



TRAINING COURSE ON:

INTEGRATION OF GROUNDWATER MANAGEMENT INTO AFRICAN BASIN ORGANISATIONS

◆ Adaptable to individual African basin organisations

◆ Based on basin organisations request and river basin specific groundwater issues

◆ A successful training organised for ORASECOM (Orange-Senqu River Basin Commission) on 23-27 Sept. 2013 at PDH: Wits University, Johannesburg, South Africa

Groundwater: a strategic resource

Groundwater plays a critical role for water supply in Africa (domestic use, livestock rearing, irrigation and industry). In the context of population growth, food security and climate change, groundwater faces new challenges in Africa:

- groundwater demand is set to increase for irrigation intensification and urbanization
- groundwater dependence is set to increase to ensure drought resilience
- transboundary aquifers and internationally shared groundwater resource, presently being identified and characterised, will be under greater pressure for development

Groundwater: a relevant resource to manage in the basin organisation

Groundwater is part of the natural water cycle. Strong interactions link surface water and groundwater. Groundwater systems (from shallow to deep aquifers) are often essential to river baseflow and aquatic ecosystems such as swamps or marshes. Groundwater management in basin organisations allow to improve integrated water resource management (IWRM) and as consequence, human welfare and sustainable economic development.

Who is the target for the training?

All staff of basin organisations is targeted, from technicians to managers as well as all relevant staff in national or local institutions/organisations working in partnership with the basin organisations.

The training is a technical, but easy-access awareness-raising program for groundwater management. It allows understanding of the resource and identifying the key issues of the management through theory and practical exercises.

Group work

Role play

INTERACTIVE TRAINING

Field trip

Discussion



Block 1: Groundwater overview

- Groundwater, a strategic resource
- Groundwater in IWRM perspective

Block 2: Groundwater understanding

- Aquifer system characterisation
- Water balance approach
- Surface and groundwater interaction

Block 3: Groundwater management in transboundary basin organisations

- Transboundary aquifer mapping in Africa
- Transboundary groundwater management

Block 4: Groundwater and environment

- Groundwater monitoring, quality, pollution and protection
- Water dependent ecosystems

Block 5: Groundwater policy

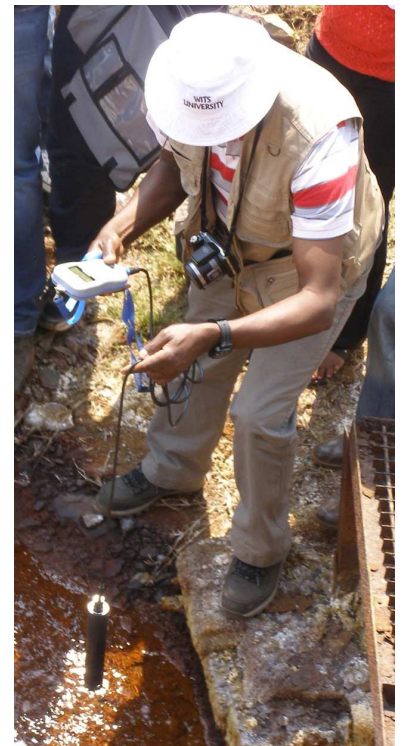
- Groundwater regulations, rights and allocations
- Groundwater institutions

Block 6: Groundwater information

- Managing and sharing groundwater information
- Groundwater communication with stakeholders

Block 7: Groundwater for the future

- Groundwater and food
- Groundwater and climate change
- Special topics, i.e hydraulic fracturing



Field trip on water quality
(acid mine decant)



Africa Groundwater Network
Tamiru Alemayehu Abiye
Tel: +27 11 717 6586
Fax: +27 11 7176579
E-mail: tamiru.abiye@wits.ac.za
<http://www.agw-net.org>



IWMI Southern Africa Office (Pretoria)
Karen Villholth
Tel: +27-12-845-9100
Fax: +27-12-804-6397
E-mail: k.villholth@cgiar.org
<http://southernafrica.iwmi.cgiar.org>