Lesotho

Capital city: Maseru Inhabitants: 2.1 Million



INSTITUTIONAL SETTING AND PURPOSE

The Department of Water Affairs (DWA) in the Ministry of Water is responsible for groundwater monitoring including groundwater levels and groundwater quality. Groundwater monitoring started in the early 1990's as a result of an Italian (funded and executed) project that produced a Lesotho Hydrogeological Map. Boreholes drilled for the purpose of that project became the groundwater monitoring network, without a concrete monitoring plan and specific objectives.

Lesotho is in a process of decentralisation where the monitoring responsibility will be transferred to local communities and where DWA takes the primarily advisory role. Also, Lesotho is implementing the project under SADC-GMI on Expansion of National Groundwater Monitoring network that ends December 2020. This project is aimed at improving what has been done in the 90's with a clear plan of what is being monitored for best quality data on groundwater resources.

CHARACTERISTICS OF THE NETWORK

The network includes officially 130 springs and 60 observation wells, but it is not fully operational, Figure 1. In reality, only 30 springs (distributed in 10 districts) and 20 wells (approx. 3 per district) are being regularly monitored.

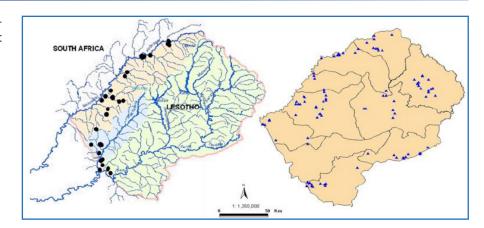
Both observation wells and springs are monitored every three months. Piezometric levels are measured manually with water level dippers (no data loggers are used).

Monitoring of springs, which are numerous and the main source for rural water supply, is done by regional offices in mountainous areas, and by DWA in lowlands. DWA makes use of data from the Ministry of Health to prioritise springs for sampling. Prioritising is based on 1) population depending on the source, 2) age of water at the source (both data from DWA and regional offices in mountainous areas for rural water supply) and 3) disease trends in population using the source (data from the Ministry of Health).

PROCESSING AND DISSEMINATION

Data of groundwater levels is stored in simple spreadsheets per district. Data are not compiled in a central database.

Figure 1 – Location of boreholes (black dots, left), location of monitoring springs (blue triangles, right)



Sources

- Department of Water Affairs (DWA), Ministry of Water of Lesotho www.water.org.ls/dwa/;
- Feedback from Department of Water Affairs, Groundwater Division, Ministry of Water of Lesotho received on 16-09-20;
- IGRAC, 2013. Groundwater Monitoring in the SADC Region, 2013. Overview prepared for Stockholm World Water Week https://www.un-igrac.org/sites/default/files/resources/files/Report_Groundwater%20Monitoring%20in%20SADC%20region. pdf; and
- SADC country visits 2017.

