

# ACPC and Water and CC KSM & Stakeholders Engagement

UNFCCC technical workshop on water and climate change impacts and adaptation strategies under the Nairobi work programme on impacts, vulnerability and adaptation to climate change

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# Outline

## This presentation covers:

- The global drivers and Africa's water & CC
- Responses and adaptation
- The ClimDev-Africa Programme - communication & stakeholder engagement
- Examples of Water and Climate Initiatives
- Key Messages

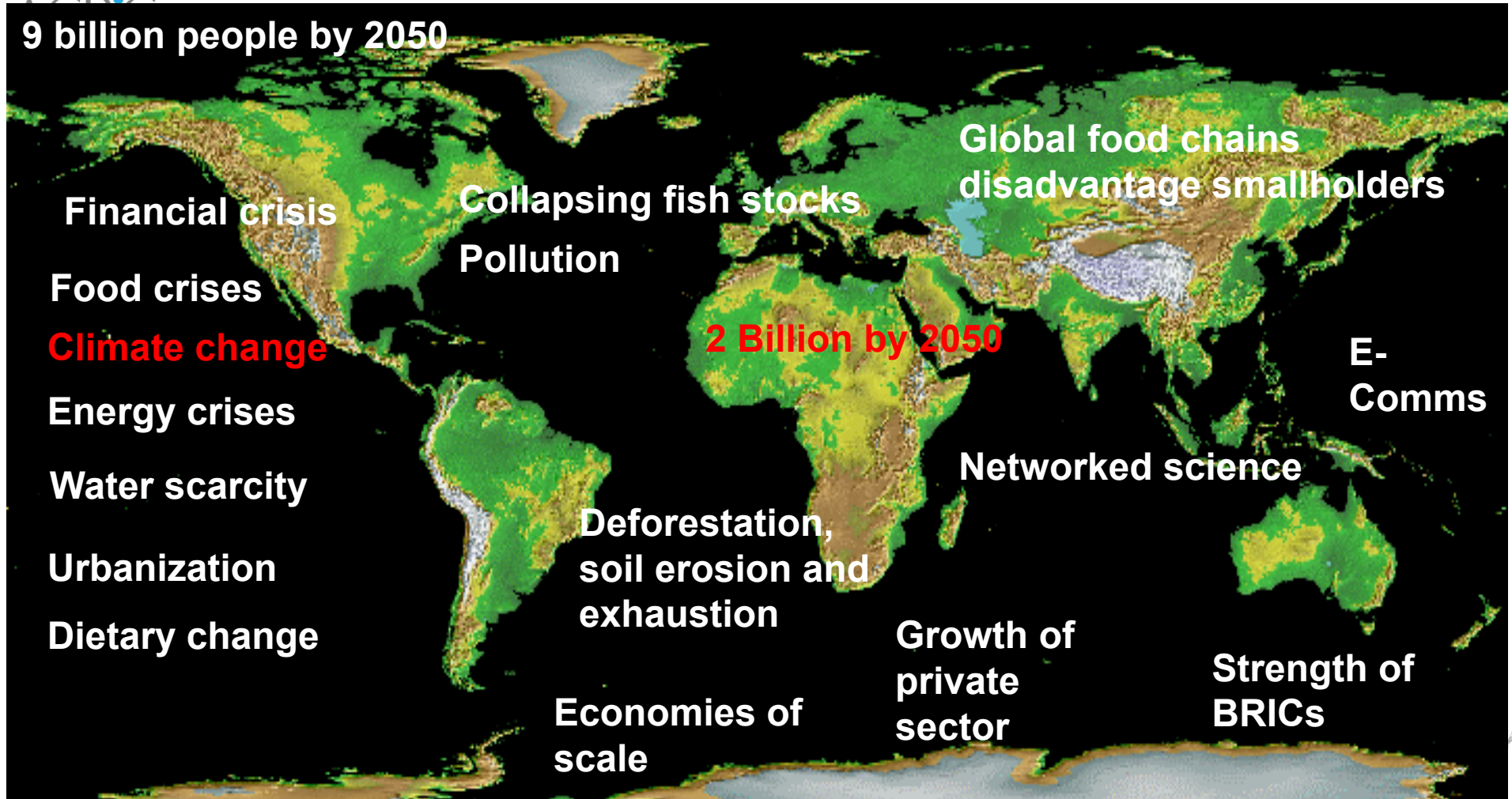




# Global Drivers of Change:

We are living in a fast changing world

9 billion people by 2050



increasing challenges – increasing opportunities

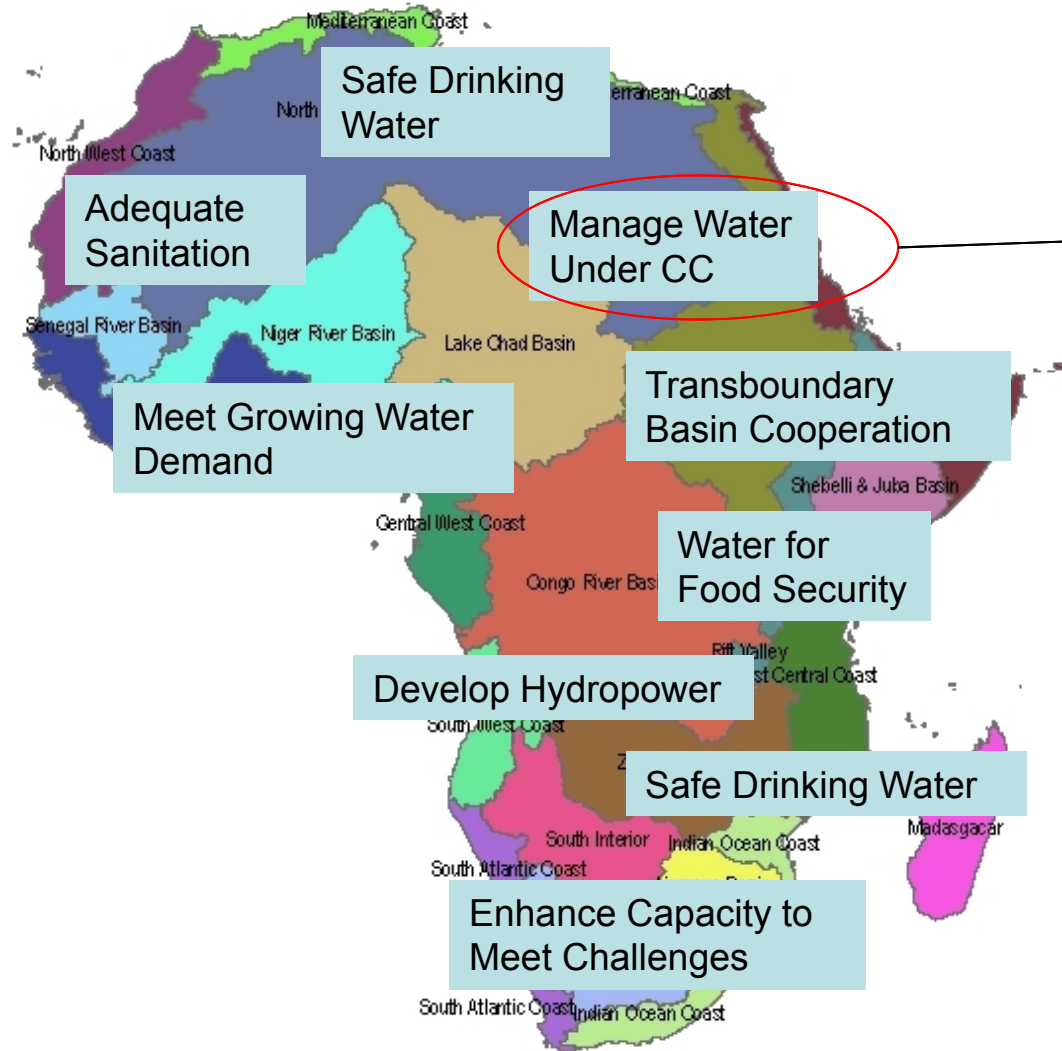




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# Africa's Water Challenges



