
The State and Trends in Adaptation 2022 Report

Summary

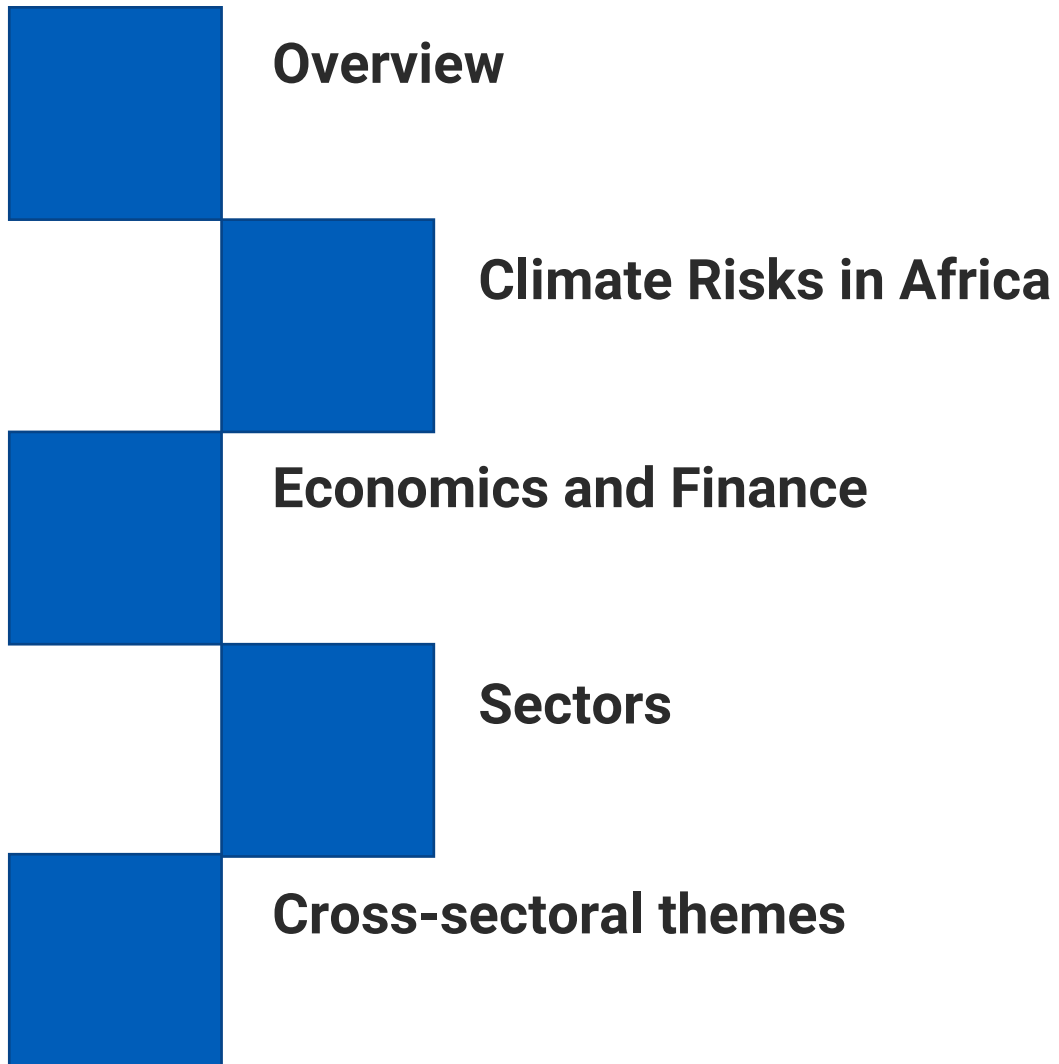
3rd November 2022



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ADAPTATION



State and Trends in Adaptation - Africa



State and Trends in Adaptation 2022 (STA22) - Africa



- Third in the State and Trends in Adaptation Series
- Innovative adaptation and resilience ideas, solutions, and policy recommendations on the way forward
- Science-based, policy-focused, solutions-oriented
- GCA as knowledge broker – multiple contributing institutions



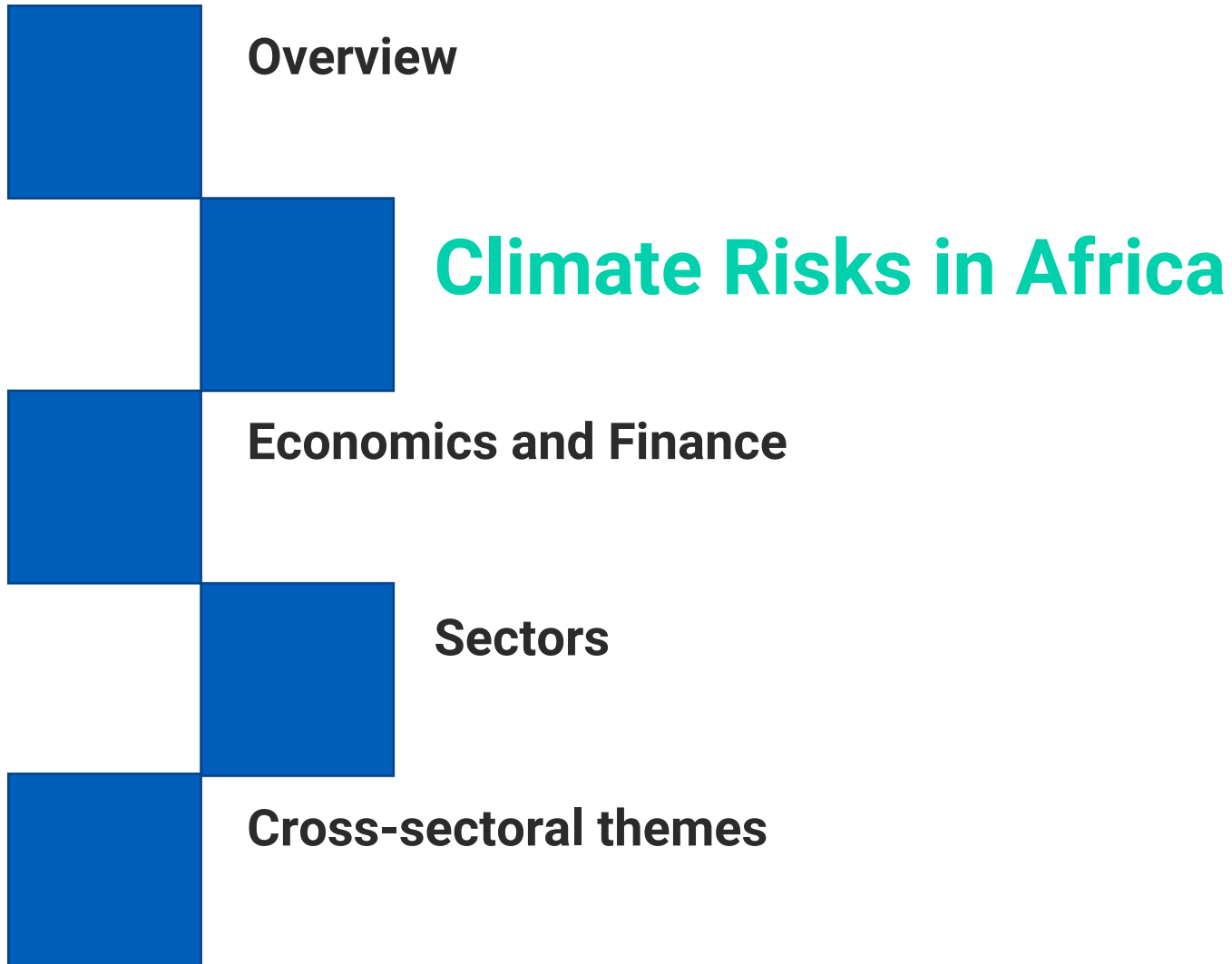
Climate Risks in Africa	
Section 1 Economics and Finance	Adaptation Finance Flows in Africa
	Financial instruments in North Africa
	Climate Risk Regulation in Africa
	Resilient Recovery: Senegal and Cote d'Ivoire
	The Private Sector
	Access to Global Climate Finance – The Technical Assistance Program
Section 2 - Sectors	The Africa Adaptation Acceleration Program (AAAP)
	Livestock
	Innovation in agriculture
	Urban informality
	City Resilience
	Nature-based Solutions in Agroforestry
	Blue Economy
	Coastal erosion
Section 3 - Cross-cutting Themes	Locally led Adaptation
	Education
	Institutional Arrangements for Adaptation
	Youth and Entrepreneurship
	Security
	The Unfinished Research Agenda in Adaptation

