



To support Member Countries in the implementation of their Sustainable Development Policies

❖ **Scientific and Technical Program:**

INTEGRATED AND CONCERTED MANAGEMENT OF NATURAL RESOURCES

Sustainable Land Management and Mitigation of the drought effects

Strengthening the resilience of populations and ecosystems



Contribution to the satisfaction of water needs through integrated management tools

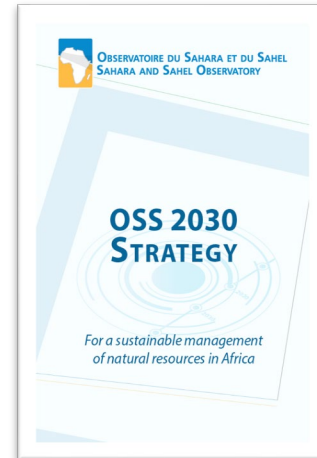
Development of tools for the assessment of biodiversity and ecosystem services

❖ **Cross-cutting programs :**

Monitoring and Forecasting

Communication and Information

Capacity Building





The 6th goal of sustainable development is to ensure **availability and sustainable management of water and sanitation for all.**

More specifically, 8 targets need to be attained by 2030:

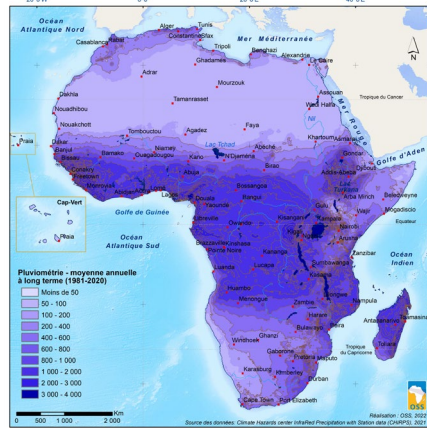
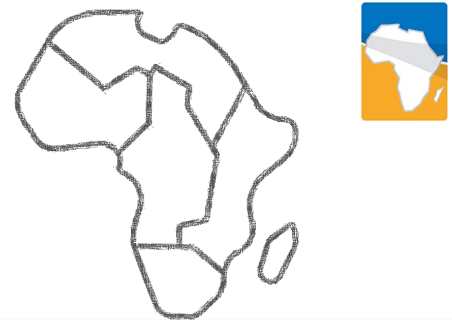
6.5. Implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

OSS | Key figures

Africa is the second driest continent



670 mm of annual rainfall
VS. 814 mm at world level
 From less than 50 mm to more than 3000 mm

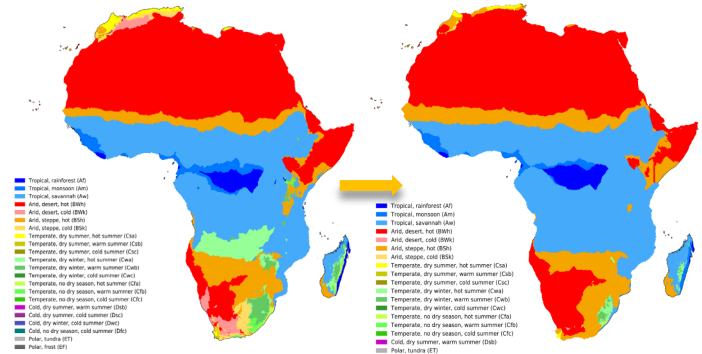


Water is unequally distributed
Annual ratio per inhabitant (m3/year/inhabitant) :
 North Africa: 400 - 700
 West and East Africa: 1 000 -5 000
 Central Africa: > 13 000
 Southern Africa: 5 000 - 9 000

Source: WfA., 2016

Africa's climate has warmed more than the global average since pre-industrial times (1850-1900), and projections for 2100 show worsening (WMO, 2022)

