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## Flexigester Projects

The Flexigester System is the first rapid deployment anaerobic digestion system with a capacity of 10 tonnes and above. The Flexigester kit is an anaerobic digestion system made from flexible black butyl rubber which converts organic waste into biofertiliser and biogas

Flexigester Systems have been designed and developed by Sustainable OneWorld Technologies C.I.C. (SOWTech) in joint partnership with Butyl Products Ltd who manufacture and distribute the systems. SOWTech are the technical partner and Butyl Products Ltd are the commercial partner.

### **Current project list**

Further details of the projects listed below are given on subsequent pages

Malawi	Flexigester V10 for sanitation waste in an orphanage and school
Tanzania	Flexigester V40 for sanitation waste in an informal urban slum area
Uganda	Flexigester V10 for cattle waste on a rural farm
Sierra Leone	Flexigester V10 for sanitation waste in a Young Offenders Institute Flexigester V10 for sanitation waste in rural community
Maldives	Flexigester V10 for sanitation waste in a R&R camp on an island
ACF	Flexigester V10 for readiness for use for sanitation waste in relief situation
Ethiopia	Flexigester V80 for cattle waste on a farm connected to an orphanage

**Butyl Products Group**, Lingfield House, 11 Radford Crescent,  
Billericay, Essex, CM12 0DW  
Tel: +44 (0)1277 653281  
Direct Contact: [Craig@butylproducts.co.uk](mailto:Craig@butylproducts.co.uk)

# Flexigester

## Malawi - Namisu

Located in Namisu Children's Village, Nr Blantyre Malawi run by Aquaid Lifeline.

Funded by International Federation of Red Cross and Red Crescent Societies.

Flexigester V10 installed in March 2015 connected to pour-flush latrine block used by 50 children. Animal waste and kitchen waste also fed to Flexigester.

Biogas used to cook meals for staff in 40L pots.

Biofertiliser added to composting maize leaves which is used to grow tomato plants



Digging trench for Flexigester



Gas bag outside kitchen



Biogas out tailpipe



Gas from Flexigester burning



Tomato plants grown in soil enriched with biofertiliser from Flexigester



Namisu Flexigester V10 showing connection to latrines

# Flexigester

## Uganda - Kyenjojo

Located in Ndolerire PAK farm, Kyenjojo, Uganda. run by Paul Kyalimpa, Pastor and SAFI Project Manager, Afrinspire.

Flexigester V10 installed in July 2015 connected to a mixer tank for animal waste.

Biogas used to cook meals for family.

Biofertiliser to be used on farm which is a demonstration farm where Paul runs courses on sustainable agriculture.



Installing the Flexigester in Kyenjojo



Building a protective wall



Looking from mixing tank



Flexigester in use



Cooking with the biogas



Mixing the animal waste with water

# Flexigester

## Tanzania - Dar es Salaam

Located in the informal settlement of Vingunguti, Dar es Salaam and run by a local entrepreneur. Flexigester V40 installed in August 2015 by students members of Cambridge Development Initiative (CDI) from Cambridge University and students from Ardhi University, Dar es Salaam. Connected to a simplified sewerage system to take sewage from household toilets in the slums. Transportable biogas bags have been supplied to enable a local entrepreneur to set up a business selling the biogas to the local community as a cooking fuel to replace charcoal.



Planning the simplified sewerage



Junction boxes for the simplified sewerage



Preparing to construct the simplified sewerage



Installing pipework



Installing the Flexigester V40



Flexigester in situ

# Flexigester

## Sierra Leone - Freetown

Located in the Freetown Young Offenders Institute, Wellington, nr Freetown, Sierra Leone  
Flexigester V10 installed in June 2015 and run by Practical Tools Initiative.  
Connected to a latrine block with additional market waste added.  
The biogas will be used for cooking and the biofertiliser used on the gardens at the Young Offenders Institute.



Flexigester arrives on site



Flexigester being installed



Flexigester in use



Flexigester with Pressure Regulator and gas bag



Flexigester in use with full gas bag



## **Other Flexigester Projects**

### **Maldives**

Located in Ulligan Island, Maldives.

Flexigester V40 was sent in 2015 as part of a water treatment package to a new camp on the island to provide accommodation for ship security staff during their on shore R&R time

### **Action Contre la Faim (ACF)**

Two Flexigester V10s were sent in to the aid agency in 2015 to be put into stock in their warehouse in readiness for deployment in an emergency situation

### **Sierra Leone**

Flexigester ordered and in production March 2016.

Flexigester V10 ordered by Mountain Lion Ag to connect to latrine block in village to supply sanitation to the village and to produce nutrient rich biofertiliser and compost for the rice fields farmed by the Mountain Lion Ag farmers

### **Ethiopia**

Flexigester ordered and in production March 2016.

Flexigester V80 to go to Elshadai Orphanage, Wukru, Ethiopia. The Flexigester will be located at the orphanage farm which has a dairy herd of 25 Holsteins. The animal manure will be fed to the digester and the biogas produced will be used for cooking and the biofertiliser spread on land.