STA22 Complements and Deepens STA21

Present and Projected Climate Risks in Africa	
Section 1 Macroeconomics Finance	Macroeconomics and climate adaptation
	COVID recovery
	Finance
	Private Sector
	Youth
	Jobs
Section 2 - Focus Sectors	Agriculture
	Trade and food security
	Drylands
	Transport and energy
	Urban development
	Water resources, floods, and disaster risk management
Section 3 - Cross-cutting Themes	Health
	Gender
	Conflict and migration
	Sustainable Development Goals



State and Trends in Adaptation - Africa



Climate Risks in Africa

- ✓ 52 million African people (4% of the population) impacted either by drought or floods between Jan 21 and Sep 22
- ✓ An update of scientific reports since STA21
- ✓ **Food systems** are particularly vulnerable
- ✓ A 2°C temperature rise would result in yield reductions for staple crops across most of Africa
- ✓ At 2°C of global warming, rangeland net primary productivity is expected to decline by 42 percent for West Africa by 2050

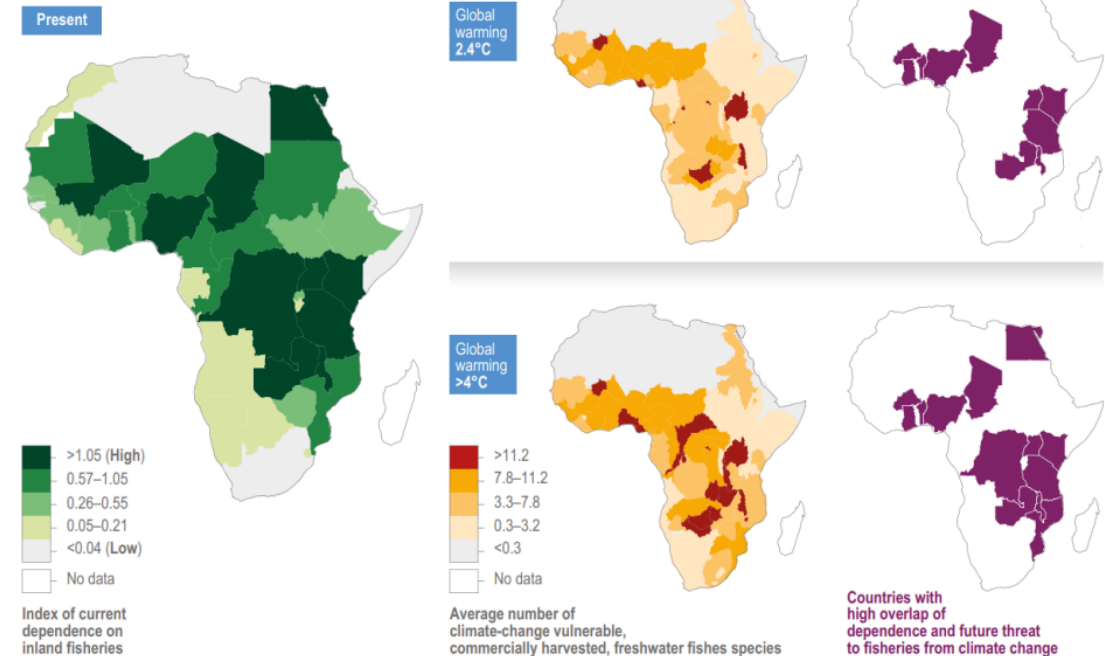


STA22 – Climate Risks Africa

- ✓ Water-dependent sectors across Africa are heavily impacted
- ✓ A 2°C of global warming, the catch potential for marine fisheries on the western coast of Africa and in the Horn of Africa could decline by 10 percent to more than 30 percent
- ✓ At 2°C of global warming, 7–18 percent of African land-based species assessed would be at risk of extinction, 45 and 36 percent of freshwater fish species would be vulnerable to local extinction.
- ✓ At 2°C, bleaching is projected to severely degrade over 90 percent of east African coral reefs.⁴⁷
- ✓ Planning under deep uncertainty is required

