

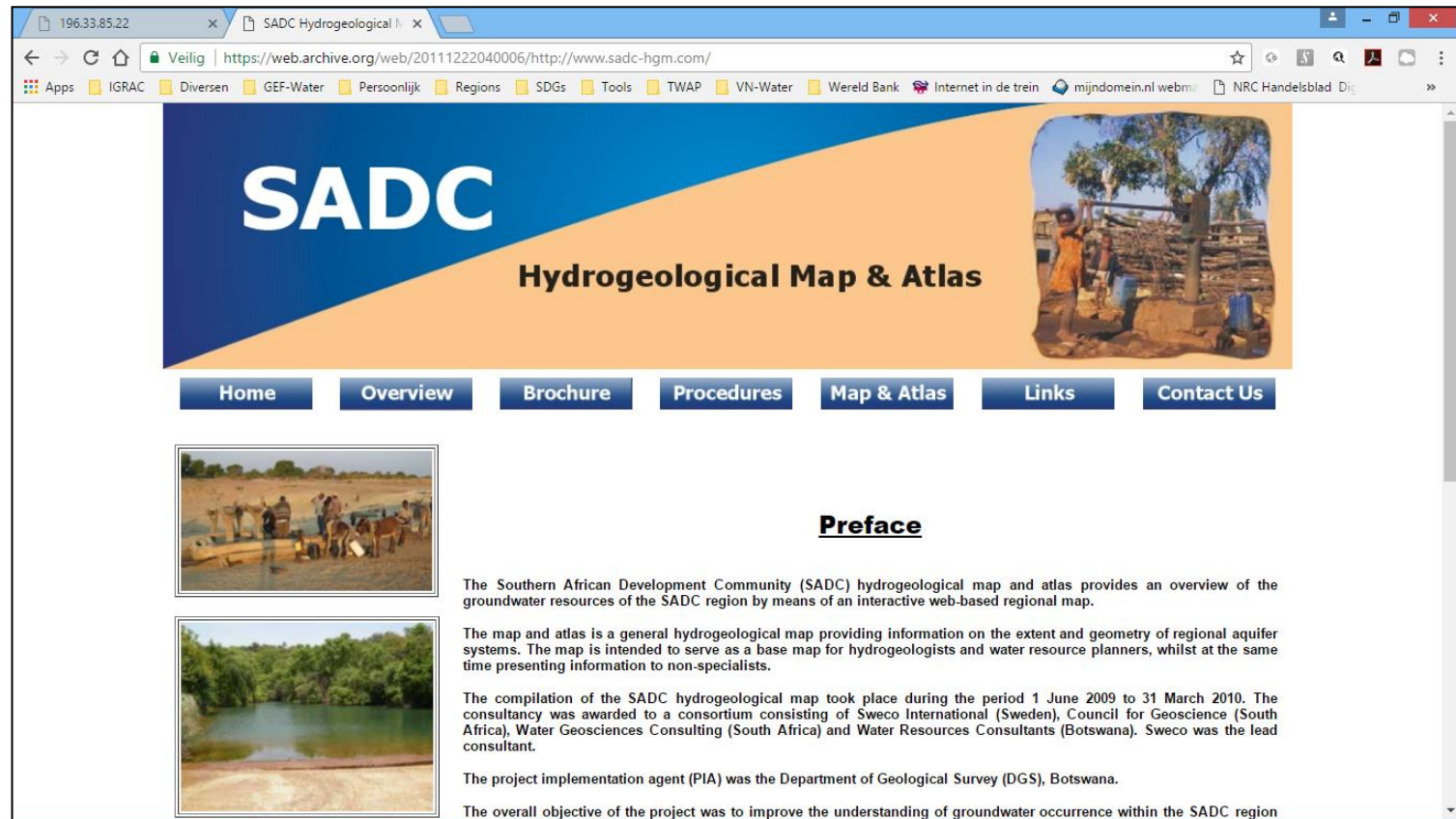
Virtual roundtable with the SADC Groundwater Management Institute

Groundwater data sharing in SADC since 2010

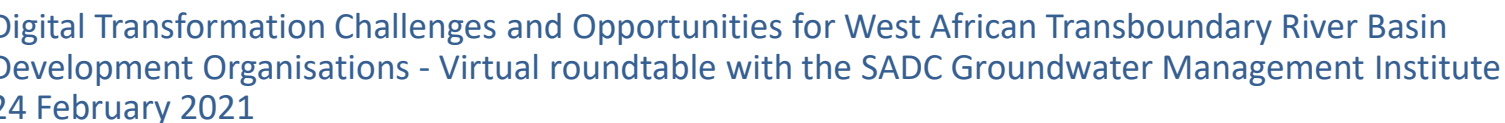
Arnaud Sterckx

International Groundwater Resources Assessment Centre (IGRAC)

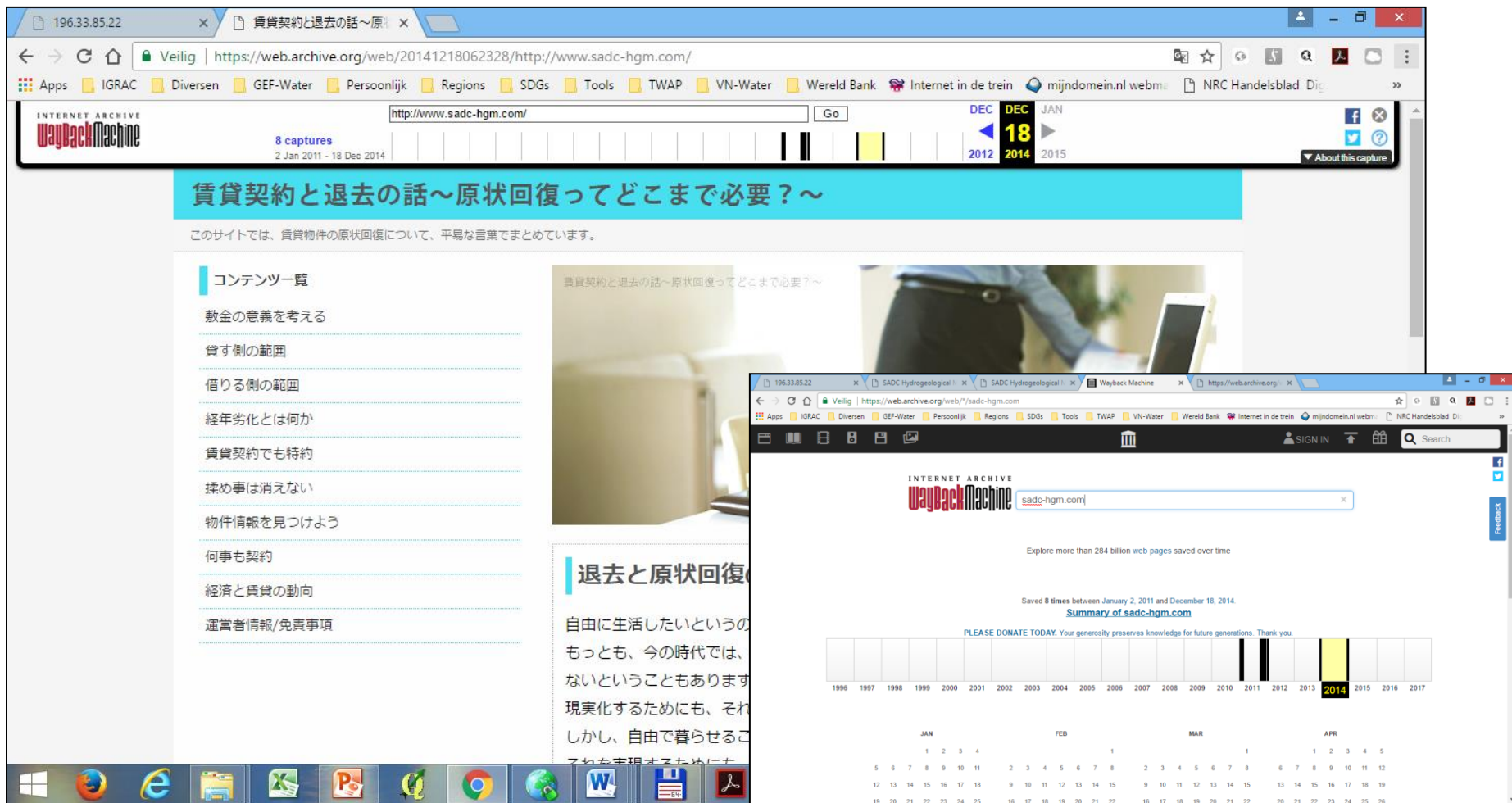
2010: SADC Hydrogeological Mapping Project (SADC et.al.)



