



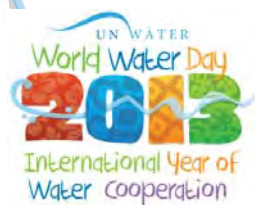
FINAL REPORT

First UNESCO/GEF IW LEARN Groundwater Integration Dialogue

In cooperation with the
NEPAD Southern Africa Water Centres of Excellence

University of the Western Cape
Cape Town, South Africa

7-9 May 2013



WELCOME FROM THE ORGANIZERS



“2013 is the International Year of Water Cooperation. The delegates participating in this meeting are living proof of water cooperation: different groups of water practitioners and experts coming together to exchange knowledge and best practices to advance the conjunctive management of surface and groundwater resources in the African region. On behalf of the UNESCO Division of Water Sciences and the International Hydrological Programme, I wish you every success and I look forward to echoing the results of your discussions.”

Ms Blanca Jiménez-Cisneros, Director UNESCO Division Water Sciences



“On behalf of the Faculty of Natural Sciences at the University of Western Cape I would like to welcome all the delegates to the NEPAD SANWATCE Workshop on Water Governance which is critically important to ensure equitable access to water for all our citizens. I hope that you enjoy your visit to our campus and that you will continue to engage with UWC’s water research team when you return to your home bases.”

Professor Michael Davies-Coleman, Dean of Natural Sciences, University of Western Cape

RATIONALE FOR JOINT MEETING

Representatives of the GEF International Waters portfolio of freshwater projects as well as River Basin Organizations in the African region met in Cape Town to discuss best practices and ways forward for the conjunctive management of surface water and groundwater resources. This was a wonderful opportunity to join forces and strengthen synergies with the NEPAD South African Network of Water Centers of Excellence, in order to explore ways and means to further enhance capacity development towards water security at all levels, in particular at national, local and regional levels. The spirit of the International Year of Water Cooperation finds its concrete realization when different communities come together to formulate sustainable solutions to common challenges and share new ideas and perspectives.



INTERNATIONAL YEAR OF WATER COOPERATION

In December 2010 the United Nations General Assembly declared 2013 the International Year of Water Cooperation (Resolution A/RES/65/154). In reflection of this declaration, the World Water Day on 22 March 2013 was also dedicated to water cooperation. UN-Water called upon UNESCO to lead the preparations of this International Year, in view of the Organization’s unique multidisciplinary approach to water resources management which blends the natural and social sciences, education, culture and communication. Given the intrinsic nature of water as a transversal and universal element, the International Year of Water Cooperation naturally embraces and touches upon all these aspects.



The objective of the International Year of Water Cooperation is to raise awareness, both on the potential for increased cooperation, and on the challenges facing water management in light of the increase in demand for water access, allocation and services. The Year will highlight the history of successful water cooperation initiatives, as well as identify burning issues on water education, water diplomacy, transboundary water management, financing cooperation, national/international legal frameworks, and the linkages with the Millennium Development Goals. www.watercooperation2013.org.

BACKGROUND INFORMATION

Highlights on UNESCO's work on freshwater resources

The International Hydrological Programme (IHP) is the only intergovernmental scientific programme of the United Nations system devoted to hydrology, water resources management, and water education. The IHP Secretariat serves UNESCO's 190 Member States, through the IHP National Committees, other governmental bodies, and academic and research institutions in the implementation of the programme. The UNESCO Water Family comprises the UNESCO-IHE Institute for Water Education; the World Water Assessment Programme (WWAP); a network of 18 water-related Institutes and Centres; and 29 Water-related Chairs and UNITWIN Networks.



Responding to the urgent need for Africa to adopt open software to make ICT accessible to all and support development and help to build a sustainable future, UNESCO launched, in 2012, the Hydro Open-source software Platform of Experts (HOPE) initiative. The UNESCO's HOPE features four core resources: People, Tools, Procedures and Management.



www.hope-initiative.net

Since its inception, IHP has paid due attention to studies on groundwater resources and aquifer characteristics, enhancing the role that aquifers play in supporting human activities and ecosystems. In order to conduct a global inventory of transboundary aquifers and to elaborate recommendations for the sustainable management of these systems, UNESCO launched the multidisciplinary International Shared Aquifer Resources Management (ISARM) programme. ISARM has identified more than 440 transboundary aquifers. These systems exist in each continent, are shared by two or more countries and contain significant quantities of groundwater.



The UNESCO/WMO International Groundwater Resource Assessment Centre (IGRAC) facilitates and promotes international sharing of information and knowledge on sustainable development, management monitoring and governance of groundwater resources worldwide.



The World-wide Hydrogeological Mapping and Assessment Programme (WHYMAP) compiles data on groundwater from national, regional and global sources, and visualizes them in maps, web map applications and services.



