



# **The Interest of IWRM at the Basin Scale to Improve the Joint Management of Groundwater and Surface Water**

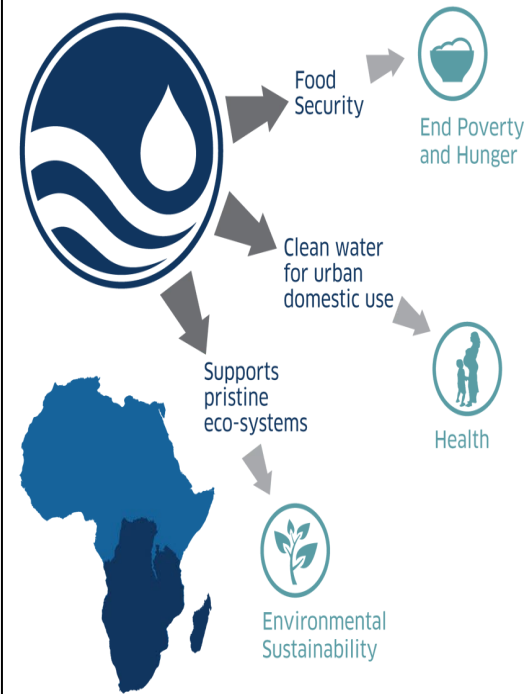


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# SADC Region's Availability & Dependence on Groundwater Resources

## WHY CARE ABOUT GROUNDWATER?



Groundwater is vital for the achievement of the Millennium Development Goals

## CURRENT RELIANCE ON GROUNDWATER



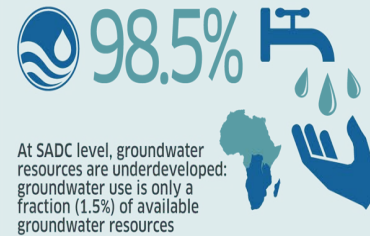
70% of the rural population in SADC rely on groundwater as their sole source of water for domestic use including drinking, livestock and irrigation

## Agricultural water use within SADC



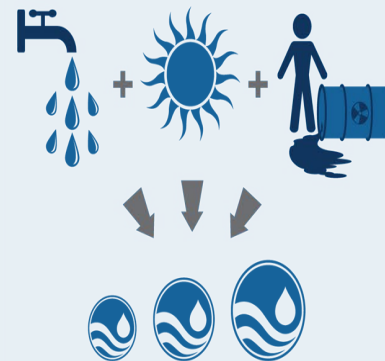
The agricultural sector is the biggest water user with 83% but only contributes 9% to SADC's GDP; 12% of its water use is from groundwater and 88% is from surface water

## POTENTIAL FOR FURTHER GROUNDWATER DEVELOPMENT



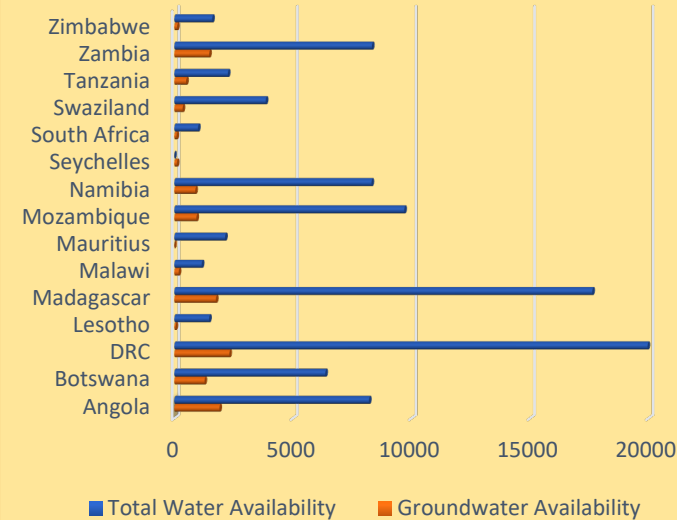
At SADC level, groundwater resources are underdeveloped: groundwater use is only a fraction (1.5%) of available groundwater resources

