

Mwanza Border Town Water Supply and Sanitation

DECEMBER 2019

OVERVIEW

The Mwanza Border Town Water Supply and Sanitation (WSS) project will provide climate resilient water supply and sanitation to over 44,000 residents of Mwanza and up to 270,000 cross-border travellers per year. It will improve health and hygiene, reduce waterborne diseases, provide economic opportunities and build resilience to climate change.

INVESTMENT REQUEST

£4 million of grant funding to rehabilitate and expand the water supply and sanitation system.

PROJECT SUMMARY

Mwanza Town is strategically located linking the North–South Transport Corridor with the Nacala Transport Corridor, connecting South Africa, Botswana and Zimbabwe to Malawi and Mozambique. The corridor development is prioritised in the Southern African Development Community (SADC) Regional Master Plan (2012–2027) and is critical to enhancing regional and international trade competitiveness, particularly for landlocked countries such as Malawi. SADC has identified the Mwanza–Zobue border for the development of a one-stop border post (OSBP); both the town and trade flows are therefore expected to grow.

The Mwanza Water Supply and Sanitation Project and the parallel project in Zobue aim to promote transboundary cooperation between Mozambique and Malawi and increased resilience for the Mwanza population. It aligns to the Government of Malawi's Vision 2027 water sector targets and will deliver significant social and health impacts. The project is economically viable with a positive economic benefit–cost ratio. If a grant is provided for capital expenditure, sufficient revenue will be generated to support operating expenditure.

The project is part of a wider CRIDF initiative to support climate resilient water supply and sanitation (WSS) infrastructure at the SADC strategic border posts.

MAIN SPONSORS



KEY FACTS

Water infrastructure type	Piped water supply including river abstraction, boreholes, water treatment, storage and distribution pipelines
Country, location	Mwanza, Southern Region, Malawi
Main sponsor(s)	Southern Region Water Board (SRWB)
Financing requirement – capital expenditure	£4 million
Financing requirement – project preparation	£620,000
Financial instrument(s)	Grant funding

DEVELOPMENT IMPACT

- Water for 44,000 people in Mwanza and up to 270,000 cross-border travellers, 80% of whom are women.
- Improved health and hygiene and reduction of waterborne diseases.
- Economic benefits for women through time saved on water collection and widened scope of entrepreneurial activities.
- Strengthened climate resilience of the Mwanza population.

SOCIAL ISSUES

- Malawi is one of the poorest countries in the world and 55% of the population in Mwanza District live below the poverty line.
- The population of Mwanza is predicted to grow from 44,000 to almost 100,000 by 2038.
- Livelihoods are centred on trade and commerce, subsistence and small commercial agriculture, and small-scale industry.
- Transactional sex is common at the border post.
- Child marriage and teenage pregnancy is high.
- The number of asylum seekers and displaced people is high, and those detained commonly have low access to water and sanitation.
- Only 6% of households have a piped water supply; 36% of residents draw untreated water.

- Water shortages are common during the dry season and residents are forced to travel further, wake up earlier (3am–4am) to secure water, or access unprotected and/or contaminated sources.
- There is no waterborne sewerage system. Over 90% of residents use traditional pit latrines, with a small number using ventilated improved pit (VIP) latrines or septic tanks with soakaways.
- Uncontrolled construction of pit latrines close to existing boreholes causes contamination and presents significant health risks.
- There is an inadequate water supply to the main hospital, impacting the provision of health services.
- Waterborne diseases including diarrhoea, dysentery and malaria are very common. The area has a higher than average prevalence of HIV/AIDs.

TECHNICAL

The average annual daily water demand for Mwanza is 2,290 m³/d, rising to 6,464 m³/d by 2038. The project will improve the existing WSS system by:

- Upgrading the water treatment plant by adding an extra 2,500 m³/d capacity.
- Constructing a new intake weir.
- Constructing six new productive boreholes.
- Constructing four new reservoirs with a combined capacity of 4,640 m³.
- Constructing a new, 38 km distribution network.
- Providing communal water points in the form of new water kiosks connected to the network.
- Constructing two VIP toilet blocks at the market.
- Constructing 10 toilets and a septic tank at the border.

INSTITUTIONAL AND LEGAL

- SRWB are responsible for water supply and sanitation in Mwanza and will own and operate the infrastructure.
- Capacity at SWRB is mixed. Budget limitations constrain service provision, and revenue collection remains challenging.
- Operational overlaps with water user's associations should be assessed to avoid potential conflict.

- There is no independent water regulator in Malawi; the Ministry of Agriculture, Irrigation and Water Development performs this role.
- Mwanza District Council is a key stakeholder and should be consulted early to secure approvals.

MARKET AND END USERS

- The end-user customer base includes households, schools, healthcare clinics and small businesses.
- Tariffs and affordability should be considered as part of the financing plan.
- Customers are willing to pay for an improved service that is reliable all year round.
- Revenue collection should be improved, especially from government institutions.

CLIMATE AND ENVIRONMENT

- Droughts are intensifying and a State of Emergency was announced in the 2015–16 drought due to widespread crop failure. Low river levels resulted in no water supply for 48 hours.
- Floods are common. The 2017 flood caused fatalities and significant damage to the town.
- The climate change risk assessment shows that higher temperatures, reduced precipitation, and increased extreme events are anticipated.
- Climate change will affect the provision of a continuous water supply, but also health, land, agriculture and infrastructure. Impacts will be exacerbated by increasing population growth, increased traveller numbers and a higher water demand.
- Securing a safe and reliable water supply will reduce vulnerability to health, hygiene and food insecurity.
- The feasibility study made recommendations to ensure the infrastructure is climate resilient; these will be developed at the design phase.
- The environmental assessment shows that positive impacts are greater than the negative and smaller negative impacts can be managed.
- An environmental impact assessment permit and water abstraction licence will be required.

What is CRIDF?

The Climate Resilient Infrastructure Development Facility (CRIDF) is a UK Aid-funded programme. A major aim of CRIDF is to work with governments, businesses and other organisations in the Southern African Development Community to scope and design key transboundary water projects using best practice in order to ensure that these projects are both pro-poor, and fundable/bankable investment opportunities. Work ranges from detailed technical inputs and project preparation, to policy work that aims to change thinking.

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