

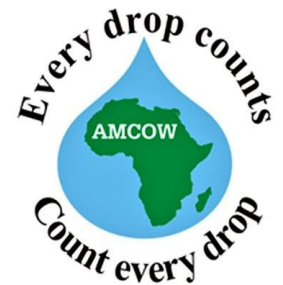
**AFRICA Focus- Groundwater governance and institutional management**

# **UNESCO's action for Groundwater Governance in Africa**

**Dr. Alice Aureli PhD**

**Chief of the Section  
Groundwater Systems and Human Settlements  
UNESCO International Hydrological Programme  
[a.aureli@unesco.org](mailto:a.aureli@unesco.org)**

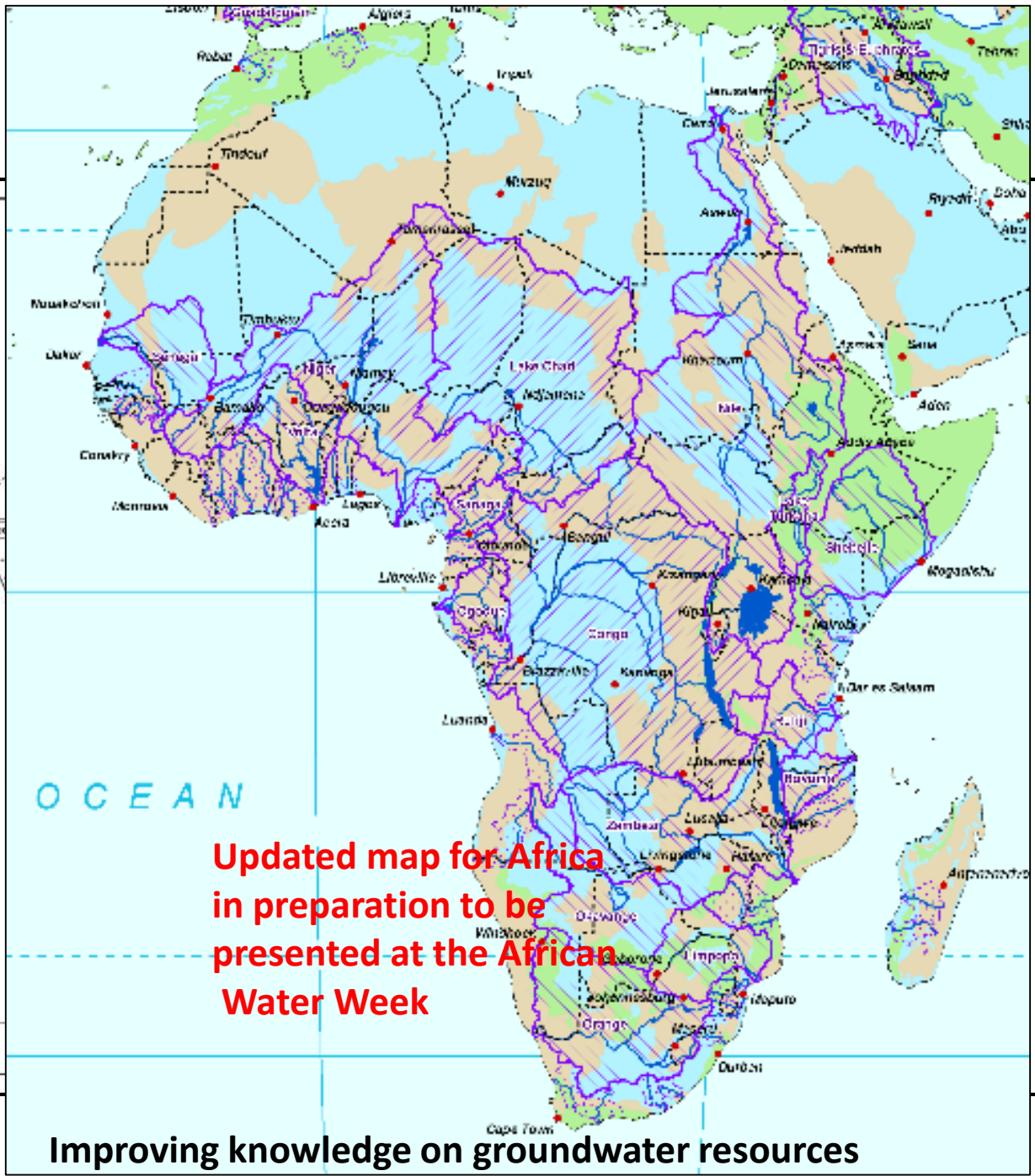
**World Water Week 2018, Stockholm, 28 August 2018**