## THE FUTURE OF GROUNDWATER USE



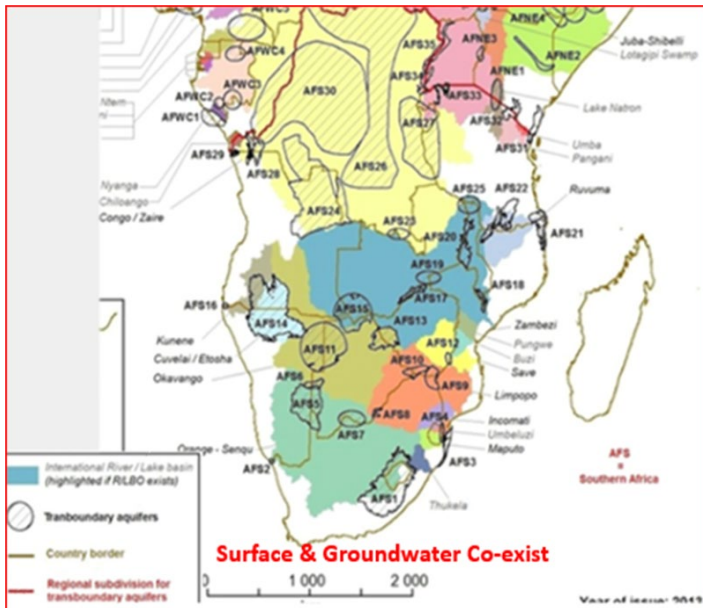
Dependence on groundwater will even continue to increase in both rural and urban areas of the SADC region as climate change and contamination from human activities continues to affect the availability of usable surface water resources