BACKGROUND INFORMATION

Global Environment Facility (GEF)

The Global Environment Facility (GEF) is a financial mechanism uniting 182 member governments – in partnership with international institutions, nongovernmental organizations, the civil society and the private sector - to address global environmental issues. Born in 1991, today the GEF is the largest public funder of projects to improve the global environment. An independently operating financial organization, the GEF provides grants for projects related to different focal areas: biodiversity, climate change, international waters, land degradation, and persistent organic pollutants.



www.thegef.org

IW LEARN Project

IW LEARN stands for the "International Waters Learning Exchange And Resource Network" Project of the Global Environment Facility. It is a unique initiative in the GEF portfolio and its current phase (2011-2014) places a strong focus on groundwater protection and management. Its goal is to Strengthen Transboundary Waters Management by facilitating information sharing and knowledge management amongst GEF IW projects and partners.



www.iwlearn.net

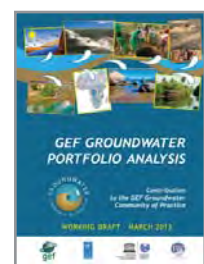
By pursuing these objectives, IW LEARN has entrusted UNESCO-IHP and IUCN to establish and facilitate respectively two Global Communities of Practices on Groundwater (www.groundwatercop.iwlearn.net) and Surface Water (www.freshwater.community.iwlearn.net).

These Communities are formed by water practitioners, GEF IW project managers and representatives of relevant Ministries. The CoPs aim to accelerate learning from and within the GEF IW portfolio, and promote replication of good practices in transboundary freshwater management. The CoPs act as a catalytic coalition among GEF IW projects and are designed to build on existing knowledge from inside and outside the GEF portfolio. Many cross linkages for sharing discussion items between the two communities are being created to facilitate interactive discussions beyond silo attitudes.



Within the Groundwater Community of Practice, in addition to the online facilitated exchanges, three main activities are currently being organized:

Analysis of the GEF Groundwater Portfolio: A tool to present and review the portfolio of groundwater projects (co-)financed by the GEF in light of disseminating outstanding results, lessons learned and replicable practices. The report is a living document that will continue to be enriched with comments, additions and revisions from participants of the Groundwater Community of Practice until end of 2013 when it will be published as UNESCO/GEF publication.



Groundwater Integration Dialogues: Face-to-face meetings in different regions of the world organized by UNESCO-IHP to bring together surface and groundwater GEF IW projects to exchange among each other as well as with local scientific communities in order to identify best practices and promote cooperative approaches and conjunctive management of surface and groundwater resources within a transboundary setting.

Groundwater Talks: A series of videos and interviews from events across the world looking at groundwater issues. Groundwater Talks takes you on an "underground" journey to explore what people say and think about groundwater, their experiences and perceptions, what they would like to learn or share.



BACKGROUND INFORMATION

The UNESCO Chair in Hydrogeology

The **UNESCO Chair in Hydrogeology** was established in 2001 at UWC following the introduction of the National Water Act of 1998 by the National Department of Water Affairs and Forestry (DWAF). As the chair mainly focuses on groundwater related education, research and outreach, the Centre strives to contribute towards sustainable utilization of groundwater resources in South Africa, Africa and the developing world.

The Chair aims to assist with implementation of national and regional water policies through the capacity building of the groundwater industry. The Chair is strategically positioned to provide advice to the AMCOW via Africa Groundwater Commission.

NEPAD Water COE

<http://nepadwatercoe.org/centres-of-excellence/>



The **network of NEPAD Water Centres of Excellence (NEPAD Water CoE)** is a network of Higher Education and Research institutions that conduct high-end scientific research on water and related sectors, in order to provide policy guidelines to governments.

The specific goals are to:

- o Improve conservation and utilization of the continent's water resources;
- o Improve the quality and the quantity of water available to rural and urban households;
- o Strengthen national and regional capacities for water resources management and reduce impacts of water related disasters; and
- o Enlarge the range of technologies for water supply and improve access to affordable quality water.

The objectives of the NEPAD Water Initiative

- **Research:** the work undertaken is focused on the creation and development of new knowledge and technology.
- **Education and training:** Human resources must be, at least, developed through Masters and Doctoral degree programmes, post-doctoral support, internship programmes, support for students to study abroad and joint ventures in student training (between higher education institutions involved with the NEPAD Water CoE Consortium or otherwise).
- **Networking:** The NEPAD Water CoE Consortium must actively collaborate with locally and internationally based individuals, groups and institutions that are reputable and knowledgeable in the Research Field. Equally the NEPAD Water CoE Consortium must negotiate and help realise national, regional, continental and international partnerships.
- **Information Brokerage:** The knowledge held by the NEPAD Water CoE Consortium of the Research Field should be made accessible by promoting knowledge sharing and knowledge transfer activities.
- **Service Rendering:** The NEPAD Water CoE Consortium provides information, analysis, policy and other services, including informed and reliable advice, to government, business, and civil society.

