



INSTITUTIONAL SETTING AND PURPOSE

The Ministry of Agriculture, Water and Land Reform (MAWLR) through the Directorate of Water Resources Management (DWRM) is responsible for the groundwater monitoring in Namibia. Even though groundwater level monitoring started in Namibia in the 1960s, no formal groundwater monitoring plan at the national level is in place. The ongoing groundwater monitoring in the country is based on MAWF annual plans, the availability of resources and sometimes ad-hoc decisions.

The nation-wide groundwater monitoring has an overall aim of keeping uninterrupted record for possible future evaluation, data collection for dissemination and decision making.

The monitoring network also aims to identify areas of extensive groundwater use and areas of a transboundary significance.

CHARACTERISTICS OF THE NETWORK

Currently, 629 monitoring wells are present in the system. The design of the monitoring network took into account areas with high potential of groundwater resources to monitor and protect them for a sustainable use. The data are collected manually and automatically. The collected data include groundwater levels, groundwater quality sampling and abstraction.

Automatic water level loggers transmit data on daily basis, water level loggers without telemetric connection are read

quarterly. Initial borehole installations are also recorded and displayed for easy reference, but changes to the installation are not recorded.

The equipment used in the field is calibrated on every field visit and/or inspection and correlated to the manual measurement in site. Likewise, equipment for the monitoring of groundwater quality are calibrated for use before every collection of samples.

PROCESSING AND DISSEMINATION

Analyses and interpretation is performed through trend analysis and correlation is performed to time-series of piezometric levels. Monitoring data are stored in the National Groundwater Database (GROWAS). Digital records are firstly retrieved in excel spreadsheets and subsequently in GROWAS2.

Data collected is checked and verified by the Geohydrology Division of the Department of Water Affairs before entering into the database.

Data are available internally for all relevant staff working and verifying the databases. Overall, data are accessible upon request, depending on the nature of the request. The user must fill a data use disclaimer form, stating the use of the data and confirming that the data will be used for that purpose only. It is not allowed to share data internationally unless it is stated so in the disclaimer form.

Sources

- **Feedback from the Geohydrology Division of the Ministry of Agriculture, Water and Land Reform of Namibia** - received on 15-09-20;
- **Geohydrology Division of the Department of Water Affairs. Groundwater in Namibia: an explanation to the Hydrogeological Map. Unrevised second edition January 2011. ISBN No. 0-86976-571-X** - https://www.bgr.bund.de/EN/Themen/Wasser/Projekte/abgeschlossen/TZ/Namibia/groundwater_namibia.pdf?__blob=publicationFile&v=3;
- **IGRAC, 2013. Groundwater Monitoring in the SADC Region, 2013. Overview prepared for the Stockholm World Water Week** - https://www.un-igrac.org/sites/default/files/resources/files/Report_Groundwater%20Monitoring%20in%20SADC%20region.pdf;
- **SADC Country visit** - 2017.