## Water Availability (m<sup>3</sup>/capita/year)

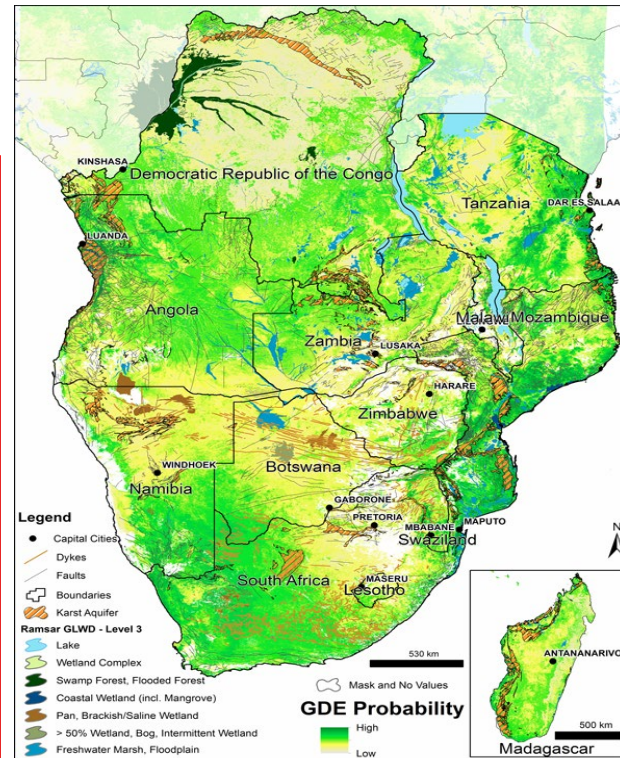


Up to 23% availability in Angola

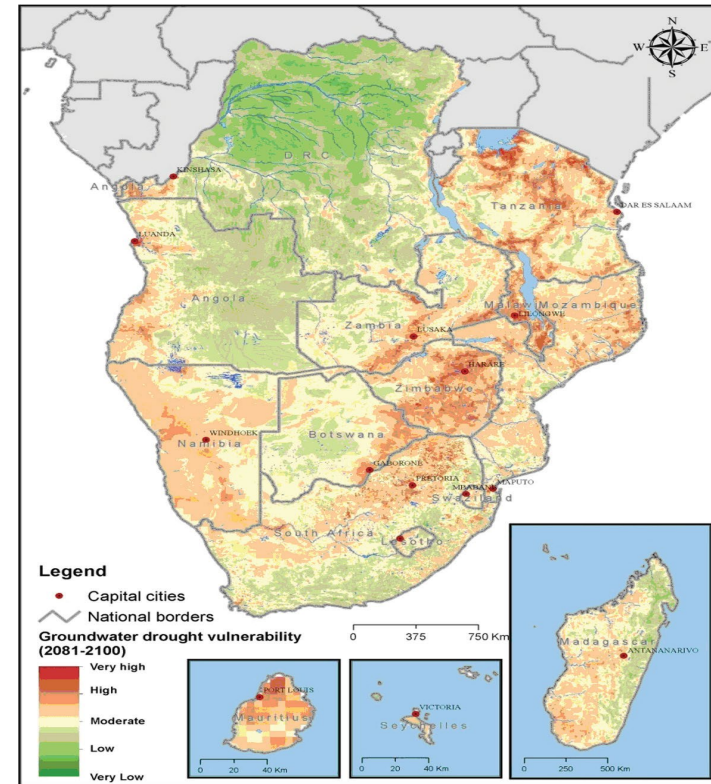
## Key Drivers for Conjunctive Transboundary Surface & GW Development & Management