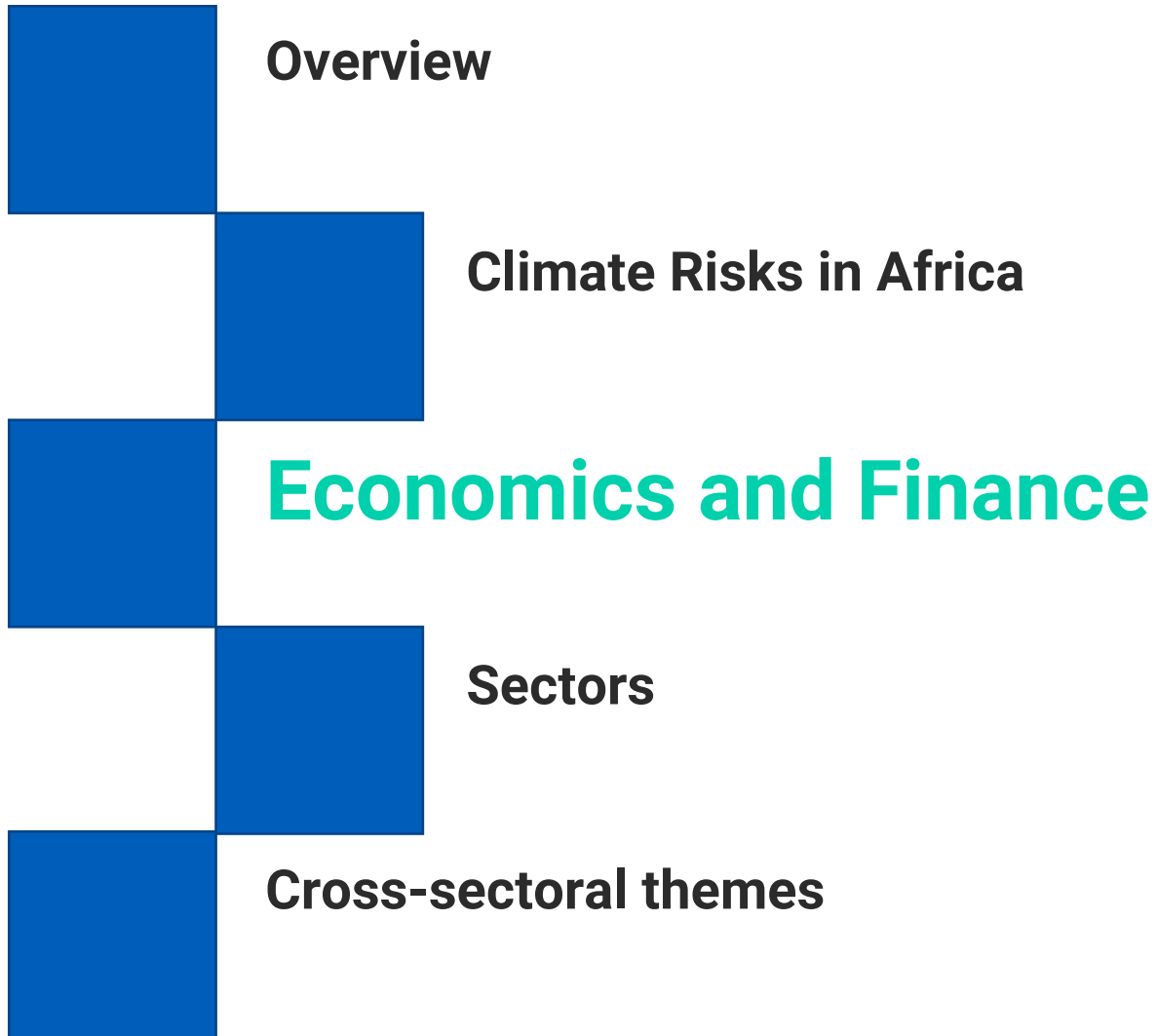
Climate change risk to fisheries in Africa

