

Clean alternative solutions to the inefficient cooking-fuel used in Malian kitchens (C-COOK-MALI)

Our Network

Institute for Technology and Resources Management in the Tropics and Subtropics (ITT), TH Köln (University of Applied Sciences)
Project responsible: Prof. Dr. Ramchandra Bhandari
Cooperation partners in Africa: Rural Polytechnic Institute for Training and Applied Research (IPR/IFRA), Katibougou, Mali; and University of Sciences, Techniques and Technology of Bamako (USTT-B), Bamako, Mali

Circular economy and renewable energy

Challenges

In Mali, the traditional biomass represents around 77% of the national energy consumption, of which 97% is used in the residential sector.

Firewood is mostly used for cooking, which leads to some problems. Beside deforestation, smoke builds up indoors, which harms health. The collection of firewood is time-consuming and even dangerous.

Project Objectives

The aim of our project is to identify the local cooking energy related problems and to seek for adaptation of local technologies that present a unique opportunity for bridging the gap between research results and their practical implementation by education, capacity building and vocational trainings.



Good practices

We implement a broad range of low-tech solutions to be adapted to the needs of the local community. Research results already find their way into practical implementation in the context of education, capacity building and vocational training.

Broadly speaking, project creates the synergy effect among research, vocational training and capacity building, postgraduate education, and networking.

For the implementation of the overall project, local partners from the trades, agriculture and politics are involved in addition to scientists from universities in Mali and Niger.

Activities

The main activities of our project are focused to contribute to clean cooking technologies in Mali, hereby to support to the population towards sustainable livelihood.

The project partners jointly design, implement, and field test the planned pilot systems in the Katibougou region and in Bamako, both in Mali.

Pilot plants include improved cook stoves of varying sizes, briquetting machine to pelletize agricultural residue, a biogas plant with cow-dung as substrate, solar water pumping and solar electric cooking.

Field experiment for the first 3 pilot plants is going on, whereas the last 2 will be installed later.