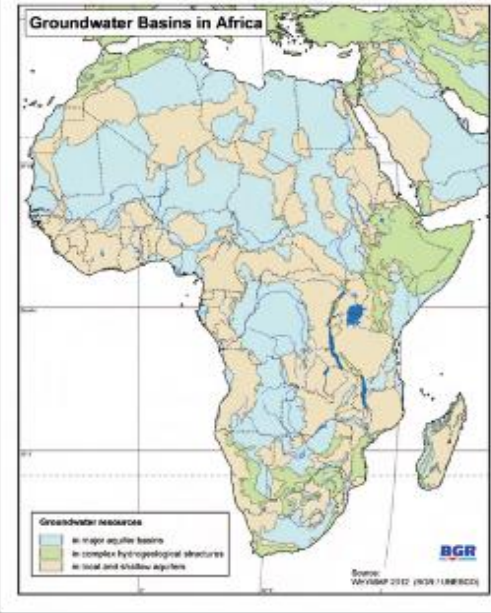
# UNESCO action: AFRICA FIRST



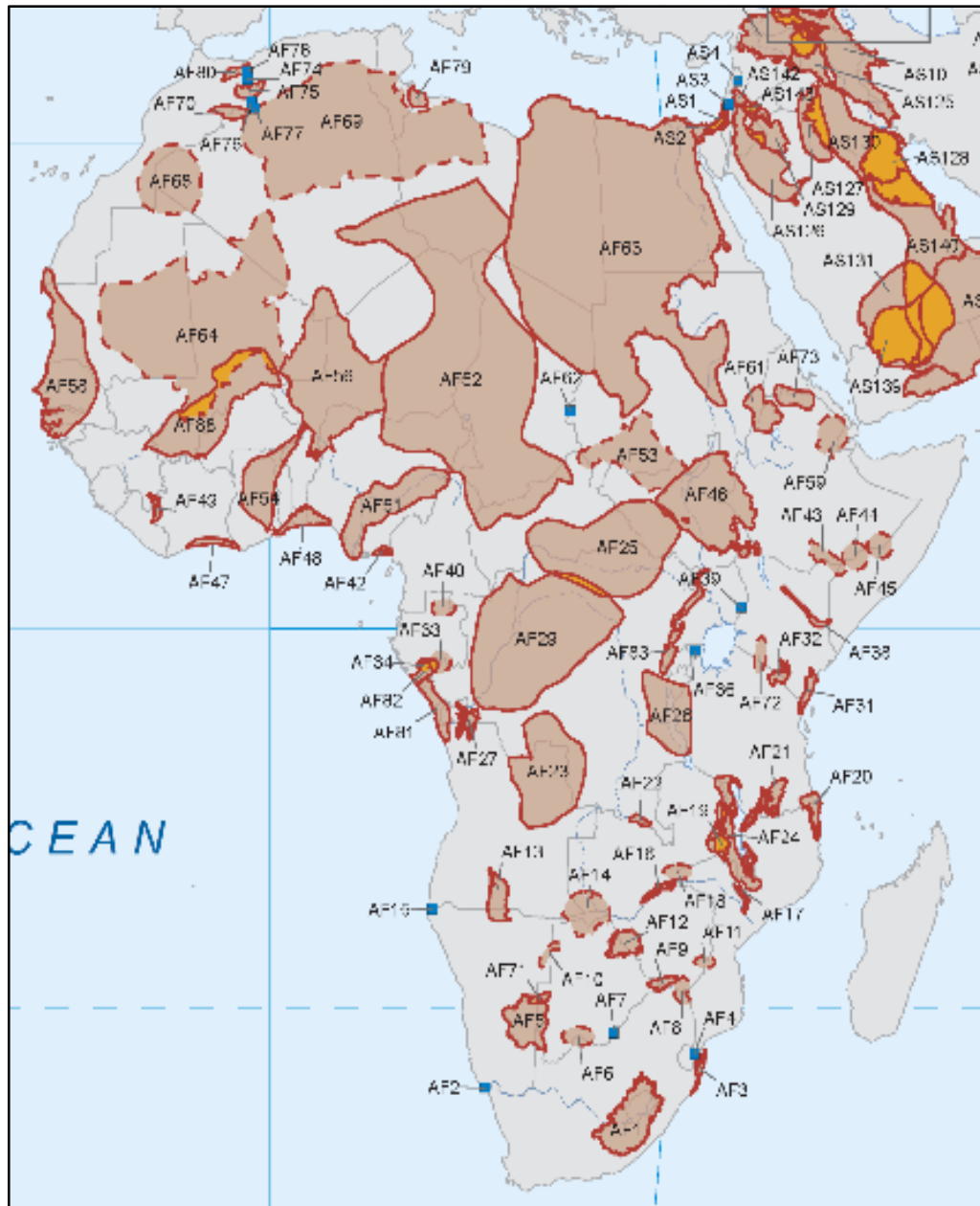
UNESCO-IHP VIII phase : 2014-2021  
Water Security



