

Title of the Challenge

Design an Agro-Waste Carboniser

What is the main issue the challenge addresses?

The commercially used carbonisers in Uganda offer 10-12% efficiency, with high carbon emissions and have to be lit overnight to deliver the biochar. This has encouraged dependency on char dust as a base for making briquettes which facilitates continued deforestation.

Call to Action

Designing a carboniser with an efficiency above 25% without compromising the biochar properties.

What is the desired impact of the challenge?

This design will be implemented in partnership with TUEmpower Africa in Uganda. This will strengthen the adoption of briquettes in Uganda. It will also open up employment to over 1000 people (agro waste collectors and machine operators). Furthermore, it will provide sustainable raw materials to over 300 briquette producers of whom 60% are women while also saving the government money in collecting and dumping the agro waste in landfills.

Related SDGs



Who is behind this challenge?

Tuluke Foundation fosters sustainable development through quality education and community empowerment. Their mission is to uplift marginalized communities by addressing key global challenges such as poverty, hunger, and inequality. Tuluke provide practical solutions to ensure lasting change, promoting economic independence and social well-being for all.

TU eMpower Africa e.V. is a non-profit organization, which unites students, researchers, alumni and friends of the Technical University of Munich around the question, how energy transition can foster sustainable development of communities in Africa.