Managing water under climate change → complex problem

Gap exists:

-Data, science base and analytical capacity, investment

-Adequate development => adequately responding to CV and CC

-Policy and institutional instruments eg. in TB management



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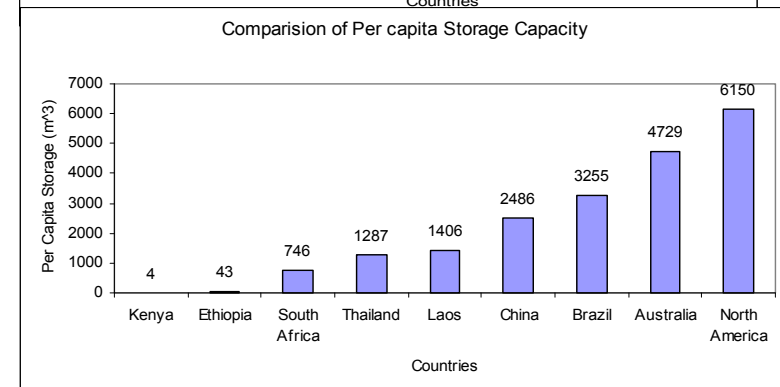
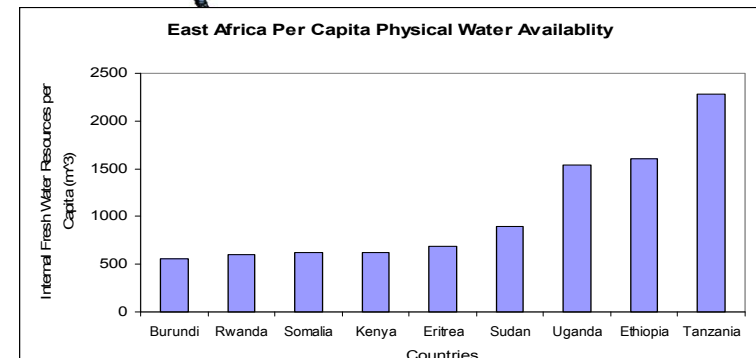
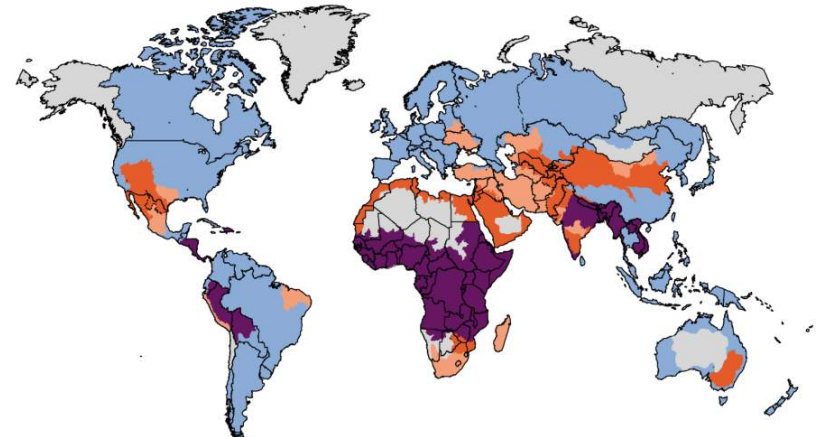
# Development & CC Related Water Challenges

## Knowledge gaps

- Uncertainty, knowledge management
- Resource base related
  - Water scarcity, quality, degradation
- Extreme events & aggravation
  - Flood, drought, variability, health,...
- Use efficiency
  - Inadequate use, low productivity,
- Impacts
  - Agriculture, energy, health, environment, economy, migration, .....wellbeing
- Poor control & management
  - Capacity, infrastructure, finance, institutions, policy

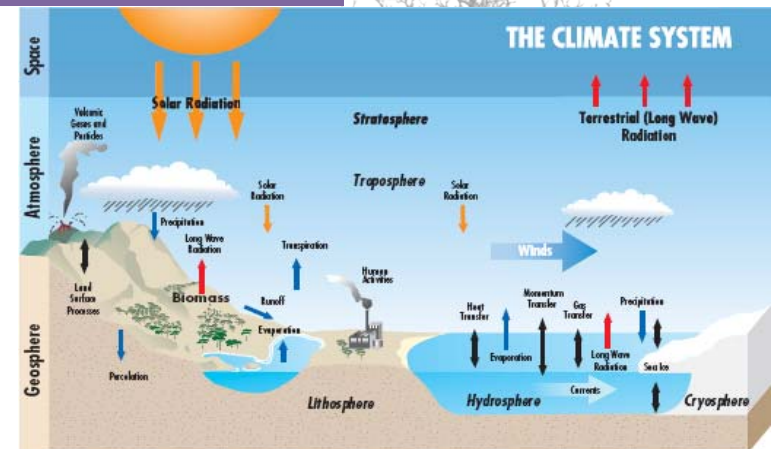
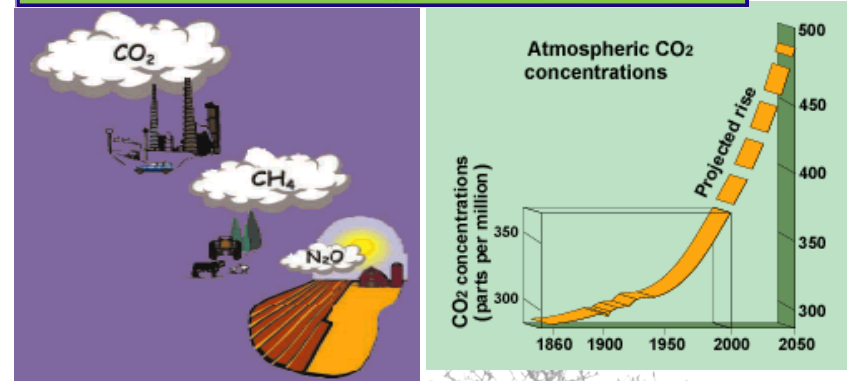
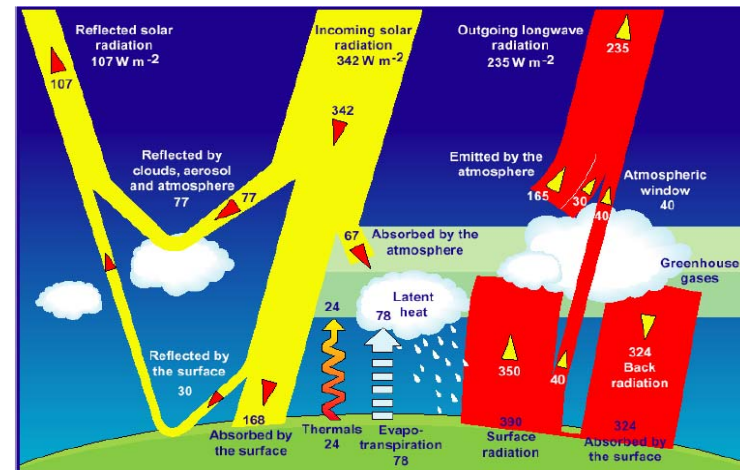
**Adaptation in water to meet the challenges**

■ Little or no water scarcity    ■ Approaching physical water scarcity    ■ Not estimated  
■ Physical water scarcity    ■ Economic water scarcity



# Knowledge-Scientific Consensus

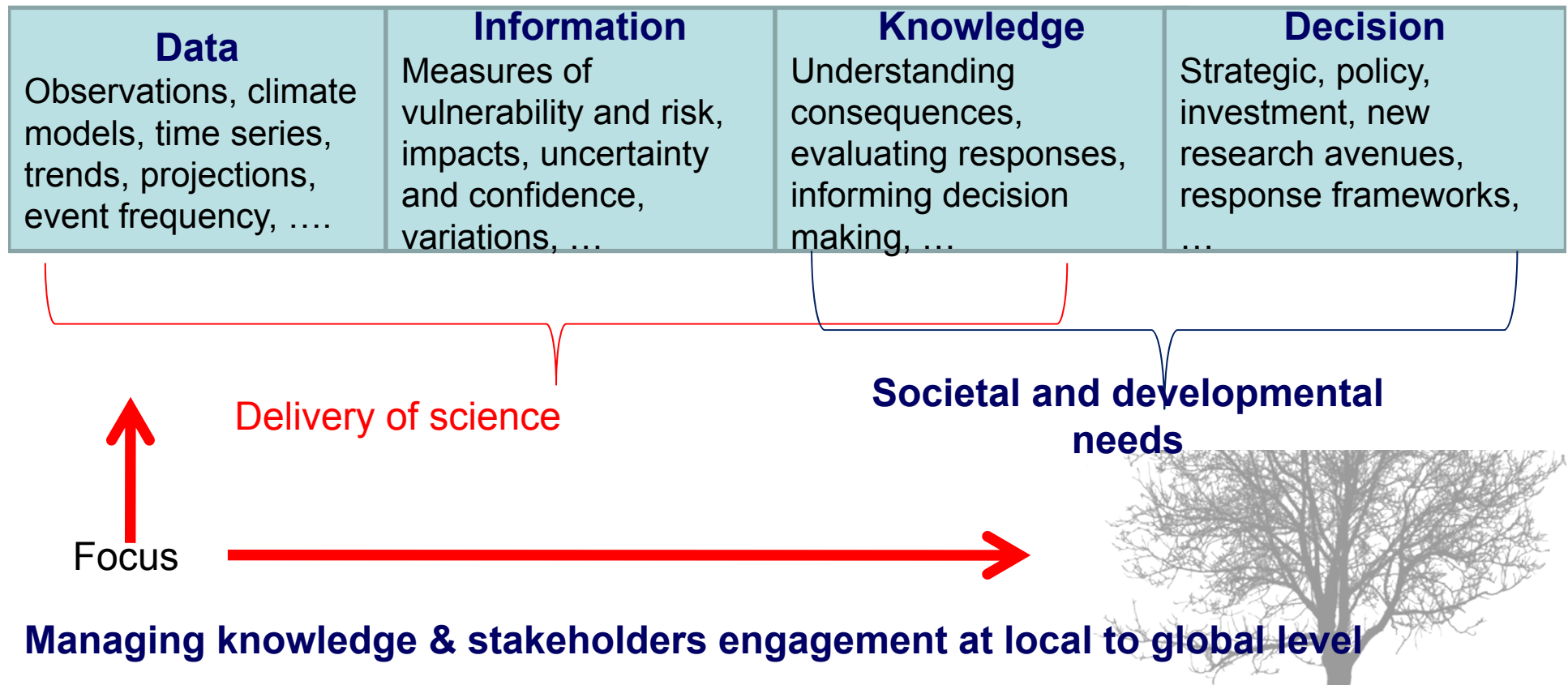
- The climate system is driven by solar radiation from the Sun
- Phenomena that affect the energy balance of the climate system would ultimately alter the climate
- Global warming is caused by the emission of GHG & their increasing concentration in the atmosphere due to human activities
- Concentration of the major GHG has increased since 1750
  - Carbon dioxide (CO<sub>2</sub>) increased by 32%
  - Methane (CH<sub>4</sub>) increased by 150%
  - Nitrous Oxide (N<sub>2</sub>O) increased by 17%
  - The increase in atmospheric CO<sub>2</sub>:- fossil-fuel burning and land use change including deforestation
  - The increase in CH<sub>4</sub> & N<sub>2</sub>O : - emissions from energy use, livestock, rice agriculture, and landfill.
- Earth's climate results from interactions of many processes in the components of the climate system: **Anthropogenic system (human activities) disturb the balance**
- The climate system and hydrological balance change as a result