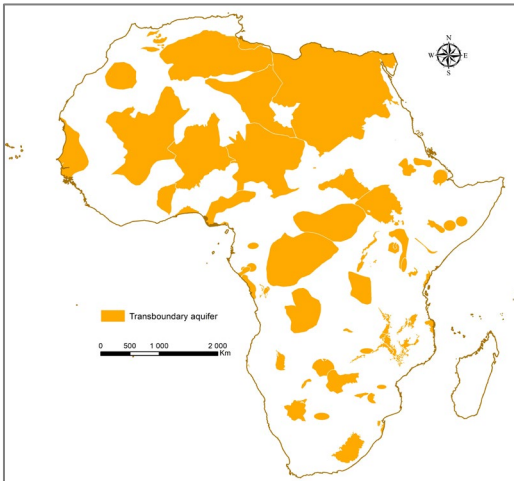
Several climate zone
 Mediterranean, arid, dry-tropical, humid-tropical, equatorial-tropical



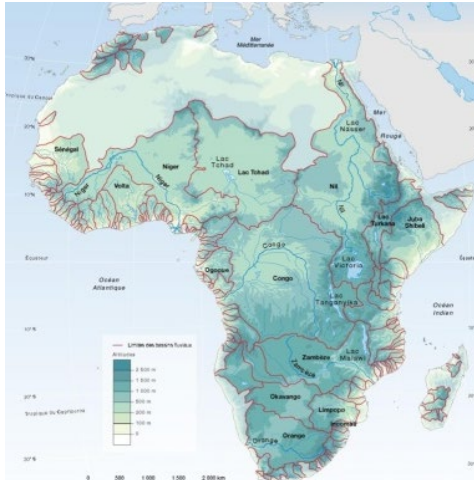
Climate classification (1980-2016) Projection (2071-2100)

Source: Beck et al., 2018

OSS | Substantial water potential



Groundwater (billion m ³)		Surface water (billion m ³ /year)
357 355	North Africa	91
56 178	West & Central Africa	943
47 807	East Africa	268
198 660	South Africa	2 698
660 000	Africa	4 000



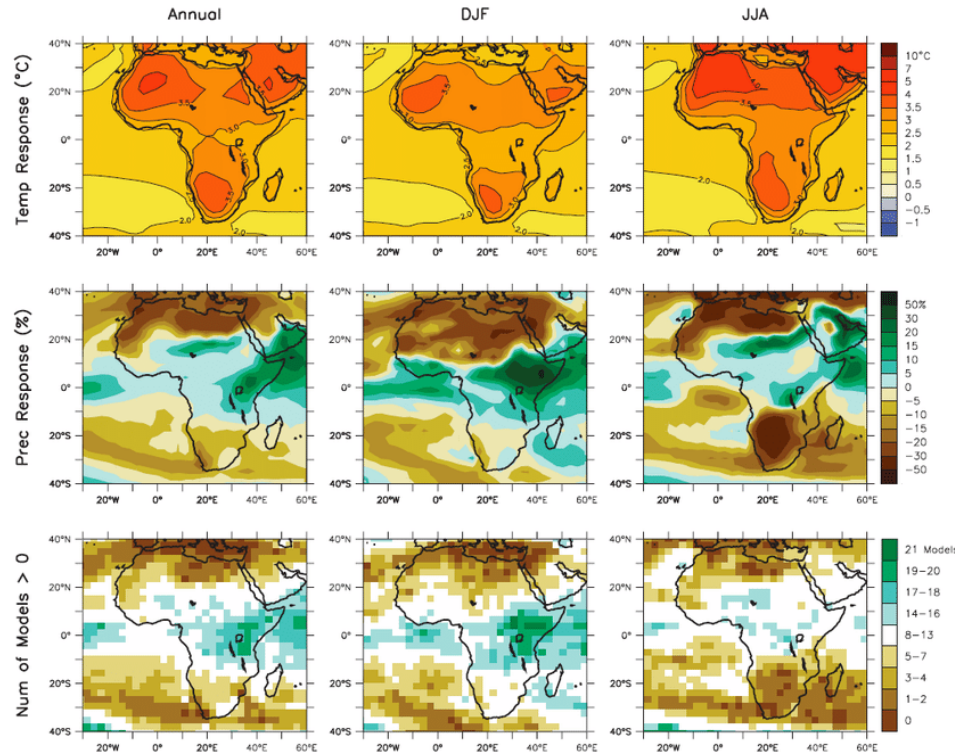
83 Transboundary aquifer systems
(World: 608)

80 Transboundary river basins
(World:276)

Opportunities

- About **99%** of all freshwater is in the **Groundwater** aquifers (*Making the invisible visible : UNESCO 2022*)
- River flows: Congo River ranks 2nd (flow) with 41 000 m³/s; Nile: 2 830 m³/s **Vs** Amazon: 209 000 m³/s

OSS | Temperature and precipitation changes over Africa from the MMD-A1B simulations...



