: none"> Urban dialogue

CAA in Action

- Rapid Climate Risk Assessment in five cities (Antananarivo, Bizerte, Conakry, Dodoma, and Libreville).
- Climate risk informed spatial planning in Accra.
- Building urban flood resilience in N'Djamena and Monrovia.
- Climate resilient water supply in Freetown.





N'Djamena Integrated Urban Resilience Project

- World Bank. US\$150 million (IDA grant)

Support provided

- Gender risk vulnerability assessment to inform measures to close gender gap.
- Assessment of climate risks to services and – vulnerable – people to prioritize flood Investments.
- Development of strategy to enhance participation local communities.

Co-creation design principles

- The project will adopt a systems approach to maximize benefits for N'Djamena, the services, and all its people.
- During the first phase of the project, a series of priority, no-regret investments – including investments in urban agriculture – will be planned .
- Combine green and grey solutions to mitigate urban flood risks to support a gradual shift towards 'living with water'.
- Plan for the future by taking into account urban growth, economic transitions, and climate change impacts.

UNDERSTAND
CLIMATE RISK

STRATEGIZE, PLAN, AND
PRIORITIZE FOR
ADAPTATION

FINANCE
FOR RESILIENCE

BUILD CAPACITY
FOR
SUSTAINABILITY



GLOBAL
CENTER ON
ADAPTATION