

## Changing lives, one kitchen at a time

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Country: Rwanda
Sector: Renewable Energy - Biogas



*Aimable Niyigena inspecting a fully operational canvas biogas digester.*

### CHALLENGE

Rural Rwanda has long depended on firewood for cooking fuel. This is increasingly becoming untenable as the population grows and forest cover recedes. OYE, through its work in the Southern Province, is bridging the energy gap by training biogas technicians to market and build biogas technology. OYE's training in life skills and transfer of technical expertise among local youth is matching the need for sustainable cooking fuel among rural households – with significant savings on the expenditures on wood and charcoal. The residue product of biogas, bioslurry, is a proven high quality organic fertilizer contributing to enhanced agricultural productivity. As such, the youth are not only trained towards successful self-employment and profitable business, they also perceive biogas as an innovation that highly benefits their communities environmentally and economically.

### CLIENT

30-year old Aimable Niyigena has created a business solving the fuel problem in the Southern Province. His interest in biogas started in 2009 when the MININFRA National Domestic Biogas Program and SNV offered trainings in his province. He was a third year student pursuing a bachelor's degree in alternative energy but he decided to discontinue because his course did not offer biogas. Between 2009 and 2012 he started a business, offering various energy solutions including biogas. Aimable joined OYE in 2013 and went into biogas full-time. In 2014, Great Lakes Energy Solutions, one of OYE's local implementing partners, engaged Aimable as a biogas trainer for OYE trainees in his home province.

### METHOD / SNV INTERVENTION

SNV has empowered Aimable to offer peer training, which is yielding positive results. Besides offering peer training, Aimable is mentoring the trainees. SNV has linked Aimable to Drimex, the Kenyan company that has brought the canvas digester technology to Rwanda. His company has also been connected to the National Domestic Biogas Program (NDBP) subsidy program through which he earns Rwf35,000 for every new installation.

## OUTCOME

Aimable has registered a biogas enterprise operating in Southern Province. So far he has employed 25 OYE trainees and has installed 400 digesters. In November 2014 he transitioned to canvas digesters, a new technology which is reducing the cost of a digester from Rwf800,000 to Rwf400,000. The new technology does not require digging and cuts back installation time to a day, whereas the conventional DTC digester requires digging and takes two weeks to install. An 8m<sup>3</sup> canvas digester costs half as much as a conventional digester, which is attractive to new customers who would like to adopt the technology but could not afford it previously. Canvas digesters also require half as much cow dung for initial feeding as a conventional DTC digester. He is working directly with the local authorities, accessing the NDBP biogas subsidy that is designed to promote transition of more households to biogas.

## IMPACT

Aimable has built a house for his wife and child. He supports his parents as well using the income he makes. He makes a monthly income of Rwf300,000.

## TESTIMONIALS

"My greatest selling point is service. I train my employees to give the best service to our customers. Local government officials have also helped to promote our services. I even drive new customers to see digesters that we have installed". Since the canvas technology was introduced in November 2014, he has installed 247 digesters.

Agnes Joseph, a resident of Kavumu village in Nyanza district for whom Aimable has installed a canvas digester said; "I now have a clean kitchen, and we are producing exotic bananas for sale using the bio slurry from the digester".

## SUSTAINABILITY

1. Aimable's enterprise is affected by slow payout of the subsidy funds; he makes up for it with high numbers of installations.
2. He employs five technicians whom he has trained to handle the technical aspects of the installations. By delegating, he can get more installations done and spend more time following up on his subsidy payments with local authorities.
3. The customers who have had installations done help market his work by educating their neighbours on the benefits of biogas, thus turning them into potential clients.
4. Aimable has learnt from his OYE training to run his business profitably.
5. He has gone back to university and is completing his fourth year in biogas studies, thus growing his skill set and management acumen.

## LESSONS LEARNED

1. OYE needs to focus on producing quality, not quantity trainees to build capacity in not only the biogas but also solar and ICS sectors.
2. OYE should also promote peer learning, through churning out fresh minds because trainees develop interest and seize opportunities in areas where their peers have excelled.
3. OYE should also mobilise and encourage youth to work in groups/cooperatives to make it easier to access funding and cover more districts.



*Enhanced horticultural productivity on the basis of the application of bioslurry as organic fertilizer*



*A smoke-free kitchen with clean cooking gas, offering significant health advantages*