(a) Inland/freshwater fisheries



Source: Reproduced from Trisos et al., 2022, Figure 9.26.⁴²

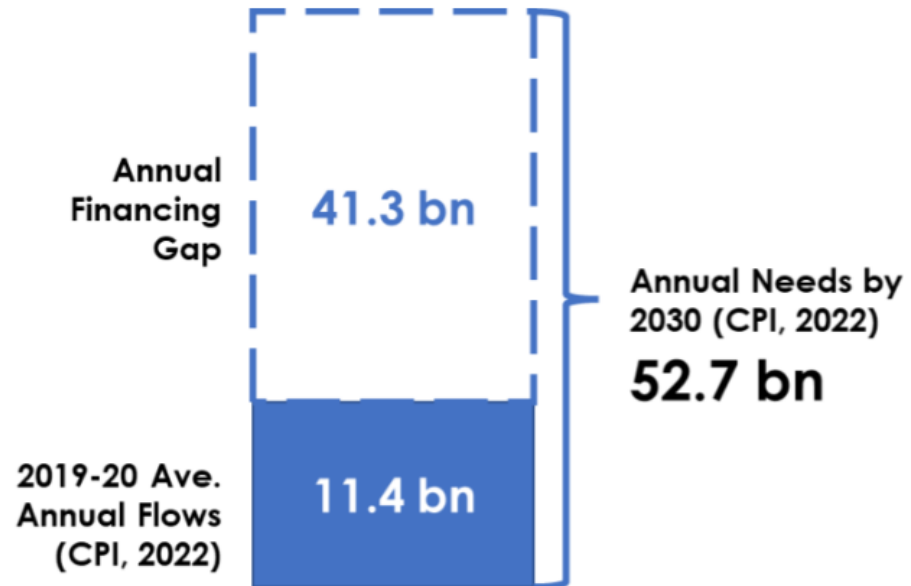
State and Trends in Adaptation - Africa



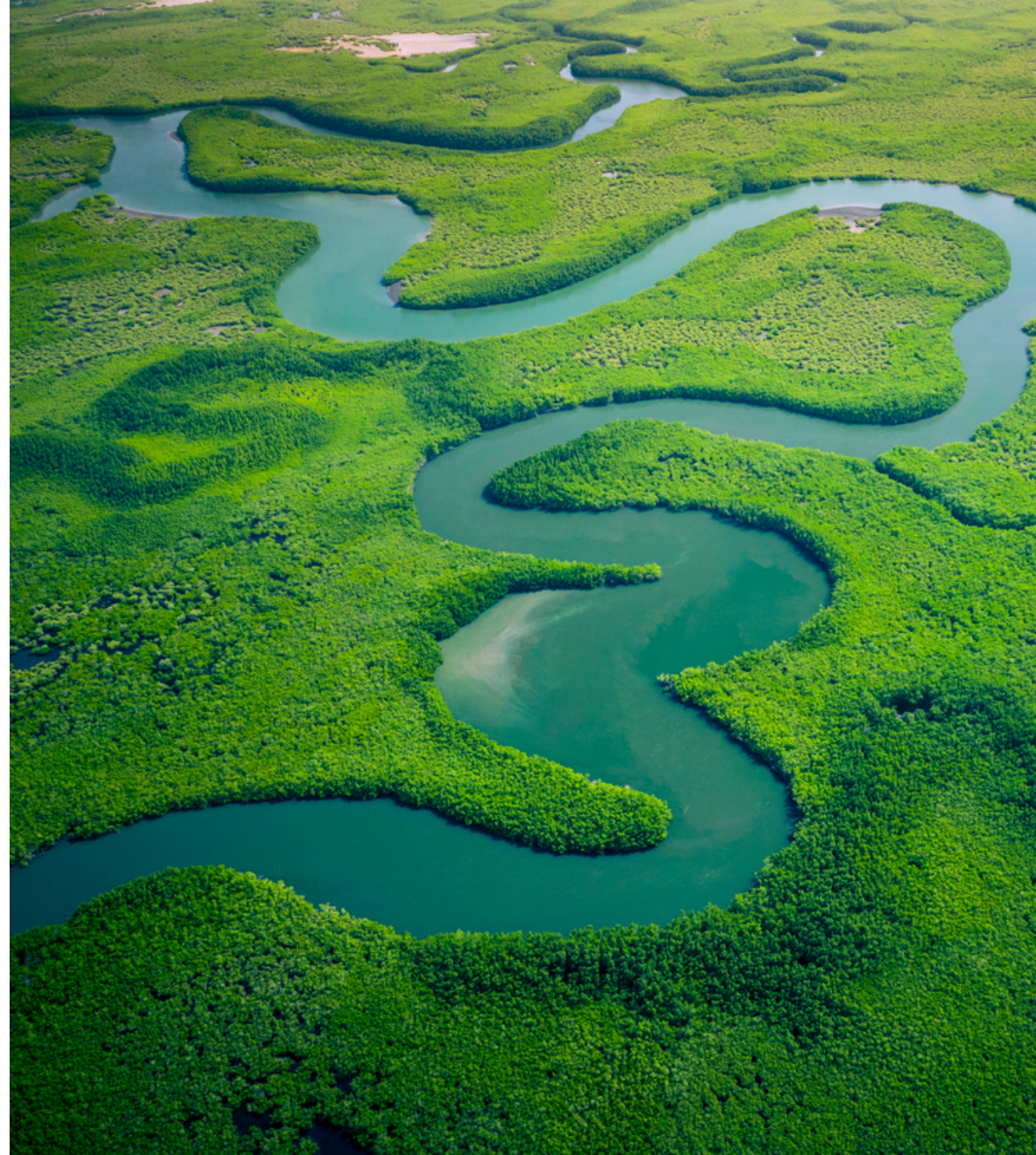
Adaptation Finance Flows in Africa

The finance gap

Adaptation Finance Commitments (\$bn) vs. Needs in Africa



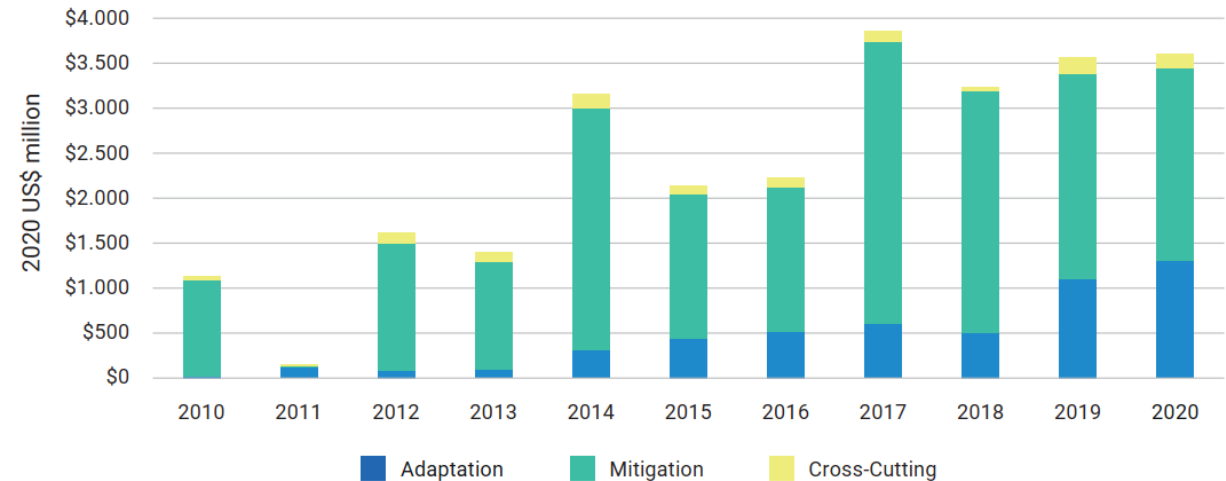
- 53% of adaptation finance comes from DFIs
- 23% from national governments



Financial Instruments in North Africa

- Total public climate finance (2010-2020) only 7% percent of that needed to meet NDC goals over the next ten years
- Only 20% of that finance went to pure adaptation projects.
- Debt-based instruments = 88%
- Innovative **debt-for-climate swaps**

Climate Finance Flows to North Africa by Purpose (2010–2020)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cross-cutting	\$55.12	\$0.19	\$125.60	\$111.30	\$157.30	\$104.60	\$104.30	\$110.40	\$44.79	\$184.80	\$167.50
Mitigation	\$1,071	\$29.19	\$1,389	\$1,188	\$2,693	\$1,588	\$1,600	\$3,127	\$2,675	\$2,290	\$2,131
Adaptation	\$17.60	\$125.70	\$96.85	\$108.10	\$308.50	\$447.80	\$523.80	\$612.90	\$515.90	\$1,103	\$1,310

Climate Risk Regulation in Africa

Overview of Climate Risk-Related Regulations and Initiatives Across African Regions

Based on interviews

Driving "Established"

Driving "Emerging"

□ Considered relevant, not yet initiated

■ Considered relevant, under development (< 2 years)

■ In place

Archetype 3
"Initiating"

Archetype 2
"Emerging"

Archetype 1
"Established"

Authorities and private sector actions

Define specific prudential regulations

Implement other regulations/guidelines or engage with industry

Working groups and international collaboration

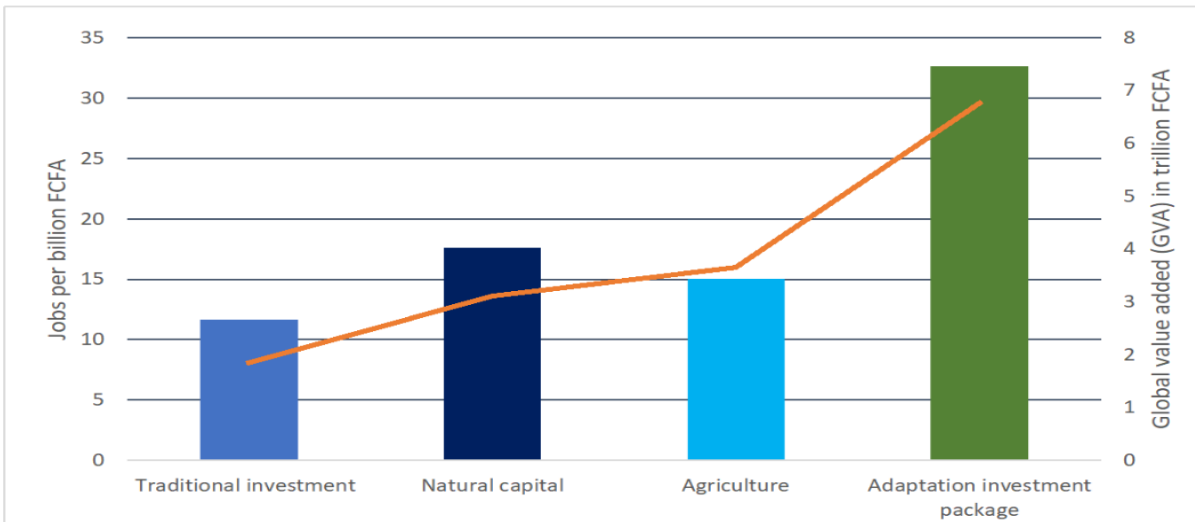
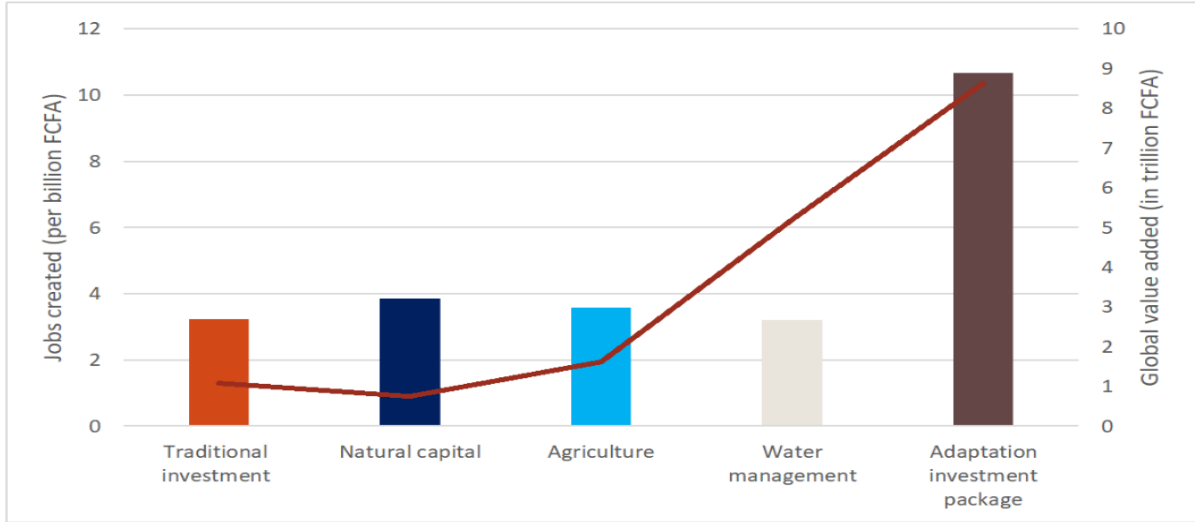
Private sector initiatives

