NEW GENERATION SANITATION

Partnership approach brings latest sanitation technology to rural Limpopo community

A partnership between one of the world's largest food and beverage companies, South Africa's leading water research funder, a non-profit organisation and a local community, has resulted in the delivery of a much-needed sanitation solution to one of the most remote areas in the country.

The project, a result of a partnership between the PepsiCo Foundation (PepsiCo's philanthropic arm), the Water Research Commission (WRC), and Tsogang Water and Sanitation, has provided 120 households with off-grid, low flush toilets in Makhuduthamaga Local Municipality, located in the Sekhukhune District Municipality, in Limpopo Province. Provision of this infrastructure is one of the Foundation's four access to water initiatives across the country – ranging from affordable washing units in homes, handwashing stations in high density areas to the rehabilitation of natural springs.

Commenting on the project, Devendri Adari, the PepsiCo Foundation Lead for Sub-Saharan Africa says, "Recognising that access to water is a human right, PepsiCo's safe water access work, through multiple partnerships focuses on various programmes in support of UN Sustainable Development Goal #6: Ensure the availability and sustainable management of clean water and sanitation for all." She adds, "As the adage goes, water is life and sanitation is dignity and as a company we are heartened to see the positive impact our water initiatives have had on the communities we serve. We look forward to supporting similar efforts as we work towards our global goal of providing safe water access to 100 million people by 2030."

It is well established that a hygienic toilet can provide numerous health, environmental and economic benefits. While the South African government has made significant strides in improving households' access to safe sanitation in recent years, pockets

of unserved areas remain. Service delivery is particularly challenging in remote rural areas, where there is a general lack of technical capacity for implementation, operation and maintenance.

In addition, the current model of service delivery tends to be a top-down approach, where communities have little say or involvement in the water and sanitation service chain. According to WRC Research Manager, Dr Sudhir Pillay, community involvement is key to ensure the long-term sustainability of water and sanitation infrastructure investments. "Involving community members in sanitation projects leads to greater technology buy-in and much-needed skills development and job creation, which ultimately ensures the longevity of the solution selected."

South African households generally aspire to have access to better sanitation options (the flush toilet being the 'gold standard'), however, given the remote location of some areas, coupled with a lack of the necessary water infrastructure, this is a daunting task. To overcome this challenge, the WRC has been investing in the development of alternative sanitation options such as the low-flush toilet that could be used in rural settings.

The toilet system was designed to have a look and feel similar to a full flush toilet but enables greater flushing efficiencies and robustness. Requiring only two litres per flush, the toilet also features a handwashing station. Unlike conventional flush toilets, the pour flush toilet can be flushed with rainwater or any greywater, such is sourced from the kitchen, for instance. Waste is flushed into a septic tank located adjacent to the toilet structure. Each unit has been equipped with two septic tanks as well as a rotatable PVC pipe, which can be swung from one septic tank to another if one becomes full. An estimated 16 000 low-flush toilets have already been installed in South Africa, most notably in the Eastern Cape and KwaZulu-Natal, where the technology was first tested.

The latest partnership has seen low-flush toilets being introduced to the Limpopo Province. The selected site is around Ga-Moela village, near Schoonoord. The WRC is well versed with this area, having been involved in projects that have seen the successful development of community-driven multiple water use infrastructure in the village.

The latest project provided sanitation to 700 people. Prior to the rollout of the project households were using locally built latrines, with some households having no access to any form of sanitation.

"Through the demonstration project, local people have been trained in the construction of the units, ensuring that the economic benefits of the project reach the community and boosts local skills development," notes Dr Pillay. In this way, small repairs can be performed by community members themselves much quicker and cheaper than if an external service provider had to be contracted.

It is expected that the Ga-Moela project will kick-start similar community-driven initiatives in Limpopo Province and the rest of South Africa. "What we have shown with projects like these is that community involvement and participation around the service value chain fosters partnerships and trust between communities and water service authorities," explains WRC Executive Manager, Mr Jay Bhagwan. "It allows communities to be better informed about their choices of sanitation solutions while, for the municipality, it ensures long-term sustainability in infrastructure investment."

To watch a video on the project click here:
https://www.youtube.com/watch?v=G53qG6mcnwQ

Community members were trained in the installation and maintenance of the toilet structures.

Ga-Moela resident, Regina Moratsebe, is one of the toilet recipients. Community members are no longer fearful that small children will fall into pit latrines or be bitten by snakes when relieving themselves outside.

The toilets have also been equipped with handwashing stations.