



AWARENESS,
COMMUNICATION
AND SENSITISATION



CAPACITY
DEVELOPMENT

Establishment of a Training Course for Small-scale Solar Cooling

SUMMARY

Country	Kenya
Implementer	SERC – Strathmore Energy Research Centre
Co-implementer	University of Hohenheim (UHoh)
Target groups	(Young) technicians, project developers, solar companies, small holder farmers
Duration	09/2019 – 02/2022
Type of energy use	Cooling

CHALLENGE

According to the FAO, up to 40% of the cereals, vegetables, fruits and dairy products produced in developing countries spoil before they can be put to good use. These losses hit smallholder farmers particularly hard and threaten their livelihoods. One reason for the losses is a lack of cold chains. Cooling methods that rely on decentralised renewable energies can provide a cost-effective remedy. However, there is a lack of well-trained technicians in rural Kenya who can install, operate and maintain solar cooling systems.

IMPACT LOGIC

SERC and UHoh begin by developing a five-day training course that includes selected training materials on topics such as basics on refrigeration, calculation of cooling demand and design of different solar powered cooling systems. In a second step, trainers are taught to work with the developed material. Parallel to the training of trainers, a 15 m³ solar powered cold storage room is installed at SERC, which provides the participants with hands-on experience during their training. After a first pilot training, SERC develops marketing and communication material to attract members of the target groups and to ensure the continuation of the training programme. The developed training material can also enable other institutions to run courses at low cost. Through the training of technicians, solarpowered cooling is offered for different purposes. Thereby e.g. food losses are reduced.

INNOVATIVE PROJECT ELEMENTS

The project includes the creation of completely new training materials for a 5-days course including lectures, design tools, and practical work with hands-on prototypes. Maintenance of the technical training equipment is sustainably financed by a fixed share of 30% of course fees from training participants.

Trained members of Women in Sustainable Enterprise (WISE), a community based organisation that supports women and girls from marginalized areas, become female members of the SERC trainer pool. A trained company commercializes a solar milk cooling system and is planning the installation of several cold rooms.

FURTHER INFORMATION

www.gruene-buergerenergie.org