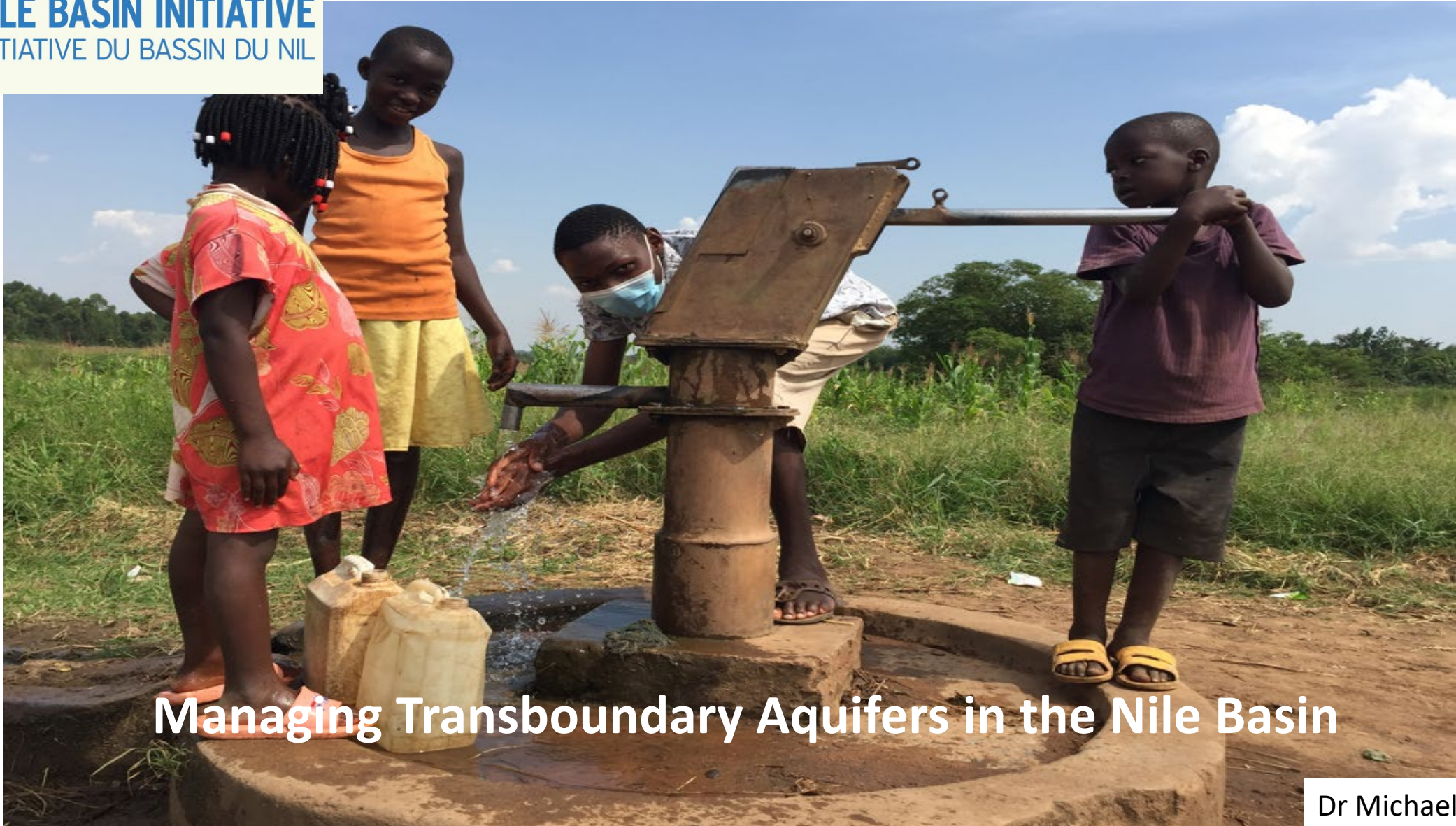




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Managing Transboundary Aquifers in the Nile Basin

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Importance of Groundwater in Nile Basin



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- 60% of population live in rural areas, depend on subsistence agriculture for food and livelihoods.
- Only consistent source of water in these areas - Ethiopia 43%, Uganda 32%).
- Drilled wells in rural areas are traditionally constructed and no records of abstraction, water quality or quantity.



