

Sanitation Project in Tanzania

Flexigester Faecal Treatment in Dar es Salaam, Tanzania

In 2014 Cambridge Development Initiative installed a simplified sewage system including pour-flush toilets in the slum area of Vingunguti in Dar es Salaam. To complement the system a Flexigester V40 has been installed to treat the sewage before disposal and to produce gas to sell as an alternative fuel for cooking with.



A Flexigester V40 was installed in Dar es Salaam in Tanzania as part of a project run by Cambridge Development Initiative (CDI). CDI is a student-led development organisation who, working with communities in one of the slum areas in Dar es Salaam, built a simplified sewage system. They started by installing a simple sewage system along with new pour-flush toilets to about 20 households in Vingunguti and then the following summer expanded the system to 80 households and included a Flexigester to treat the waste before it goes into a waste treatment pond.

The simplified sewage systems named “SimpliSafi” uses smaller pipes than conventional sewerage pipes and they are buried to a shallower depth in the ground. The sewage was diverted through the Flexigester where it was treated. The waste was treated by anaerobic digestion to breakdown the faecal matter and to produce biogas. The concept was for the biogas to be decanted into transportable

gas bags and sold to individual households for use as a cooking fuel. The bags can then be returned and refilled just as we would with calor gas bottles. At present most cooking is done on charcoal or kerosene and the average family spends about \$2 per day on charcoal. So selling the gas will not only reduce their costs and provide a cleaner fuel but will enable a local entrepreneur to set up a business and make a living selling the gas.

The Flexigester installed was a V40 which could hold 40m³ of waste material at one time. To protect the Flexigester an enclosed compound was built around it.

The local water authority and company in Dar es Salaam, DAWASA and DAWASCO are enthusiastic supporters of the project and have provided the land that the Flexigester is built on. The students from Ardhi University will be running of the system once to Cambridge students have returned home.