## Response: Continuum of data to decision

- Meteorological & hydrological data are basis for knowledge, decision making & actions for water management, agriculture, aviation, transport, risk management, etc





# Response: Knowledge and capacity building

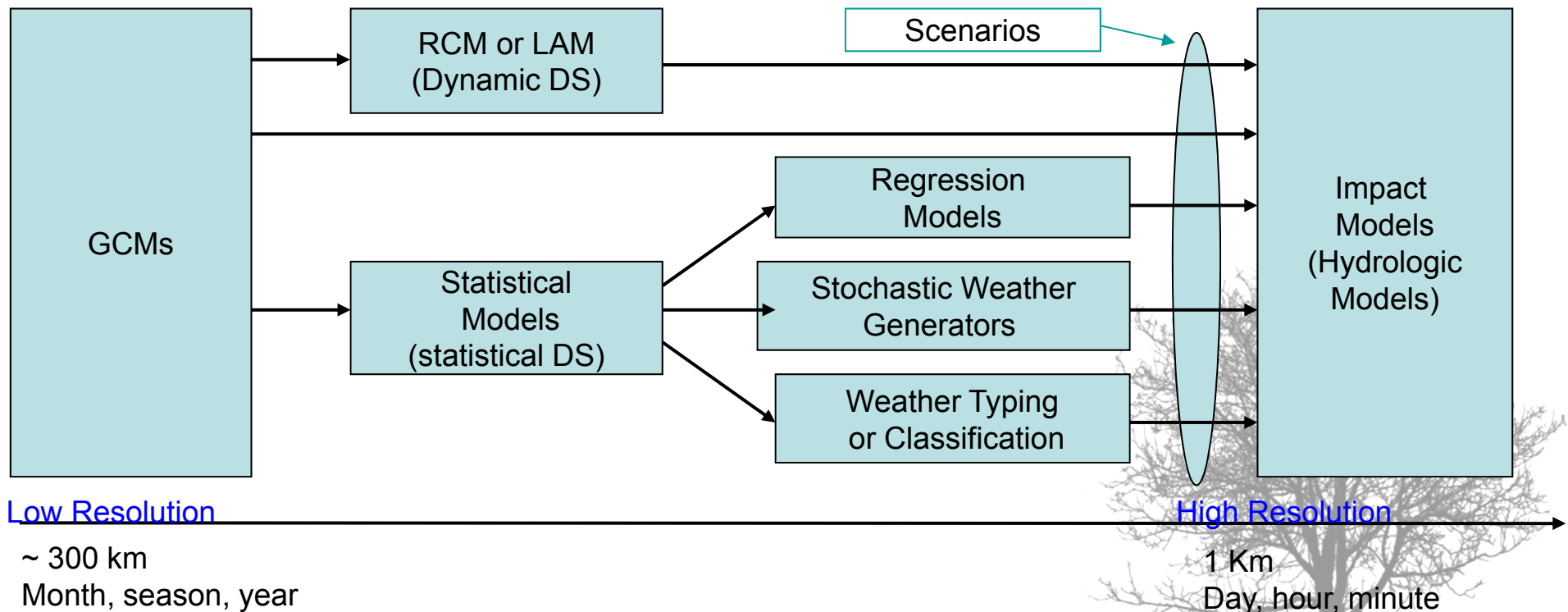


## Reduce uncertainty through research and capacity building

Eg Africa's climate change and water nexus is largely uncertain

Significantly improve Africa's modeling and scientific base

- The most common method of developing climate scenarios for quantitative impact assessments is to use results from Global Climate Model (GCM) experiments
- Negligible institutions are able to run such models in Africa



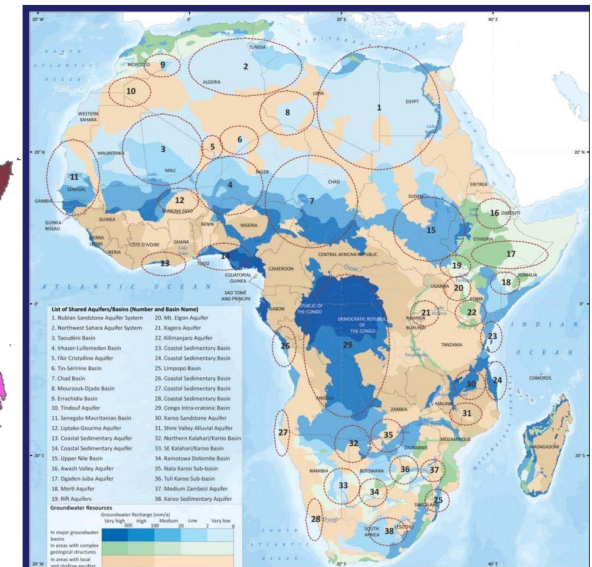
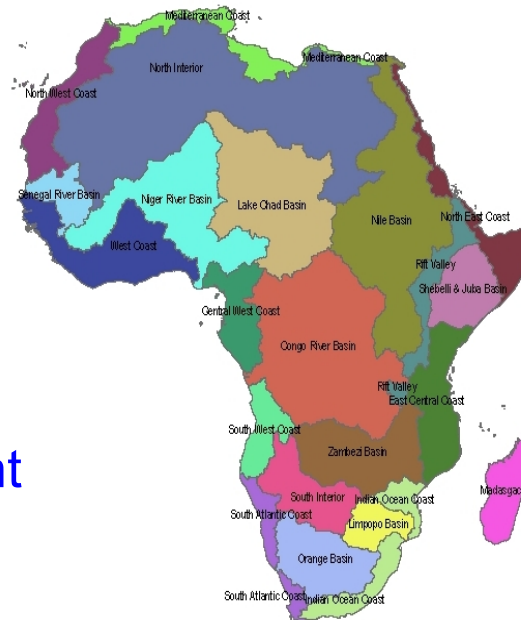
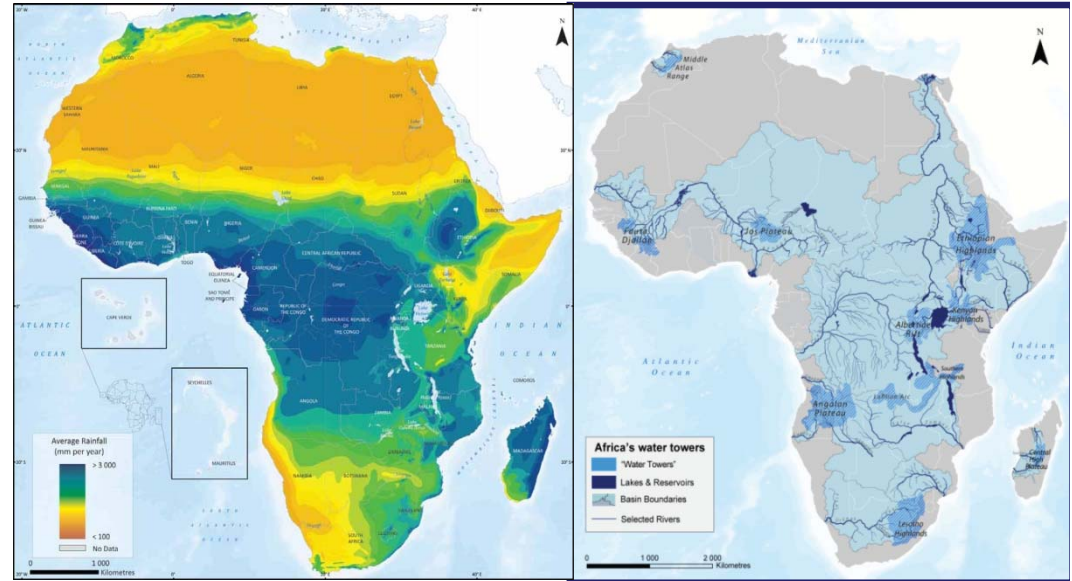




# Responses: Enhance sustainable resources use

## Resources summary

- Rainfall = 670 mm/year providing = 20,100 km<sup>3</sup>
- IRW = 3,931km<sup>3</sup> (20% of RF)
- 13 major river basins
- 63 TB, 63% land area, 93% total surface water, home for 77% of population
- GW is 15% of IRW
- 38 major TB aquifers
- Water development & management is critical for resilience and development
- Transform development & management of water



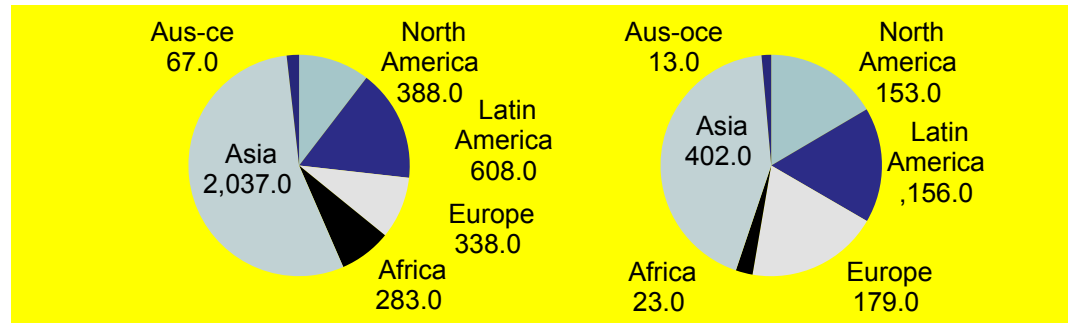
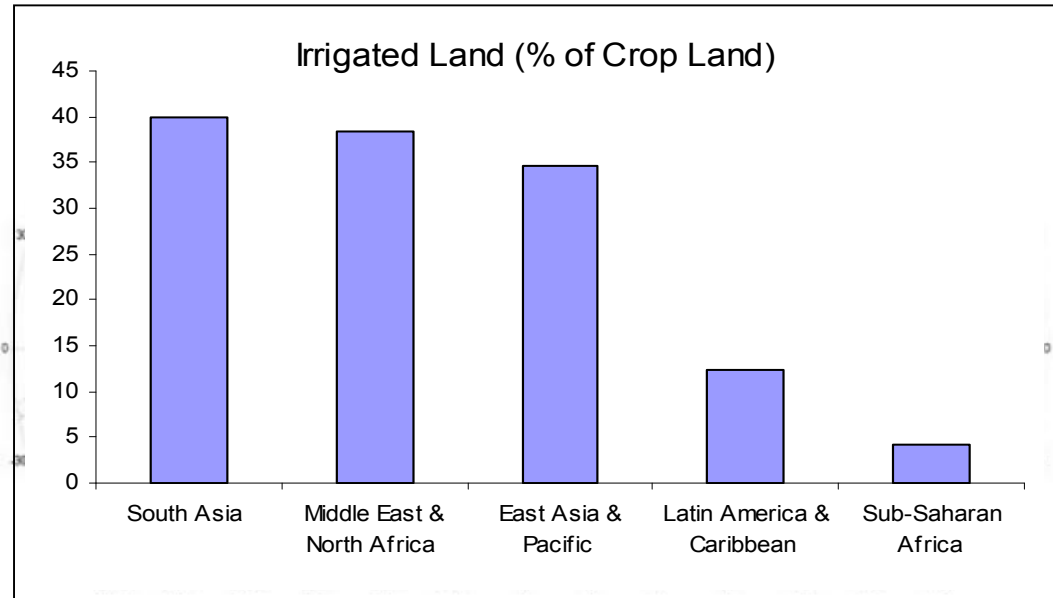


# Response: sector water resources use efficiency

• Water use about 4%

IRW

- Water supply– 64%
- Agriculture about 185M ha; 7% irrigation
- Hydropower
  - 283,000 MW potential
  - 8.3% use (2009)
  - 32% of energy source



