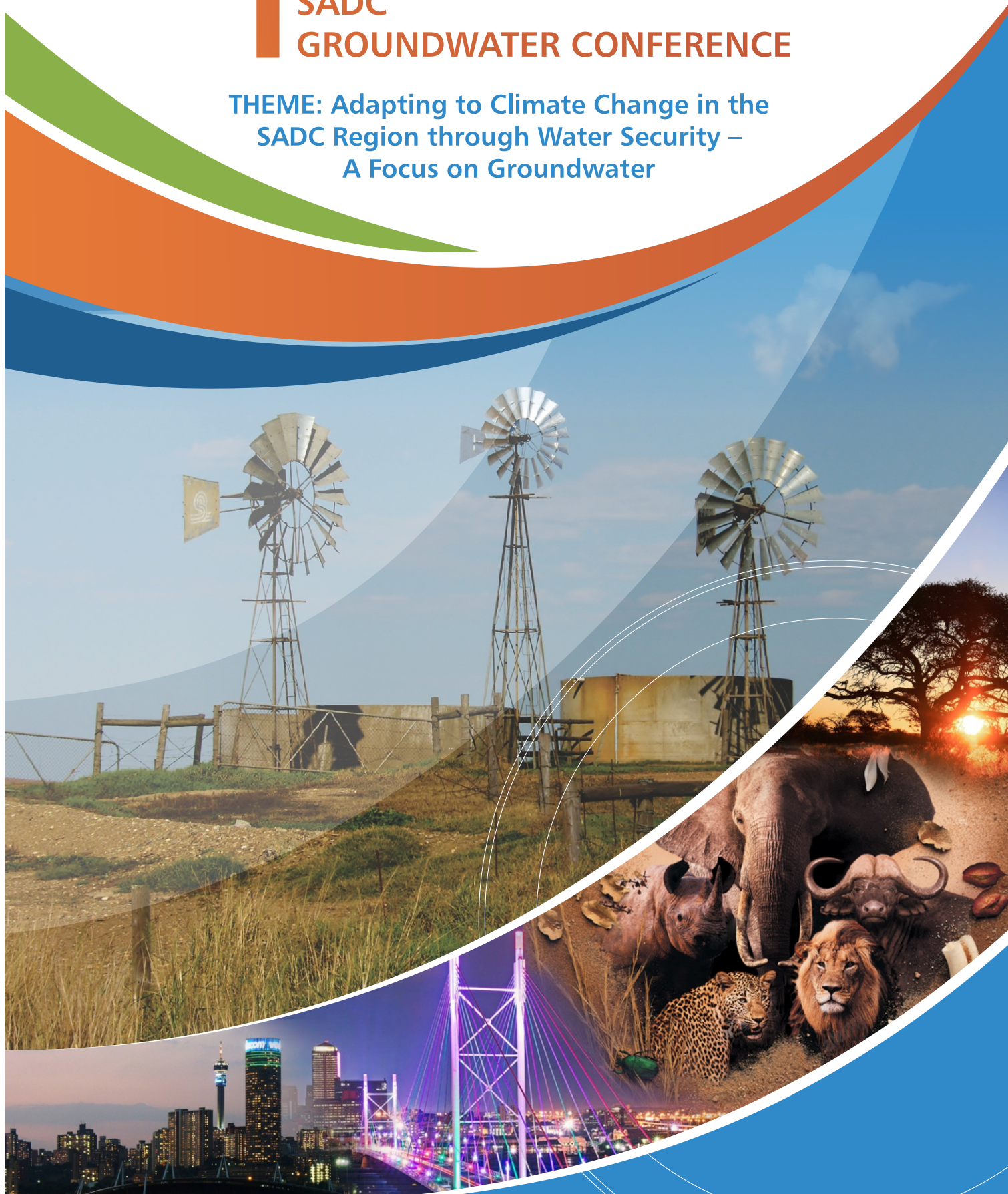


1st SADC GROUNDWATER CONFERENCE



**THEME: Adapting to Climate Change in the
SADC Region through Water Security –
A Focus on Groundwater**



BACKGROUND

The Southern African Development Community- Groundwater Management Institute (SADC-GMI), the International Water Management Institute (IWMI), UNESCO-IHP, the International Groundwater Assessment Resources Centre (IGRAC) and Global Water Partnership- Southern Africa (GWP-SA) are proud to announce their 1st Annual Groundwater Conference to be held under the theme **“Adapting to Climate Change in the SADC Region through Water Security – A Focus on Groundwater”**. The conference will be hosted at Birchwood Hotel & OR Tambo Conference Centre in Johannesburg, South Africa, during 26–28 September 2018.