	DRC	Tunisia	BCEAO	Rwanda	Zimbabwe	Egypt	Ghana	Nigeria ¹	Morocco	South Africa	Kenya	Mauritius ²
Define principle-based regulation							■			■	■	■
Define disclosure requirements			■	■	■	■	■	■	■	■		
Publish guidelines/best practices			■	■		■	■	■		■		■
Run exploratory stress tests			■	■		■	■	■	■	■		■
Run survey on climate risk practices			■	■	■		■	■	■	■		■
Join international working group (NGFS, SBFN)		■		■	■	■	■	■	■	■	■	
Set up internal working group(s) on climate risk		■	■	■	■				■	■	■	■
Set up a private-public working group(s)		■		■	■	■	■		■	■	■	■
FIs joining international association (e.g., TCFD, NZBA)					■	■	■	■	■	■	■	■
Existence of industry working group on climate risk				■	■	■			■	■	■	



Resilient Recovery: Senegal and Cote d'Ivoire

Senegal



Cote d'Ivoire



The Private Sector

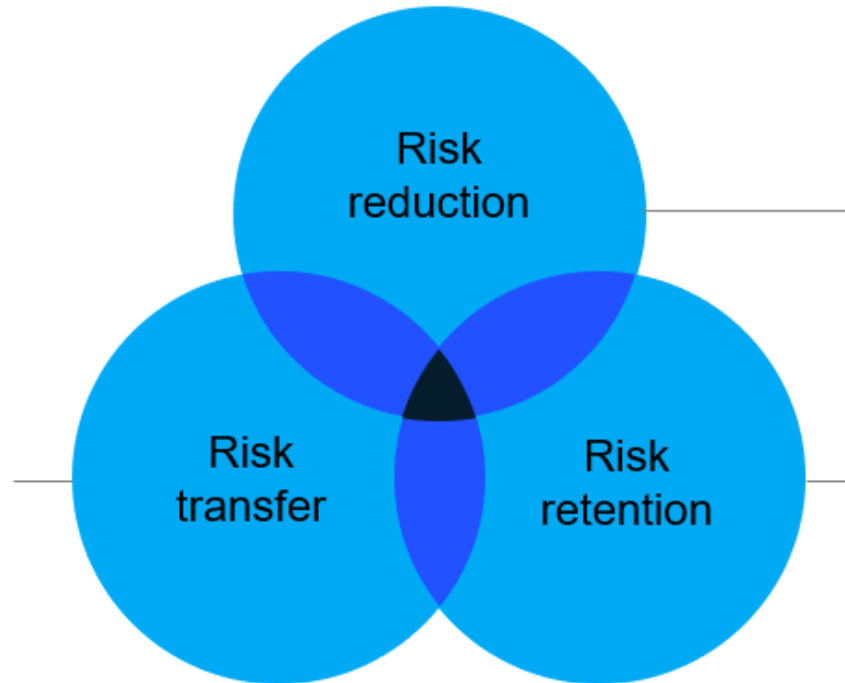
- The private sector in Africa generates two-thirds of the continent's economic output
- Insurance organizations in Africa can act as a catalyst
- Corporates are also helping upstream and downstream stakeholders build resilience through knowledge-sharing and innovation



Measures to negotiate climate-related risks

Transfer risks through

- Adopting market-based risk transfers
- Supporting social risk transfers



Reduce risk impacts through

- Reducing exposure
- Investing in capital projects and Nature Based Solutions

Retain risks through

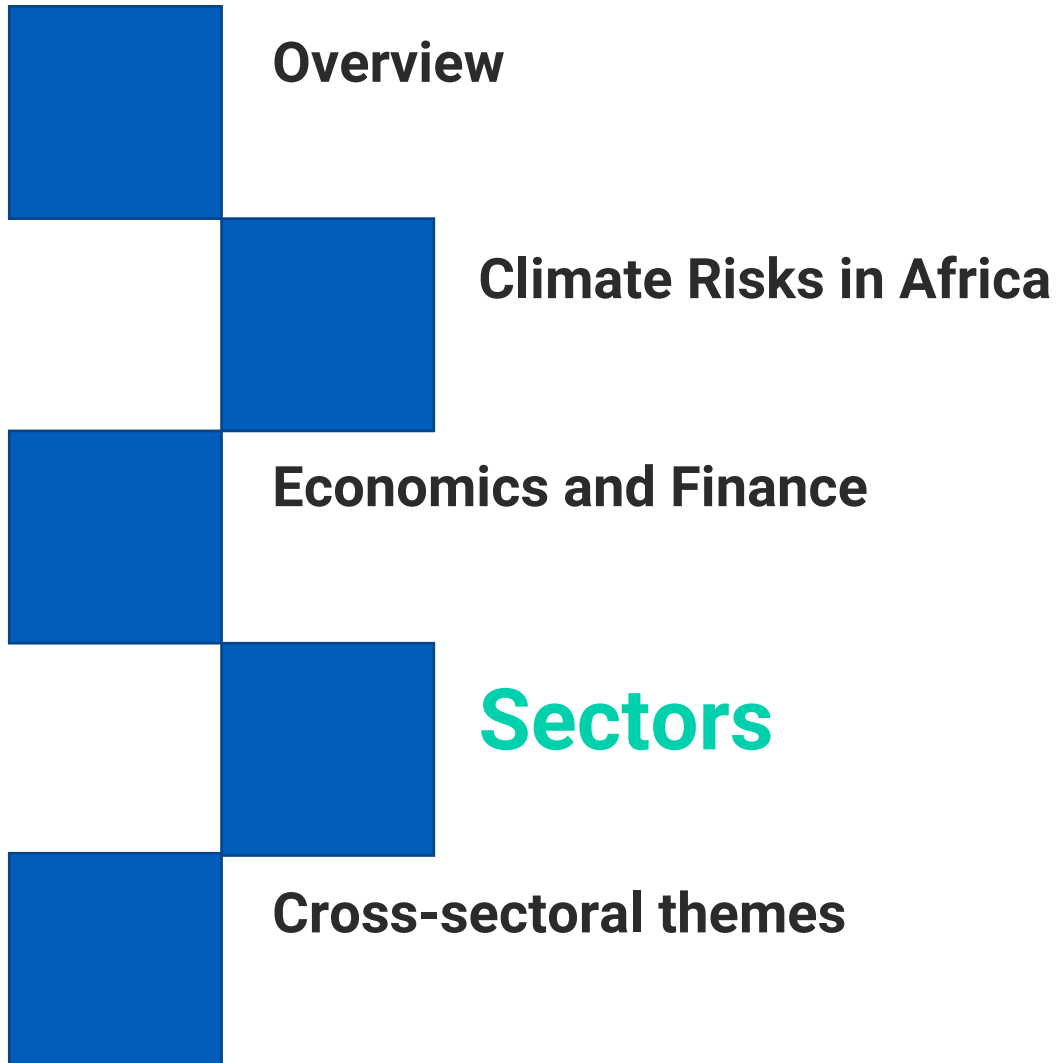
- Creating redundancies
- Hardening assets
- Investing in crisis preparedness and response