**Updated map for Africa  
in preparation to be  
presented at the African  
Water Week**



**Improving knowledge on groundwater resources**



**Worldwide inventory :**  
**location and**  
**delineation of near**  
**600 transboundary**  
**aquifers**  
**72 in Africa**



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 Programme



# ISARM - UNESCO-IHP Programme

## Projects on groundwater in Africa

### MedProgramme

Protection of Coastal Aquifers  
Northern Africa Countries

*(Algeria, Egypt, Morocco, Libya, Tunisia)*

### ITTAS

Iullemeden-Taoudeni-  
Tanezrouf Aquifer  
MoU and road map for  
the establishment of a  
consultation mechanism

*(Algeria, Benin, Burkina Faso, Mali,  
Mauritania, Niger and Nigeria)*

### GGRETA

Cooperation Mechanism  
for the Stampriet Aquifer nested  
in an RBO (iORASECOM)

*(Botswana, Namibia, South Africa)*

### Nubian Sandstone Aquifer (NSAS)

Strategic Action Programme (SAP)  
for the rational and  
equitable management  
of the NSAS

*(Chad, Egypt, Libya, Sudan)*

### Lake Chad

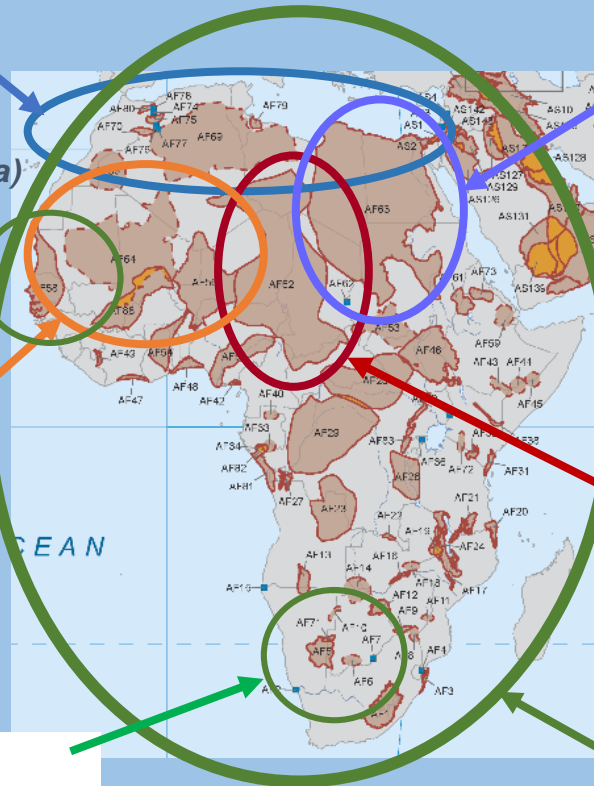
Strengthening of Lake Chad  
Basin Commission (LCBC)

*Cameroon, Central African Republic,  
Chad, Niger, Nigeria*

### ANBO

Capacity building on  
Integration of Groundwater  
in River Basin Organizations (RBOs)

*Regional Economic Commissions  
across Africa  
2 case studies  
(Stampriet and Senegal Aquifers)*




# UNILC Draft Articles and the UN GA the Law of Transboundary Aquifers



**UNESCO IS CO-CUSTODIAN  
AGENCY WITH THE UNECE  
OF THE SDG 6 INDICATOR  
6.5.2 on Water cooperation  
in transboundary waters**

United Nations A/RES/63/124

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 **General Assembly** Distr.: General  
15 January 2009

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Sixty-third session  
Agenda item 75

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**Resolution adopted by the General Assembly**  
[on the report of the Sixth Committee (A/63/439)]