Activities

Activities of the NEPAD SANWATCE network is currently funded through 4 major funding-sources). These projects include the African Union (AU); European Union Joint Research Centre (EU JRC); the Bill and Melinda Gates Foundation and the South African Department of Science and Technology. Activities include the following and are undertaken by the secretariat and/or by the different network nodes.

BACKGROUND INFORMATION

THE INSTITUTIONS

The universities and research institutions that have already been awarded the status of Centre of Excellence in Water Research all have proven experience in the areas of training, scientific research, consultation and policy formation. It is expected that the network will be expanded to include other relevant institutions in the region.

The University of Stellenbosch Water Institute

The strength of water research at Stellenbosch University (SU) lies in the interdisciplinary nature of the research, the substantial research income the University has already received from the water industry and a good track record with regard to published results, reports, innovation and technology transfer. SU also has an established network of nationally and internationally acclaimed researchers.



UNIVERSITE
STELLENBOSCH
UNIVERSIT

University of the Western Cape

The Institute for Water Studies (IWS) at the University of the Western Cape (UWC) was formed in 2009 with the goal of promoting research, postgraduate training, and outreach on water-related issues through the collaborative efforts of UWC staff and students. The Institute for Water Studies aims to increase the understanding of linkages between surface water, groundwater, and ecosystems, and how water users are affected and affect these linkages.



UNIVERSITY of the
WESTERN CAPE

University of Botswana

The Mission of the University of Botswana is to improve economic and social conditions for the Nation while advancing itself as a distinctively African university with a regional and international outlook.



UNIVERSITY OF BOTSWANA

University of Malawi

To advance knowledge, promote wisdom and understanding and provide services by engaging in teaching and research and by facilitating the dissemination, promotion, and preservation of learning responsive to the needs of Malawi and the world.



University of KwaZulu-Natal UKZN

Under the NEPAD Network of CoE's, the UKZN provides a range of postgraduate capacity building opportunities linked to core strengths in Water Quality and Sanitation, Water Resources Management and Hydrology and Water related Governance.



UNIVERSITY OF
KWAZULU-NATAL

University of Zambia

Research in water development, exploitation, utilisation and management constitutes one of the most important contributions the University of Zambia is making towards the advancement of knowledge, and provision of a repertoire of evidence-based information in facilitating the country's development.



Council for Scientific Industrial Research

The WATER THEME is one of seven major priorities in CSIR's Natural Resources and the Environment Unit. It shares the CSIR's vision "to conduct world-class, directed, inter-disciplinary research and technological innovation, with partners and stakeholders, in the field(s) of natural resources and the environment to contribute to the social, economic and environmental improvement of South Africa and Africa". http://www.csir.co.za/publications/August_ScienceScope.html



University of Eduardo Mondlane/IWEGA

The International Center for Water Economics and Governance in Africa (IWEGA) was established in May 2009 at the University Eduardo Mondlane in Maputo in Mozambique. Its mission is to enhance the capacity of African researchers to conduct water economics and governance inquiry of relevance to African problems and increase the awareness of environmental and economic managers and policy makers about the role of water economics and governance for sustainable development.



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- 08:30-09:00 Registration
- 09:00-09:45 Introductions and Welcome
Chair: *Eberhard Braune*, UWC
- *Ramesh Bharuthram*, Vice Rector of UWC
 - *Lucilla Minelli*, UNESCO-IHP
 - *Yongxin Xu*, UNESCO Chair in Groundwater
- 09:45-10:15 Group Photo and Tea Break
- 10:15-12:00 ERJ Project Introduction & Results to Date: Country Profile Presentation
- *Dominique Mannel*, SU
 - *Eberhard Braune*, UWC
 - *Jacqueline Goldin*, UWC
- 12:00-12:30 Media in the Water Sector: Society and Science
- 12:30-13:30 Lunch Break
- 13:30-14:00 Knowledge sharing: global and local perspectives
Chair: *Jacqueline Goldin*, UWC
- *Rashid Khan*, Department of Water Affairs Western Cape
 - *Christine Colvin*, WWF
 - *Lincoln Raitt*, UWC
 - *Dominic Mazvimavi*, UWC
 - *Mish Hamid*, GEF IWLEARN
- Q&A with participants
- 15:00-15:30 Tea Break
- 15:30-16:30 Knowledge sharing tools
Chair: *Jacqueline Goldin*, UWC
- UNESCO HOPE INITIATIVE - *Youssef Filali-Meknassi*, UNESCO Windhoek
 - AquaKnow - *Dominique Mannel*, SU
 - EUWI Water Project Toolkit (WPT) - *Keith Kennedy*, CSIR
- 16:30-17:30 Application of WPT Concepts within a Local Setting. Practical Exercise by groups
- 19:00-21:30 Dinner at the “Quai Four Waterfront” in Cape Town

