PROJECT BRIEF

The ground-breaking Lesotho Botswana Water Transfer initiative is a transboundary multi-purpose water infrastructure project, set to be the first of its kind on the African continent.



BACKGROUND

The Orange-Senqu River Basin is one of the largest river basins south of the Zambezi River with a catchment area of approximately one million km2. It encompasses all of Lesotho, a significant portion of South Africa, Botswana and Namibia. The Orange-Senqu River originates in the Lesotho Highlands and flows in a westerly direction for approximately 2 200 km to the west coast of South Africa and Namibia, where the river discharges into the Atlantic Ocean. The Basin is of major economic importance to South Africa contributing 26% to South Africa's GDP. It also supplies water through a trans-basin transfer scheme to most of the Gauteng province, which generates 33.9% of the national GDP. In Lesotho, all economic activities are conducted within the Basin as the entire country is part of the Basin. The Basin contributes to the GDP of Botswana and Namibia. where mining and agriculture are the main areas of water usage. Over the past decade ORASECOM, with the support of key development partners, has been assessing the water resources management conditions in the Basin.

















ADDRESSING TRANSBOUNDARY WATER SUPPLY CHALLENGES IN THE BASIN

The south-eastern urban complex of Botswana, centred around the capital city of Gaborone, has experienced rapidly increasing growth over the last few decades, which is expected to continue. Its water demands have long outstripped local bulk water resources, which have subsequently been supplemented from sources in the northeast of the country. Further to this, the country has experienced several severe drought spells that have led to water restrictions. Despite concerted efforts to alleviate the water shortage challenges, indications are that the water sources will not be adequate as early as 2025. The Lesotho to Botswana Water Transfer Project is a major component of the Integrated Water Resources Management (IWRM) Plan adopted in February 2015 by the ORASECOM Member States in addressing transboundary water supply challenges.

The 2015 Reconnaissance Study identified possible

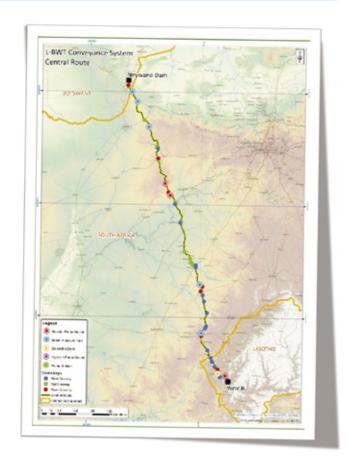
water resources which outlined various options of water sources and conveyance routes to supply water from the Lesotho highlands to Botswana. The study recommended the construction of a dam on the Makhaleng River, and a conveyance system to supply water to Lesotho, South Africa and Botswana and hydropower generation. Based on the findings and recommendations of the reconnaissance study, the three Countries agreed that the Scheme be studied further at pre-feasibility and feasibility levels. ORASECOM was appointed as an executing/implementing agent for the pre-feasibility and feasibility studies for the Scheme, in December 2016. The Memorandum of Agreement (MoA) to undertake prefeasibility and feasibility studies for the Scheme was signed by the three Countries in November 2017, in the presence of Namibia, as an actively participating Observer.

PROJECT OVERVIEW

The developmental goal of the project is to promote sustainable socio-economic growth in the four riparian countries through climate-resilient water resources development in the framework of Basin wide cooperation. The L-BWT scheme will supply water for domestic, agriculture and industrial usage to Botswana through a 700 km water conveyance pipeline, to Lesotho and the Republic of South Africa from a dam on Makhaleng River which was originally part of the Lesotho Lowlands Water Supply Scheme. The Project will transfer 150 million m³ of water annually to Botswana, while supplying various users in Lesotho and South Africa, with 50 million m³. The feasibility studies are exploring a large dam that will also generate electricity, supply Bloemfontein and enable irrigation for Lesotho.



The solution for addressing the water security challenges lies in the need for increasing the efficient use of existing infrastructure, developing additional water resources and improving the management systems, based on water resources availability and use.

















IMPLEMENTATION AND MANAGEMENT

ORASECOM Secretariat is the implementing Agent and coordinating authority for the Project and the Project Management Office based in Maseru, Lesotho, coordinates and implements the various project studies. The Joint Study Management Committee (JSMC) coordinates the undertaking of the project studies and also provides progress on the implementation of the

L-BWT to the Commission and the State Parties. The JSMC further oversees the development of agreements for the implementation of the outcomes from the studies, as well as appointments of Consultants and Experts, as may be required from one phase of the Project, to the next.

PROJECT TIMELINE

Since the signing of the 2017 Memorandum of Agreement, the project has undergone various gradual steps leading up to the envisaged operational status. In August 2018, technical consultants were appointed to undertake: (i) the pre-feasibility study of the proposed dam and water conveyance system options/routes; and (ii) a technical feasibility study for a dam option to be selected during the pre-feasibility study, on the Makhaleng River, in Lesotho. The Prefeasibility studies

were concluded in December 2022 except for the institutional and financing options analysis, planned to be concluded in the third quarter of 2023. The feasibility study for the dam commenced in January 2023 and is expected to be complete by December 2023. The feasibility studies for the water conveyance system are awaiting for additional funding to commence early in 2024.



















BENEFICIARIES AND IMPACT

The long-term impact of the project will be improved climate-resilient socio-economic development and poverty eradication in the basin, in alignment with the African Union initiative of building continental partnership in developing cost-effective and sustainable regional infrastructure through the Programme for Infrastructure Development in Africa (PIDA). The development of the L-BWT will result in an improved standard of living. inclusive growth, enhanced preparedness and adaptation to deal with vulnerability to climate change impact thus ensuring long-term water security in the basin while at the same time maintaining downstream flows for the benefit of downstream users and the ecosystems.

- Water supply to Botswana, as well as Lesotho and South African municipalities along the route.
- Hydropower generation in Lesotho to improve population access to electricity and to reduce dependency on imported energy supply.
- Climate resilience enhancement from shortages and droughts for communities in Botswana, Lesotho, and South Africa, which have negatively impacted agriculture sector outputs, factor remuneration and general livelihoods.

Creation of long-term employment opportunities not only during the project development and construction, but also at its operational stage.

The Lesotho Botswana Water Transfer Project is the first recipient of an excellence award in the water infrastructure development category of PIDA PAP 2 for high standards in the early stage of project preparation, in recognition of Excellence in Regional Infrastructure Project Preparation and achievement of the Service Delivery Mechanism (SDM).



PROJECT PARTNERS AND SUPPORT

The three State Parties are the project sponsors and are a constituent party of the Council of Commissioners of ORASECOM. The countries are represented through:

- Ministry of Lands Management, Water and Sanitation Services of the Republic of Botswana
- Ministry of Natural Resources of the Kingdom of Lesotho
- Ministry of Water and Sanitation of the Republic of South Africa

The project is a Multipurpose Project for the Orange-Senqu River Basin implemented as part of the Climate Resilient Water Resources Investment Plan supported through Financing Agreements with NEPAD-IPPF and the African Water Facility Climate Resilient (AWF). The Infrastructure Development Facility (CRIDF), Stockholm International Water Institute (SIWI) and Global Water Partnership - Southern Africa (GWP SA) made in-kind cash contribution towards stakeholders' consultations, financial, legal and institutional studies.

CONTACT DETAILS

ORASECOM Secretariat, 269 Von Willigh Avenue, Centurion, South Africa 🔀 secretariat@orasecom.org



Lesotho-Botswana Water Transfer Project Management Office (PMO) Alliance Office Park, Bowker Road, Maseru, Kingdom of Lesotho









LESOTHO-BOTSWANA













