

Sudan

Capital city: Khartoum
Inhabitants: 41.8 Million



INSTITUTIONAL SETTING AND PURPOSE

Several governmental institutions are responsible for groundwater in Sudan:

- The Ministry of Irrigation and Water Resources, responsible for all water resources, irrigation and domestic water supply;
- The Groundwater and Wadis Department, responsible for groundwater assessment, development and management; and
- State corporations (18 in total), responsible for rural and urban water supply (drinking water).

Monitoring networks for groundwater exist at regional and national scales but may be not covering all aquifers.

A regional network exists within the transboundary network of the Nubian Sandstone Aquifer System, which is monitored by the other three countries sharing the aquifer (Egypt-Libya-Chad) as well. Data collected is stored in a regional database named NARIS (Oracle), which is shared online among the four countries, with the server located in Tripoli, Libya. Eight monitoring wells are part of the network.

The Groundwater and Wadis Department monitors groundwater levels in the wadis Nyala and Gash and the Nubian Sandstone aquifer in the north of the country. Monitoring is carried out both manually and automatically. Telemetry technology was introduced in 11 wells in the Nubian Aquifer network and it is planned to use this technology in some other aquifers.

CHARACTERISTICS OF THE NETWORK

Monitoring data are stored in digital form in the Groundwater Directorate Database and in spreadsheets. Unpublished reports with results from groundwater quality monitoring are available at the ministries.



Figure 1 - Water tap in Sudan, by: Vítor Martinho

Sources

- **Feedback from Secretary of Transboundary Groundwater Aquifers, Ministry of Irrigation and Water Resources of Sudan** - received on 17-09-20;
- **Gadelmula AH, Upton K, Ó Dochartaigh BÉ and Bellwood-Howard, I. 2018. Africa Groundwater Atlas: Hydrogeology of Sudan. British Geological Survey. Accessed 09-07-2019** - http://earthwise.bgs.ac.uk/index.php/Hydrogeology_of_Sudan;
- **IGRAC (2012). Information collected during GGMN Workshop in the IGAD Region** - <https://www.un-igrac.org/news/groundwater-monitoring-network-programme-africa>; and
- **IGRAC. Information collected during the regional training programme on Integrating Groundwater Management within River Basins held from 15-17 January 2019 in Nairobi, Kenya** - <https://www.un-igrac.org/news/integrating-groundwater-management-river-lake-basins-eastern-africa>.