Potential Use



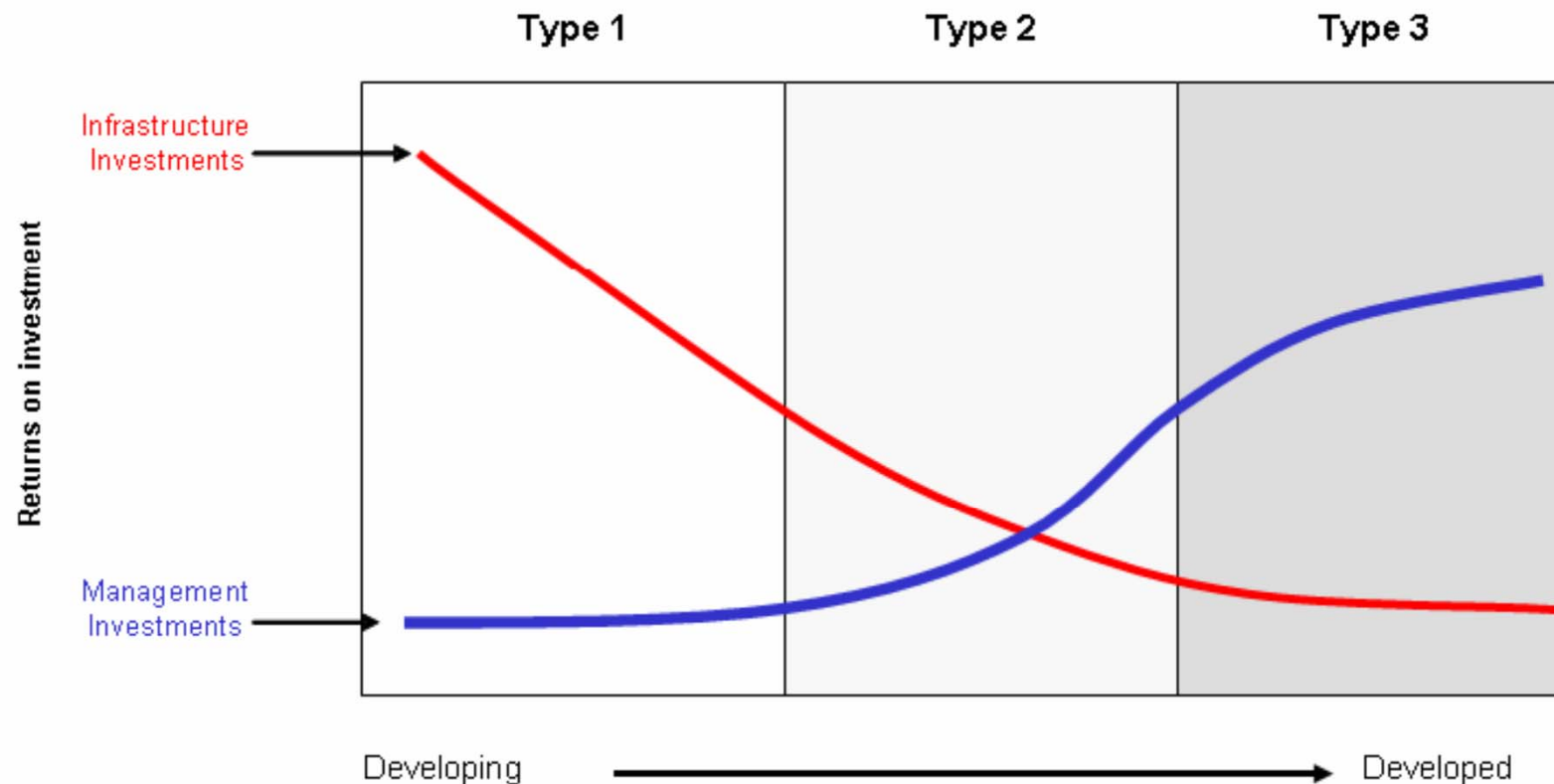


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## Response: Finance, investment, policy

- Accessing adaptation funds to support WRD pays off and lead to 'Concrete adaptation activity' in Africa
- Enhance policy and governance mechanisms

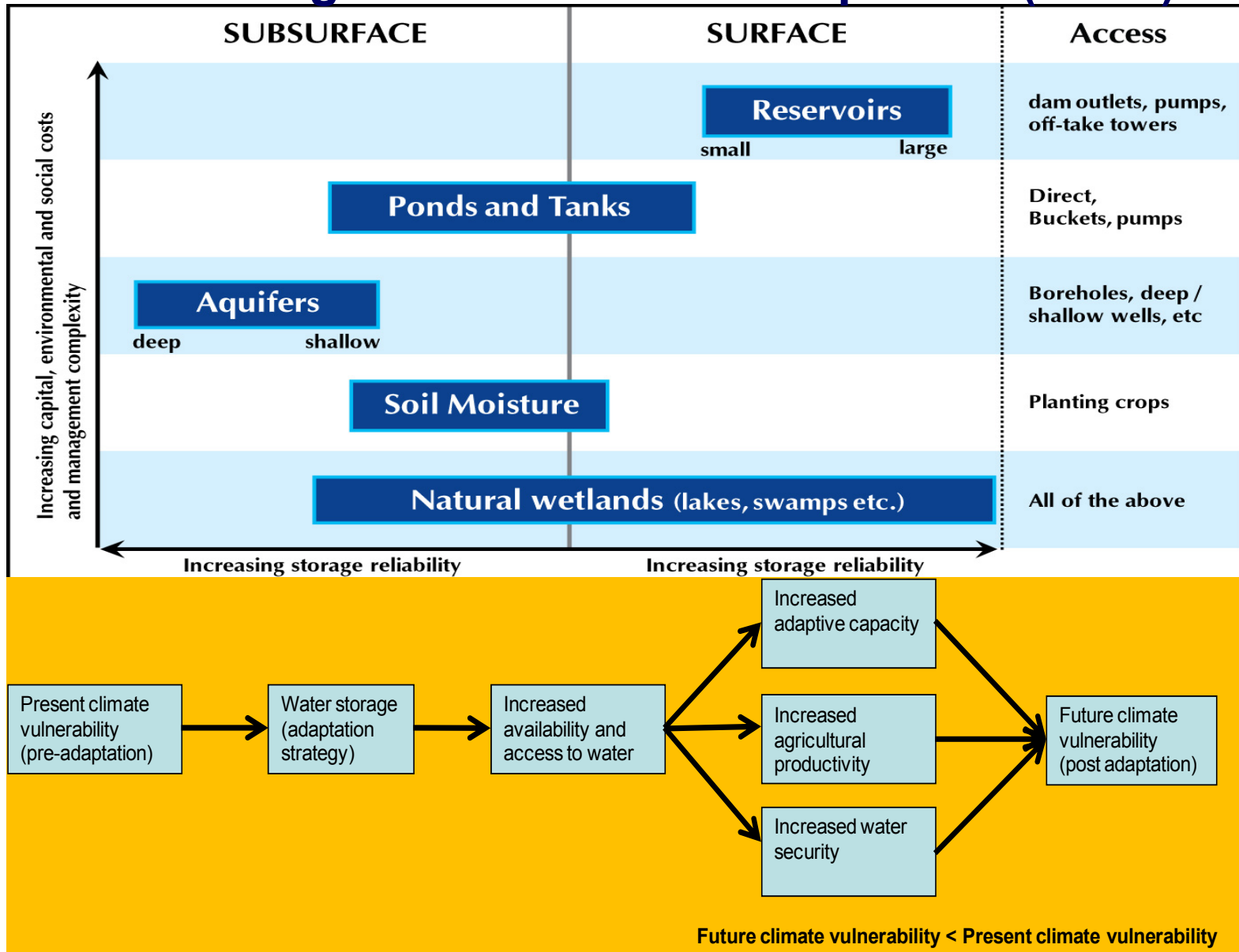
**Physical-infrastructure capital for Africa is high return on investment and resilience**