PROGRAMME

IDENTIFY AND FILL THE GAPS

Wednesday

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- 09:00-09:30 Feedback from Rapporteurs on Day 1
- 09:30-11:00 Filling the gaps: Identify priorities for research
Chair: *Eberhard Braune*, UWC
Break away group sessions
- 11:00-11:30 Tea Break
- 11:30-12:30 Addressing Priorities and Gaps
- 12:30-13:30 Lunch Break
- 13:30-14:00 Field Trip Brief
- 14:00-17:30 Field Trip at the UWC Campus Groundwater Test Site
- Original vision for the Cape Flats Aquifer - *Eberhard Braune*, UWC
 - Present situation and plans - *Rodney Bishop*, City of Cape Town
 - Need for pro-active protection (zoning) - *Yongxin Xu*, UWC
 - Monitoring as basis for protection - *Thokozani Khanyere*, UWC
 - Groundwater protection success stories - *Anthony Turton*, Water Stewardship Council of Southern Africa
- 17:00-19:30 Braai/Barbecue
- UWC: Where we come from - *Prof Renfrew Christie*, Dean of Research UWC

JOINT PROGRAMME

PROGRAMME

ACTION PLAN

Thursday

9

- 08:30-09:00 Tea and arrangements for people departing
- 09:00-09:30 Summary of Site Issues
Chairs: *Jacqueline Goldin* and *Eberhard Braune*, UWC
- 09:30-11:00 Working Groups - Site Solution Suggestions; Links to WPT
- 11:00-11:30 Tea Break
- 11:00-12:00 Site Solutions - Summary
- 12:00-12:30 Workshop Evaluation
- 12:30-13:30 Lunch Break
- 13:30-15:00 Workshop Summary: Actions, Resources, Champions
- 15:00-15:30 Tea and departures

SANWATCE

Desired Outcomes

1. Contribute to enriching the analysis of the GEF Groundwater Portfolio
2. Review of groundwater management within river basin commissions
3. Discuss options for capacity building on conjunctive surface and groundwater management
4. Generate list of recommendations for making GEF IW projects more sustainable after project closure
5. Discuss appropriate knowledge management strategies and review existing tools including participation of members in the Global Surface Water and Groundwater Communities of Practice

Agenda

- 08:30-09:00 Welcome and meeting objectives (*Lucilla Minelli*, UNESCO-IHP)
- 09:00-10:30 Overview of Projects and RBOs involved in GEF IW Surface/Groundwater Dialogues. Twinning and tour de table exercise (moderated by *Lucilla Minelli*, UNESCO-IHP and *Kirstin Conti*, IGRAC)
Description: Participants will be assigned in pairs (one groundwater person + one surface water/RBO person) with the objective of explaining to one another the main achievements/challenges in their respective GEF IW projects. The exercise will be facilitated with prepared material by the organizers. After this exercise, each participant will make a very short presentation (5 minutes) on his/her partner's project.
- 10:30-10:45 Tea Break
- 10:45-11:30 Presentation of Thematic Discussions by three key note speakers
- Keynotes:
1. Review of groundwater management within river basin commissions - *Eberhard Braune*, UWC
 2. Capacity building initiatives to promote conjunctive SW and GW management and supporting knowledge management strategies - *Nicole Lefore*, IWMI and *Kirstin Conti*, IGRAC
 3. Sustainability of results and best practices after projects closure - *Eliot Taylor*, IUCN

- 11:30-12:30 1st Thematic discussion on Review of groundwater management within river basin commissions
Facilitator: *Shafick Adams*, Water Research Commission
- 12:30-13:30 Lunch Break
- 13:30-14:30 2nd Thematic discussion on Capacity building initiatives to promote conjunctive SW and GW management and supporting knowledge management strategies
Facilitators: *Youssef Filiali-Meknassi*, UNESCO Windhoek and *Yasmina Rais El Fenni*, CAP-NET
- 14:30-15:30 3rd Thematic discussion on Sustainability of results and best practices after projects closure
Facilitator: *Anthony Turton*, Water Stewardship Council of Southern Africa
- 15:30-15:45 Tea Break
- 15:45-16:45 Way forward to consolidate messages from the group directed (i) to the GEF providing recommendations on how to better design basin and aquifer projects so as to facilitate conjunctive management, and calling for dedicated projects to this end; (ii) to the Groundwater Governance project, which is in the process of identifying a shared global vision where conjunctive management is one of the central features (iii) to inform the analysis of the GEF Groundwater Portfolio and encourage the participation in the Groundwater Community of Practice.
A series of 3/4 recommendations will be agreed upon.
Facilitators: *Mish Hamid*, IWLEARN and *Lucilla Minelli*, UNESCO-IHP
- 16:45-17:25 Filming of short collective movie using final recommendations
- 17:25-17:30 Closing remarks

