

THE SOLAR PROJECT GAMBIA – SOLAR BAKERY, WORKSHOP AND RESTAURANT

PROJECT'S AIM: TO PROMOTE SOLAR BAKING AND COOKING IN GAMBIA AND ESTABLISH ECONOMICALLY SUSTAINABLE FOOD BUSSINESS.

Location:

Gambia

Technology:

Solar baking

Partners Involved:

International Solar Energy

Society- ISES

(www.solarfood.org)

Duration:

12 months

PROJECT'S DESCRIPTION

The *SolarProjectGambia* (SPG) started in January 2006 with the aim of promoting and disseminating solar food processing technologies within Gambia. The climate is favourable for solar technology and the development of sustainable food processing is necessary due to the overuse of fuelwood and significant deforestation. Once imported solar stoves had found approval in Gambia, the first priority was to produce solar stoves locally. The idea was to create a workshop where solar cookers could be produced at a lower cost, making them affordable for the locals. As well as the workshop, it was decided to set up a solar bakery and, subsequently, a solar restaurant.

As the Gambian project met the necessary prerequisites, it was selected as a partner of the WISIONS Solar Food Processing project (see Case Study: solar cooker Burkina Faso). A business plan was set up in cooperation with ISES for the further development of the project.



TECHNOLOGY, OPERATIONS AND MAINTENANCE

In January 2007, an expert from ISES trained 5 craftsmen in solar stove and drier production. As a result they can now produce two sizes of solar stoves (solar box cookers) and a solar tunnel dryer model. Once the first of these appliances had been produced, the solar bakery was constructed and the products developed and tested.

The bakery produces many different kinds of pastries, cakes and sweets and savouries such as pizza or meat and fish pie. Eight solar stoves are used daily. During the project phase the bakery only operated on sunny days and not during a heavy rainy season.

The third stage was to open the solar restaurant in April 2007, where products from the bakery and lunch and cool drinks are sold. A PV solar system is used to supply electricity, which is particularly useful during power cuts. Due to public solar cooking demonstrations and the sale of solar baked products, the Solar Project Gambia has become recognised across the region and country.

RESULTS & LESSONS LEARNED

By the end of the SEPS funded project phase (2007 – 2008), a small solar business had become established in Gambia. A workshop for the production of solar stoves and solar driers, a solar bakery and a solar restaurant were up and running. Craftsmen were trained to fulfil minimum quality standards for the Gambian market. In 2008 (during the SEPS project phase), 6 people were employed by the SPG.

The bakery products are regularly sold on the street and are well accepted by local customers. Tourists also visit the project, not only to taste solar food but also to see how the project operates. The solar restaurant attracts the attention of passers by and offers the opportunity to inform customers about deforestation and its consequences.

Unfortunately the baking production was interrupted because of a heavy rainy season and it was not possible to generate enough income to cover the costs. After the rains, however, the bakery moved to a more appropriate location and its production capacity was increased.

Other obstacles faced were illiteracy, lack of technical skills and the need for professional marketing. The lack of education adversely affected the project: it was particularly difficult to train the carpenters to produce good quality products. Further training and planning is very important to keep the project running.

It has also been difficult to convince the local population of the importance of buying a solar cooker for household use. Although they like the idea of solar cooking/baking, they are still reluctant to invest money in this new technology. The price of a solar box cooker is about 4500 dalasi, which is about 1.5 – 3 times the monthly salary of a normal worker.

In 2011 the project is still running successfully under the name "Solar Project Tiloo" (see www.tiloo.ch)

Source: Final Report submitted to WISIONS by ISES