Temperature:

- All of Africa is likely to warm during the 21st century
- Future warming : above 3 °C, in the Western Sahara

Precipitation:

- Annual rainfall is likely to decrease in much of Mediterranean Africa and northern Sahara (10 to 20% drying)
- There is likely to be an increase in annual rainfall in East Africa

Top: Annual mean, DJF and JJA temperature change between 1980 to 1999 and 2080 to 2099, averaged over 21 models.
Middle: same as top, but for fractional change in precipitation.
Bottom: number of models out of 21 that project increases in precipitation (Christensen et al., 2007).



Substantial resources
difficult to mobilize

Pressure on resources
exacerbated by
climate change

Lack of consultative
management tools
for shared waters

Limited financing
of the water sector,
especially
for groundwater
resources

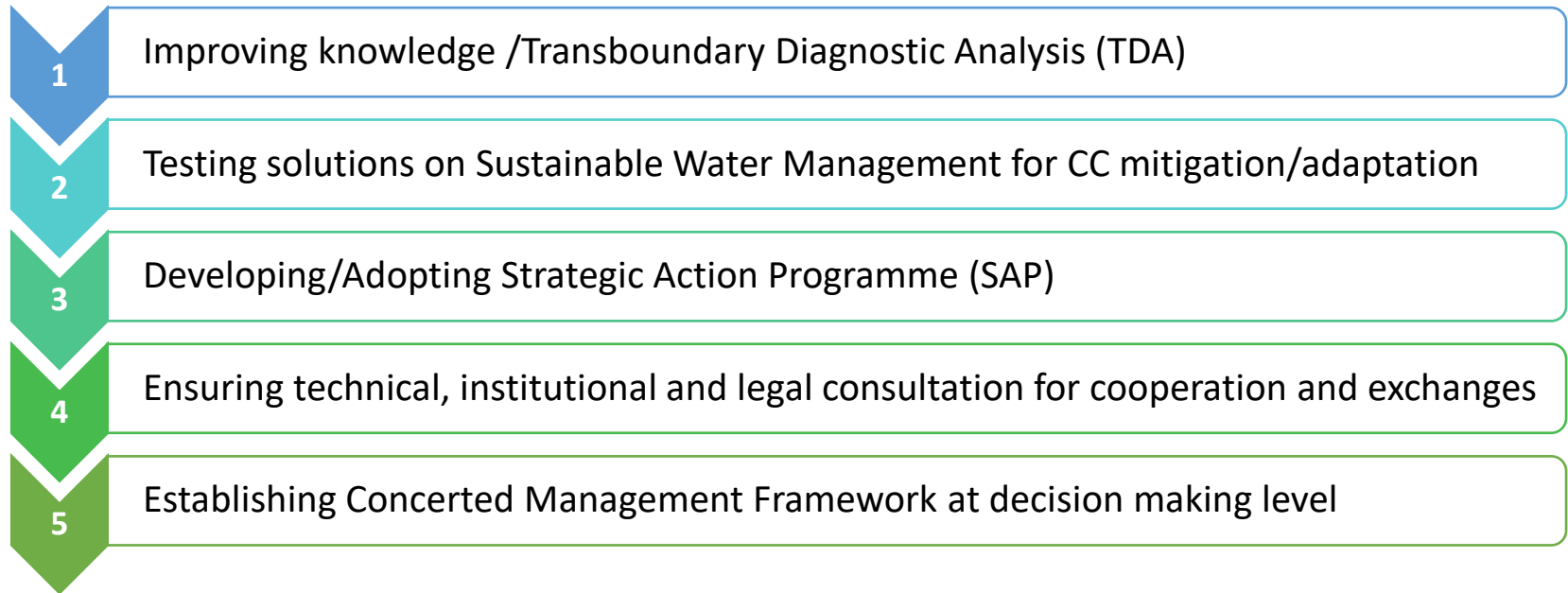
Lack of reliable
and accessible data,
for planning
and sustainable
management

