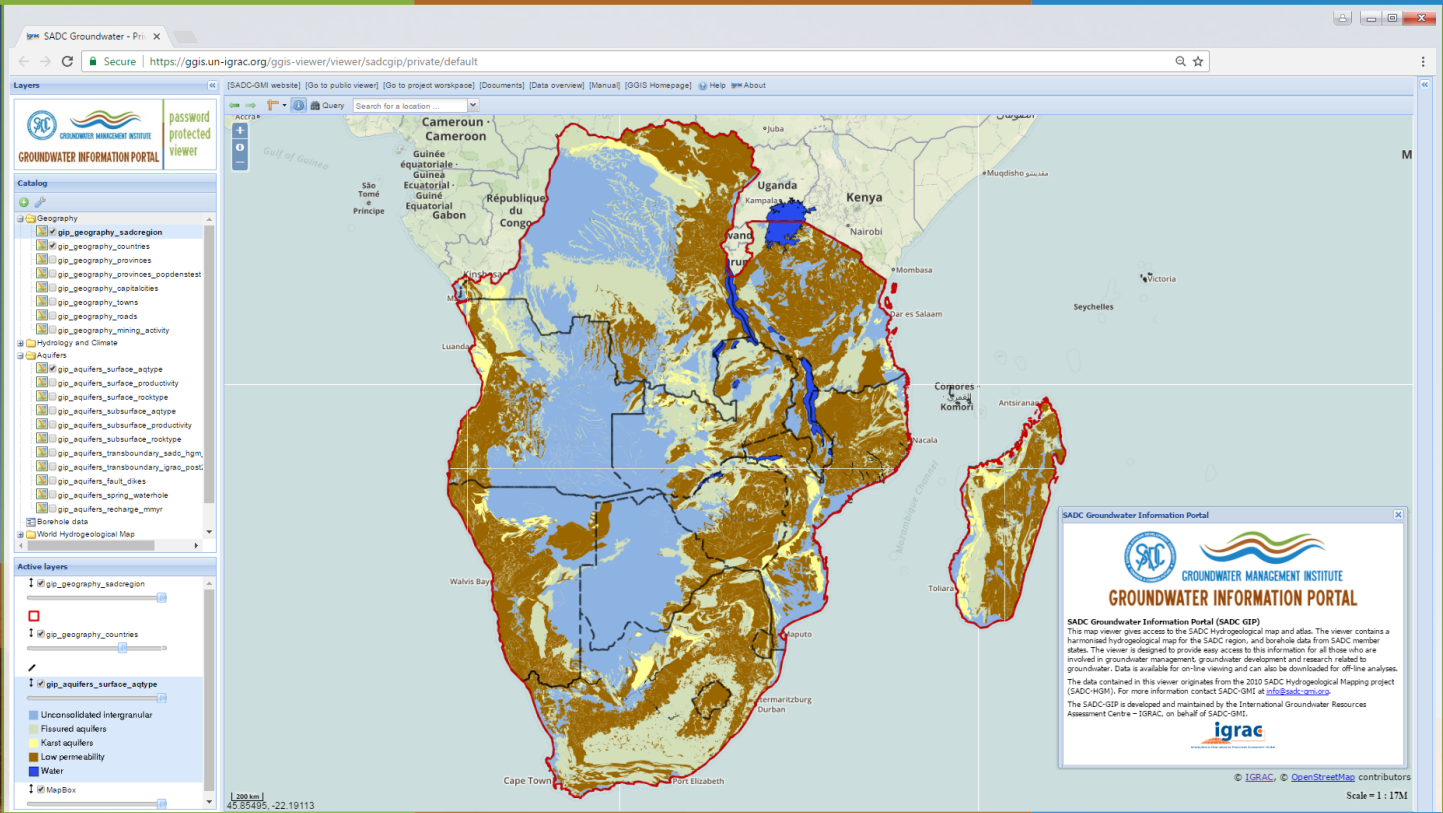


SADC GIP

SADC GROUNDWATER INFORMATION PORTAL

WWW.GIP.SADC-GMI.ORG



The SADC Groundwater Information Portal (SADC-GIP) is a map-based information system providing access to the harmonised SADC Hydrogeological Map and Atlas. The map and atlas were developed in 2010 under the SADC Regional Groundwater Management Programme to provide an overview of the groundwater resources in the SADC region. The original web viewer became dysfunctional, and with the SADC-GIP this important groundwater information is revived again. The portal also gives access to other groundwater relevant maps like the Global Groundwater Vulnerability Map to Floods and Droughts from the World-wide Hydrogeological Mapping and Assessment Programme (WHYMAP), and the Map of Transboundary Aquifers of the World from IGRAC / UNESCO-IHP.

