Solar Box Cooker



Why to choose this solution?
Solar cookers are an easy way to use less firewood and save money. Depending on the needs of the user one can also use this solution for drying and preserving farm produce.

Savings per day or production:
This solution saves the use of bio fuels and biomass for cooking up to 95% because it requires no fuels for heat generation.

Cost in money and in own time to construct:
The solar box costs between UGX 300,000 (boxed cooker) - 1,000,000 (more complex designs) approximately USD 82.19 - 277. It can also be constructed using local materials and a person can construct one for home use.

Lifetime:
The duration for this solution is around 10-30 years.

Maintenance needed:
Regulary clean the interior of the box after use.

Resources needed in use:
Good sunny weather, Knowledge of solar cooking, materials and market.

Problems and limits:
Requires Good Sunny Weather and knowledge on how to use the solar cooker. Cannot fry foods. In cultures and societies where frying is common, take up of solar cookers will be less as the cheaper models cannot fry foods.

Where and how can you get it or make it?
The solar box are sold at JEEP offices in Kyanja and online shopping platforms.

Skills needed to produce, install. maintenance, use:
Production requires technical training. There are no specific skills required to maintain or install the solar box; all you need is to be careful while handling it and always keep it clean. Using a black pot increases the efficiency.

How to use it:

How to maintain it:
Needs to be cleaned after cooking.

Climate effect (if any):
Solar box cookers produce no smoke and no pollution, hence reducing green house gas emissions by 90%. Solar cookers lessen the demand for firewood, saving up to 1 ton of wood per year for each solar cooker.

Where it is used and how many users are there?
This solution is used in rural and urban areas of Uganda. it is also used on many farm to dry and preserve farm produce.

Why is it successful?
JEEP promotes uses of renewable energy for cooking. It has promoted this solution and marketed it all over the country. JEEP carries out training, also encouraging youth to be creative and to start producing these boxes to earn some income, to make the solution cheaper, and to make it available to all kinds of people.

If you can make it, a short description, typical problems, materials needed:
It needs a skilled person to construct the product. To make this solar box, you need a box made out of an insulator, a glass pane or a transparent polycarbonate sheet. One needs to insulate the box more by adding a layer of insulating material plus a black cloth to cover the layer. The cover of the box should be made of a transparent material that can allow in sunlight and cover the box allowing very little or no air to enter the box while closed.

How to make it (if possible):
Not relevant.

How is it delivered and by whom?
It can be found/picked up at JEEP head office in Kyanja.

Successful financial model
Support from development partners.

What policies and strategies helped the success?
Support from development partners and government policies of waiving taxes on solar products.

More info:
http://solarcooking.wikia.com/wiki/Introduction_to_solar_cooking

Sources:
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When was the case uploaded?
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