

The Furnace



The furnace above was developed with members of BioSmart in conjunction with the University of Exeter Engineering department. It was created to use materials that are readily available in Kadzinuni. The Biochar that is produced is bound with casava paste which creates a briquette. These briquettes can then be sold to the local people. We have four in use in Kadzinuni, and we have plans to build more here and in Zanzibar.



BioSmart.

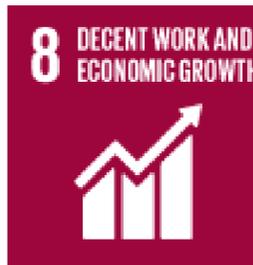
Providing a sustainable solution to fuel poverty in Kadzinuni and Zanzibar by providing rural communities with specially designed infrastructure and knowledge to set up their own biochar business

OUR TARGET AREAS:

By **creating opportunities for women** to gain additional household income, we are contributing to the evolution of the social structure in Kenya and alleviating discrimination against women.

We have created furnaces that **burn agricultural waste under the conditions of pyrolysis which creates biochar**. Biochar is a **more sustainable fuel source than charcoal and wood** which is commonly used in our target regions

By using a surplus of agricultural waste to create the biochar, we are **limiting the extent of deforestation** that is causing environmental degradation in the area



By selling **Biochar briquettes for KES 10/kg less than charcoal** at the local markets in Kadzinuni, we are helping to tackle fuel poverty in the area

We have set up the 'Kadzinuni Biochar Group' to enable members of a rural Kenyan community to increase their income and gain knowledge of entrepreneurship. **Since starting the production and trade of biochar in Kadzinuni, we have facilitated an average of 37% household income increase** for the women that run the business on the ground.



Education is another serious aspect to our social enterprise. In conjunction with our leader on the ground Patrick Nyambu, **we have been able to teach the 14 women we employ about business and entrepreneurial skills** that they have not previously had access to.

We have also educated local children in Zanzibar In conjunction with local teachers about climate change as well as the BioSmart process,

Our Future Plans:

Our aim is to take our operation truly global. With a successful business in Kadzinuni, we aim to expand in the village by building two more furnaces and creating more opportunities for local people.

Working with CR Hope Foundation in Zanzibar, we are working to replicate our business model from Kadzinuni in Kenya to Tanzania. We are currently taking promising steps to install the infrastructure.

We are an administrative team who operate from the University of Exeter.