# Response: No regret Solutions



## Eg. Water Storage Continuum for Adaptation (source IWMI)



Maximize benefit through multi-purpose development

# ClimDev Africa

## Programme Delivery-

### Partnership, Roles and Responsibilities



**The Climate Change and Desertification Unit (CCDU): Advocacy** i.e. Political leadership & coordination of Africa's common position on climate change



**The African Climate Policy Centre (ACPC): Policy** i.e. Programmatic activities to develop climate policy capacity through knowledge generation, advocacy and advisory services

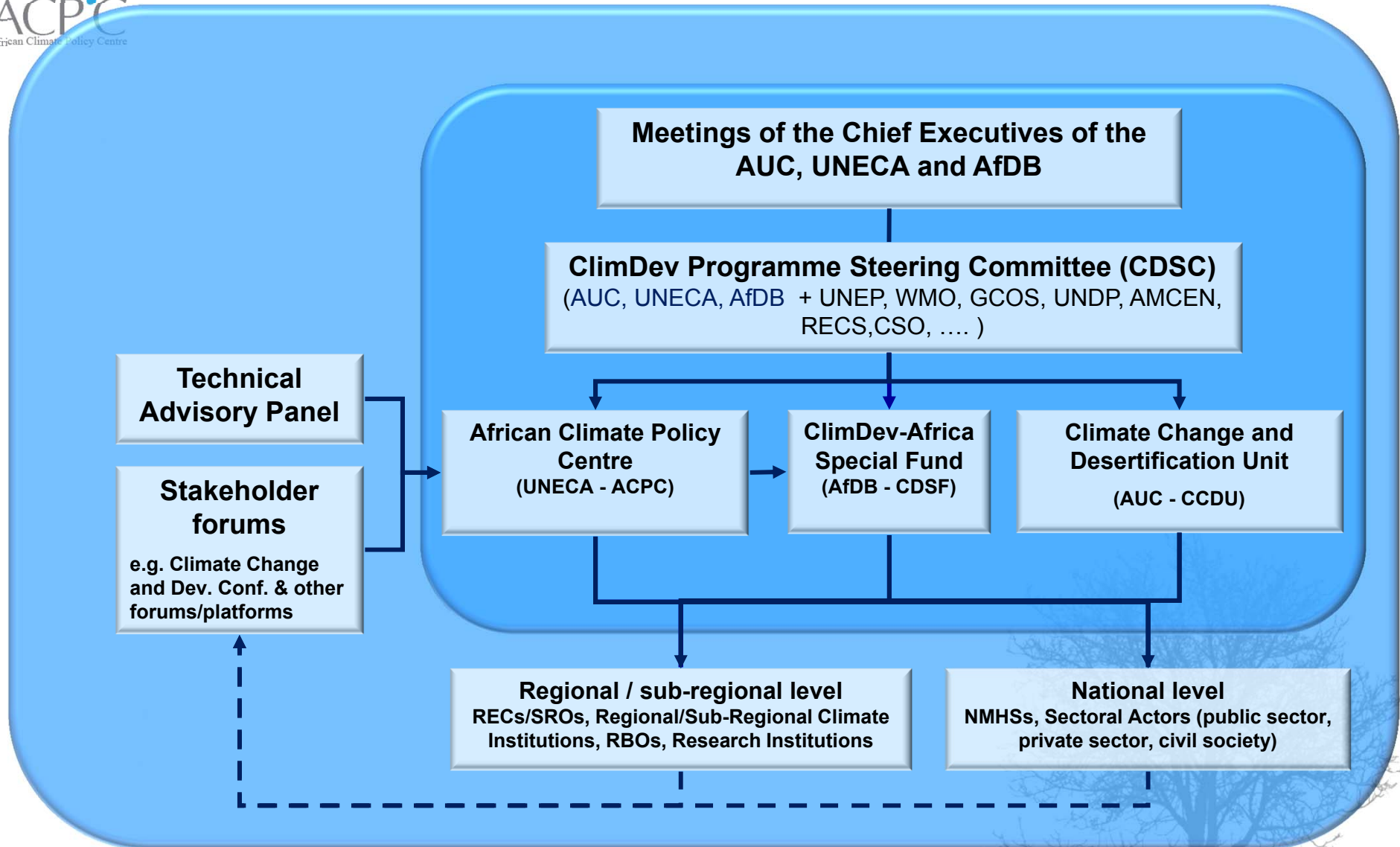


**The ClimDev Special Fund (CDSF) :** Financing demand-led investments on the ground for generation and use of climate information





# ClimDev-Africa Programme & Stakeholders Engagement





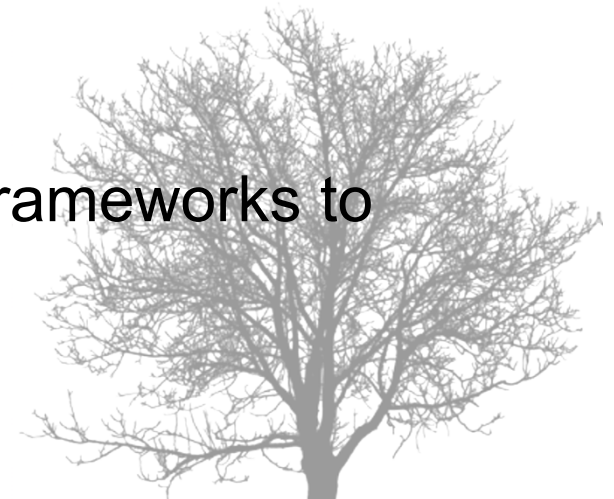
# The ClimDev Africa Programme

**Construct solid foundation in Africa for the response to climate change based on:**

Building solid **science and observational infrastructure**;

Enabling strong working **partnerships** between government institutions, private sector, civil society and vulnerable communities; and,

Creation and strengthening of **knowledge** frameworks to support and integrate the actions required.