Access to Global Climate Finance: The Technical Assistance Program

- Build capacities for adaptation planning
- Promote large-scale transformational adaptation projects.
- Burkina Faso, the Democratic Republic of the Congo (DRC), Niger, Nigeria, Seychelles, Côte d'Ivoire, Senegal, and Ghana
- Interviewed key officials, partners, and other stakeholders.



State and Trends in Adaptation - Africa



The Africa Adaptation Acceleration Program (AAAP)

- AAAP working in 18 countries

Pillars

Agriculture and Food Security

African Infrastructure Resilience Accelerator

Empowering Youth for Entrepreneurship and Job Creation in Climate Adaptation and Resilience

Innovative Financial Initiatives for Africa

- AAAP Upstream Financing Facility - enabled the mainstreaming of adaptation into **investments worth over US\$3 billion**
- AAAP future plans



Livestock

- **55% of total household income in pastoral systems in Africa**
- However, most adaptation work has focused solely on crops
- Projected cost of inaction:
 - Heat stress impact on milk and meat: \$4.2 B/year
 - Grassland productivity reductions: \$1.1 B/yr
- Promising adaptation measures:
 - ✓ Breeding for the future
 - ✓ Rangeland management
 - ✓ Better disease treatments
 - ✓ Feed inventories and feed stores
 - ✓ Early warning alerts
 - ✓ Adaptive safety nets
- Need more research on cost of implementing large-scale livestock adaptation programs



Innovation in agriculture

- >60% of Sub-Saharan Africans are smallholder farmers
- Nearly ¼ of Africa's GDP comes from agriculture
- Increasing recognition for benefits of **climate-smart agriculture**
- CSA implementation requires:
 - ✓ investing in rural agricultural infrastructure
 - ✓ expanding broadband internet availability
 - ✓ bundling digital services
 - ✓ knowledge sharing



Urban informality

- Approximately 60% of urban residents in sub-Saharan Africa live in slum areas
- Increased drought, temperature, sea level rise, heat stress and precipitation present challenges for slums
- Framework - links between climate change threats and informality, and necessary interventions
- **Case study: Accra, Ghana**
 - 60% living in informal housing -> 2/3 of these work in informal jobs
 - 30% informal workers at home, 25% on the street
 - Adaptation in short-term: focused, low cost, in situ investments, increased coping measures, and land rights in safe areas



City Resilience

- Of the 100 fastest-growing cities in the world, **79 are in Africa**.
- GCA has implemented Rapid City Resilience Assessments in:
 - Antananarivo, Madagascar; Bizerte, Tunisia; Conakry, Guinea; Dodoma, Tanzania; and Libreville, Gabon
 - Includes City Scan, Rapid Climate Risk Assessment, and City Scoping
- Importance of having strong local champions within municipalities to help identify problems and climate risks



Nature-based Solutions in Agroforestry

- Agroforestry can increase crop yields, land productivity, and local incomes and fits current African farming systems, skills, and livelihoods.
 - It is important to go beyond the exhortations to protect forests and to plant more trees -> need to tap the potential of agroforestry
- Challenges:
 - Not all smallholders are keen to adopt unfamiliar farming systems
 - Financing the transition
- Solutions:
 - Co-production of knowledge is needed to understand both local biophysical and socioeconomic conditions to address farmers' immediate needs and preferences.
 - Integrate both green and grey solutions from the outset
 - Different capacity building



Blue Economy

- Coast-based activities are worth more than \$300 billion per year and support 49 million jobs.
- Only 26 of the 34 coastal countries have formal strategies or policies to protect their blue economies.
- 12 coastal countries implementing blue economy strategies or action plans:
 - Two (Mauritius and Seychelles) recognize the severity of climate change and have practical activities for adaptation.
 - Four have some planning for adaptation responses
 - Four recognize the threats of climate change but have little to no planning or adaptation actions
- One of the success stories in making the blue economy more sustainable is the Seychelles Marine Spatial Plan (SMSP) Initiative