The conference is in response to the very high dependence of human populations and ecosystems on groundwater in the region. It is estimated that over 70% of the 250 million people living in the SADC region rely on groundwater as their primary source of water. Groundwater resources face a number of risks including pollution, depletion from increased abstractions due to rapidly growing water demand, and the impacts of climate change. Groundwater resources also present a number of opportunities, as they comprise a means to cope with rainfall variability, alleviate growing water scarcity in

the region, and help to drought-insulate and purify community water supplies. With the resource at risk, millions of people and national economies become fragile to even smaller but potentially accumulating changes in the resource availability. Still, groundwater and informed conjunctive use of surface and groundwater do not feature prominently in water discourses and national or transboundary policies and water plans. Proactive groundwater management systems and accounting for climate change in groundwater resources planning coupled with early warning mechanisms to detect groundwater mining and contamination scenarios are required to secure the long term sustainable use and dependence on the resource and to optimally harness the potential of the resource. It is therefore imperative that conjunctive use of surface and groundwater is understood and advocated for, especially in transboundary aquifers (TBAs) of the SADC region where significant human development is happening presently. The role of groundwater in the water, energy and food (WEF) nexus and the link to sanitation and other pollution sources are also immense and need to be further explored. Knowledge and capacity development at all levels are required to enhance the attention to and proper development and management of groundwater.



The groundwater conference will be held annually, with the primary objective of providing a platform for the advancement of knowledge sharing on sustainable management of groundwater at national and transboundary levels across SADC Members States.

SUB-THEMES

The conference is structured into two subthemes indicated below.

1. Promoting Climate Change Resilience through Transboundary Aquifer Management and Conjunctive Surface and Groundwater Management in the SADC region

Groundwater and informed conjunctive use of surface and groundwater does not feature prominently in water discourses and national or transboundary policies and water plans. Institutionally, groundwater is often fragmented across different sectors, leading to inadequate monitoring of compliance with standards and abstraction, a lack of integrated management and an absence of conjunctive management of surface and groundwater.

At the transboundary level, there is a need to strengthen the integration of groundwater in shared watercourse commissions and agreements, addressing gaps in knowledge or mechanisms of cooperation, as well as

promoting standards for groundwater data collection and sharing for TBAs. There is also a realisation that the current debate on the WEF nexus appears to underestimate the contribution of groundwater in the experienced benefits and trade-offs, especially within transboundary watercourses. The SADC-GMI advocates for Member States and associated river basin organisation (RBOs) to explore joint development and management issues through Transboundary Diagnostic Analyses (TDAs) and Strategic Action Plans (SAPs). In order to unlock the potential for groundwater contribution to mitigating the impacts of climate change and its contribution in conjunctive use schemes and the (WEF) nexus, within transboundary watercourses there is a need for establishing and strengthening institutions for TBA management.

Enhancing linkages and synergies between national, regional, and river basin-level institutions is needed to address conjunctive surface and groundwater management challenges so as to fully unlock the potential for groundwater in mitigating the impacts of climate change. Through the SADC-GMI, SADC Member States could optimise scarce human and financial resources, build joint understanding of groundwater challenges, and achieve mutual benefits in the management and development of water resources.



Papers for this sub-theme will therefore focus on:

- Exploring opportunities for conjunctive management of surface and groundwater within TBAs and national aquifer systems
- Discussing the contribution of groundwater in the WEF nexus
- Exploring and testing institutional and financial mechanisms to promote sustainable and secure monitoring networks and management programs in TBAs
- Sharing experiences in conjunctive management from TBAs in the region and beyond
- Discussing integration of TBAs in RBOs

2. Towards an Understanding of the Impacts of Climate Change on Groundwater Resources and Exploring Climate-Smart Groundwater Infrastructure Options

Despite their potential to mitigate risks related to climate change and rainfall variability and contribute to food security and regional growth, TBAs in the SADC region are relatively unknown compared with river basins. Knowledge gaps of TBAs relate to physical extent, levels of groundwater use, sustainable use limits, vulnerability, and links to ecosystem services, like environmental flow requirements. Coupled with this are the many uncertainties that still exist with regard to the magnitude and direction of climate change. However, there is consensus that groundwater is likely to be severely affected by climate change. Accounting for climate change in groundwater resources planning coupled with early warning mechanisms to detect groundwater depletion or degradation scenarios are required to sustainably manage groundwater resources and realise their full potential in mitigating the impacts of climate change.



