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INTERNET ARTICLE

Trans-boundary aquifers engagement tightens commitments to ground water protection

04 August 2014

South Africa, Namibia and Botswana through respective representations by the SA Department of Water and Sanitation (DWS), Department of Water Affairs and Forestry-Namibia and Department of Water Affairs-Botswana, engaged in groundwater and trans-boundary aquifers issues. The three countries have aquifers stretching across their common borders. They have thus formed joint venture in the assessment, protection and rehabilitation of such aquifers.

The trans-boundary aquifers as they are referred to are a resultant of geological formations of soil, sand and rocks. They also serve as storage for groundwater. Groundwater is a mainly under-developed source of potable water which could help ease pressure on the abstraction and usage of surface water.

The discussions took place at the Birchwood Hotel and Conference Centre on the 28 to 31 July 2015, with strong objectives driving them. These were to raise awareness and promote trans-boundary aquifer management co-operation in Southern Africa. The focus was also on two projects named Stampriet Trans-boundary Aquifer System (STAS) and Ramotswa Trans-boundary Aquifer Project (RAMOTSWA).

The STAS stretches from Central Namibia into Western Botswana and South Africa's Northern Cape Province, and lies within the Orange River Basin. It covers a total area of 86 647km², of which 73% is in Namibia, 19% in Botswana, and 8% in South Africa. Recharge in the system occurs in Namibia and the groundwater belt run passes Botswana into Northern Cape



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in South Africa. Groundwater is a main source of potable water in this area but is characterised by many challenges.

These challenges include high water losses due to leaking boreholes and illegal water abstraction. There is also a problem of Prosopis, an invasive plant which has a negative impact on the environment. It uses high volumes of groundwater and also decreases grazing land for farmers. The recommendation is the development and implementation of policies and legislation to guide control measures for Prosopis and other alien invasive species.

RAMOTSWA on the other hand is still a young project. Its objectives are to support a long-term joined vision and co-operation on the shared groundwater resources of the upper Limpopo region. It also aims to reduce poverty and inequality and to increase prosperity, livelihoods and food security in face of climate change and variability; it is also to contribute to the building of trust and transparency related to the use and development of this shared aquifer resource.

RAMOTSWA lies in the Limpopo River Basin and is already water stressed as the Gaborone Dam is almost empty. The groundwater belt recharges from Botswana and stretches to Ngaka Modiri Molema District Municipality in North West, South Africa.

Due to changes in the climate and lack of groundwater management at municipal level, negative trends have been identified. Many boreholes are running dry due to mismanagement. The small rural communities in the aquifer belt depend highly on such groundwater and there are concerns as well. The water contains more nutrients and bacterial pollution as a result of waste water facilities and pit latrines discharge. Groundwater resources, particularly shallow aquifers, are under threat of localized pollution.



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When plans to rehabilitate and manage the aquifers are completed, there will be a number of benefits for the communities in the areas. They will be sure that the water they drink is safe for human consumption. Water will be treated and some may be used to recharge the aquifers again which guarantees the availability of water for a longer term.

People will also be given ownership of all boreholes and wells. They will be empowered to keep their facilities safe and this will create economic sustainability for them. The projects will also create water diplomacy for all the countries involved. This will guarantee that in the event of natural disaster, issues no longer lie with government but become issues for everyone involved and affected. All role players must make a valid contribution in the governance of groundwater.

All delegates and partners who attended the meeting re-anchored their commitment to provision of safe drinking water and protection of the environment. They all agreed to continue with their work of making people's lives better and to empower those who are disadvantaged.

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