Rapporteurs:

Youssef Filiali-Meknassi, UNESCO Windhoek

Kirstin Conti, IGRAC

Lucilla Minelli, UNESCO-IHP

The **objectives** of the joint meeting organized by UNESCO-IHP under the framework of the GEF IW LEARN Project in cooperation with the SANWATCE network were to:

- Promote conjunctive surface and groundwater management;
- Analyze lessons learned from the GEF IW portfolio in the African region;
- Review the role of groundwater in River Basin Commissions;
- Explore ways and means of further enhancing capacity building to move towards greater water security at all levels;
- Build awareness through available resources and tools that could help filling the gaps and developing solutions to water challenges.

The joint meeting gathered together around 50 experts and GEF IW Project Managers from the Africa region.



On the first day of the meeting, the IW LEARN participants contributed actively to the sessions of the joint “*Learn and Share*” programme with the NEPAD SANWATCE.



An initial round of **welcome remarks** from the co-organizers introduced the objectives of the meeting. Mr Ramesh Bharuthram, Vice Rector of the UWC, highlighted both the mandate of the University regarding water resources and the role played by the Department of Earth Sciences in the shared coordination of the NEPAD SANWATCE Network.

Ms Lucilla Minelli from the UNESCO International Hydrological Programme (IHP) welcomed the participants on behalf of the Director of the Division of Water Sciences and Secretary of UNESCO-IHP. She reminded the participants that **2013 was the International Year of Water Cooperation** and that, due to its nature and scope, the SANWATCE/UNESCO meeting had been inscribed as one of the contributing events of the Year. She also highlighted the work of UNESCO in groundwater resources management and protection as well as its cooperation with the Global Environment Facility in the execution of the groundwater components of the IW LEARN Project.



UNESCO/GEF IW LEARN and NEPAD SANWATCE group picture



REPORT 1ST UNESCO/GEF GROUNDWATER INTEGRATION DIALOGUE

In the morning, presentations from Dominique Mannel, Eberhard Braune and Jacqueline Goldin introduced the **scope of the ERJ Project** and the results to date, drawing from both the previous experiences and workshops held in neighbouring countries. A lively discussion followed that clarified aspects of the projects and their objectives.

A dedicated session on the **involvement of the media in the water sector** was introduced by the facilitator with the aim of reviewing successful cases of media engagement. Other examples of effective media involvement, which would allow water experts to explore more effective ways to communicate and involve representatives of the media, were also proposed.

The afternoon session was dedicated to **“knowledge sharing: global and local perspectives.”** This included a series of inspiring presentations from the University of the Western Cape, the World Wildlife Fund (WWF) and IW LEARN. Ms Christine Colvin from WWF discussed a range of WWF initiatives relevant to the South African context, in particular highlighting the integration of resource mapping techniques and risk management for sensitive ecosystems. Mr Mish Hamid introduced the GEF IW LEARN Project and the activities foreseen for the IW portfolio, including the Global Groundwater Community of Practice and the series of Groundwater Integration Dialogues currently being organized by UNESCO-IHP.



Yongxin Xu, UWC
Ibraheem Olomoda, NBA
Abdel Kader Dodo, OSS



Youssef Filali-Meknassi
UNESCO Windhoek

for sharing knowledge and gathering scientific and technical information (www.aquaknow.net). Mr. Youssef Filali-Meknassi from UNESCO presented the **Hydro Open-source software Platform of Experts (HOPE) initiative** (www.hope-initiative.net). Taking into account Africa and gender equality issues, the overall objective of the HOPE initiative is to develop and reinforce high-quality education capacities in water management through innovative use of ICTs. Finally, Mr Keith Kennedy from CSIR provided an overview of the European Water Initiative (EUWI) Toolkit.



The morning of the second day was dedicated to brainstorming sessions aimed at **“identifying and filling the gaps”**, in particular highlighting priority areas for research. Participants were divided in sub-groups to discuss the following themes: Agriculture, Food and Water; Water Resources Management; Rural Water Supply and Sanitation; and Municipal Water and

Brainstorming session



REPORT 1ST UNESCO/GEF GROUNDWATER INTEGRATION DIALOGUE

Sanitation Services. The IW LEARN group held a separate discussion on project sustainability and capacity building needs. The group shared their project experiences and highlighted relevant aspects, such as the **importance of cross-sectoral and interdisciplinary communication, the critical need for public participation**, policy implementation gaps, the need for capacity building at all levels, and cross-cutting technical issues such as water quality and allocation.