<https://web.archive.org/web/20111222040006/http://www.sadc-hgm.com/>
Status: January 2012



2014: The system went down.

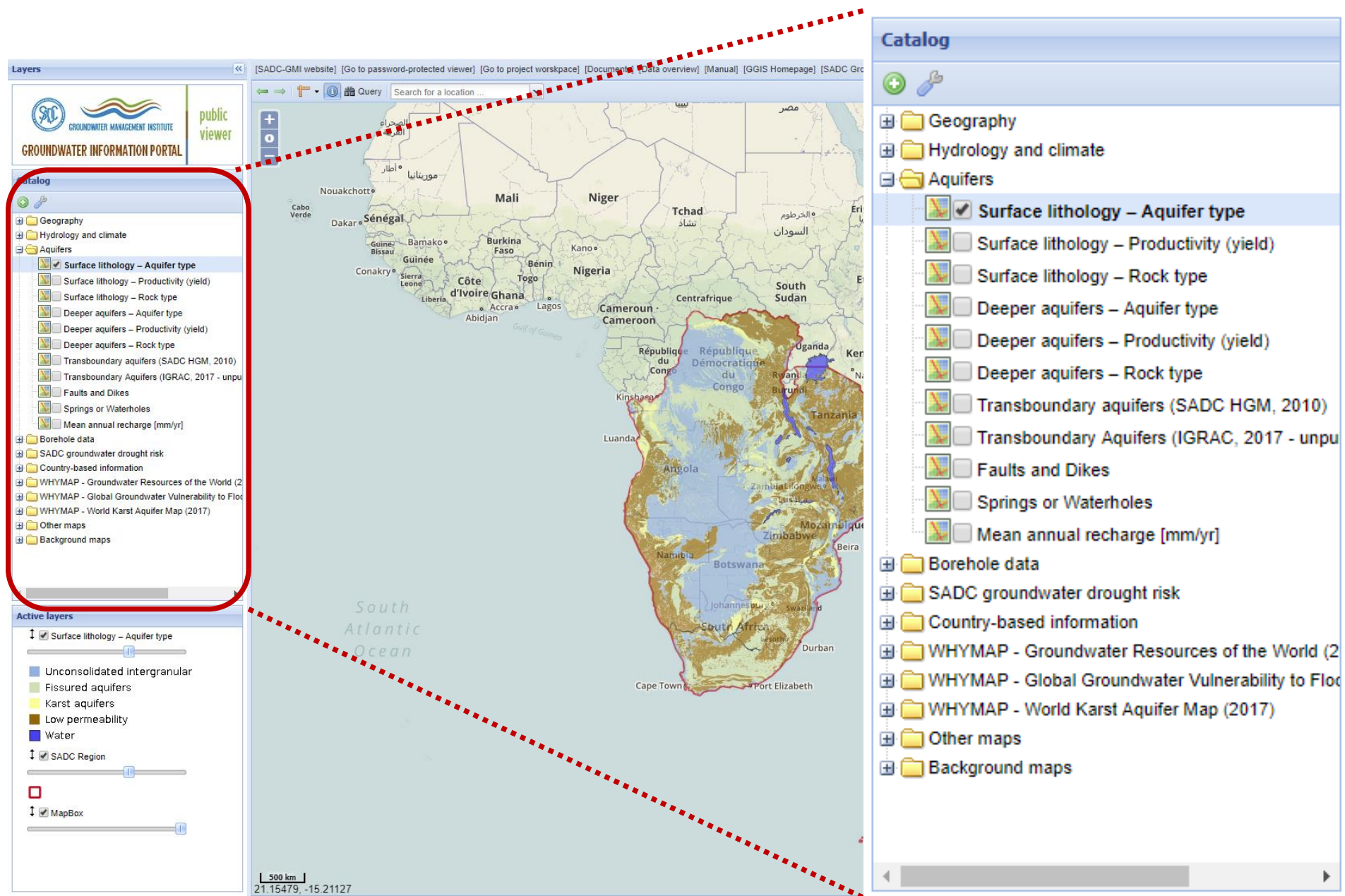


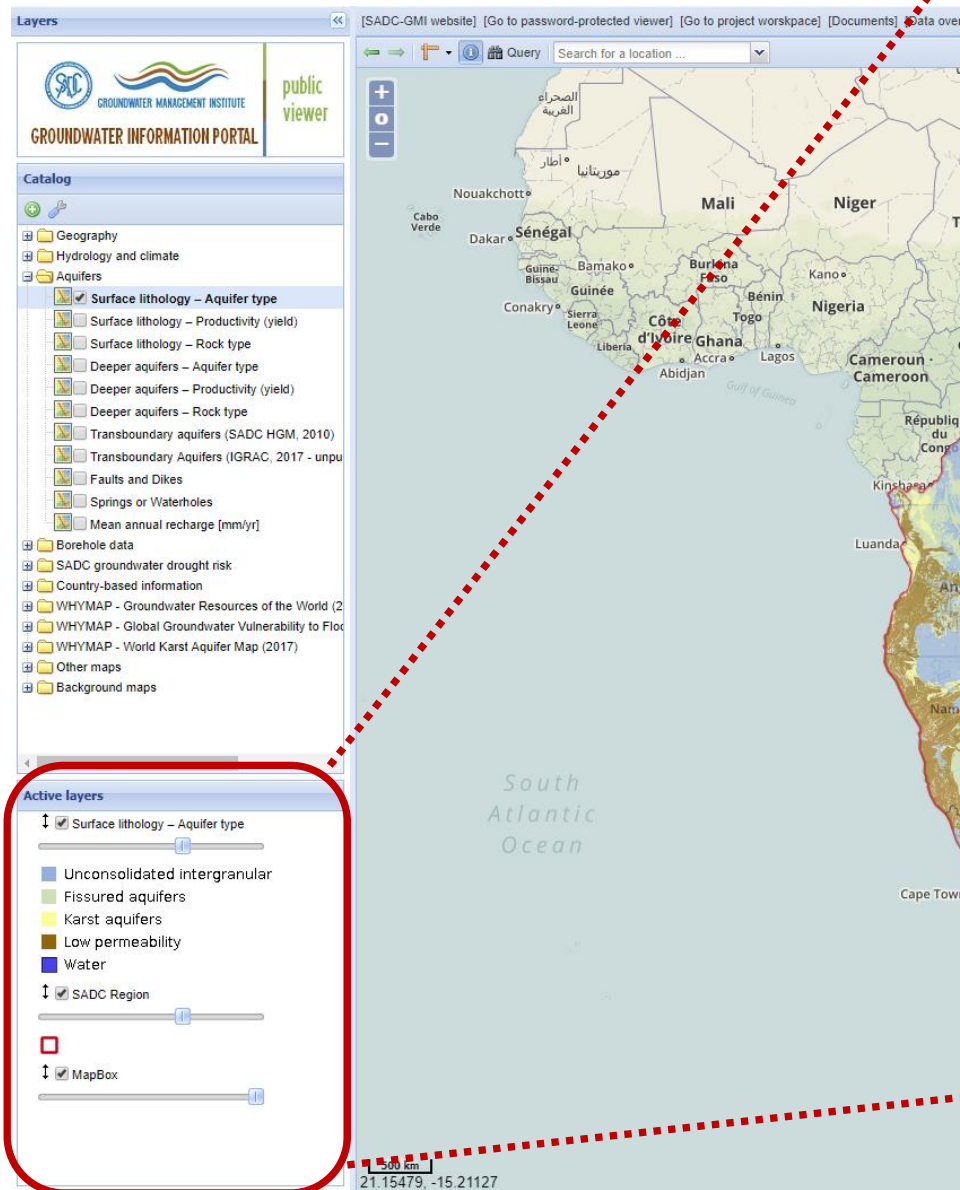
Wayback machine – Internet archive
<https://web.archive.org>

2017: Resuscitating the SADC Hydrogeological Map

A viewer was created within the Global Groundwater Information System (GGIS)







Active layers

↑ ☒ Surface lithology – Aquifer type



☒ Unconsolidated intergranular

☒ Fissured aquifers

☒ Karst aquifers

☒ Low permeability

☒ Water

↑ ☒ SADC Region



↑ ☒ MapBox



© SADC-GMI © IGRAC, © OpenStreetMap contributors

Scale = 1 : 34M

Search for meta information

Meta Information Module (MIM) is the reference core of the Global Groundwater Information System (GGIS). It contains all references documents of the GGIS, other interesting groundwater related documents and meta information on groundwater specialists and water organisations.

You can enter any search term to search the information you are looking for. The filter options on the left hand side of the page can be used to narrow down the total list of results.

