



THE INTRODUCTION OF GROUNDWATER REGULATION IN ZAMBIA

LUSAKA, March 2018: The Minister of Water Development, Sanitation and Environmental Protection has launched Statutory Instruments regulation of groundwater and licensing of drillers for Water Resources Management.

In view of the restructuring programme that was conducted in the Water Sector in Zambia, a new institution called the Water Resources Management Authority (WARMA) was established. WARMA was established by an Act of Parliament, the Water Resources Management (WRM) Act No. 21 of 2011 as an institution mandated with the management of the Nation's water resources both surface and groundwater.

A brief genesis of the WRM Act No.21 of 2011 is that in 1948 the Legislative Council of Northern Rhodesia passed the Water Ordinance which eventually came into force in 1949. After independence the Water Ordinance was revised and transformed into an Act of Parliament known as the Water Act Cap. 198 of the Laws of Zambia. The Water Act was revised 10 times not until it was repealed, upon the enactment of WRM Act No. 21 of 2011. Among the principal reasons that resulted into the repealing of the Water Act was that it never took into account aspects of:

- (a) Change in land tenure in Zambia in that even though freehold tenure was abolished the Water Act still recognised "private Water"
- (b) Decentralisation Policy and its tenets of effective decision making at local level;
- (c) Water shortage areas, climate change and adaptive measures and strategies;
- (d) Modern trends in disputes resolution
- (e) Construction of dams and managing risks associated with such construction.
- (f) Groundwater regulation

(g) Stakeholders' participation in Water Resources Management

Another important shortcoming with the Water Act was that it did not recognise the need to regulate all water resources in Zambia without exclusions. This led to the non-regulation of Groundwater.

Conceptual models for Zambian principal water uses that needs regulations

However with the coming in of the WRM Act No.21 of 2011, groundwater and protection of its aligned water resources such as headwaters (river sources) and groundwater recharged areas were brought on board through an extensive stakeholders' engagement concluded under the Water Resources Action Programme (WRAP) than ran from 2000 to around 2005.

It is in this regard that, the Ministry of Water Development Sanitation and Environmental Protection (MWDSEP) triggered the processes of formulating specific regulations that were aimed at regulating groundwater and the aligned resources. In addition the Ministry saw the need of revising the charges and fees for raw water users so that it is in conformity with the new developments.

Therefore on 9th March 2018, the Minister in charge of MWDSEP, Dr D.M. Wanchinga launched three Statutory Instruments (SIs) namely; SI No. 18 Fees and Charges Regulations, SI No. 19 Licencing of Drillers and Other Constructors and SI No. 20 Groundwater and Boreholes Regulations.

In a nutshell the newly introduced SIs bring in inclusiveness in the management of Water resources by not only trying to safeguard surface water but groundwater as well by banning the drilling of boreholes without authority. It entails submission of applications prior to drilling as well as registration of all existing boreholes and should the water be utilised for non-domestic purposes the usage will attract fees. The SIs further provide prescribed for specifications for a standard borehole design and distances for siting boreholes from potential sources of pollution such as pit latrines soakaways, garage, fuel tanks, cemeteries etc. Prescribed distances are also listed for minimum distances between boreholes with respect water quantity as dictated by the hydrogeological conditions.

In here the benefits include the fact that clients will be protected from sub-standard jobs and services from unknown contractors and personel; this has been a common outcry from the general public to WARMA. Further, boreholes will be standardised, drilled and constructed according to best practices for a good value to the client. Enough information will also be collected and borehole owners consulted before further drilling can take place to assess impacts in the area.

The regulations for groundwater and boreholes do not only end at the aspects of boreholes but are also aimed to regulate groundwater de-watering that is normally associated with mining operations. This implies that mining firms need to obtain licences for conducting dewatering. Borehole drillers and constructors involved in borehole works are also subjected to the regulation. Safeguarding of Headwater (River sources) and Groundwater recharge areas are

also among aspects that come along with the introduction of the SIs an issue that stakeholders have stressed from time to time in order to keep the rivers flowing.

The SIs and regulations therefore offers an opportunity for Zambia to join our counterparts in the region to conform to International Best Practices in Integrated Water Resources Management.



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About WARMA

The Water Resources Management Authority (WARMA) is an autonomous body established by the Water Resources Management Act, No. 21 of 2011. WARMA exercises control over all water resources in Zambia as envisioned in the Water Resources Management Act. The Act set out provisions to regulate the use of water in Zambia by considering or issuing of water permits with the exception of international shared water bodies.

Zambia's Water resources are important for economic growth and the well-being of society. Drying river flows, drying boreholes and reduced water for power generation are clear signs of how land-use and climate change are impacting water resources and consequently on the livelihoods of citizen lives and the economy as a whole.

Why Water Needs to be Managed?

Water is a resource with high value to the daily lives of millions of people and the Zambian economy. Major business sectors like nutrition, tourism and even the building industry rely on steady water supply. Zambia depends on groundwater: 60-70 percent of all water used in the country comes from this source. Even though the country is richly endowed with a lot of water in the form of rivers, lakes and swamps, its agriculture is mostly rain fed. At the same time, Zambia's electricity sector is heavily reliant on hydropower (over 95%). The country's citizens and industries rely on the valuable resource for daily life and operations.

Access to water is a basic human right which is often threatened when the resource is not properly managed and not available in adequate quantities and/or quality. Water as an economic good contributes to the prosperity of a nation. Water-related conflicts and disputes in Zambia are already apparent due to competing uses, namely domestic, the environment, commercial agriculture, hydropower and mining. Therefore, water has to be managed by a neutral authority to ensure equitable access for all user groups and prevent and mitigate further conflicts.

According to the Seventh National Development Plan (2017-2021) there is a strong correlation between economic growth, industrial growth and water consumption. According to a report by the Indaba Agricultural Policy Research Institute, economy-wide annual losses due to load shedding in Zambia amount to 32.5 ZMW billion (representing 18.8 % of GDP) while losses to the agriculture sector are estimated at 2.83 ZMW billion (representing 1.6 % of GDP).

Paying for water emphasizes the value of the resource and encourages measures to protect future access. Of course, the community right to drinking water and ensuring sufficient flow to maintain the environmental values needs to be sanctified.