**63/124. The law of transboundary aquifers**

*The General Assembly,*

*Having considered* chapter IV of the report of the International Law Commission on the work of its sixtieth session,<sup>1</sup> which contains the draft articles on the law of transboundary aquifers,

*Noting* that the Commission decided to recommend to the General Assembly (a) to take note of the draft articles on the law of transboundary aquifers in a resolution, and to annex the articles to the resolution; (b) to recommend to States concerned to make appropriate bilateral or regional arrangements for the proper management of their transboundary aquifers on the basis of the principles enunciated in the articles; and (c) to also consider, at a later stage, and in view of the importance of the topic, the elaboration of a convention on the basis of the draft articles,<sup>2</sup>

*Emphasizing* the continuing importance of the codification and progressive development of international law, as referred to in Article 13, paragraph 1 (a), of the Charter of the United Nations,

*Noting* that the subject of the law of transboundary aquifers is of major importance in the relations of States,

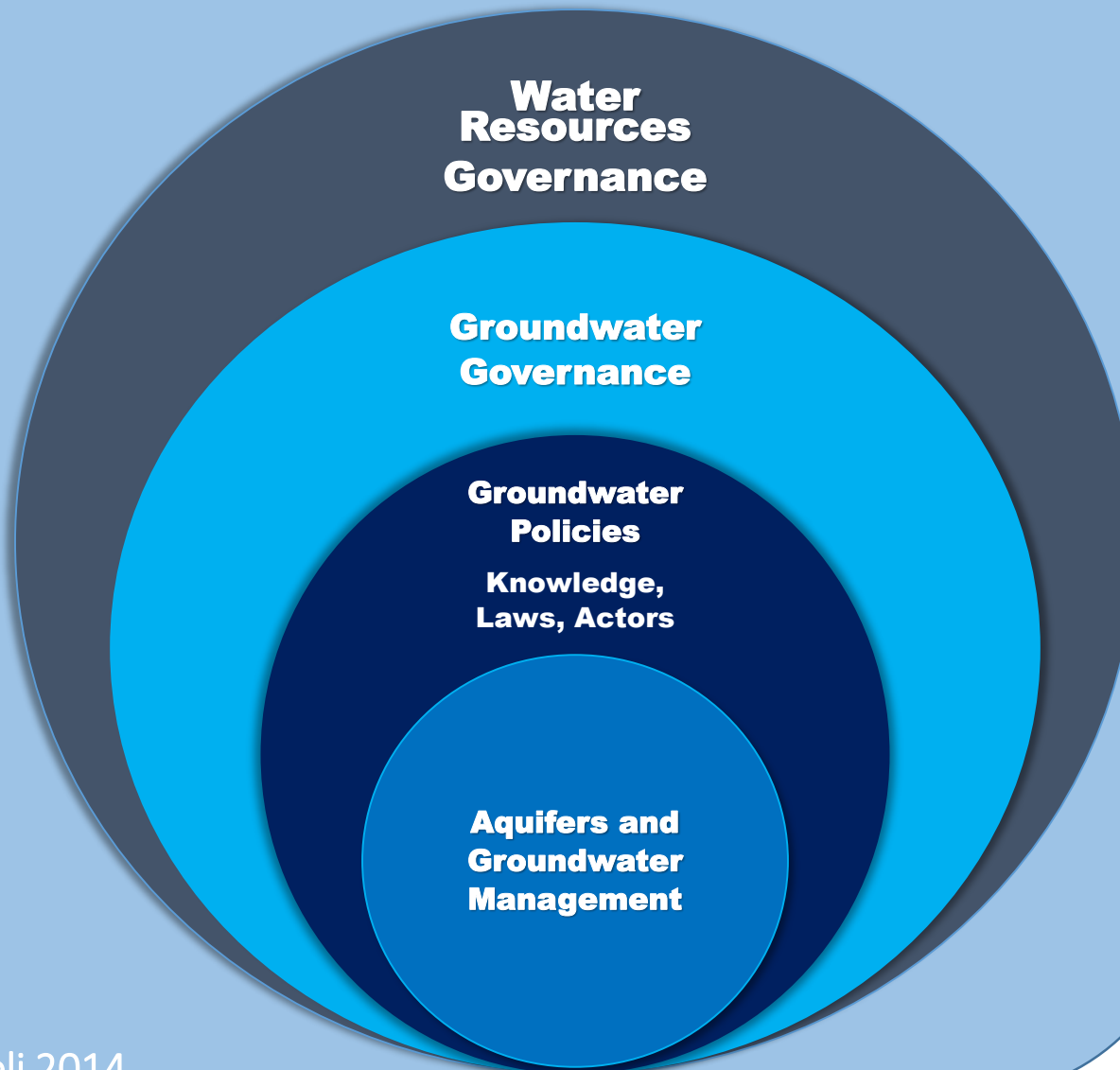
*Taking note* of the comments of Governments and the discussion in the Sixth Committee at the sixty-third session of the General Assembly on this topic,