Filtered By

✖ [Content type: Document](#)

Region/country of expertise

[Data for SADC module \(10\)](#)

[Ramotswa Aquifer - Botswana \(2\)](#)

[Ramotswa Aquifer - South Africa \(2\)](#)

Theme

[Aquifer Characteristics \(1\)](#)

[Aquifer Characteristics - Aquifer type \(8\)](#)

[Aquifer Characteristics - Lithology \(8\)](#)

[GW Quality \(1\)](#)

[GW Quantity \(1\)](#)

[Show the remaining 2 items](#)

Search Results (10 found)

Procédures et directives pour la cartographie hydrogéologique-SADC HGM

SADCgip - French version
["SADC, EU, GTZ, DGS-Botswana"]

Projet de cartographie hydrogéologique de la SADC -Rapport final

SADCgip - French version
["SADC, EU, GTZ, DGS-Botswana"]

Projecto de Elaboração do Mapa Hidrogeológico da SADC -Relatorio final

SADCgip - Portugese version
["SADC, EU, GTZ, DGS-Botswana"]

Procedimentos e Directrizes da Elaboração do Mapa Hidrogeológico-SADC HGM

SADCgip - Portugese version
["SADC, EU, GTZ, DGS-Botswana"]

Hydrogeological Mapping Procedures and Guidelines - SADC Hydrogeological

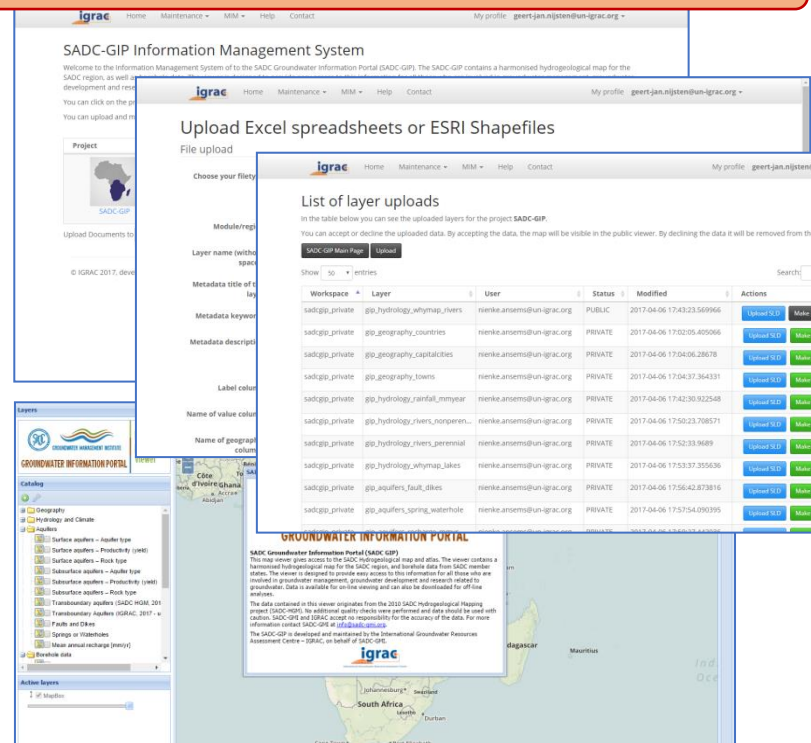
ANYONE with internet access:



- Public viewer

REGISTERED & AUTHORISED users:

- Password-protected workspace



- Password-protected viewer

2019-2020: Expanding the SADC-GIP



SADC Groundwater Information Portal



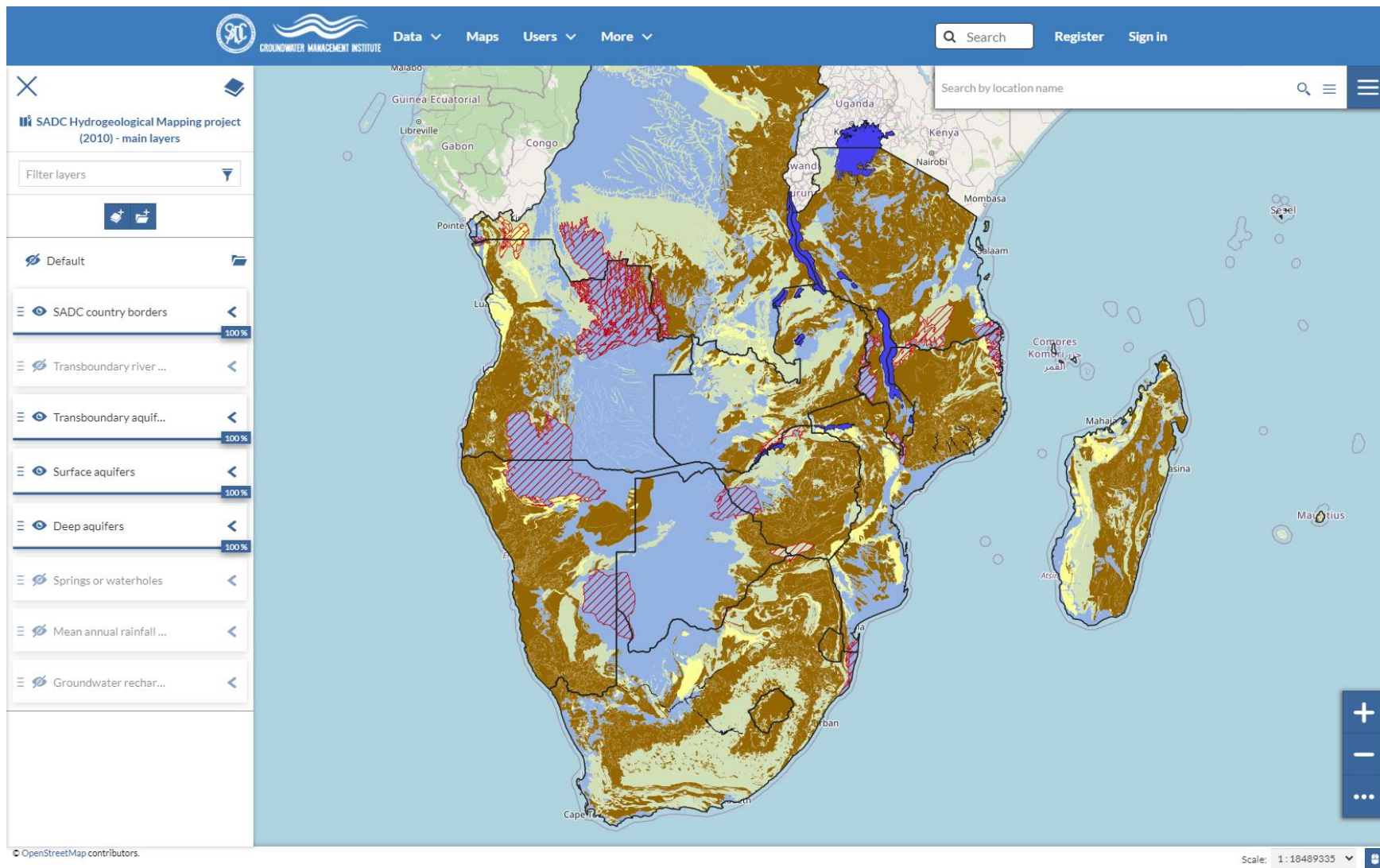
GROUNDWATER MANAGEMENT INSTITUTE

The SADC Groundwater Information Portal (SADC-GIP) is a platform for sharing groundwater-related data and information in the SADC region. It includes the maps from the 2010 SADC Hydrogeological Mapping project (SADC-HGM), among others. Organisations and individuals are invited to register and share relevant groundwater data and information in the SADC-GIP. Providing easy access to groundwater data and information is key to allow all stakeholders to actively participate in the sustainable management of groundwater resources in the SADC region. The SADC-GIP is managed by the SADC Groundwater Management Institute.

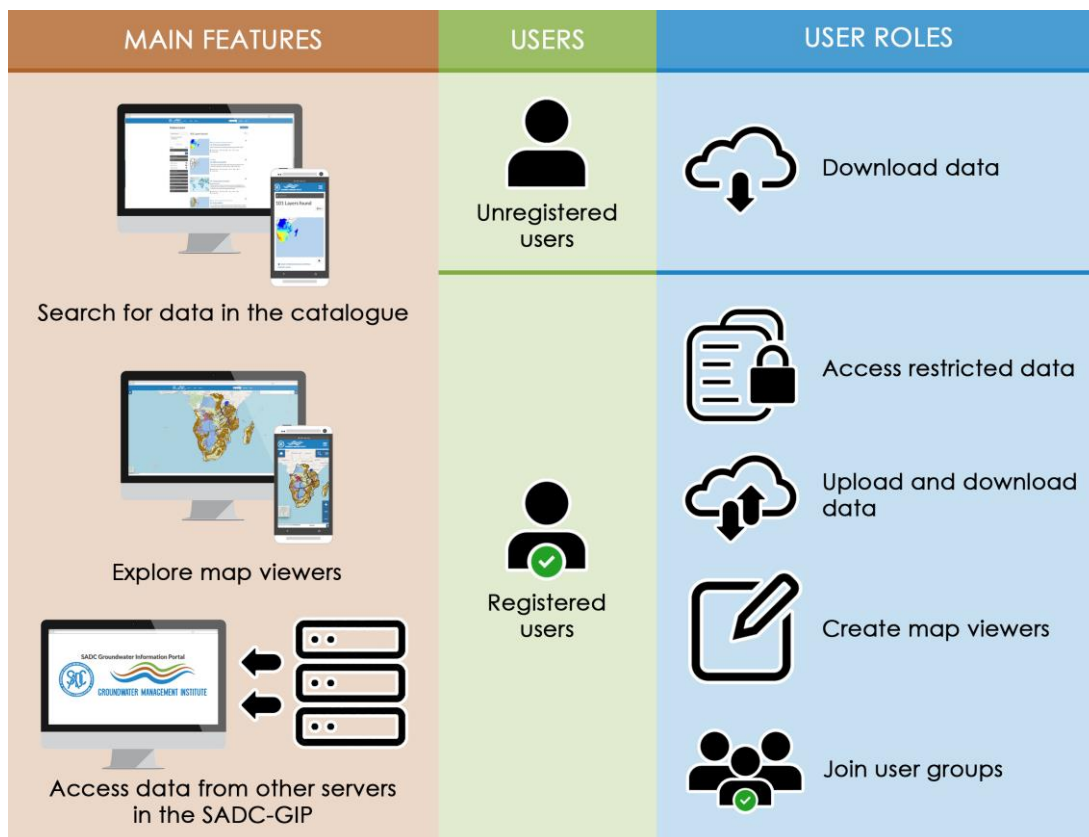
Search for Data.