**15 Transboundary River Systems**  
**30 Transboundary Aquifers**



## GDEs Know No Boundaries & the poor rely on GDEs and Environmental Services

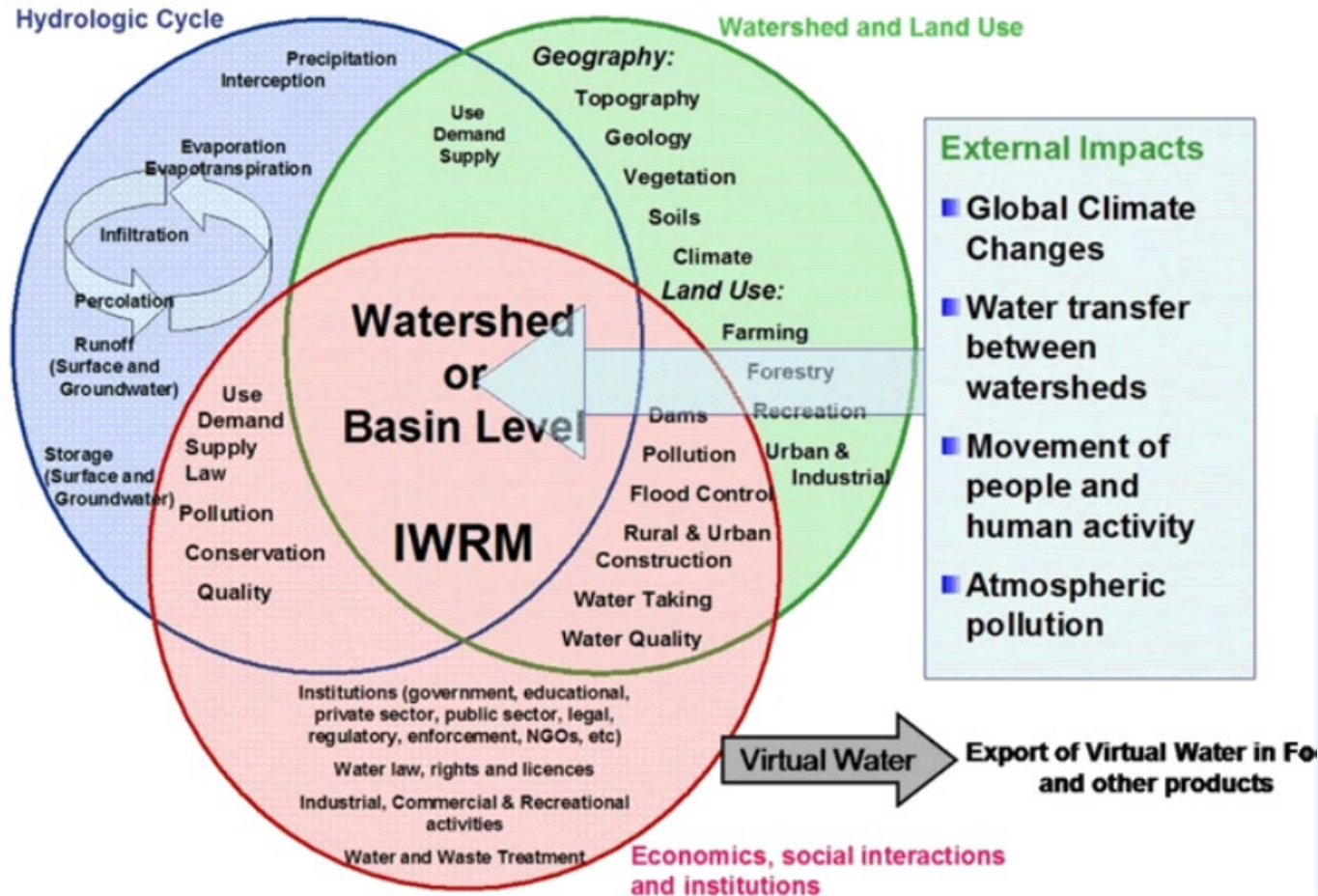


## Recurrent droughts undermine SADC economies heavily dependent on natural resources, agriculture, mining, industry and tourism

## Both surface and groundwater experience similar challenges



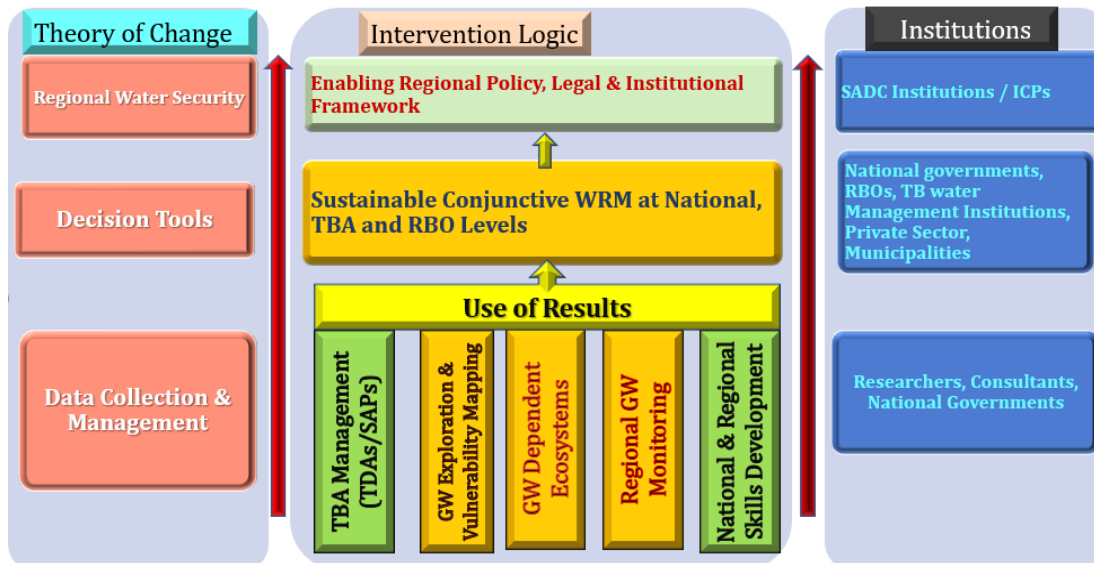
# Context for IWRM for Conjunctive Surface & GW Management in RBOs