Key challenges to GW Management in Nile Basin



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- Imbalance between **water demand and water supply** – need for expansion of sources
- **Increasing reliance on GW** – due to population growth, economic needs, climate change, high rainfall variability, and land use changes leading to declining amount of surface water
- GW is an insufficiently understood asset that can contribute to climate resilience
- GW resources are under threat from unsustainable exploitation; climate change and pollution
- Interaction between groundwater and surface water systems (rivers, wetlands, lakes) not been adequately considered in most transboundary river basin management initiatives,
- The threats on transboundary aquifers are more severe because of lack of common groundwater governance and management mechanisms

Transboundary Aquifers in Lake and River Basins

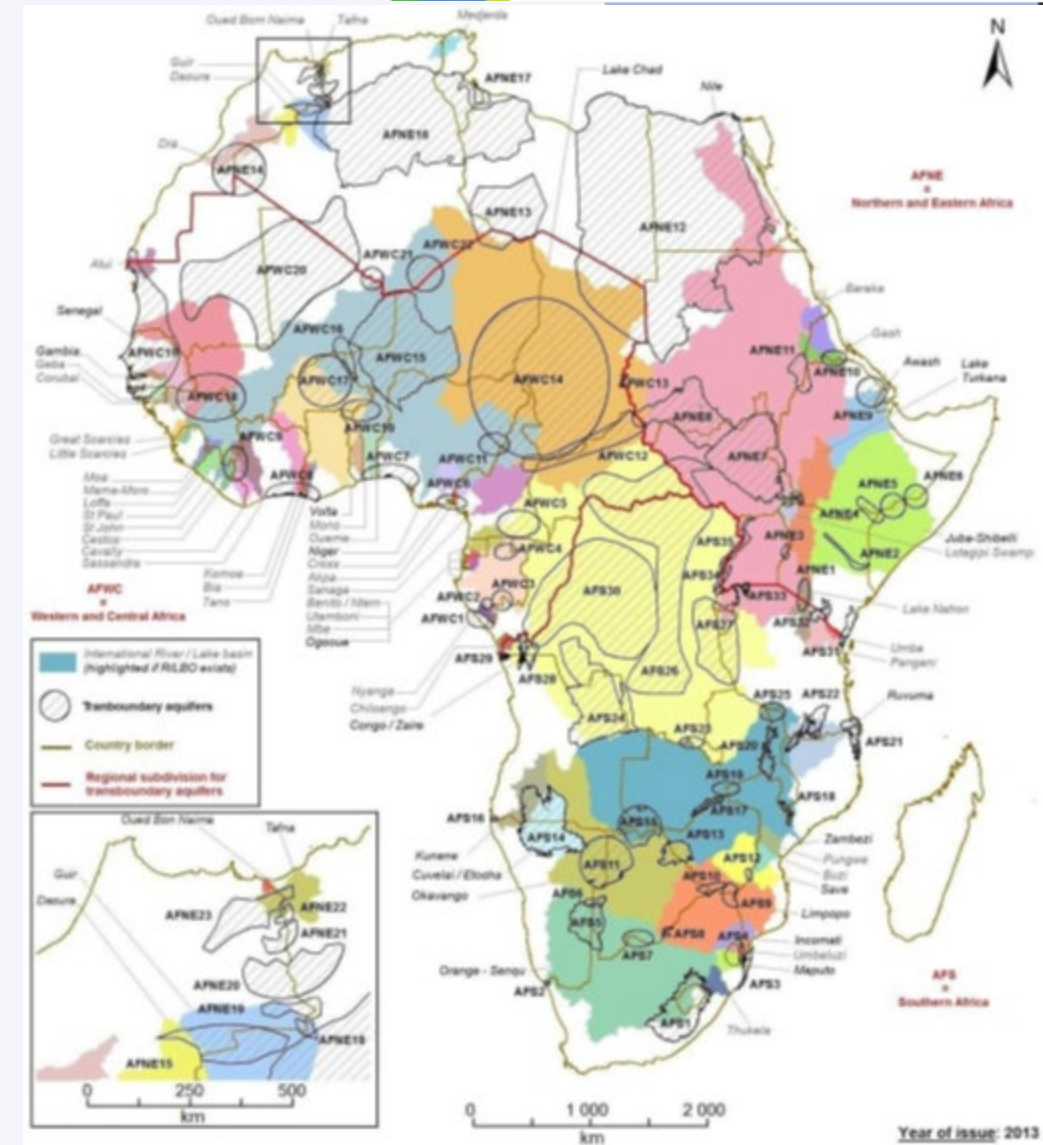


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Insights – Transboundary aquifers represent approx. 42% of the continental area and 30% of the population

Some transboundary aquifers lie completely within L/RBOs (IGRAC 2015)