Advanced Search

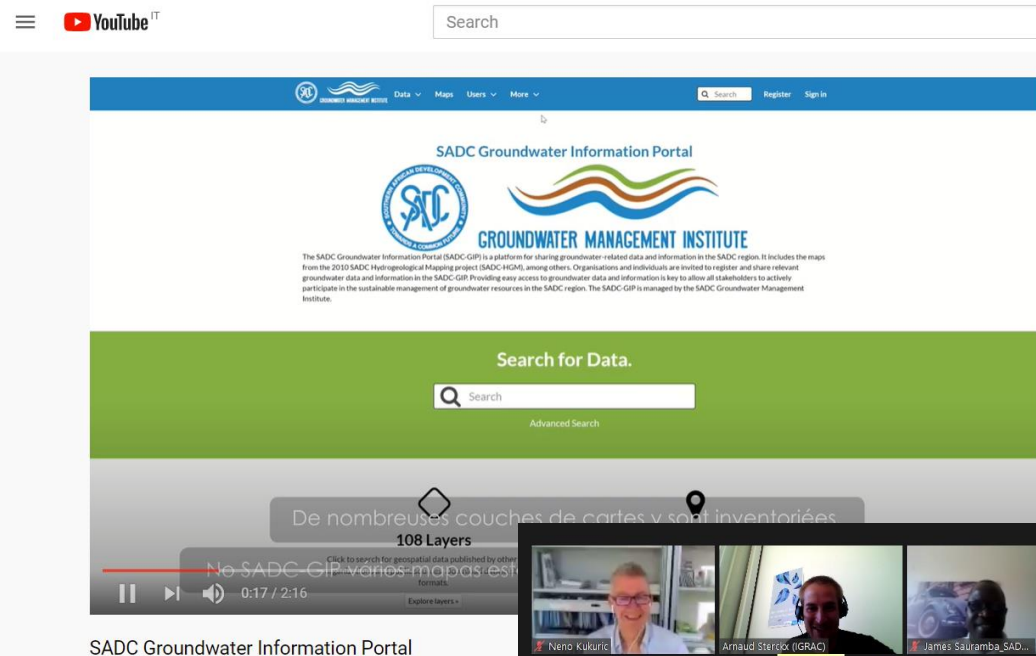


- The new SADC-GIP operates as a Spatial Data Infrastructure, where many users can register for uploading/accessing data.

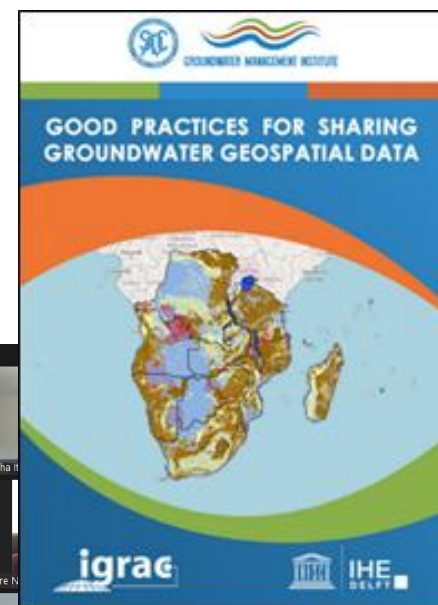


- It supports international standards for spatial data exchange.
- It is based on a free and open-source software (GeoNode).
- It was set up and is maintained by a company based in South Africa.

Training material was produced, and workshops were held to reach out and engage national water departments in SADC

