

WHAT PROGRESS LOOKS LIKE

BOTSWANA, NAMIBIA AND SOUTH AFRICA (STAMPRIET AQUIFER SYSTEM) – TRANSBOUNDARY COOPERATION (SDG TARGET 6.5)

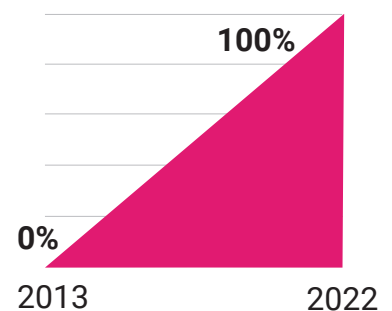


Progress indicator: SDG 6.5.2 Proportion of transboundary aquifer area with an operational arrangement for water cooperation

Level of impact: Stampriet Transboundary Aquifer System (86,647 km² land area and 50,000 people), shared by Botswana, Namibia and South Africa

Result: Establishment and operationalization of the Multi-Country Cooperation Mechanism for the Stampriet Transboundary Aquifer, the first arrangement specifically for a transboundary aquifer located within a river basin organization.

Progress 2013–2022:



SITUATION

Groundwater is – in simple terms – the water beneath Earth’s surface, stored in soil pores and rock fractures, and an aquifer is an underground unit that can transmit significant amounts of groundwater. While groundwater accounts for about 99 per cent of all freshwater resources globally, this natural resource is often poorly understood, and consequently undervalued and mismanaged. The United Nations General Assembly, through resolution 63/124 on the Law of Transboundary Aquifers, encourages Member States to make cooperation arrangements to safeguard transboundary aquifers.

The Stampriet Transboundary Aquifer System (STAS) covers 87,647 km² land across central Namibia, western Botswana and South Africa’s Northern Cape province. The aquifer system is a permanent and reliable

groundwater resource for the 50,000 people who live in the area, fulfilling the water needs of household and economic activities such as crop irrigation, livestock watering and tourism.

However, STAS is facing a number of challenges, including limited knowledge of its groundwater resources, the risk of overexploitation and pollution, and the lack of a common framework for transboundary management.

In response to these challenges, the governments of Botswana, Namibia and South Africa launched a multidisciplinary assessment of the system in 2013, supported by UNESCO and the Swiss Agency for Development and Cooperation. The assessment was undertaken within the framework of the Governance of Groundwater Resources in Transboundary Aquifers (GGRETA) project.



PROGRESS MADE

Even before the launch of the GGRETA project in 2013, Botswana, Namibia and South Africa had national legal frameworks in place for groundwater use and pollution management. However, implementing and enforcing them were challenging. For example, certain large parts of the aquifer system were not inspected on a regular basis.

Regional collaboration has been central to the development of STAS governance. In 2000, Botswana, Namibia and South Africa became parties to the Southern African Development Community (SADC) Revised Protocol on Shared Watercourses. Together with Lesotho, the three countries formalized the Orange-Senqu River Commission (ORASECOM) through the adoption of a basin-wide agreement. The SADC Protocol and the ORASECOM Agreement provide a legal basis for the management of transboundary waters, including both surface water and groundwater. However, while groundwater was addressed through different committees and task teams, a legal instrument for managing specific transboundary aquifers such as STAS was still missing at the regional SADC level.

Following the introduction of the GGRETA project, a formal cooperation mechanism for STAS could be formulated. The first phase of the project (2013–2015) allowed for a better understanding of the groundwater dynamics

in STAS, through scientific cooperation, knowledge production and the establishment of an information management system. The second phase (2016–2018) improved cross-border dialogue and the management tools shared between the governments. In 2017, at the 34th ORASECOM Council Meeting, the STAS Multi-Country Cooperation Mechanism (MCCM) was established within the existing ORASECOM structure, following a proposal from delegates from Botswana, Namibia and South Africa. The objective of the mechanism was to transition from project-driven cooperation to institutionalized cooperation beyond the life of the GGRETA project. The STAS MCCM is the first arrangement specifically for a transboundary aquifer that is located within a river basin organization, and as such represents an innovative breakthrough for transboundary cooperation.

With the establishment of the MCCM, data and information about STAS were continuously collected by the STAS countries and added to the information management system for easy exchange across the countries. As cooperation matured, the objective of the MCCM expanded from collecting and exchanging data to joint strategizing and advising STAS countries on the management of their shared groundwater resources. The development of a joint STAS Strategic Action Plan was supported by the third phase of the GGRETA project (2019–2022).

KEY SUCCESS FACTORS

- Existing global, regional and national mechanisms calling for the establishment of cooperative arrangements and joint institutions for shared surface water and groundwater
- Science-based cooperation and data-sharing as a first step to the formal arrangement
- Institutionalization of an aquifer arrangement within a river basin organization

LEARN MORE

- [National country reports on SDG indicator 6.5.2](#)
- [Technical report on the assessment of STAS from the first phase of the GGRETA project](#)
- [Resources on STAS from the Orange-Senqu Water Information System](#)
- [Overall progress on SDG 6 in Botswana](#)
- [Overall progress on SDG 6 in Namibia](#)
- [Overall progress on SDG 6 in South Africa](#)