GW issues not well considered L/RBO plans



Nile Basin TBA Pilot Projects



the selected three shared aquifers

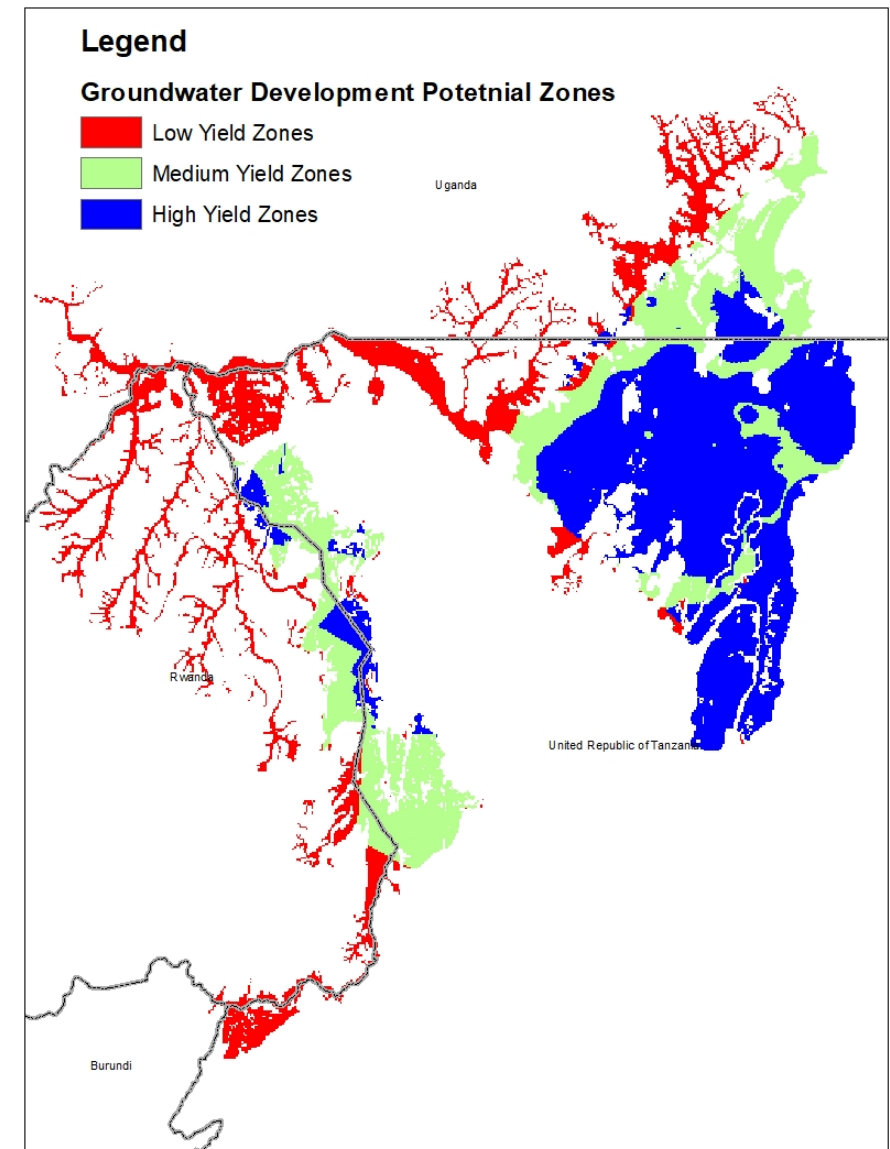
- 12 TBAs within the Nile Basin
- Potential for Conjunctive use of groundwater
- 3 Pilot project (funding from GEF/UNDP)
- Goal - fostering the more effective utilization and protection of selected shared aquifers
- Understanding of available groundwater resources and demonstrating '**conjunctive management**' - optimize joint use of surface and groundwater.

Three TBA were selected for this project:-

- 1 – Gadaref Adegrat TBA : Ethiopia & Sudan
- 2 – Mount Elgon TBA ; Kenya & Uganda
- 3 - Kagera TBA: Burundi, Rwanda, Tanzania & Uganda

Project Components

- **Component 1: Enhance current understanding** and the knowledge on the resources base, threats and options for sustainable management and utilization
- **Component 2: Development of action plans** on groundwater resources governance, management, and protection - consideration of surface /groundwater resources conjunctive use
- **Component 3: Targeted pilot projects** to explore conjunctive use of surface and groundwater, and links to biodiversity conservation and climate change adaptation
- **Component 4: Further strengthening capacity** to address groundwater issues
- **Component 5: Communication and awareness raising**





Project outputs

- Improved understanding and knowledge of groundwater - SADA (baseline studies), modelling, database development
- Convergence of national approaches, policies and governance mechanisms for protection and sustainable use – **development of Integrated Aquifer Management Action Plan for strengthening cooperative management and utilization**
- Pilot projects for - innovative techniques for sustainable conjunctive use of groundwater and surface water resources– incl. Managed Aquifer Recharge,
- Use of advanced remote sensing for monitoring and management of shared groundwater aquifers
- Scaling up strategy - for mainstreaming the most successful pilots into operational IWRM activities at national and regional levels
- Capacity building for State and non-State actors
- communication and awareness raising products generated and disseminate

Thank You



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