

WATER-FORCE

# FUNDAMENTAL LAWS FOR WATER RESOURCES MANAGEMENT IN AFRICA USING COPERNICUS EO DATA

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# RoadMap

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## Issues to Tackle

1. Identify User Communities
2. Copernicus WATER Services for Policy Development, Monitoring & Evaluation
3. Gap Analysis



## Geo-characteristics-**AFRICA**

**AFRICA IS THE SECOND-  
DRIEST CONTINENT IN THE  
WORLD.**

WITH ONLY 15% OF THE GLOBAL POPULATION, IT  
HAS ONLY 9% OF GLOBAL RENEWABLE WATER  
RESOURCES.

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# User Communities

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## Water as critical to African livelihoods

- 40% of Africa's population lives in arid, semi-arid and dry sub-humid areas.
- 60% live in rural areas and depend mainly on rain-fed agriculture.
- **Less than 5% of Africa's surface and groundwater harnessed for use.**



## GMES & Africa Consortia

Consortia have highlighted needs for river navigation, flood-focusing systems, water quality particularly for agricultural systems as well as oceanographic variables.

**How can space  
contribute to water  
resource management,  
hydrology, or any water  
related field?**

Earth Observation Policy



# Gap Analysis

- National Spatial Data Infrastructure (NSDI)
- Drought management plan
- Water Management Expertise;
- Institutional mechanisms for joint development commissions
- Framework for the adoption of national water resources strategy for uniformity and coordination amongst jurisdictions.



# Gap Analysis

THE AREAS OF IMPORTANCE FOR AFRICA  
INCLUDE:

The Copernicus programmes water-related products through all its six services (atmosphere, land, marine, climate change, security, emergency).



# GAP ANALYSIS

- **Integrated Water Resource Management**

While interdisciplinary, does not provide succinct policy support

- **SADC Draft Regional Policy**

Infrastructure inadequate to meet demand

- **The African Water Vision**

Opportunity for space-based applications.

- **AfDB Water Policy**

Universal adoption.



**50%**

HOWEVER, ACROSS AFRICA,  
WATER IS UNEVENLY  
DISTRIBUTED, WITH MORE  
THAN 50% OF WATER  
RESOURCES  
CONCENTRATED IN  
CENTRAL AFRICA

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**3%**

LESS THAN 3% IN NORTH  
AFRICA.

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# Social Impact Investment

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## **Illustrative Example: of Water Rights in Africa**

The Sustainable Development Goal (6) of providing everyone with safe and reliable drinking water services combines a moral imperative with an entrepreneurial opportunity.



# END

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