1. *Welcomes* the conclusion of the work of the International Law Commission on the law of transboundary aquifers and its adoption of the draft articles and a detailed commentary on the subject;
2. *Expresses its appreciation* to the Commission for its continuing contribution to the codification and progressive development of international law;
3. *Also expresses its appreciation* to the International Hydrological Programme of the United Nations Educational, Scientific and Cultural Organization

<sup>1</sup> Official Records of the General Assembly, Sixty-third Session, Supplement No. 10 (A/63/10).  
<sup>2</sup> *Ibid.*, para. 49.

08-47823

# WATER GOVERNANCE



a.aureli 2014



Groundwater  
Governance

A Global Framework for Action

# GROUNDWATER GOVERNANCE Project: A GLOBAL FRAMEWORK FOR ACTION

UNESCO

GEF IW-FAO-IAH--World Bank



## Thanks to UNESCO-IHP Network

Latin America & Caribbean  
19 countries



Sub-Saharan  
Africa  
19 countries



Asia & Pacific  
17 countries



Arab  
States  
19  
countries



region  
22 countries + private sector

## UNESCO IHP has organized 5 Regional Consultations

*Regional Diagnostics / Recommendations*

Framework for Action

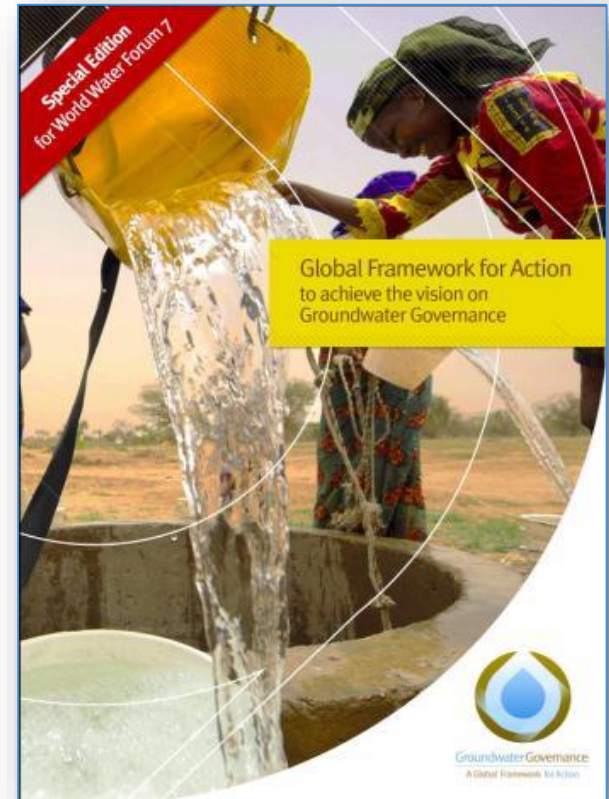
Providing policy makers  
with science-based guidelines  
for informed decision making



# GROUNDWATER GOVERNANCE

## FRAMEWORK FOR ACTION

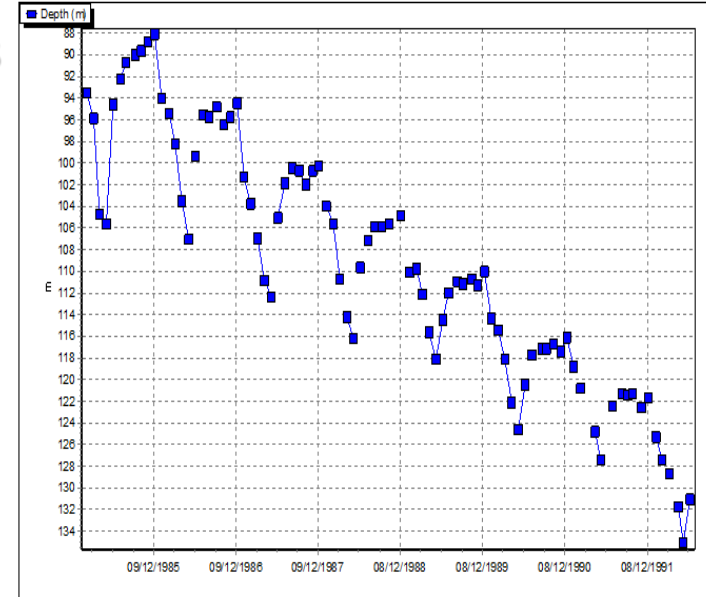
call for practical action by all relevant institutions and stakeholders (not only national government water-resource agencies) which sets out an over-arching five-part structure with specific steps needed at appropriate level (local/national/regional)