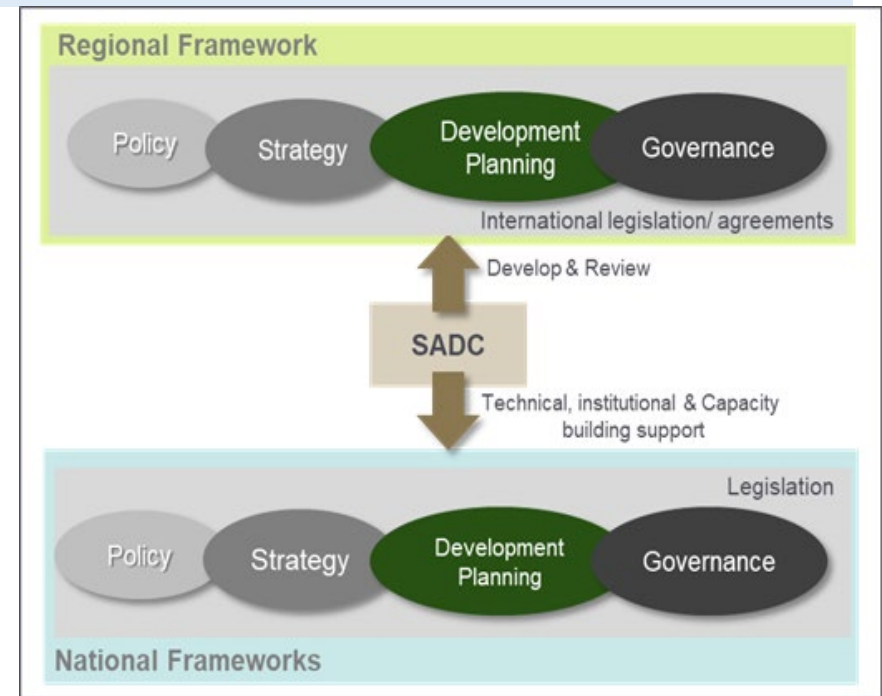
## ENABLERS

1. Stakeholder participation
2. Integrated planning
3. Water demand management (WDM)
4. Conflict resolution
5. Gender mainstreaming.

# Theory of Change & Intervention Logic for Sustainable IWRM in SADC



## Enabling Decision Support Framework From Data to Information



- This regional framework consists of the SADC Regional Water Policy (2005), SADC Regional Water Strategy (2006), SADC Regional Strategic Action Plans (through various phases of development) and SADC Revised Protocol on the Shared Watercourses (2000).
- Key Pillars of the Framework: policy, strategy, development planning and governance

## Harmonised Transboundary framework



1. RBOs
2. GW Committees
3. TBA MCCMs

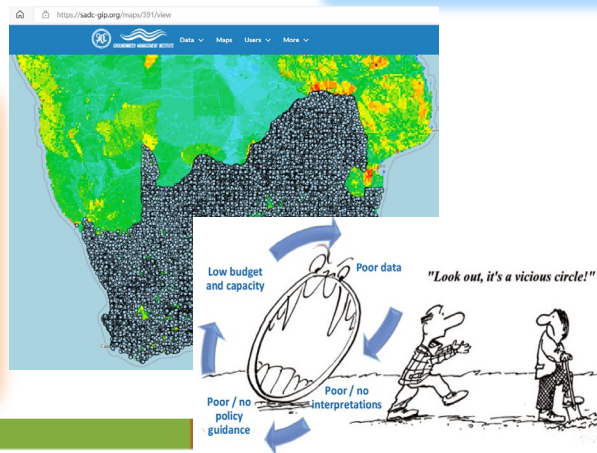


## Institutions

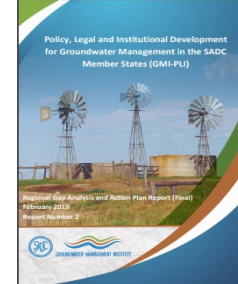


## Information

1. GW Data collection, mgt & info sharing
2. Joint TBA knowledge generation & mgt through TDAs, JSAPs



**Improved Basin-wide Conjunctive Management of Surface & Groundwater**



## Instruments

1. SADC Policy, Protocol, strategy, plans
2. RBO Agreements
3. RBO IWRM Plans
4. RBO GW Strategies



## Infrastructure



1. Community livelihoods
2. Monitoring GW use
3. Inter-basin transfer

**PROMOTING IWRM FOR CONJUNCTIVE USE THROUGH 4 I<sup>S</sup> MODEL**



# THANK YOU

[www.sadc-gmi.org](http://www.sadc-gmi.org)

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