

Tristan Downing – Tanzania, Summer 2015

The Cambridge Development Initiative (CDI) is a student-run NGO that operates four projects – Education, Engineering, Entrepreneurship, and Health – in Dar es Salaam (Dar), Tanzania. I was working as an engineer, focusing on the technical side, on the Engineering project.

In summer 2014, CDI built a simplified sewerage network serving 250 people, the first network of its kind in Tanzania. This replaced pit latrines, which would overflow onto the streets during the rainy season. They also established a Sanitation Users Association (SUA) to monitor and maintain the network, as well as collect loans from the users for payment of the network.

This year, we built another expansion, this time serving 150 people. Firstly, it tested various technical improvements on the network, implemented primarily to reduce cost. We also altered the SUA, creating a full-time health education role to promote activities such as hand washing. The payment structure was also modified, and a Tanzanian CDI member set up his own NGO to facilitate loan collection. Essentially, the community pays for the entire network with a 2-year microfinance loan. Finally, and most importantly, we installed a 40,000 litre biogas digester at the outfall of our network. This rubber biodigester (Flexigester) was designed and built by SOWTech, a CIC based in Cambridge. The sewage passes slowly through the Flexigester, which produces methane that can be sold, used to cook on, or generate power with.

We dubbed this vertically integrated sanitation innovation – the first of its kind in the world – SimpliSafi (Safi means safe, or clean, in Swahili). BRAC (the biggest NGO in the world, and a good example of effective south-to-south aid) was very interested in our project, and chose to partner with CDI and SOWTech to apply for a Human Development Innovation Fund (HDIF) grant, funded by DFID. This is the first time BRAC Tanzania has made an equal level partnership, so we were quite enthused. People from HDIF have been to visit our site in Vingunguti (the informal settlement we work in, in Dar), and we've made it to the final round of competition for the £400,000 grant. Should we be awarded the money, BRAC will use it to scale our pilot through other communities in Dar, to optimize the system for scaling across the country in a franchise model.

I've now taken over the leadership of the project, thus have remained quite busy coordinating monitoring and evaluation with our counterpart Tanzanian students, applying for more funding, and recruiting new Cambridge members to drive the project forward. This year, we hope to implement a further step in the comprehensive sanitation solution – fertilizer processing using the solid waste from the Flexigester.