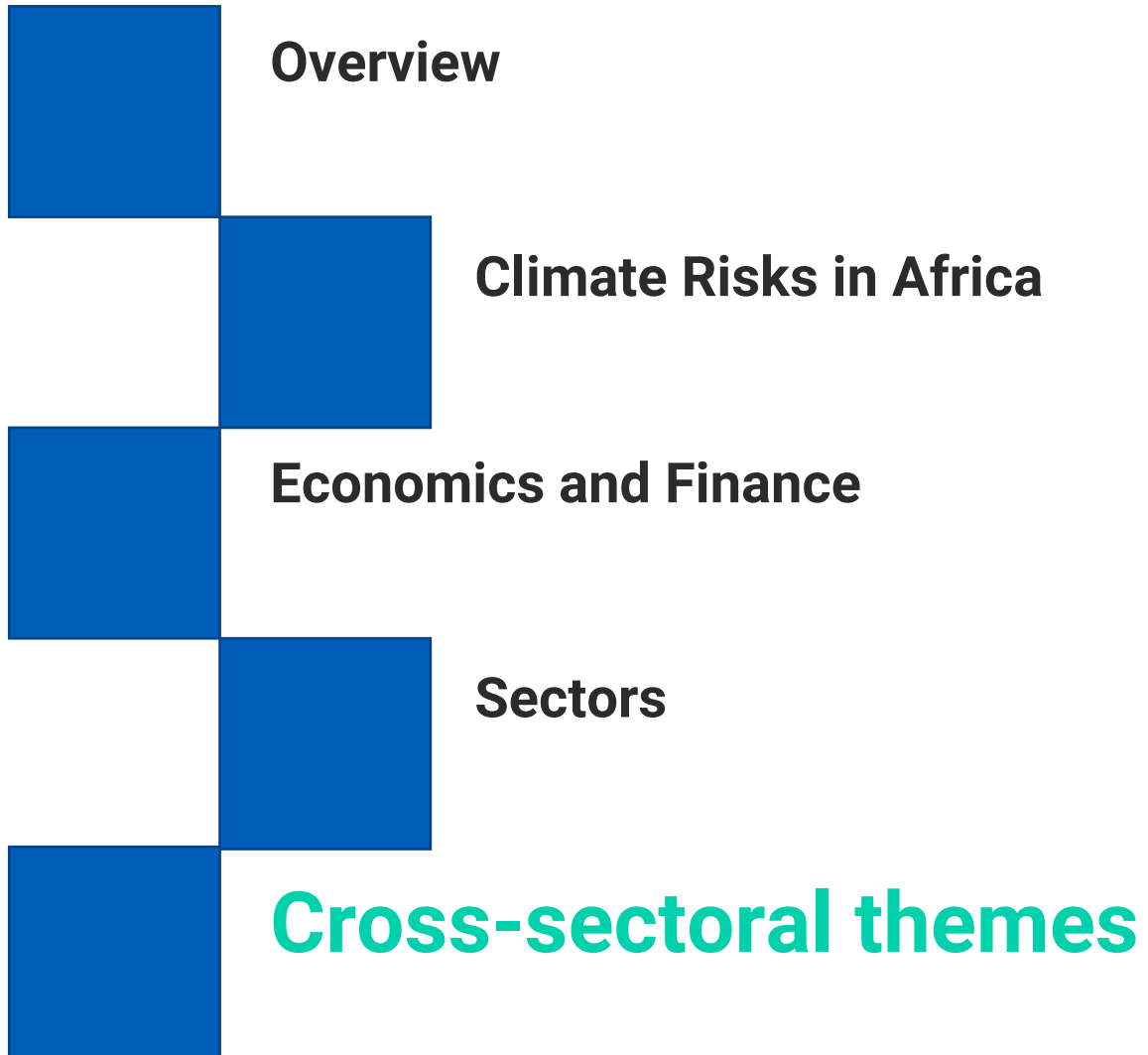


Coastal erosion

- Coastal erosion rates on the West and North African coast among the fastest in the world.
- Costs of erosion in the Maghreb countries of North Africa already range from **\$273 million** per year in Libya to more than \$1.1 billion per year in Tunisia.
- Implementing nature-based solutions, combined with the Blue Economy approaches increases coastal resilience



State and Trends in Adaptation - Africa

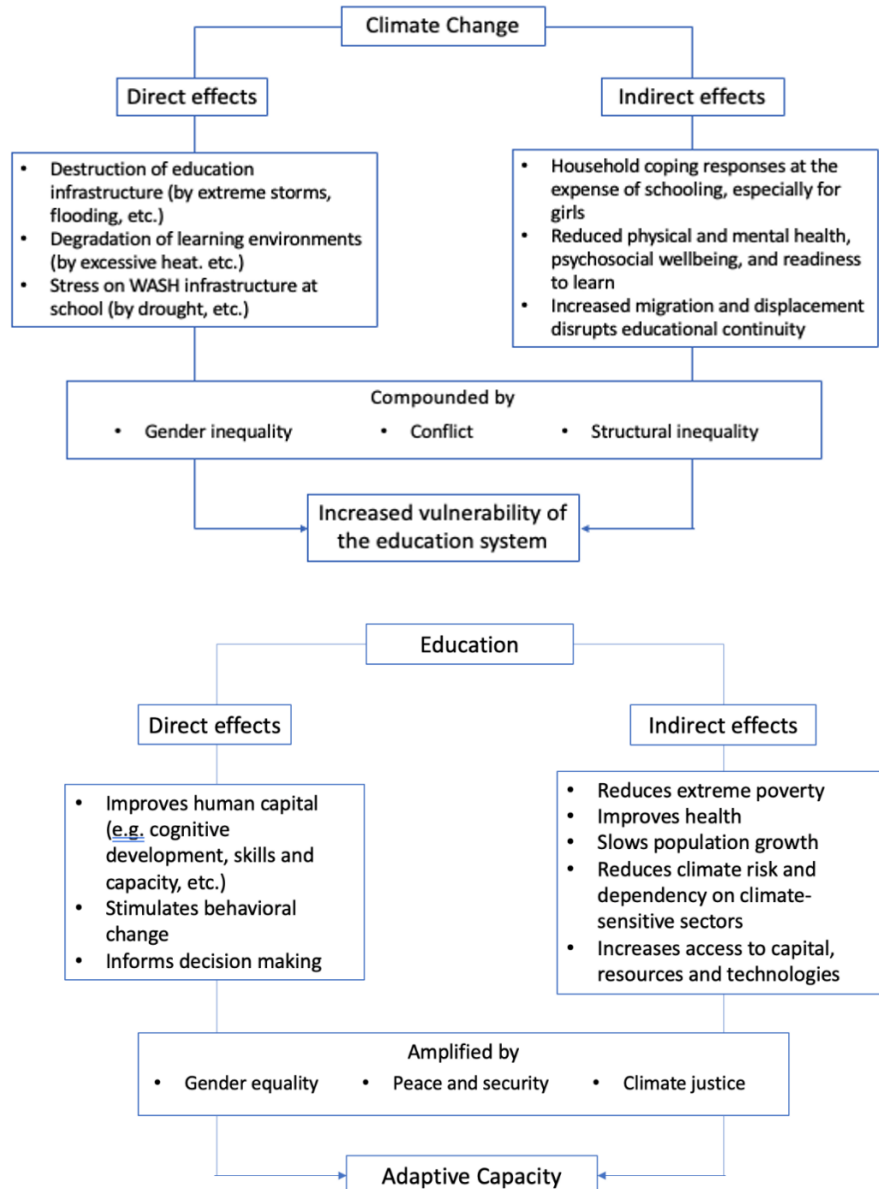


Locally led Adaptation

- Local knowledge and giving local people control over adaptation actions can lead to more effective adaptation actions and raise the benefits relative to the costs
- An opportunity for a different type of adaptation for the 60% of smallholder farmers and the 55% of urban residents living in informal settlements
- LLA depends on context:
 - Government-led mechanisms in countries with mature governance -> Ethiopia's CRGE Facility and FONERWA in Rwanda
 - CSOs or constituent-based organizations in fragile contexts.