In the afternoon, a **field trip to the Groundwater Test Site at the UWC Campus** was organized by the host venue. A series of presentations from Eberhard Braune, Rodney Bishop, Thokhozani Khanyere and Antony Turton illustrated the **case study of the Cape Flats Aquifer**. This was followed by a discussion on the utilization of water resources, in particular the use of groundwater in South Africa. In addition, the UWC staff highlighted how issues of groundwater monitoring and management are now being integrated into their curriculum.



Left: *Yongxin Xu, UWC*
Bottom: *Thokhozani Khanyere, UWC*



Ngoanamathe Nthathakane, ORASECOM (1)
Seid Abdulkerim, NBIS (2)
Ncamiso Mhlanga, UNDP (3)



The day concluded with a **social event, a braai** (meaning “to grill” in Afrikaans) organized on the campus grounds. The group was joined by UWC’s Dean of Research, Prof Renfrew Christie. Professor Christie talked about the origins of the University of Western Cape, the role of the campus during the apartheid regime and the evolution of the different departments. He spoke in particular about his vision for the Research Division.

Renfrew Christie, UWC



Bottom & Right The braai



Thursday
9

On the third day of the meeting both groups, the SANWATCE and the IW LEARN, held parallel sessions to address their respective project objectives in more depth.

The IW LEARN Groundwater Integration Dialogue opened with a brief introduction from UNESCO-IHP to explain the objectives of the meeting and the themes that had been selected for the interaction between GEF IW groundwater projects, River Basin Commissions and the surface water projects. A “Twinning” exercise and tour de table opened the floor to enable a **deeper insight to the participants and projects involved in the exchange.**

Participants from each group were then asked to pair up and present his/her partner’s project or activity following the selected criteria used by the **Analysis of the GEF Groundwater Portfolio.** The collated information (examples seen below) will be used to enrich the final Analysis.

Organization Profile (IWM)
Ms. Nicole Lefore, Senior Manager Freshwater Programmes - South Africa
Shafick Adams, WRC

1. What is your organization's main area(s) of specialization (groundwater, surface water, both)? How does (it) your organization address issues of conjunctive management of surface water and groundwater resources?
 ① SW & SW - Food production - water services
 ② awareness drive on GW use in urban areas / supply
 ③ Commission all research

2. What is your organization's vision?
 ② specific to SW/SW conjunctive - trying to incorp. 2-3 scale integration project - Kruger N.P. Ebeintfontein
 inform decision making thru Sci p tech - provide innov solutions thru R+D African footprint - so going beyond S.A. (gradually)

3. How (if) your organization is contributing to the GEF IW portfolio?
 participate in some fora - CB, needs assessment @ Country level open access portal for KP indirect contribution to building skill sets

4. How does (it) your organization facilitate multi-country cooperation?
 multi-country research - Makes of visits globally MS platforms.

GEF IW Learn Integration Dialogue - Cape Town, 7-8 May 2013

PROJECT PROFILE
Development and adoption of a strategic Action Program for Balancing Water Uses and Sustainable Natural Resource Management in the Orange-Senqu River Transboundary Basin
Mr. Nthathakane Ngwenamatho

Please, take one minute each to share the purpose and major outcomes of your project with your partner.

1. What project outcomes or experiences could have relevance to the global community and to the region, including potential for replication? Give one or two examples.
 A - Four Countries (SA - LSO - NBA - BTS) agreed to form River Basin Commission to use the river sustainably for the benefits of all the member states (in respect of B - the recognition of depletion of land affected water resource and land.
 C - The Pollution has been well identified in the Basin
 D - Land use patterns are not sustainable
 E - The Climate change

2. Was there any particular type of or approach to multi-country cooperation? If yes, how did the project facilitate it?
 It was facilitated by regular practical of shared water courses (SADE) four Countries (Mauritius) so saw the need to form joint management of the Orange river

3. How did the project address issues of conjunctive management of surface water and groundwater resources? If not, why? Any particular obstacle?
 This project addresses all the uses of water from Groundwater, surface water - Marginal water
 The studies has been done for conjunctive use of all the water resources.
 - of particular is Maloponnesrob groundwater management

GEF IW Learn Integration Dialogue - Cape Town, 7-8 May 2013



Nicole Lefore, IWMI
Shafick Adams, WRC



Eliot Taylor, IUCN
Kirstin Conti, IGRAC



Eberhard Braune, UWC

Three themes were chosen as the basis for discussion for this first Groundwater Integration Dialogue. Each topic was first introduced by a keynote speaker, and then led into a facilitated discussion aimed at gathering feedback and inputs from the participants. The first topic “**Review of groundwater management within river basin commissions**”, introduced by Eberhard Braune from UWC,



Ahmad Wagdy Abdeldayem,
Cairo University
Ncamiso Mhlanga, UNDP



Seid Abdulkerim, NBIS
Youssef Filali-Meknassi,
UNESCO Windhoek



Anthony Turton, SCW of South Africa

highlighted the fact that management decentralization is now becoming a common feature in SADC, but that the unique role of groundwater had not yet been adequately reflected in this new development. Secondly, **institutions** [e.g. River Basin Organizations and Water User Associations] **have not yet been sufficiently equipped** (expertise, tools, equipment) **in terms of their full groundwater responsibility**. He further noted that, as most of the programmes are undertaken on an ad-hoc or crisis response basis, **a lack of macro-planning for groundwater tends to prevail**. He concluded that this was one of the most problematic areas in relation to groundwater development. The relatively low priority accorded to groundwater is reflected in **inadequate and insufficient funding commitments**, in particular for groundwater monitoring, exploration and data gathering. This problem is the underlying cause of most of the other issues.

The discussion that followed on this topic was facilitated by Shafick Adams from WRC of South Africa who set the scene with a series of questions which prompted lively discussion. Some of the main issues revolved around the **role of international legal instruments**; the role of cross-training disciplinarians (surface water and groundwater); **the need for more consistency in information provided by groundwater professionals**.



Shafick Adams, WRC

The main solutions and priorities for action identified were:

- Dissemination of research results (don't let them gather dust);
- Need for funded monitoring to address the issue of groundwater within the context of broader political issues;
- Groundwater needs to be legally integrated into the scope of RBOs;
- Groundwater projects should look at integrating surface water, when appropriate; better knowledge sharing.

The second topic addressed “**Capacity building initiatives to promote conjunctive SW and GW management and supporting knowledge management strategies**”. Two keynote speakers, Kirstin Conti from IGRAC and Nicole Lefore from IWMI, introduced the topic from two different perspectives. Ms Lefore described the key outcomes of a **RBO Needs Assessment** facilitated by the German Geological Survey (BGR) and carried out, in part by IWMI. The Assessment demonstrated a great need for capacity development in groundwater-related issues for international RBOs in Africa.

Ngoanamathe Nthathakane, ORASECOM
Osman Mustafa Ahmed Mohamed
Nubian Sandstone Aquifer System



Ms Conti presented a preview of the upcoming **Course on Groundwater Management for African River Basin Organizations**, a joint effort between BGR, Cap-Net, AGW-Net, GW Mate and IGRAC. This course has been developed as a direct result of the Needs Assessment with the intent of closing the identified gaps in capacity.

The course features five main objectives:

- 1) Build capacity;
- 2) Train participants;
- 3) Use basin-specific case studies;
- 4) Enable effective communication;
- 5) Help establish a community of practice.



Discussion on Capacity Building

The course comprises two components:

- 1) A policy briefing for high-level decision-makers and;
- 2) A week-long training course for professionals.

Yasmina Rais El Fenni from Cap-Net and Youssef Filali-Meknassi from UNESCO facilitated the discussion on this topic by introducing a **classic definition of Capacity Building**:
“Capacity building encompasses the country’s human, scientific, technological, organizational, institutional and resource capabilities. A fundamental goal of capacity building is to enhance the ability to evaluate and address the crucial questions related to policy choices and modes of implementation among development options, based on an understanding of environment potentials and limits and of needs perceived by the people of the country concerned.”



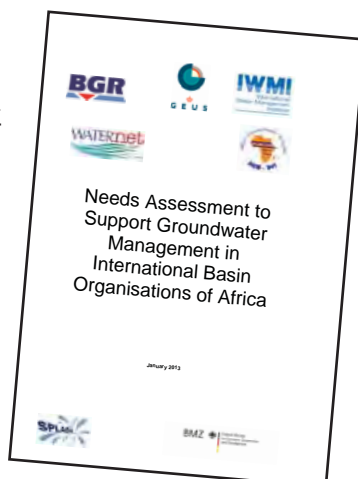
Yasmina Rais El Fennu, Cap-Net
Mish Hamid, GEF IW LEARN

According to the facilitators, Capacity Building is much more than just training and it includes the following:

- **Human resource development**, the process of equipping individuals with the understanding, skills and access to information, knowledge and training that enables them to perform effectively.
- **Organizational development**, the elaboration of management structures, processes and procedures, not only within organizations but also the management of relationships between the different organizations and sectors (public, private and community).
- **Institutional and legal framework development**, making legal and regulatory changes to enable organizations, institutions and agencies at all levels and in all sectors to enhance their capacities.

FURTHER READING

Needs Assessment
to Support
Groundwater
Management in
International Basin
Organisations of
Africa



www.splash-era.net/search_outputs2.php

To initiate the discussions, Ms El Fenni and Mr Filali-Meknassi raised three questions:


1. What kind of capacity is needed to improve GW management?
2. What are the main obstacles to effective capacity building in GW management?
3. How to ensure effective and sustainable capacity?

