

COLLABORATION FOR SUSTAINABLE SANITATION

The Case of Sanivation and the Malindi Waste-to-Value Facility

This case study explores Sanivation, a 2017 Accelerator Programme participant, and its pivotal role in the Malindi Waste-to-Value (W2V) Facility, a groundbreaking initiative designed to improve sanitation infrastructure and services in Malindi Kenya. It delves into the project's key elements and highlights Sanivation's strategies in establishing itself as a go-to city-wide project developer, implementor, and trusted government partner.

Project Overview

The Malindi W2V Facility will complement the ongoing faecal sludge treatment plant (FSTP) project in Watamu and the proposed FSTP in Malindi. This aims to treat faecal sludge and combine it with other waste products to produce biomass briquettes. These briquettes are then sold to industries as a replacement for firewood. The project is a collaborative effort between Malindi Water and Sanitation Company (MAWASCO), Sanivation, World Bank, and Water and Sanitation for Urban Poor (WSUP).



US\$7.5M

Funding from World Bank



31,200MT

Wet sludge processing capacity per year



5,850MT

Target briquette production annually



140,000

Target residents positively impacted

Project Progress

Construction is currently underway and expected to be completed within the next 6 to 12 months. Sanivation supported in designing the plant and obtained a supervision contract to provide assistance during the construction phase. Discussions are ongoing for the operations and maintenance contract, which Sanivation is strongly pursuing.



GOVERNMENT'S ROLE

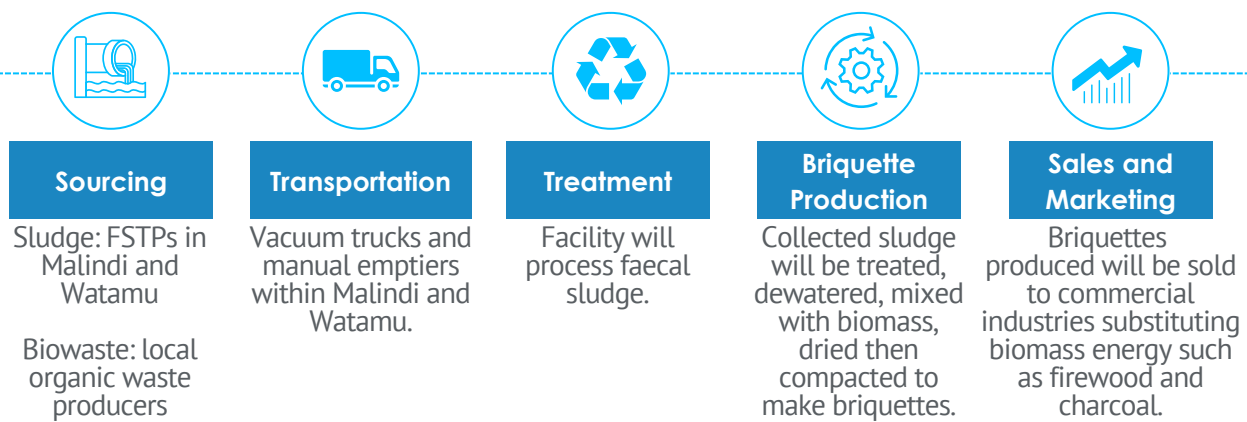
The government's primary responsibility was to create an enabling environment, secure funding, and coordinate and approve project activities. The partnership contract, which will detail the roles and responsibilities, is currently under discussion with a minimum of a 10-year contract duration. The aim is to eventually transfer the project back to MAWASCO through a design, build, operate, and transfer (DBOT) arrangement, ensuring long-term sustainability.

"Sanivation brings valuable expertise in waste-to-value solutions, making them an essential partner in our journey. They bring in expertise, research, and investments and treat it like a commercial venture. This kind of synergy with the private sector is a win-win situation for everyone."



Priscillah Oluoch,
Head of Sanitation and Programs
at MAWASCO

VALUE CHAIN



The project leveraged various funding opportunities to support its implementation:

Capital Investment
World Bank

Operating Expenses
Ongoing Discussion

Technical Assistance Support
Sustainable Urban Economic Development



Revenue Stream:

Sales of products -
Firewood replacements
production & large off-take
agreements with
commercial businesses

SUCCESS FACTORS

- **Leveraging existing opportunities:** Active engagement in collaborative efforts can increase business visibility and open doors to various funding and partnership opportunities. Sanivation actively participated in the design of the Malindi City Wide Inclusive Sanitation Plan (CWISP) as a leading technical partner alongside Water and Sanitation for the Urban Poor (WSUP). This positioned Sanivation as a credible sector player and leveraged opportunities within the CWISP.
- **Demonstrating benefits through feasibility studies:** Conducting feasibility studies and presenting compelling value proposition provide a strong foundation for gaining financial support. Sanivation partnered with Sustainable Urban Economic Development Programme (SUED) and WSUP in conducting extensive feasibility studies. These brought out the market potential of the W2V component and unlocked additional US\$7.5 million funding from the World Bank.
- **Strong Partnership and Collaboration:** Building and nurturing strong partnerships with key stakeholders is crucial. Through the CWISP exercise, Sanivation established and nurtured relationships with key stakeholders in the Government, utility services, and local industries, facilitating a collaborative ecosystem in the project.
- **Marketing and stakeholder engagement:** Tailored communication strategies that engage and inform stakeholders create awareness, build trust, and generate enthusiasm for the project. For Sanivation, extensive marketing efforts and storytelling on the project created traction and excitement garnering support and buy-in from all stakeholders.



Effie Akinyi,
Project Development Lead
at Sanivation



"From our end, the technical expertise and support have played a crucial role in driving the project forward. We have been able to bridge capacity gaps and introduce innovative ideas. Additionally, the strong co-marketing efforts has created momentum and support amongst the beneficiaries, county government and development partners. The leadership and commitment from the MAWASCO have also been critical in the project's success. Their dedication along with our solid business case has enabled the project to thrive and make a positive and lasting impact on the community."

CHALLENGES

Policy and Procurement Challenges: Navigating relevant protocols, procurement policies, and due diligence processes was time-consuming and exhausting. Sanivation explored alternative procurement approaches and worked within the existing framework to advance the construction phase and maintain project momentum. Maintaining flexibility and adaptability is important in overcoming these hurdles and keeping the project on track.

Funding and Business Model: Securing funding presented a significant challenge for the project. While multiple revenue streams were identified, including fees from system users like tipping fees from trucks, heavy reliance on tipping fees was avoided due to political considerations. The focus then shifted towards generating revenue through sale of reuse products. Initially, Sanivation intended to sell reuse products (charcoal replacements) in supermarkets and households. However, this approach proved economically unviable due to low uptake and scalability challenges. Sanivation made a strategic decision of shifting the business model to producing firewood replacement and establishing large off-take agreements with commercial businesses. Continuous review of the existing financial model and improvement based on market realities and economic viability is crucial in ensuring long-term financial sustainability of the project.

Replication and Future Plans

Efforts are underway to replicate the W2V model in other cities in Kenya. Feasibility studies have already been conducted with fundraising activities in progress to support these studies. Sanivation also engaged with national government agencies to influence budgetary allocation for infrastructure development and secure donor funding.

Conclusion

The W2V Facility project demonstrated the potential for innovative waste management solutions, the importance of partnerships, and the benefits of leveraging public and private sector expertise in addressing sanitation challenges.

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With thanks to our leaders:

