



Enhancing conjunctive management of surface and groundwater resources in selected transboundary aquifers: Case study for selected shared groundwater bodies in the Nile Basin





Content

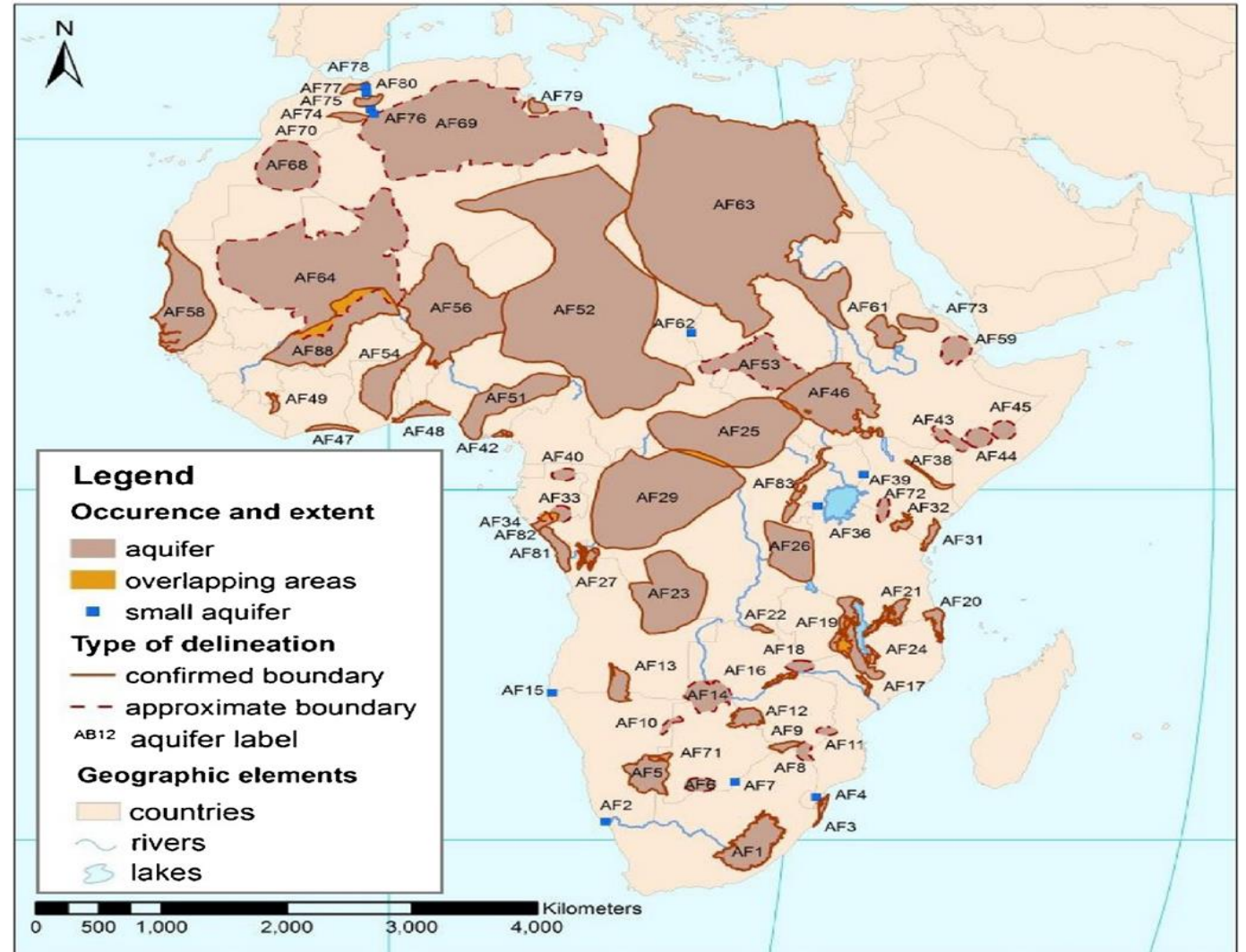
Outline of the Project
Introduction/Background
Outline of the Project
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Technical Briefing



Transboundary Aquifers of Africa, with TBA codes. After: (IGRAC and UNESCO-IHP, 2015a).

Factors Hampering the Development of Transboundary Groundwater Resources

- The high initial costs of investment and the alternative opportunity for the investment capital.
- Absence of shared aquifers development and management plans, policies & strategies.





RENEWABLE GROUNDWATER POTENTIAL

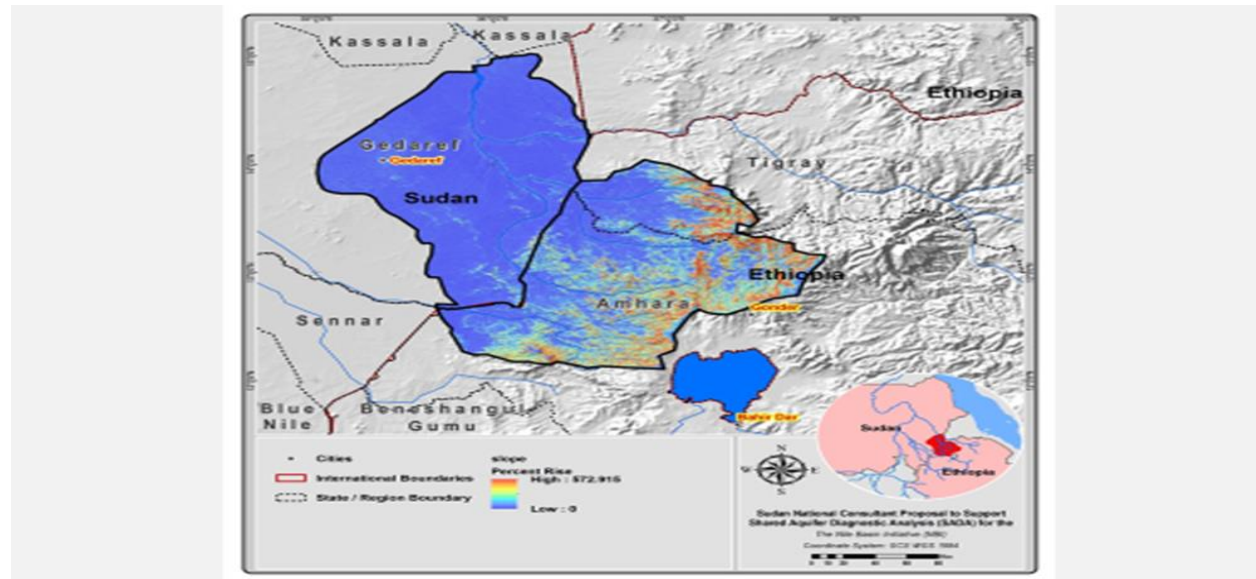
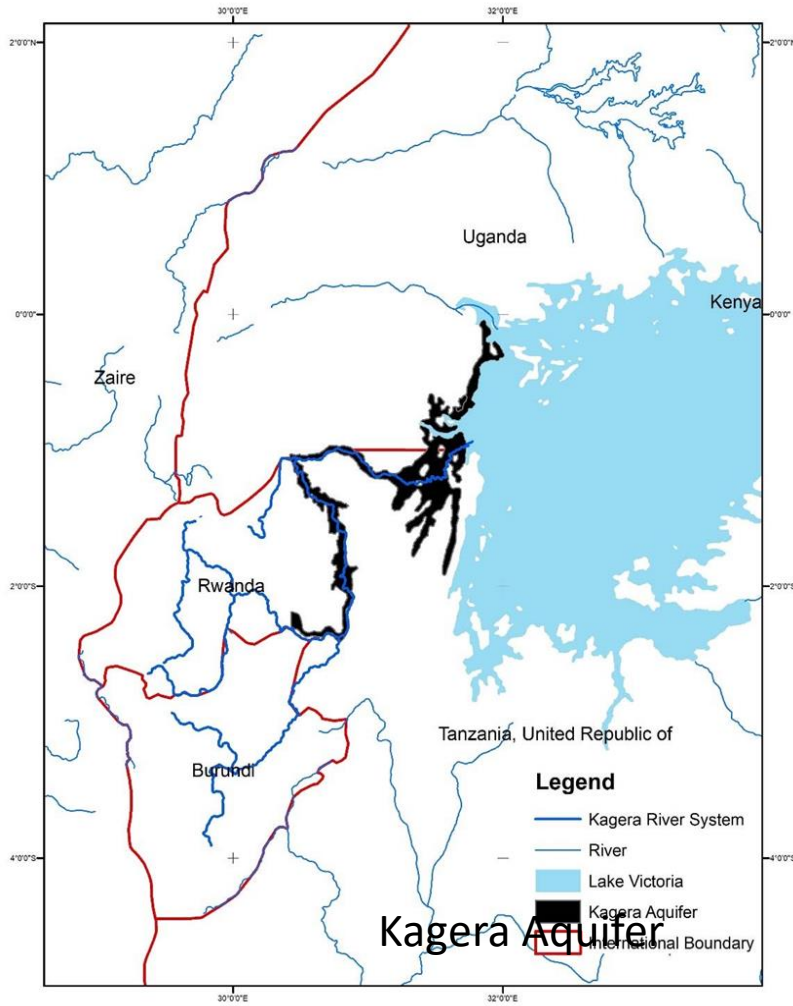
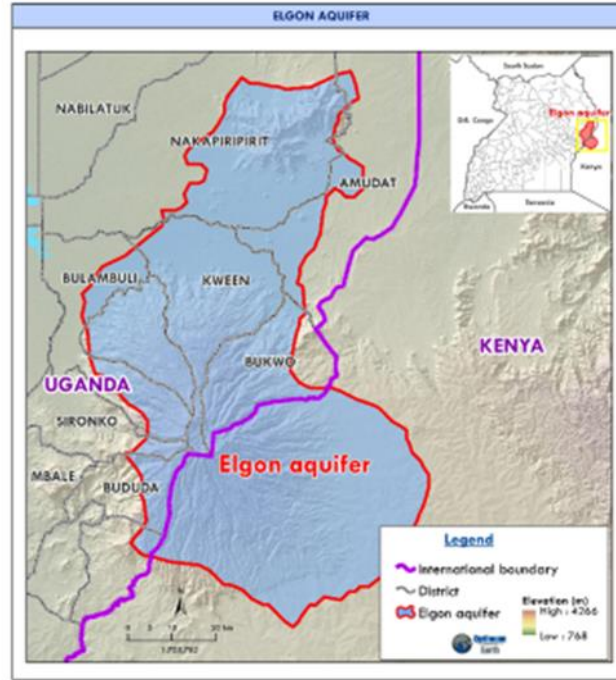
Synthesis: WATER SECURITY