The discussions covered the need for capacity building and development at different levels, including vocational training in the area of groundwater. Most attendees agreed there should be **two different beneficiary groups**. The first to address specific capacity needs of RBOs (e.g. capacity building on fund raising, proposal writing), and the second, the needs of managers or policy makers (e.g. policy development). All participants agreed that a **“train the trainer” approach was necessary** in order to reduce costs.


The third and final topic selected for this Dialogue and introduced by keynote speaker, Mr Eliot Taylor from IUCN was **“Sustainability of results and best practices following project closure”**. Mr Taylor began by defining “sustainability” and then looked for common ground on how to achieve it. “People and Funds” are central elements in the afore-mentioned analysis and are crucial for planning - based on the motto: **Think beyond the end from before the beginning**. Discussion on this topic was facilitated by Antony Turton from teh SCW of South Africa and brought to light some key issues around the questions:

FURTHER READING

Conjunctive Use and Management of Groundwater and Surface Water



THEMATIC PAPER
prepared by
the Project



www.groundwatergovernance.org/resources/thematic-papers



Key elements:

1. Project design – “Think beyond the end from before the beginning”
 - i. Consult widely
 - ii. Key stakeholders, “champions”
 - iii. Match aims, objectives, activities with those of country/regional institutions
 - iv. Ensure sufficient funding is included
 - v. Ensure objectives are SMART

Thursday May 9th 2013

What are the key metrics of sustainability?

Is the concept of stewardship a useful way to change behaviour?

Who or what can be the change agents?



2. Project implementation – Full involvement of key people (“w n f”)
 - i. Collaborative management
 - ii. Technical input – “twinning”
 - iii. Jointly seek funding, establish mechanism/s
 - iv. Build institutional and individual capacity
 - v. Seek to have tangible results from concrete act – “seeing is believing”
 - vi. Ensure flexibility in planning and delivery
 - vii. Host outputs, data etc on stakeholder websites
 - viii. Use of FOSS
 - ix. Identify and nature “apprentices”



3. At project close-out:
 - i. Report back!
 - ii. Establish “communities of practice”
 - iii. Transition to “local” takeover
 - iv. Continue to seek funding / operate mechanism/s
- 4) Two key issues:
 - i. People
 - ii. Money

The key issues that came out from the discussion regarding project sustainability were the **central role of civil society** (especially women and youth) and the need to **define roles and responsibility over the long-term period**. Participants highlighted the importance of measuring project outcomes at different levels and the ability to communicate those outcomes to people outside the project, such as civil society and potential donors. **Empowerment at all levels** was also highlighted as a means of facilitating **continued ownership and stewardship over water resources after project completion**.

* * * * *

The closing session was aimed at consolidating messages from the participant groups. At the end of the discussion certain recommendations were agreed upon:

1. **Groundwater should not be an “afterthought,”** but rather duly integrated into coordinating mechanisms on freshwater resources, namely river and lake basin organizations and related institutions. Economic valuation of groundwater could be a tool leading to a paradigm (cultural and behavioural) shift, including the demystification of false perceptions or assumptions on the resource.
2. A number of fundamental elements are needed to structure and deliver effective capacity-building activities, such as: **professionalism and high competence; monitoring and evaluation**, specifically related to impacts of such activities; comprehensive **needs assessments** conducted prior to the planning of activities; **innovative approaches to informal education** and the type of expertise being transferred (e.g. fundraising, including practical aspects, like writing proposal forms);
3. **Face-to-face meetings** such as this series of dialogues are crucial for building the necessary relationships that are the foundation of the GEF Communities of Practice.

*First IW LEARN
Groundwater Integration Dialogue
Group picture*



LOGISTICS

- **Venue**

School of Public Health,
University of the Western Cape
Robert Sobukwe Road
Bellville 7535
Republic of South Africa



- **Hotel**

Hotel Protea Fire and Ice
New Church Street, Tamboerskloof
Cape Town, 8018
Tel: +27 (21) 488 2555
<http://www.proteahotels.com/protea-hotel-fire-ice-cape-town.html>

COUNTRY INFORMATION

- **Currency:** ZAR - South African Rand (approx 0.11 U.S. dollars)
- **Local time:** UTC/GMT +2 hours
- **Climate in May:** Winter in South Africa (May to July) is characterised in the higher-lying areas of the interior plateau by dry, sunny, crisp days and cold nights. The climate generally remains warm and dry. Temperatures in daytime may reach as high as 25°C. Moreover, the scenario changes rapidly in the evening. Visitors should bring warm clothes for both mild and cold weather.
- **Voltage:** 220-240 Volts; Primary Socket Type 
- **Country code:** +27, Cape Town (21)

CONTACTS

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