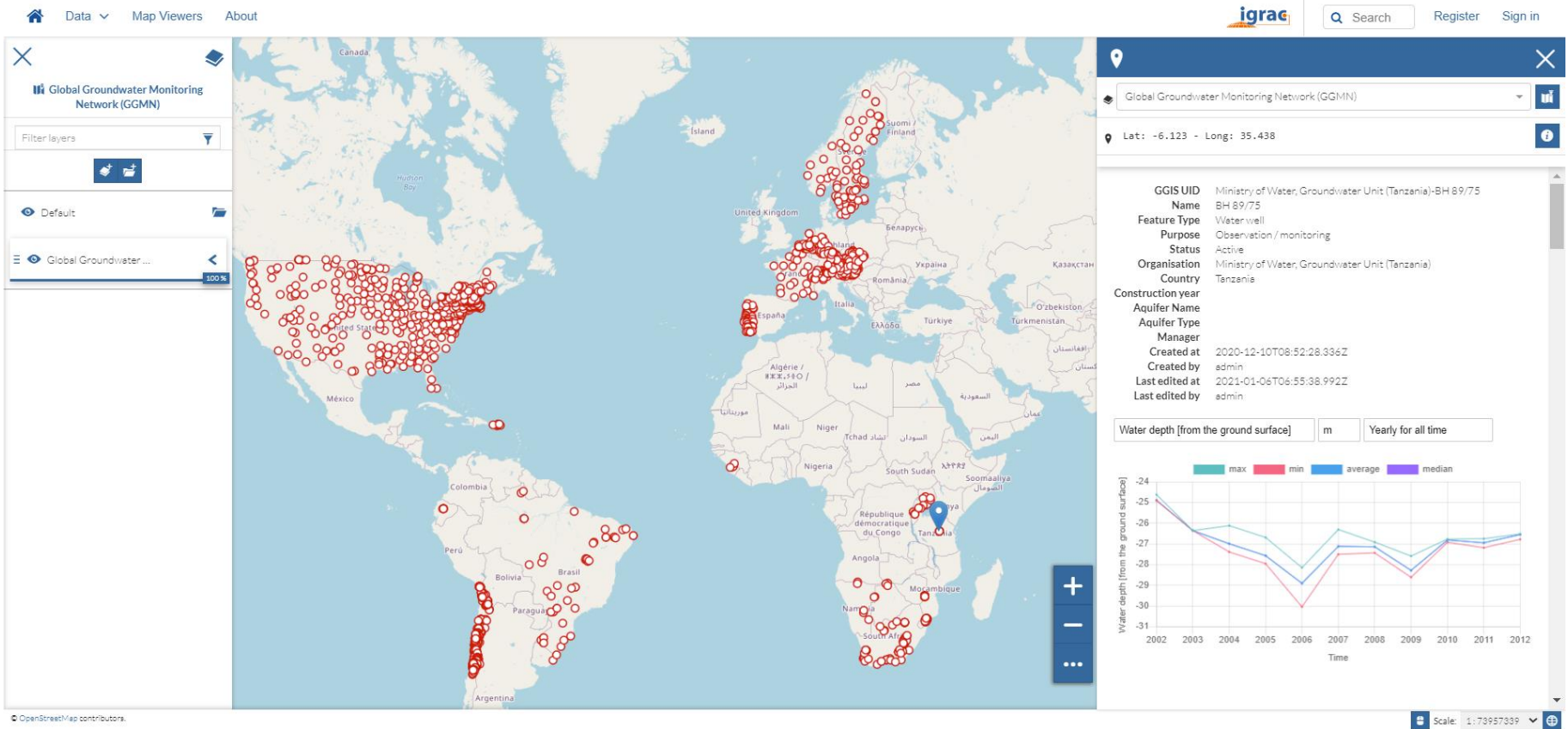


https://www.youtube.com/watch?v=1_loHepwv9g&feature=youtu.be

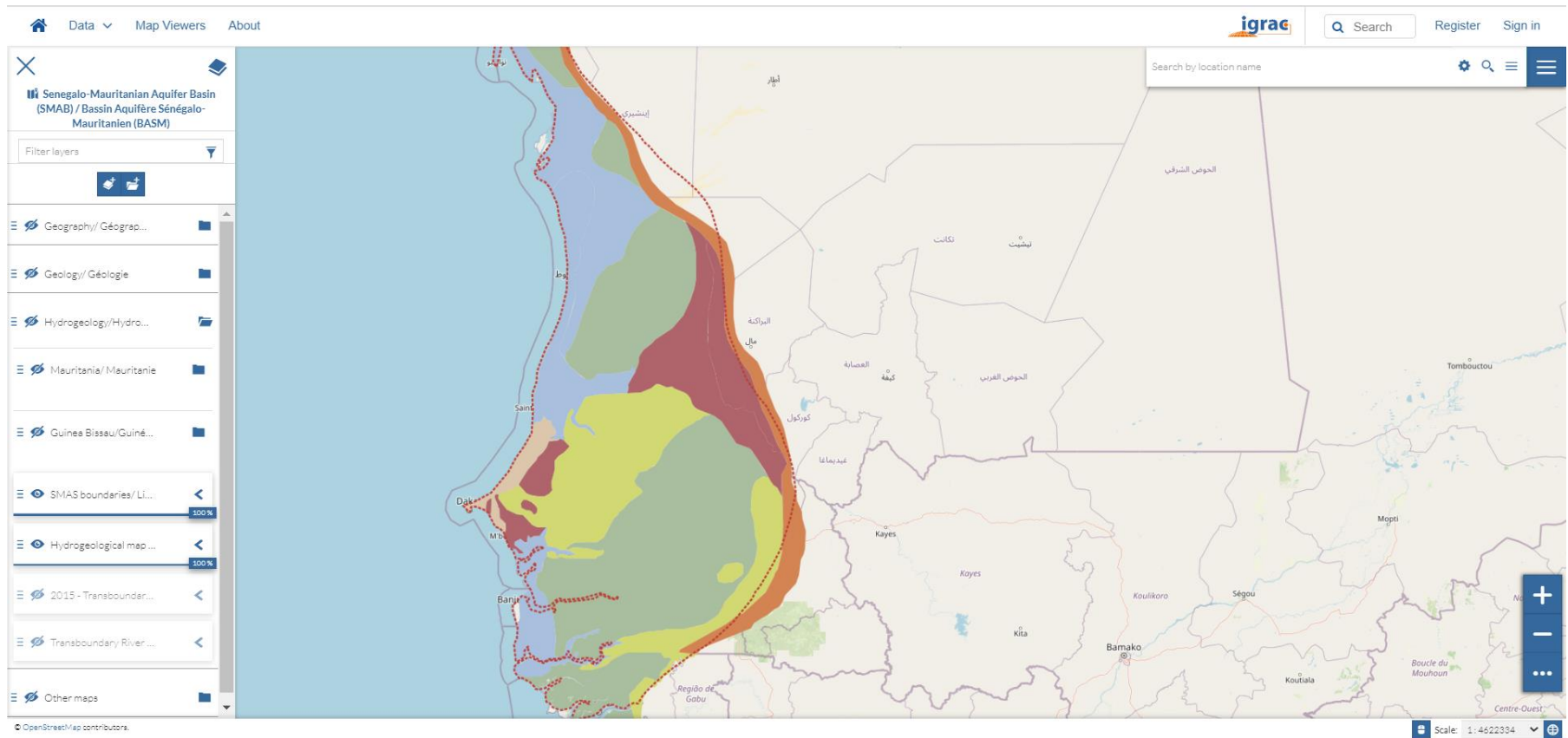


2021: Launch of new GGIS

Development of a database for well and monitoring data that can be coupled with SDI.