➔ *TRANSBOUNDARY MANAGEMENT TOOLS AND MECHANISMS ARE REQUIRED*



IMPLEMENTING COOPERATIVE TRANSBOUNDARY WATER GOVERNANCE (OSS-GEF APPROACH)

Building consensus among countries on common resource degradation and long-term mitigation measures





OBSERVATOIRE DU SAHARA ET DU SAHEL
SAHARA AND SAHEL OBSERVATORY

Water Management & Governance : OSS Action





Objective

Enhancing sustainable management of the North-Western Sahara Aquifer System (NWSAS) water resources

ALGERIA, LIBYA AND TUNISIA



Duration

15 years (2000 – 2015)

Financial partners

FGEF - GEF - DDC-Suisse - FIDA

Outcomes

- Hydrogeological conditions assessed
- Common information system established
- Consultation mechanism established
- Best practices capitalized





Objective

Improving knowledge-based management, governance and resource conservation of the Niger River Basin and the Iullemeden-Taoudéni/Tanezrouft Aquifers (ITTAS), to support IWRM for the benefit of communities and the resilience of ecosystems

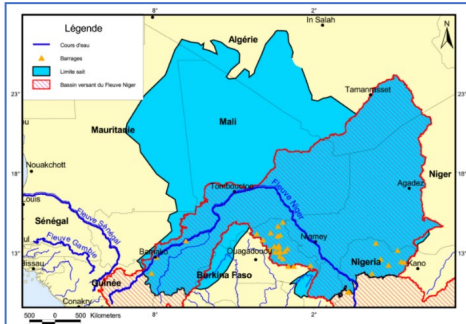
ALGERIA, BENIN, BURKINA-FASO, CAMEROUN, CÔTE D'IVOIRE, CHAD, GUINEA, MALI, MAURITANIA, NIGER, NIGERIA

Duration
5 years (2011 – 2024)

Financial partners
AWF - FGEF - GEF

Outcomes

- Knowledge improved
- Ground & Surface water interaction highlighted
- Strategic Action Program SAP developed
- Inter countries consultation framework set up
- 100 actors in the water sector trained





Objective

Supporting sustainable transboundary water resources management policies, open up opportunities for water-related development activities and facilitating regional economic integration.

DJIBOUTI, ERITREA, ETHIOPIA, KENYA, SOMALIA, SOUTH SUDAN, SUDAN AND UGANDA

Duration

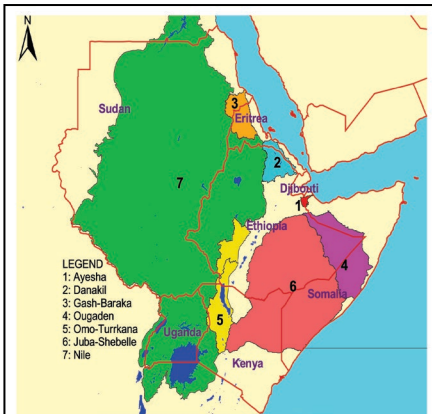
6 years (2007 – 2013)

Financial partners

AWF

Outcomes

- Knowledge of water potential updated
- Regional thematic maps developed
- Capacity-building organized
- Vision and strategic action plan shared

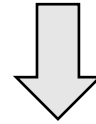
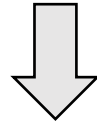
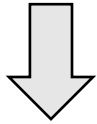


Six (6) transboundary river basins in addition to the Nile

Six (6) transboundary aquifers identified



Significant water reserves under pressure exacerbated by CC



Improve knowledge and sustainable resource management through participatory and innovative approaches

Reinforce cooperation for joint management of transboundary aquifers to concerted actions

Strengthen advocacy for the mobilization of additional funds for better resilience



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THANK YOU FOR YOUR ATTENTION !



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