TABLE 2.2- TRANSBOUNDARY AQUIFERS UNDERLYING THE NILE BASIN				
Aquifer name	Countries	Total aquifer area (km ²)	Aquifer area in the Nile Basin (km ²)	% area within the Nile Basin
Aquifers du Nil	Democratic Republic of the Congo, South Sudan, Uganda	44,632	30,023	67%
Baggara Basin	Central African Republic, South Sudan, Sudan	239,876	196,327	82%
Coastal Aquifer Basin	Egypt, Israel, Palestinian Territory	23,338	11	0%
Dobari	Ethiopia, Sudan	67,630	51,369	89%
Kagera Aquifer	Tanzania, Rwanda, Uganda	5,778	5,218	90%
Kono-Carbonate	Central African Republic, Congo, South Sudan	604,596	120,947	20%
Meroe	Ethiopia, Eritrea	38,752	27,210	70%
Mount Elgon Aquifer	Uganda, Kenya	5,398	4,579	85%
Nubian Sandstone Aquifer System (MSAS Fossil)	Chad, Egypt, Libya, Sudan	2,892,867	567,344	20%
Nilf Aquifer	Kenya, Tanzania	21,145	1,780	8%
Sudd Basin	Ethiopia, Kenya, South Sudan	370,647	324,287	87%
Tanganyika	Burundi, Democratic Republic of the Congo, Tanzania	184,594	2,279	1%

1. Areal extent

- About 4,900 km² (IGRAC, 2021), ~85% lying within the Nile Basin (AF39);
- in Kenya, Lakes Victoria and Turkana basins;
- Trans-Nzoia (sub-counties of Endebes and Saboti) and Bungoma (sub-counties of Mt. Elgon, Sirisia, Kimilili and Kabuchai);
- in Uganda, Lakes Kyoga and Turkana basins;
- Districts of Manafwa, Bududa, Sironko, Bulambuli, Kapchorwa, Kween and Bukwo.



Outline of the Project

- Project components
 - **Component 1:** Enhance current understanding and the knowledge on the resources base, threats and options for sustainable management and utilization of shared aquifers
 - **Component 2:** Development of action plans on groundwater resources governance, management, and protection for inclusion in national, sub-basin and basin wide frameworks: also including consideration of surface water/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 at the national and regional levels
 - **Component 5:** Communication and awareness raising including Knowledge management M and E



AREAS OF PRIORITY

- PROTECTION OF THE AQUIFER FROM CONTAMINATION
- ESTABLISHMENT OF A MONITORING SYSTEM
- IDENTIFICATION OF AQUIFER DEVELOPMENT PLANS
- AQUIFER USE IS TO BE LIMITED TO SUPPLY OF DOMESTIC WATER SUPPLY AND ANIMAL WATERING PARTICULARLY IN THE UPSTREAM SEGMENTS OF THE AQUIFER



Thank you