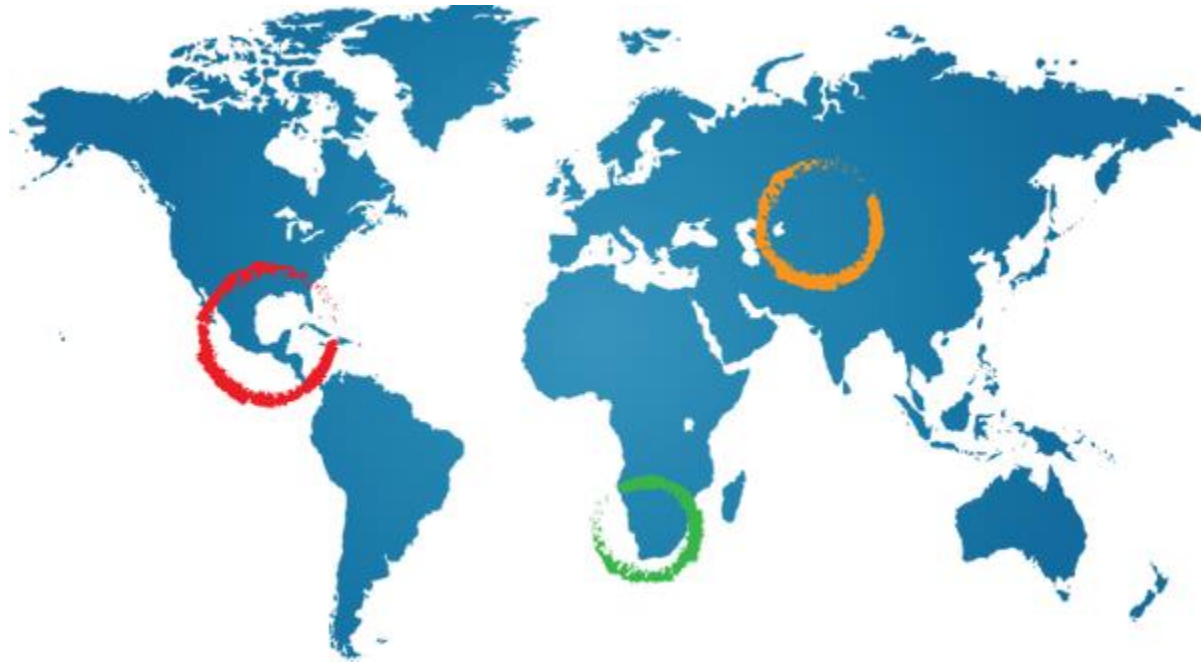


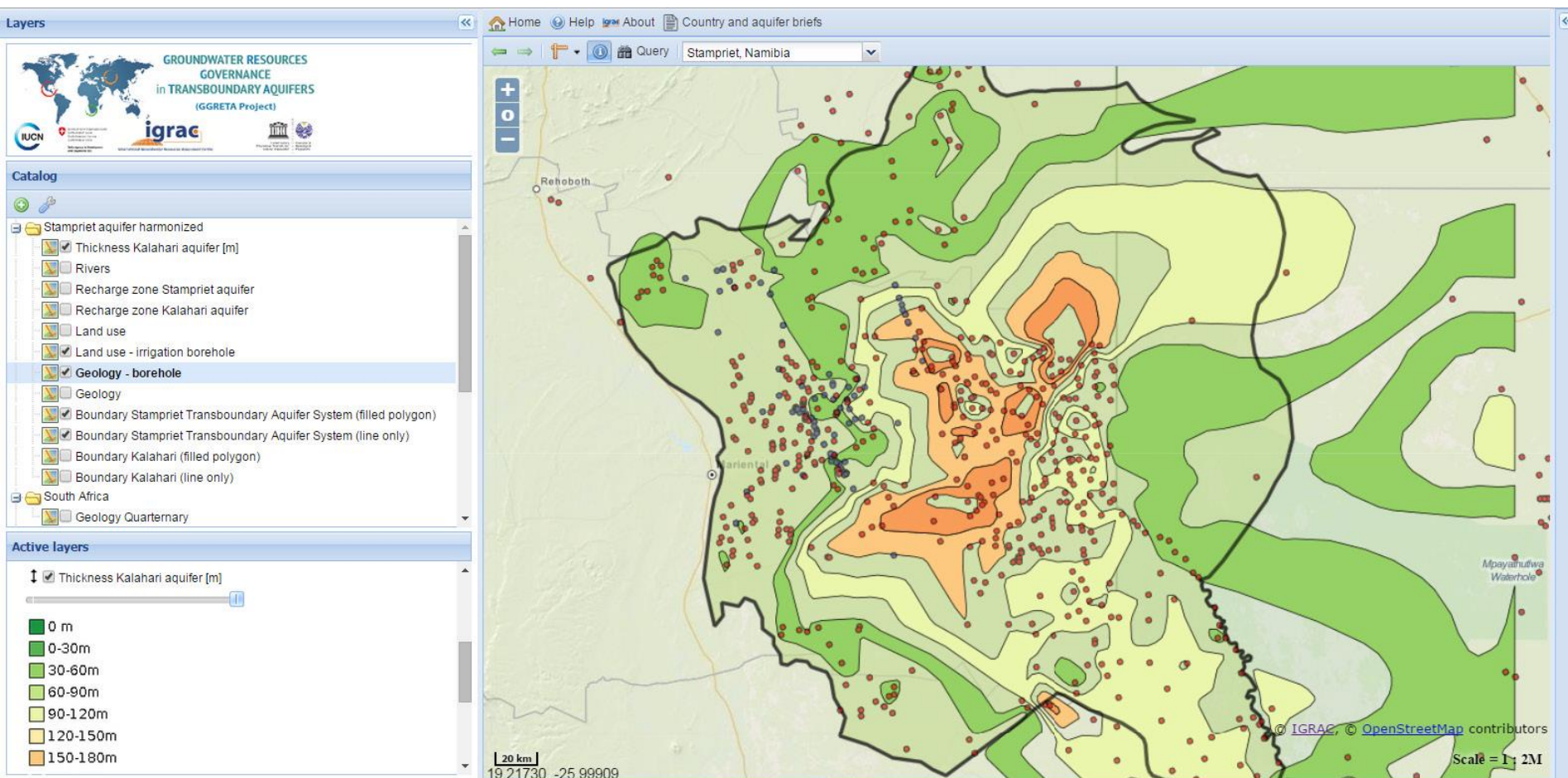
Already deployed for the Senegalo-Mauritanian Aquifer Basin (SMAB)



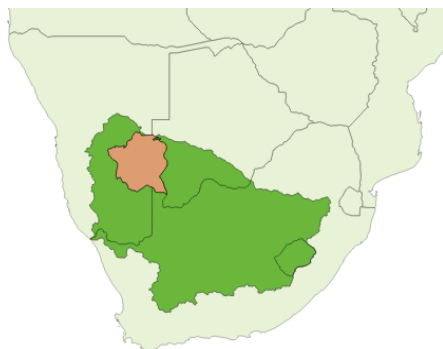
2013-2015: GGRETA project – phase I, Stampriet Transboundary Aquifer System (Botswana, Namibia, South Africa)

3 pilot studies to advance “Governance of Groundwater Resources in Transboundary Aquifers”



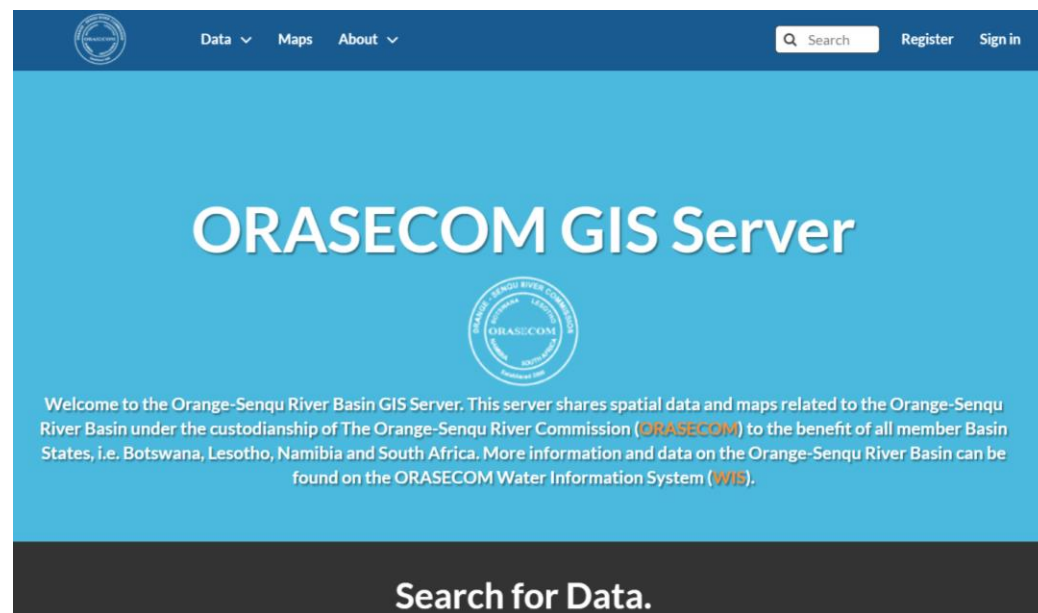


2018: The Multi-Country Cooperation Mechanism (MCCM) of the STAS was integrated to the Ground Water Hydrology Committee (GWHC) of ORASECOM.