The portal is set up as a service to professionals, scientists and other stakeholders in SADC member states who are involved in groundwater management, groundwater development and research on groundwater or related

fields. Users can browse maps and underlying data on-line and can create overlays of different maps to create new insights. On request, maps and data are also available in digital format (GIS shapefiles and excel) for further off-line analyses.

The SADC-GIP is developed and maintained by the SADC Groundwater Management Institute (SADC-GMI).



With assistance from the International Groundwater Resources Assessment Centre (IGRAC).



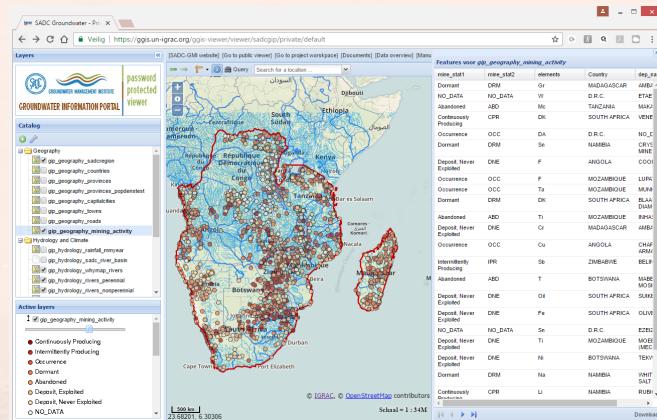
SADC GROUNDWATER INFORMATION PORTAL

www.gip.sadc-gmi.org

At the launch of the SADC Groundwater Management Institute (SADC-GMI) many member states indicated that access to hydrogeological maps is one of the priorities. Therefore SADC-GMI took the initiative to revive access to the results from the SADC Hydrogeological Mapping Project. The SADC Groundwater Information Portal (SADC-GIP) is now available on-line and gives access to the harmonised hydrogeological map for the SADC region, borehole data and associated information.

GROUNDWATER INFORMATION PORTAL (GIP)

SADC-GIP is a state of the art on-line data and information system, which contains all the results from the SADC Hydrogeological Mapping Project. The system is designed to provide easy access to this information for all those who are involved in groundwater management, groundwater development and research in groundwater or related fields. The core of the SADC-GIP is a map-based public viewer which is available to anyone with access to internet using a standard web-browser. The user-interface is intuitive, allowing users to browse through all available thematic maps and associat-



ed data and documents without the need for training. Users can create new insights by making overlays of maps; data behind the maps (feature information) is available at the push of a button; On request, maps and data are also available in digital format (GIS shapefiles and excel) for further off-line analyses.

MAPS AND DATA IN SADC-GIP

- Hydrogeological maps:
 - o Aquifer type classifications
 - o Aquifer yields
 - o Aquifer rock types
 - o Transboundary aquifers
- Borehole data like:
 - o Depth of borehole
 - o Static water level
 - o Borehole yield
 - o Electrical conductivity and total dissolved solids
 - o Fluoride concentrations
 - o Nitrate concentrations
- Geographical data like:
 - o Topographical features
 - o Administrative boundaries
 - o Population density data
 - o Mining activities
- Hydrology and Climate like:
 - o Rainfall map
 - o Surface water features and drainage systems
- World Hydrogeological Map like:
 - o Groundwater vulnerability map
 - o Recharge estimates
 - o Groundwater related wetlands
- Other thematic maps like:
 - o Climate zones
 - o Population data

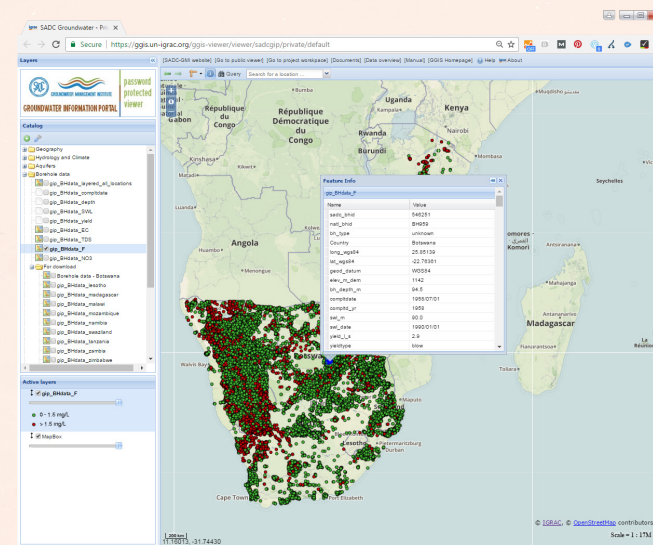
PUBLIC AND PASSWORD PROTECTED VIEWER

The public viewer is the main entry point to SADC-GIP. For advanced use and administrative purposes there is also a password-protected viewer and a data management workspace. These modules are only accessible to registered and authorised users. The look and feel of the password protected viewer is identical to those of the public viewer.