# ClimDev Africa, 2012-2014

## Summary of the ClimDev Africa Result Areas Include:

- Widely available climate information, packaging and dissemination
  - With a focus on climate science, data, information and services. This includes extensive engagement with the meteorological and hydrological communities
- Quality analysis for decision support and management practice
  - With a focus on climate resilient and low carbon, development the economics of such development, and sectoral issues
    - e.g. in the areas of water, land, agriculture, energy, and infrastructure
  - This includes extensive engagement with policy, practice and research communities
- Informed decision-making, awareness and advocacy
  - Including the CCDA Conferences, an presence at COPs, and outreach at all levels to the policy, practice and research communities
- ClimDev Africa Programme functioning
  - Secretariat, CDSC Meetings, establishment of the CDSF(at the AfDB) and the CCDU (at the AUC)





# ACPC working program 2012-2014

## Result Area 1 Outputs

Widely available climate information, packaging and dissemination

1. Rescue of historical meteorological and hydrological data
2. Data management of climate and hydrological data
3. Upgrade telecom, observation and data collection systems for upper air and surface networks
4. Quality monitoring of greenhouse gases, air quality, inland lakes, African oceans, coastal environments and glaciers
5. Hydrological observations and data management
6. Detect and attribute carbon sources and sinks
7. Early warning and seasonal forecasting
8. Long term climate projections and scenarios
9. Climate information packaging for all climate sensitive sectors and end users



## Result Area 2: 2012-2014 Outputs

Quality analysis for decision support and management practice

1. Institutional capacity mapping followed by capacity building
2. Knowledge management system for shared information, knowledge, experience and best practice
3. Risk, vulnerability, impact and cost/benefit analyses and assessments
4. Development of decision support tools for policy making and adaptive management
5. Policy reviews identifying policy areas for improvements
6. Identification, analysis and recommendations of policy options
7. Best practices for climate change preparedness on all levels (for application down to community and individual use)
8. Policies for national implementation of international conventions
9. Scientific and best practice outreach to all levels (for application down to community and individual use)
10. Knowledge support to African negotiators



# Result Area 3: 2012-2014 Outputs

Informed decision-making, awareness and advocacy

1. Capacity building and knowledge support to policy makers
  - Technical backstopping to AMCEN, AMCOW, AMCOMET
2. Capacity building and knowledge support to negotiators
  - Produce demand based papers
3. Capacity building of, and support from, RECs and SROs
4. Inclusive and informed policy-making
5. Training and awareness-raising
6. Effective communication
  - Prepare and implement the CCDA-II to IV, Cop18-20 side events and Africa Day
7. Outreach to all levels





# Programmatic activities- programme & stakeholders engagement

## Climate and Development

Policy Community

Practice Community

Research Community

- Knowledge generation and sharing
- Advocacy and consensus building
- Technical coop'n and capacity dev.

- Frameworks, strategies, plans
- Case studies and examples
- Research and partnerships

## ClimDev-Africa

Climate finance and economics

Climate resilient development

Low carbon development

Climate science, data and information



# ACPC Stakeholders –CC & Water focus

	Global	Continental	Regional	National	Local
<b>Policy</b>	UNFCCC, Other UN (UN-Water, UNISDR, UNESCO, UNEP, ....), ....	AUC, CAHOSC, AGN, M Councils, UNECA, AfDB, Pan African Par.	RLBO, RECS,	Ministries (Environment, Water, ....), Universities	Communities, Households
<b>Practice</b>	UN Initiatives, World Bank, ....	NEPAD & CAADP, PIDA, WSA, NGOs, ...	RECs, Commissions, TB projects	Met & hyd dep, water, agriculture, energy, ....	Communities, individuals, ...
<b>Research/ knowledge sharing</b>	IPCC, UNESCO-IHP, CGIAR (IWMI, CCAFS, ....), ARI (Global climate centers, Research), Intra-ACP GCCA, ...	WB 7 River Basins, CORDEX, Network of Universities, ACMAD, AMESD/MESA ...	Climate centers (ICPAC, AGRHYMET, ...) , RLB Initiatives, CILLS, ...	Universities, Research Centers, NGOs,...	Communities, experts, scientists, ....

## Important

- Mapping partners (primary/secondary)
- Engagement directly or through partners
- Defining impact pathway and roles through ACPC activities





# Water & Climate Works Eg of KSM & Stakeholders

- Africa Wide Expert Consultation
- Key Knowledge Products – 21 WP, 7 issue papers for AGN, contributions to IPCC, .....
- Project Examples
  - Climate Data and Information System in 8 countries to be out scaled to 54 countries
  - ACP-World Bank Infrastructure and Climate Change in 7 River Basins of Africa
  - West Africa TB Aquifer Management
- Knowledge Sharing, Dissemination and Advocacy Examples
  - CCDA-I and II
  - CoP17
  - National- sub-regional – continental (AGN, Ministerial Councils, CAHOSCC) mechanisms
  - Intra-ACP GCCA



# Key Messages: Adaptation in water

## Knowledge generation, sharing, brokering through effective SH engagement:

- Reduce uncertainty and knowledge gaps
- Co-generation of knowledge

## Enhance WRD & IWRM

- Leapfrog in development, and water is one of the crucial path for CR & LCD

## Use efficiency and sustainability

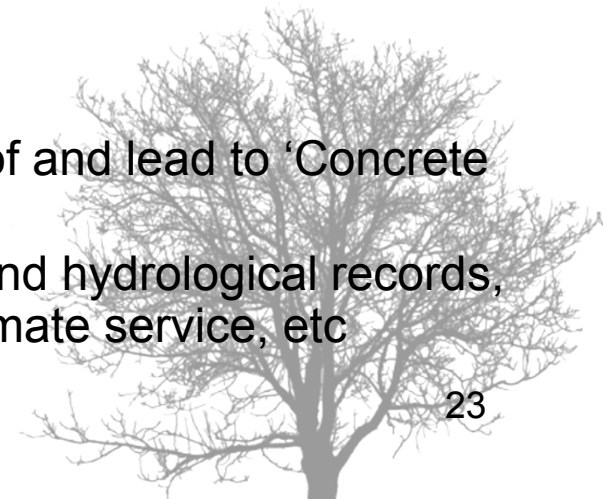
- Adopt critical interventions and technologies that are sustainable
- Increase land and water productivity, efficiency and value per unit of resources

## Technology

- Technology transfers and access

## Increase finance, investment and governance

- Accessing adaptation funds to support WRD pays of and lead to 'Concrete adaptation activity' in Africa
- Urgent investment need to rescue meteorological and hydrological records, upgrading networks, enhance knowledge base, climate service, etc
- Enhance policy and governance mechanisms





# Climate Change

Mitigation and adaptation through better water management

Mitigation is about gases.  
Adaptation is mainly about water.



**Thank you**

**The ACPC**

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