# GROUNDWATER GOVERNANCE - FRAMEWORK FOR ACTION

## (1) ESTABLISHING AN ADEQUATE BASE

- Framework for Action acknowledges that what is done where must take account of what already exists and what is feasible - it thus emphasises the importance of adapting governance provisions to local context
- certain initial steps need to be taken to establish an adequate basis for action :
  - ~ initial diagnostic of governance weakness
  - ~ political leadership and commitment
  - ~ adequate knowledge and public awareness
  - ~ stakeholder engagement



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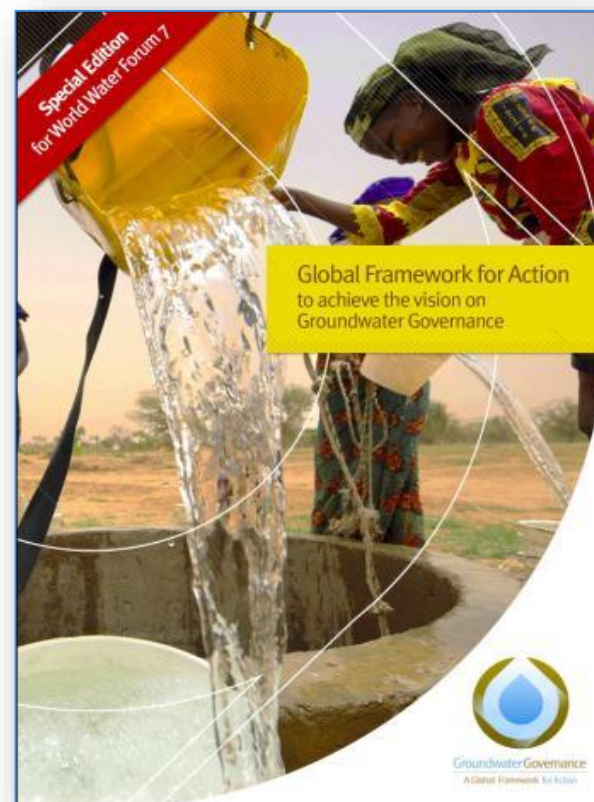


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# GROUNDWATER GOVERNANCE - FRAMEWORK FOR ACTION

## (2) STRENGTHENING INSTITUTIONAL CAPACITY

- effective institutions should have legitimacy and authority in the eyes of stakeholders, operate inclusively and have credible and verifiable commitments
- institutional strengthening is a step-wise process requiring periodic review of effectiveness and recognition that different countries have very different starting points



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# GROUNDWATER GOVERNANCE - FRAMEWORK FOR ACTION

## (3) CREATING EFFECTIVE LINKAGES

- *establishing effective linkages with other aspects of water-resources administration, and other related sectors (such as land-use, energy, agriculture, etc) is an essential component of effective groundwater governance*
- *the fundamental need is to ensure mainstreaming of groundwater considerations into policy development in related sectors*



# GROUNDWATER GOVERNANCE - FRAMEWORK FOR ACTION

## (4) RE-DIRECTING INVESTMENTS & INCENTIVES

- in many countries current sector financial subsidies (such as water well installation grants, crop guarantee prices, rural energy tariffs, fertiliser discounts) provide perverse incentives when it comes to promoting sustainable groundwater management
- also a general need to invest much more in groundwater governance, such that the basic functions of regulation, planning and monitoring are not under-resourced



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Groundwater Governance  
A Global Framework for Action