Education

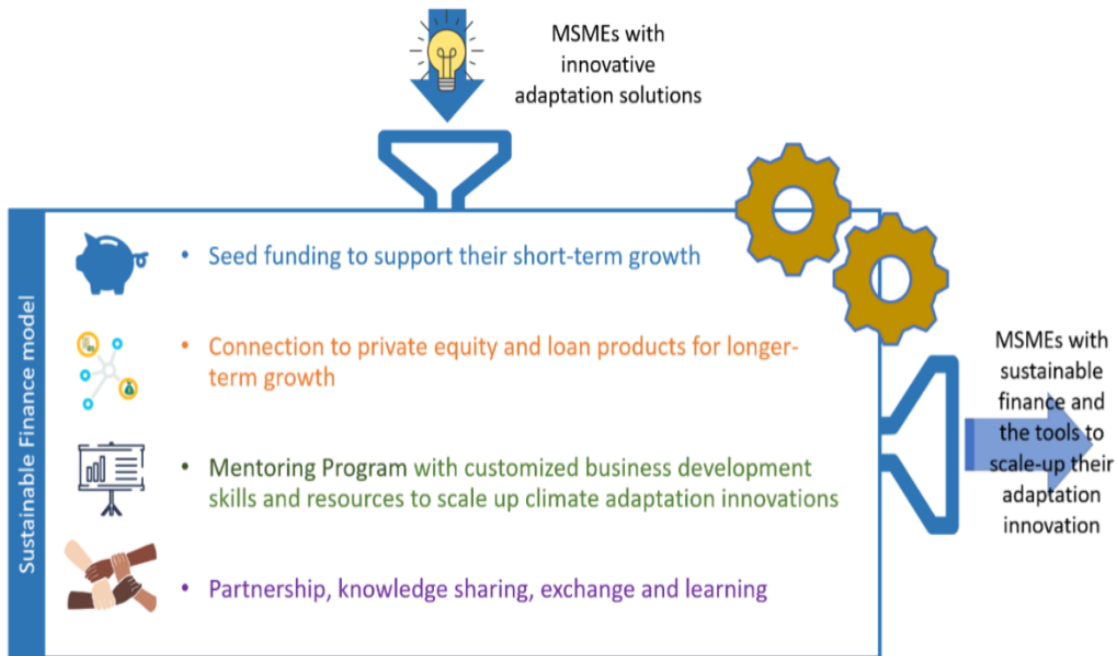


Institutional Arrangements for Adaptation

- Progress has been made, but challenges remain when it comes to setting clear roles, mainstreaming finance, and disaster risk reduction
- Analysis of 10 African NDCs
- Need to integrate climate strategies, plans, and policies into the fiscal and public financial management systems
- MRV system is crucial for NDC transparency and accountability.



Youth and Entrepreneurship



Six main challenges

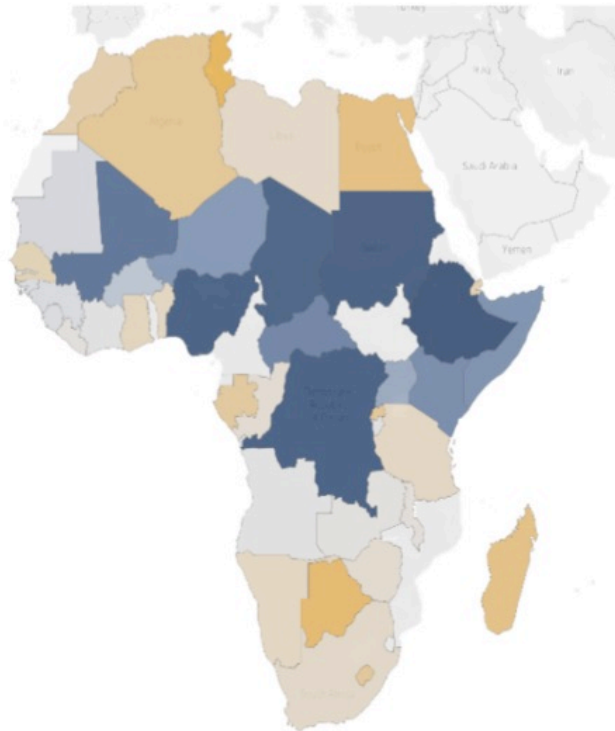
- Limited financial resources
 - Need for business development and operational skills.
 - Knowledge gaps.
 - Uncertainty of climate impacts
 - Changing farming and customer behavior.
 - Operational context.
- **The YouthADAPT contribution:**
 - Funding for scaling up
 - Training for impact
 - Investor readiness



Security

- Sub-Saharan Africa especially affected by interplay of climate change and conflict, particularly Sahel region and the Horn of Africa.

Climate-Conflict Pathologies Applied to Africa



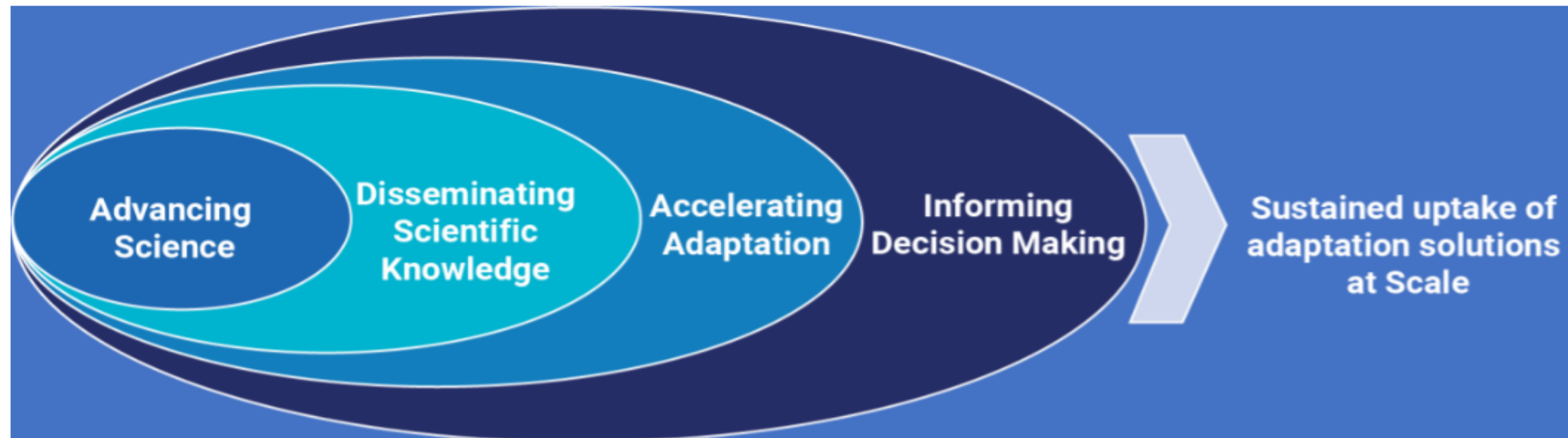
Blue: very applicable
Yellow: least applicable

- ✓ Improve access to data – conflict and climate
- ✓ Expand information sharing among security and climate adaptation actors
- ✓ Conflict and climate are transboundary issues
- ✓ Promote holistic and multi-sectoral investments.



The Unfinished Research Agenda in Adaptation

- Requires knowledge of current and future climate-related risks.
 - ✓ Conduct vulnerability assessments
 - ✓ Providing local climate projections
 - ✓ Make scientific knowledge accessible
 - ✓ Involve communities in data gathering
- Research needs to contribute to understanding of
 - ✓ Social acceptability of options for adaptation
 - ✓ The institutional constraints on adaptation
 - ✓ Place of adaptation in the wider landscape of economic development and social evolution



Theory of Change of Adaptation Research for Impact



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