

Groundwater management issues in Southern Africa – An IWRM perspective[#]

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Abstract

In contrast to its strategic role as essential resource to help achieve community development and poverty alleviation in the Southern African Development Community (SADC), groundwater has remained a poorly understood and managed resource. This was the finding of a scoping study regarding the status of groundwater resources management in SADC. The key premise for the assessment was that groundwater resource management must take place within an IWRM framework and the IWRM Toolbox developed by the Global Water Partnership was used as the scope and content for the assessment. The SADC region has well-developed policies for regional development and IWRM, as well as a relatively strong focus on groundwater resources. This article questions whether problems relating to Africa's sustainable utilisation and management of groundwater is a unique groundwater problem or must also be related to the challenges experienced in general with the implementation of an IWRM approach in Africa. A key finding was that groundwater management links to groundwater-dependent sectors like agriculture, rural development, health and environment are not well-established in policy or in practice. Internationally, there is a recognition, that such a, quite common, situation can only be addressed through a long-term process through which viable national, regional and local systems can evolve, within a strategic framework in which these intended relationships between diverse sets of interventions or management approaches and the development goals are brought out. However, such a strategic, multi-stakeholder-driven approach also still remains the major challenge in Africa for IWRM implementation as a whole. Recent continent-wide initiatives, like the development of IWRM and water efficiency plans for each country and multi-stakeholder water dialogue processes, have been taken to address this challenge. It is therefore crucial that groundwater becomes an integral part of these and related initiatives. New AMCOW and SADC initiatives for groundwater provide a major opportunity to achieve this.

Keywords: groundwater, community development, sustainable utilisation and management, IWRM

Introduction

The *Africa Regional Document* to the 4th World Water Forum provides a good summary of the water and development situation (World Water Council, 2006). Water is a key factor in Africa's development. Nonetheless, the African continent has to date used only a small proportion (5%) of its available water resources. The African water crisis, often referred to in international forums, is therefore a lot more complex than continental water availability. Key is the large spatial and temporal variability of resource availability, going with the more arid climate prevalent in about 60% of the African continent and the widespread lack of skilled and experienced human resources to manage the irregular availability of water, e.g. through building balancing storage, transferring water between water-rich and water-poor areas and implementing water conservation and demand management.

There is now a growing perception that local groundwater resources will have to play an increasingly strategic role in Africa, in particular for the most vulnerable and most neglected

rural communities (AMCOW, 2008; ECA et al., 2000). Crucial in this regard is that, in sub-Saharan Africa, 300 m. people still have no access to safe water supplies – approximately 80% of these live in rural areas (World Water Council, 2006). The health and socio-economic implications of this situation are enormous in terms of morbidity, mortality and sickness from water and sanitation related diseases. Therefore, significantly increasing the coverage of rural water supply in Africa is fundamental to achieving the Millennium Development Goals (MDGs). The challenge lies not so much in stretching local groundwater resources, but in integrated local development efforts.

In contrast to this strategic role for groundwater, it has remained a poorly understood and managed resource (BGR et al., 2007; FAO, 2003). Pollution of the vital underlying groundwater sources in African cities as well as in many rural communities has reached critical levels (Xu and Usher, 2006). This has become a clear threat to water service delivery and meeting the MDGs on water. The overarching challenge has therefore become the sustainable utilisation of local groundwater resources.

Most African countries have adopted IWRM as their principal approach to water resource management (World Water Council, 2006). This article questions whether problems relating to Africa's sustainable utilisation and management of groundwater resources are unique groundwater problems or should also be related to the challenges experienced in general with the implementation of an IWRM approach in Africa. Findings of a scoping study regarding the state of groundwater resource management in the Southern African Development Community are

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