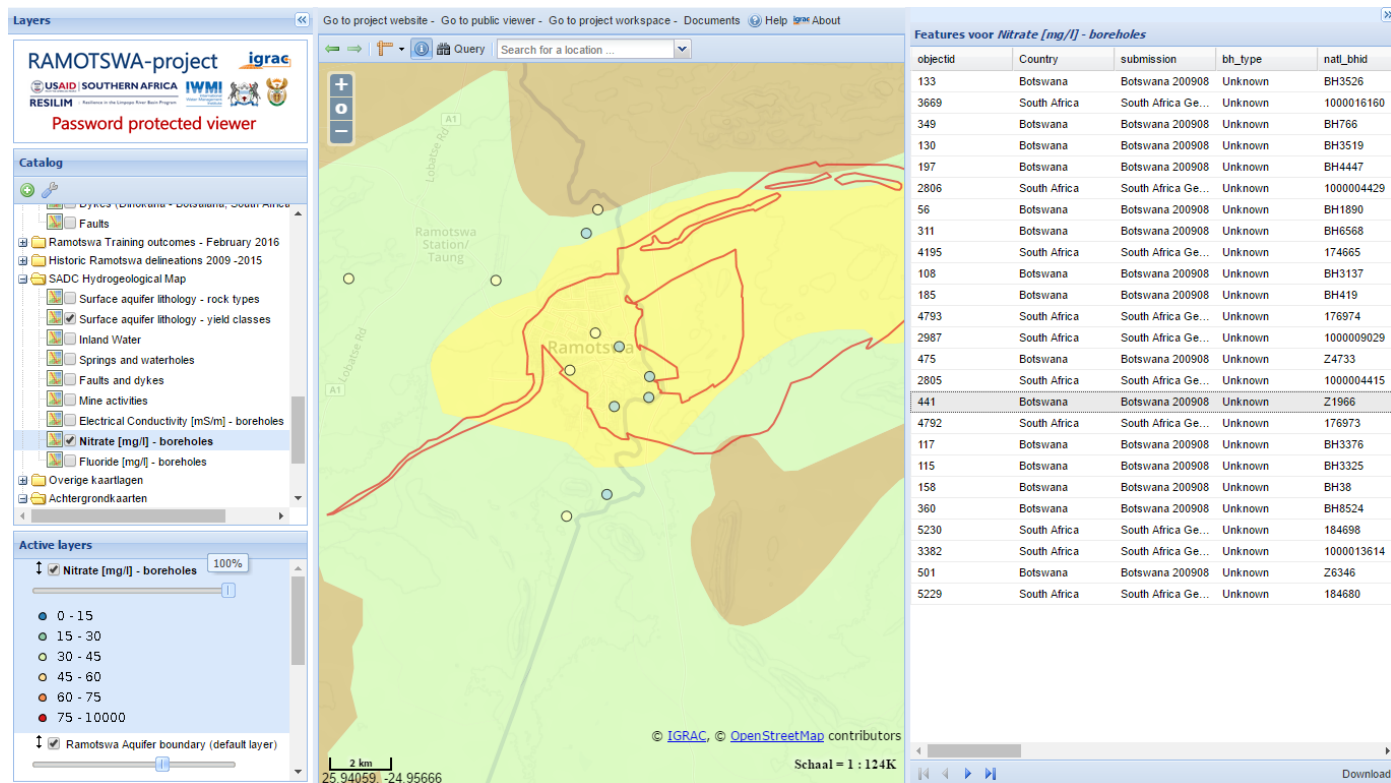
Location of the Stampriet Transboundary Aquifer System (in orange) and the Orange-Senqu River Basin (in green) (UNESCO-IHP & ORASECOM, 2018)

Launch of a new
information management
system at ORASECOM
gis.orasecom.org



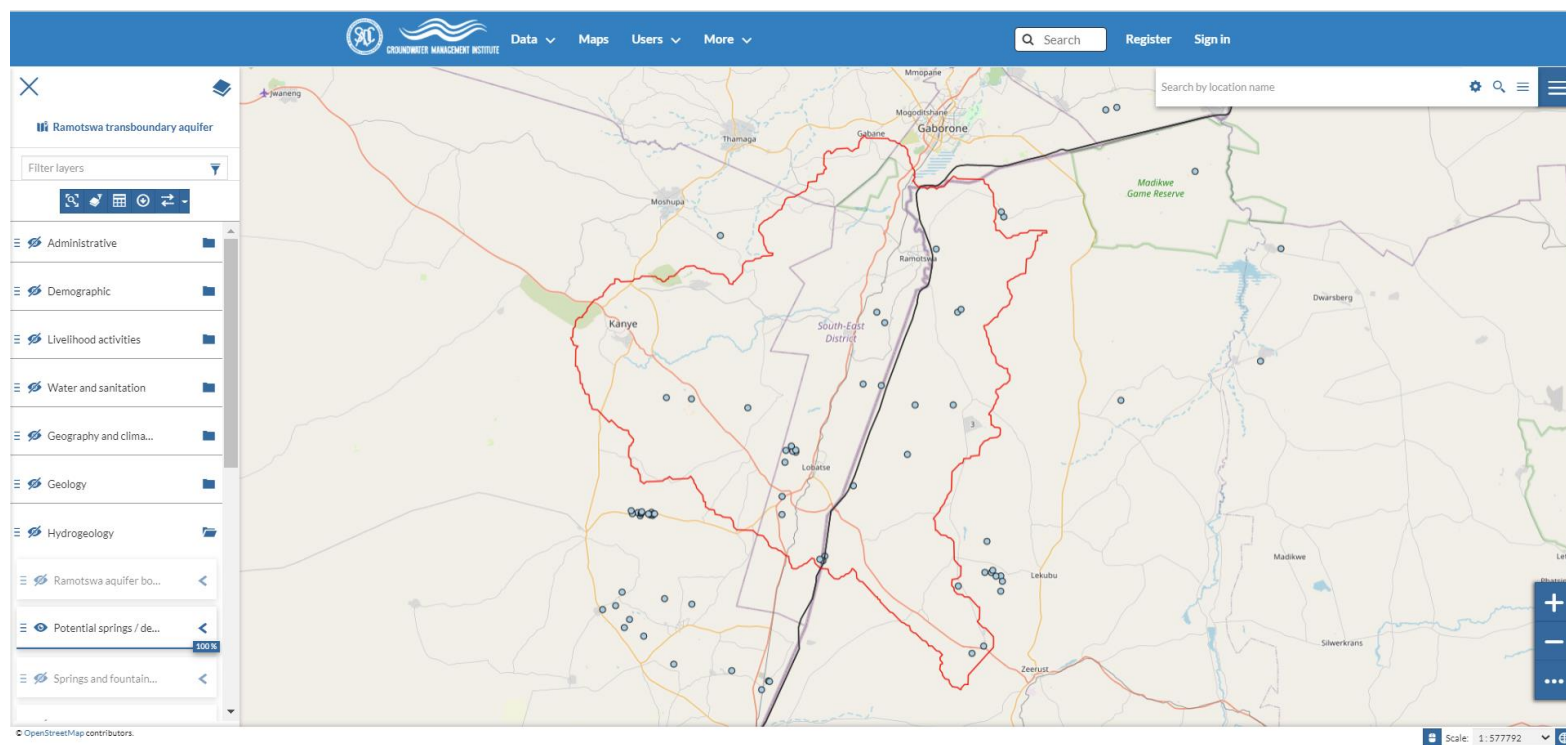
2015-2017: Ramotswa project – phase I (Botswana, South Africa)

The Ramotswa aquifer is a small transboundary aquifer close to Gaborone.



2019: LIMCOM launched its first Groundwater Committee to address conjunctive management of surface water and groundwater resources, with a focus on the 3 TBAs identified to date in the basin, among which the Ramotswa aquifer.

Support of LIMCOM by SADC-GMI settled in a MOU.



Lessons learnt:

- RBOs are increasingly integrating (transboundary) groundwater assessment and management
- Data sharing is challenging and a never-ending effort
- A regional institution promoting data sharing is instrumental and cost-efficient
- Data sharing involves different organizations, at different levels (country level, regional/continental level, RBO level)
- Spatial Data Infrastructure allow data providers to remain in control of their data
- International data sharing standards allow data to flow seamlessly through different platforms
- Free and open-source software programs are available

Thank you for your attention



International Groundwater Resources Assessment Centre

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United Nations
Educational, Scientific and
Cultural Organization



International
Hydrological
Programme



World Meteorological
Organization



Government of
The Netherlands