

Kasumbalesa (Zambia) Border Town Water Supply and Sanitation

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OVERVIEW

The project will provide climate resilient water supply and sanitation (WSS) to 17,000 residents of Kasumbalesa and neighbouring Konkola, and an estimated 500,000 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

£5.4 million of grant finance to rehabilitate and expand the water supply and sanitation system.

PROJECT SUMMARY

Kasumbalesa is strategically located along the North–South Transport Corridor, between Zambia and the Democratic Republic of Congo (DRC), and is amongst the busiest corridors in the region. Despite this, it remains a barrier to regional trade due to slow processing and inadequate facilities. The Southern African Development Community (SADC) has identified the Kasumbalesa border for the development of a one-stop border post (OSBP); both the town and trade flows are therefore expected to grow.

The Kasumbalesa WSS project will expand and upgrade the existing WSS system. Together with a parallel project in Kasumbalesa in the DRC, it aims to promote transboundary cooperation between Zambia and the DRC and increase resilience for the Kasumbalesa and Konkola population. The project will deliver significant social and health impacts and is economically viable, with a positive economic benefit– cost ratio. The revenue generated from the system will provide sufficient cashflow to support operation and maintenance costs.

The project is part of a wider CRIDF initiative to support climate resilient WSS infrastructure at strategic SADC one-stop border posts.

MAIN SPONSORS



KEY FACTS

Water infrastructure type	Boreholes, pumping, storage, distribution, sanitation
Country, location	Kasumbalesa, Copperbelt Province, Zambia
Main sponsor(s)	Mulonga Water and Sewerage Company (MWSC)
Financing requirement – capital expenditure	£5.4 million
Financing requirement – project preparation	£810,000
Financial instrument(s)	Grant

DEVELOPMENT IMPACT

- Water provision to 17,000 people in Kasumbalesa and Konkola and 500,000 cross-border travellers and traders per year.
- Sewerage system for Kasumbalesa and Konkola including for households, schools, health clinics, public areas and the border post.
- 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 Kasumbalesa population.



SOCIAL ISSUES

- Zambia is one of the poorest countries in the world, with 88% of the rural population and 46% of the urban population living below the poverty line.
- Poverty in Kasumbalesa is high due to the historic relocation of rural residents to informal poor housing in the town, and other rural migrants who came to seek economic prospects.
- The population of Kasumbalesa is predicted to almost double by 2038, from 17,000 to 31,000.
- Livelihoods are centred on informal trading at the border post, government services and agriculture. Literacy levels remain low.
- Child marriage is one of the highest globally at 32%, and is strongly associated with gender-based violence.

- All Kasumbalesa schools have boreholes; however, water quality is low as the water is not treated. MWSC supplements the supply when needed.
- Water for the town is supplied via communal hand pumps and yard connections and the quality is poor. The newly established settlements and expansion areas do not have connections.
- Water supply at the schools is from boreholes which are not treated. Quality is also low. MWSC supplements the supply when needed.
- Sewerage comprises pit latrines or septic tanks with soakaways. A reticulated sewer was under construction but was halted and is not functioning.
- There is a limited waterborne sewage system in Konkola. The VIP latrines at the schools and health clinic flood in the rainy season, creating a significant health hazard.
- Truck queues at the border reach 10 km to 20 km; truckers typically wait for two days and much of the road lacks water or ablution facilities. Open defecation is common.
- Diarrhoea and gastro-intestinal problems are common, especially amongst children. The area is a malaria and HIV/AIDS hotspot.

TECHNICAL

The average annual daily water demand for Kasumbalesa and Konkola is 2,952 m³/d, rising to 4,480 m³/d by 2038. To meet this, the project will upgrade the WSS system through the following:

- Drilling 14 productive boreholes (number to be confirmed following borehole analysis).
- Improving the water treatment process.
- Constructing a new storage reservoir (5,000m³).
- Constructing a new pumping main line (6 km) and distribution lines (82 km).
- Constructing a new sewage treatment works and sewer network (50 km).

INSTITUTIONAL AND LEGAL

- The institutional arrangements for water services in Zambia are well defined and relatively stable, creating an environment where utilities can grow.
- MWSC is responsible for water supply and sanitation. It will own and operate the infrastructure.
- MWSC performs well and operates profitably despite major challenges in revenue collections and non-revenue water management.
- Establishing standard operating procedures and water safety planning will be important.
- The national regulators for WSS (NWASCO) and water resources management (WARMA), and Chililabombwe District Council are important stakeholders.

MARKET AND END USERS

- The end-user customer base includes households, schools and clinics, in Konkola and the border post.
- It is important that tariff levels are affordable to the local population, but also that collection rates are high and enable MWSC to function effectively.
- MWSC should conduct affordability and willingness-to-pay surveys to ensure tariffs are appropriate.

CLIMATE AND ENVIRONMENT

- The climate change risk assessment predicts greater variability in precipitation, decreased winter rainfall, increased aridity and drying out of ephemeral rivers.
- Population growth and increasing traveler numbers will exacerbate pressures on surface and groundwater resources and water availability.
- The project will increase resilience by securing a safe and reliable water supply under future climatic conditions – improving health and hygiene, and reducing food insecurity.

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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