As access is restricted to authorised users this viewer can be used to share draft maps and data, or to share information which is considered sensitive. The data management workspace is used by the system administrator to upload new maps and data, but it is also possible to assign similar rights to other partners (e.g. SADC Groundwater Focal Points) so that the SADC-GIP can be used as a truly communal system for all SADC-member states.

BENEFITS OF ONLINE SYSTEMS

Online systems provide the added benefit over off-line systems that access is possible for a much wider audience and thereby facilitating stakeholder engagement and wide



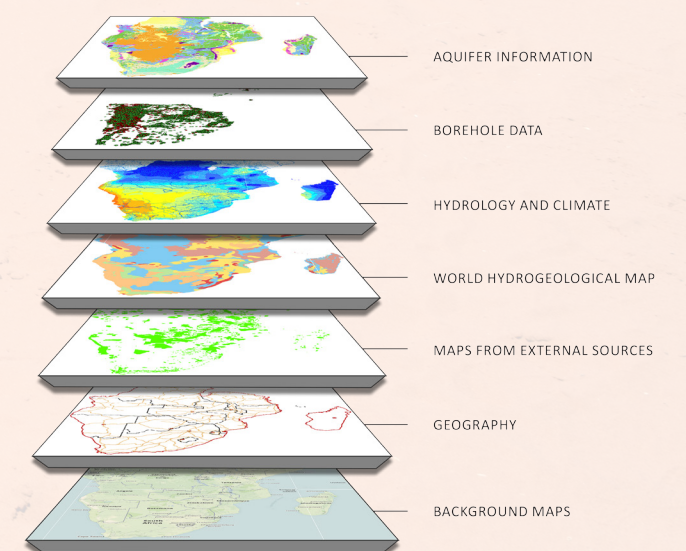
dissemination of these important groundwater data. The added benefit is also that updates are always available to all users.

SADC-GIP is a module within IGRAC's Global Groundwater Information System (GGIS) and complies with standards of the Open Geospatial Consortium (OGC), which makes it possible to easily exchange geo-data. One of the advantages is that these standards make it possible to include relevant maps of other sources into the SADC-GIP, like maps of the World Hydrogeological Mapping Programme and other data providers. Likewise it is possible to provide services to users and organisations to visualise SADC-GIP maps in their own systems.

ACCESS THE SADC GIP

The SADC-GIP is developed and maintained by the SADC Groundwater Management Institute (SADC-GMI), with assistance from the International Groundwater Resources Assessment Centre (IGRAC) and is accessible via:

www.gip.sadc-gmi.org



ABOUT SADC-GMI

The Southern African Development Community Groundwater Management Institute (SADC-GMI) is a newly established regional centre of excellence on groundwater hosted by the University of the Free State (UFS) in Bloemfontein, South Africa on behalf of and under the strategic guidance of the SADC Secretariat, Directorate of Infrastructure and Services – Water Division, in Gaborone, Botswana.

The SADC-GMI is registered as a Section 21 Not-for-Profit Company under the South Africa Companies Act No. 71 of 2008 as amended. It is run by an eight member Board of Directors composed of representatives from four SADC Member States, the UFS, the SADC Secretariat's Water Division and an Executive Director. Oversight on the SADC-GMI and its Board is provided by the SADC sub-Committee on Hydrogeology which is comprised of one groundwater specialist from each of the 15 SADC Member States.

The SADC Secretariat received a grant from the Global Environment Facility (GEF) and the Multi-Donor Trust Fund Cooperation in International Waters in Africa (CIWA) through the World Bank to implement the Sustainable Groundwater Management in SADC Member States project. The SADC-GMI is the implementing unit of the project.

The project will support activities at regional, basin and national levels. There are over 30 shared aquifer systems identified across Southern Africa and Member States often share similar groundwater challenges.

The project will implement priority actions in the work programme for groundwater in the SADC Regional Strategic Action Plan for Integrated Water Resources Management (RSAP IV, 2016–2020). Institutional and technical capacity to implement national reforms will be strengthened; and cooperation on shared aquifers in the region will be facilitated as a result of the project (in alignment with the Revised SADC Protocol on Shared Watercourses of 2000 and river basin agreements across the region).

To achieve these objectives, the project consists of the following components:

- Component A: Operationalising the SADC Groundwater Management Institute (GMI) as a regional center of excellence hosted by the University of the Free State in South Africa on behalf of and under the strategic guidance of the SADC Water Division and the SADC Sub-committee on Hydrogeology (consisting of national representatives).
- Component B: Enhancing institutional capacity of governments in SADC Member States and transboundary organisations.
- Component C: Improving availability of and access to knowledge, scientific research and data on groundwater.
- Component D: Promoting infrastructure solutions for sustainable groundwater management.



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SADC Groundwater Information Portal:

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