



water & sanitation

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Water and Sanitation
REPUBLIC OF SOUTH AFRICA

INTERNET ARTICLE

Natural water resources bring life and restore dignity in rural areas

27 May 2015

The Department of Water and Sanitation had a joint visit to the spring water protection site with Mvula Trust, Department of Basic Education in Mpumalanga, Lidwala Consulting Engineers and AGES on Tuesday, 26 May 2015. The focus areas of the project were Ntithane community and Ntithane Combined School.

The project name is ASIDI/MP/1/2013-Water and Sanitation in Mpumalanga in Gert Sibande District and Mkhondo Local Municipality areas. Evaluations of geophysics in the area for a possible borehole location indicated that chances of success were slim as the yields were weaker than at the nearby fountain. The whole project began in March 2014.

The natural water fountain was developed to supply drinking water to the school as a priority and the community in general. "The fountain has been active for the last sixty years", said Mr. O Heistermann, a representative of the farm owner. He agreed to share the water with the school and the community.

"The fountain on its daily activity releases water equal to 4L/sec. It outshone the borehole aquifer ground water potential which yielded 2L/sec", said Mr. Cuthebert Karimanzira of Lidwala Consulting Engineer which is the professional service provider for the project.

Explaining how all the organs are working together to form the system, Mr. Karimanzira pointed out that water flows from the spring's eye (outlet) and downstream naturally. As part of the development, a collection point had to be built and water is channeled to the sifting structures a few meters from the collection point.



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The sifters are designed to trap large to small particles of soil in the water. They do not change the natural chemical composition of water. Water then reaches the final collection point which consists of three Jojo tanks. From there it is pumped using a solar power compatible generator to the school. When the collection tanks are overflowing, excess water flows to a pond which caters for the cattle.

In the school yard, two Jojo tanks in high rising stands receive water. It is then channelled around the school. Visible also are Jojo tanks in each block. These are used for rain water harvesting. Harvested water is used for cleaning, hand washing in the toilets and to water the school's vegetables garden.

As part of the project, the school's sanitation facilities were improved. "On our arrival in the site to do assessments, we discovered that the toilet structures that existed were unsafe", Mr. Karimanzira explained. He indicated that toilets were made of corrugated iron. They had to demolish them and build modernized Ventilated Improved Pit Latrines (VIPs).

The up to standard facilities cater for all learners and teachers, as well as learners with disabilities. A Jojo tank is attached at each block of the VIPs for rain water harvesting to promote hygiene through the washing of hands after the use of the toilet.

There are a total of six schools in the area where the same project is running. It has delivered 150 toilet blocks up to now and it promises another 100 in the current financial year.

Speaking at the close of the event, the CEO of Mvula Trust Mr. Silas Mbedzi said "It is important to protect natural water resources. This should be done across the country. All stakeholders should come together to bring service delivery to needy people"



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