This subtheme is targeted at sharing scientific advances, research and innovations in the areas of groundwater recharge, sustainable groundwater utilization, groundwater geophysics, groundwater modelling, application of remote sensing and geographic information systems in groundwater studies, groundwater surface water interaction, modelling conjunctive use scenarios, innovative solutions relating to groundwater infrastructure in light of the challenges of climate change impacts, etc. These scientific and technical studies provide the basis for developing effective management strategies for decision or policy makers managing groundwater and impacts of climate change.

SUBMISSION OF ABSTRACTS

The Organising Committee invites authors to submit abstracts in any area relevant to the above subthemes. Please, comply with requirements listed below when making your submissions. Poster presentations are welcome. Authors are requested to indicate the subtheme for which they are making submission. Also, authors are requested to indicate whether the submission is for an oral or poster presentation.

Abstract specifications

Abstracts should:

- Have font: Times New Roman, Font size: 11, spacing: 1.5
- Have a short title (concise and informative) that adequately captures the scope of the paper

- Be written in English, French or Portuguese
- Give the authors of the abstract and their affiliations, with the corresponding author clearly marked and contact details given
- Provide the statement of the problem, objectives, methods, main results, and conclusions
- Avoid using abbreviations
- Be a maximum of 300 words
- Provide keywords for the abstract (up to 5)

Authors are required to populate the template on the link:

<http://sadc-gmi.org/wp-content/uploads/2018/05/abstract-template.docx>

The Technical Committee reserves the right to reject or accept an abstract; no appeals will be accepted. By submitting an abstract, the authors commit that at least one author will attend the conference to present the paper/poster.

Submission of abstracts online

Abstracts must be submitted online through the Easy Chair platform. To submit an abstract, follow the instructions below:

- I. Click on this link:
<https://easychair.org/conferences/?conf=sadcgmicon2018>
 - II. If you do not have an easy chair account, please create one as directed
 - III. When logged in, enter as an author
 - IV. Follow instructions on the fill out form, making sure you paste the abstract in the space provided and also upload the file as a pdf
 - V. After submitting your abstract you will receive a confirmation by email
- Presenters whose abstracts have

been accepted will be notified by 16th July 2018 and will be required to register for the conference and pay a registration fee.

CONFERENCE PROCEEDINGS

SADC-GMI in partnership with other organizing partners will publish the proceedings of the conference. Experience has shown that there are numerous groundwater research products from the region, which fail to make it through to the international literature. The proposed proceedings of the conference, which will be peer reviewed, will therefore serve as a platform for sharing research outputs within the region and in the international community, thereby further stimulating groundwater research and promoting budding researchers. The Technical Committee of the conference will constitute the editorial team of the proceedings.

IMPORTANT DATES

- Deadlines for submission of abstracts: 29th June 2018
- Notification on acceptance of abstracts: 16th July 2018
- Deadline for full paper submission: 3rd September 2018





REGISTRATION FEES AND DEADLINES

- Early bird registration: US\$ 350
(Before the 1st of July 2018)
- Normal registration: US\$ 400
(Before the 31st of July 2018)
- Late registration: US \$450
(Before the 1st of September 2018)
- Exhibitors: US \$500
(Before the 31st of July 2018)
- Student registration: US \$250
(Before the 31st of July 2018)

PAYMENT DETAILS

Payments are to be made through the account below:

BANK: ABSA
Account Name: S A D C - G r o u n d w a t e r
Management Institute (NPO)
Branch Code: 632005
Account Number: 4092359255
SWIFT: ABSAZAJJ

NB: send the proof of payment to conference2018@sadc-gmi.org after you have made your payment

REGISTRATION

Online registration can be done at <https://sadc-gmi.org/conference-registration/>

ENQUIRIES

Please send all enquiries about the conference to:
conference2018@sadc-gmi.org

TRAVEL AND ACCOMMODATION

All delegates attending the conference should organise their own travel and accommodation. Delegates who are booked at the Birchwood Hotel will receive a discount. Upon your booking provide Birchwood hotel with the following discount code in order to qualify for a discount: **SADC-GMI-BBD 1728736**. It is also important to note that your booking with Birchwood hotel is not confirmed and guaranteed until you make the payment.



GROUNDWATER MANAGEMENT INSTITUTE

CONTACT DETAILS:

Physical address:

Institute for Groundwater Studies, Dean Street, University of the Free State, 205 Nelson Mandela Drive, Bloemfontein, South Africa

Postal address:

Internal Box 56, P.O. Box 339, Bloemfontein, 9300, South Africa

Thokozani Dlamini

+27 51 401 7722, conference2018@sadc-gmi.org

Follow us on the following social media platforms for regular updates on the Conference.