# GROUNDWATER GOVERNANCE - FRAMEWORK FOR ACTION

## (5) ESTABLISHING AQUIFER MANAGEMENT PLANS

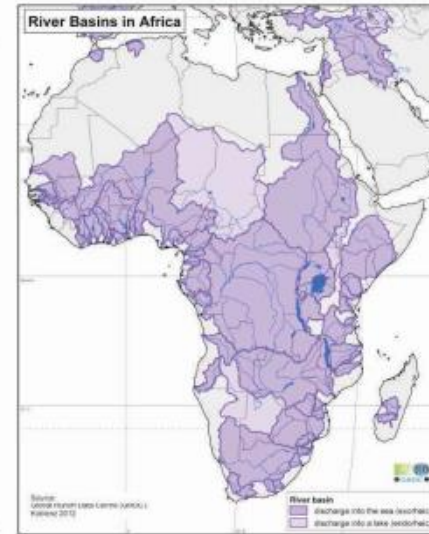
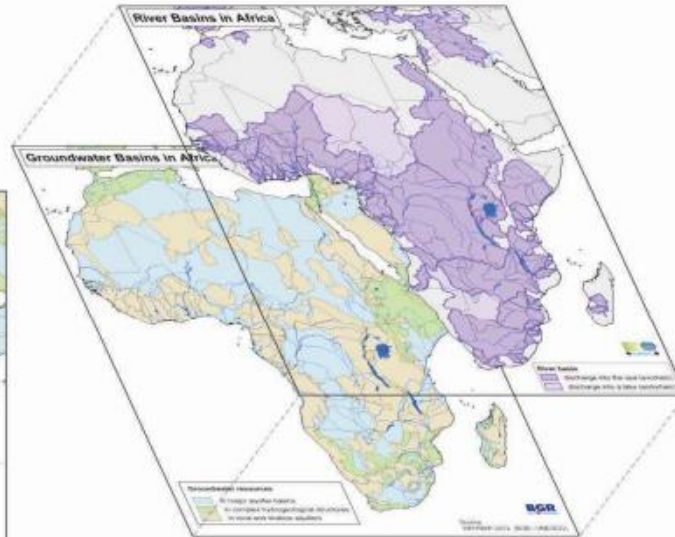
- commencing with priority aquifers where socioeconomic and environmental interests are largest and abstraction and/or pollution pressures are highest
- implementation of a systematic management planning process demonstrates that groundwater governance is working
- special arrangements are required in certain instances – such as non-renewable groundwater resources, fast-growing cities and small island states



# UNESCO WHYMAP

## Surface Water vs. Groundwater

→ comparing river/lake basins and aquifer systems



## conjunctive management strategies

-increasing the benefit of the joint use of surface water and groundwater

# Project African Network of Basin Organizations (ANBO – RAOB)

Supported by the Global Environmental Facility  
*Implemented by UNDP - Executed by UNESCO and  
OMVS - UNESCO-IGRAC as main partner*

**OBJECTIVE: Strengthening the capacity of  
ANBO, on the Integration of Groundwater and  
foster Groundwater Governance in River  
Basin Organizations (RBOs)**

## **Main components:**

- Surface water / Groundwater integration / Conjunctive Management
- Information Systems development
- Groundwater and Climate change
- Financial sustainability

**Target Audience: RBOs and  
Regional Economic Commissions**



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# **The Stampriet Transboundary Aquifer System (STAS)**

## **Multi-Country Cooperation Mechanism (MCCM)**

# Success story

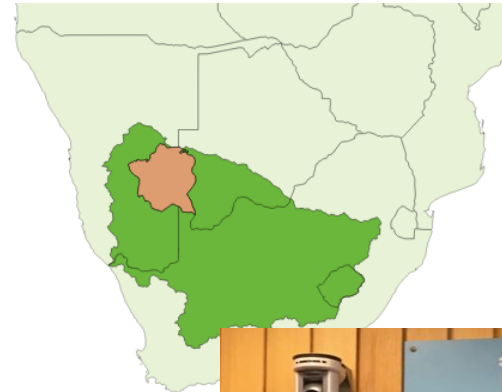
## Cooperation Mechanism for the Stampriet Aquifer (GGRETA)

The Governments of Botswana, Namibia and South Africa have decided **to establish a Multi-Country Cooperation Mechanism (MCCM)** for the governance and management of the Stampriet Aquifer **in August 2017**.

It is the first example of **institutionalizing cooperation over a transboundary aquifer in the Southern Africa region**.

It is the first arrangement on transboundary aquifers since the Sustainable Development Goals (SDGs) were adopted in 2016.

It is the **first operational governance mechanism of a transboundary aquifer to be nested in a river basin organization** (i.e. the Orange Senqu River Basin Commission - ORASECOM), thus fully capturing the IWRM approach and directly contributing to the implementation of SDG Target 6.5 both at national and transboundary level.



## Success story

# Cooperation Mechanism for the Stampriet Aquifer (GGRETA)

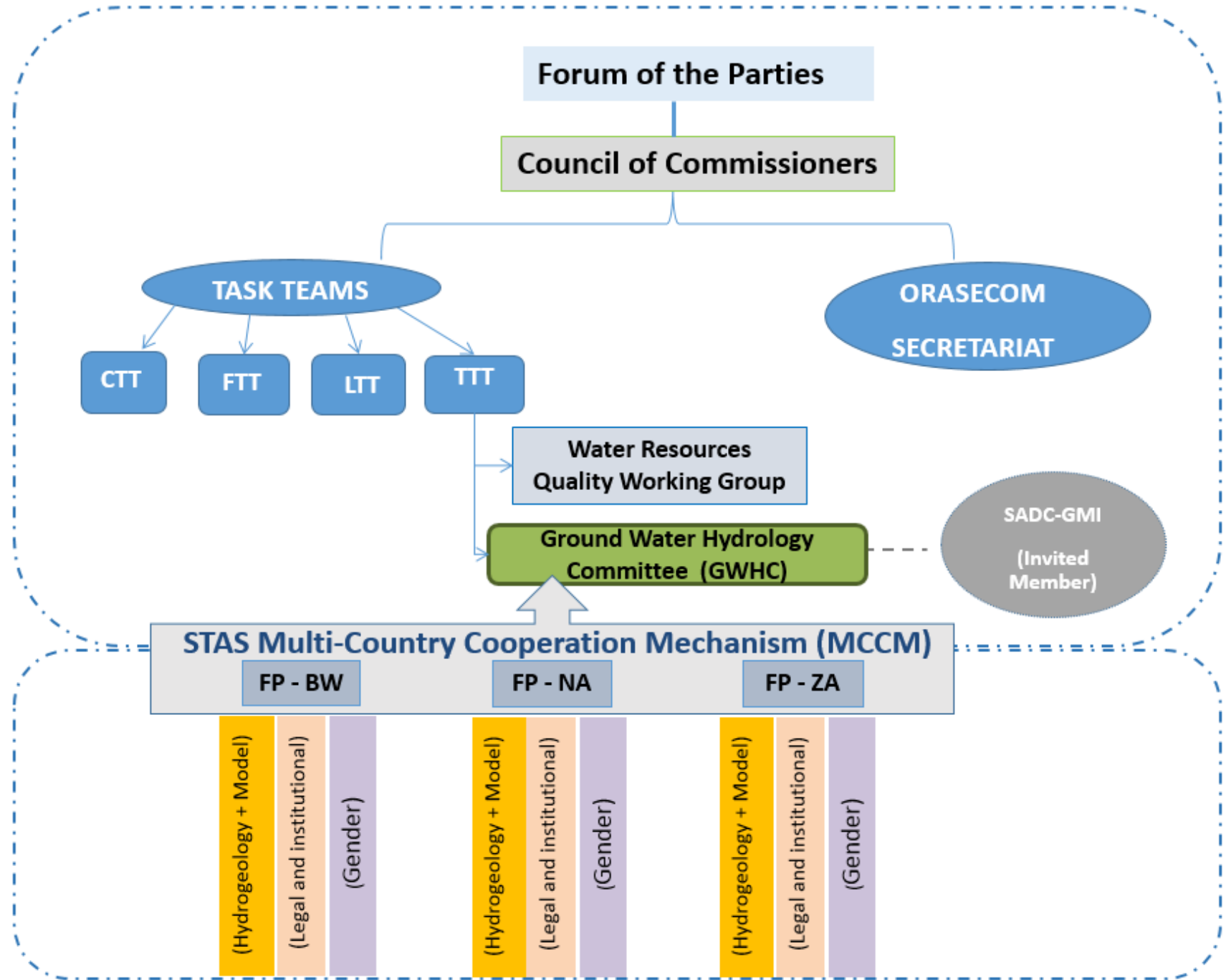
**UNESCO's approach**

**SCIENCE + WATER DIPLOMACY**



Understanding of the resource  
for informed decision-making

Cross-border dialogue  
and cooperation



**ORASECOM Structure**

**Focal Points (current GGRETA project)**

# THANK YOU FOR YOUR ATTENTION!



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