

Solar Cooker Cookit



Why to choose this solution?

This solar cooker is made of durable cardboard and foil shaped to reflect maximum sunlight onto an enclosed cooking pot. It is easy and simple to use. It is an affordable, effective, and convenient solar cooker. With a few hours of sunshine, the Cookit makes tasty meals for five to six people at gentle temperatures, cooking food and preserving nutrients without burning or drying out. The solar cooking process is smokeless, reducing pollution, respiratory diseases, and eye irritation.

Savings per day or production:

Cookit saves more than four times its value in fuelwood each year. With careful use and storage, a Cookit can be used for two years, reducing fuelwood consumption by two tonnes. Reduces pressure on forests for firewood and charcoal.

Cost in money and in own time to construct:

Cookits are produced from a wide variety of materials at a cost of KSh 300-700 (USD 3.00- 7.00).

Lifetime:

With careful use and storage, a Cookit can be used for two years.

Maintenance needed:

Storing the Cookit in a safe place away from moisture and animals, preferably indoors. Allowing plastic bags to air-dry or gently wipe dry with a towel. The Cookit is compact and portable. When not in use, it can be simply folded lengthwise into thirds or folded flat into a 33 cm (13 in) square.

Resources needed in use:

Sunlight, a cooking pot and lid, plastic bags or pyrex bowls as a greenhouse.

Problems and limits:

Can be blown away on a windy day but added weights e.g., stones can easily hold the cooker in place (as pictured above).

Where and how can you get it or make it?

Originally designed by Solar Cookers International (SCI), people can make Cookits using open source design plans. You can also buy Cookits from NGOs using them in your own country. In Kenya, Cookits are used in Lower Nyakach, and are available from the organization "Friends of The Old".

Skills needed to produce, install, maintenance, use:

Brief training on how to construct and use the CookKit require only a short introduction.

How to use it:

To be added.

How to maintain it:

To be added.

Climate effect (if any):

CooKit can be used for two years, reducing fuelwood consumption by two tonnes. It reduces pressure on forests for firewood and charcoal, hence helps to reduce climate change.

Where it is used and how many users are there?

Used in Kakuma Refugee camp, Lower Nyakach region of Western Kenya, Lower Nyakach has about 14,000 household users of Cookit.

Why is it successful?

It is successful because the card stock and reflective material are available locally (sometimes as recycled material such as the inside of snack bags for the reflective material). It is easy to make and use, the fuel (sunlight) is free of charge and abundant, and it is portable. The CooKit Solar Cooker was launched in 2005 in several refugee camps in Chad, which made it well known. Using the Cookits resulted with that women and children no longer had to leave the camp to get firewood, and were not exposed to risking being raped, harassed and murdered. It also reduced the use of fuel wood in the dry region, and the time women spent on cooking on open fires.

If you can make it, a short description, typical problems, materials needed:

Cardboard (3x4 feet or 1x1.3 meters); aluminum foil; white glue; water. There is a handbook published by Solar Cookers International that includes detailed plans for building a CooKit.

How to make it (if possible):

<https://youtu.be/yykfL6pYbBQ>

How is it delivered and by whom?

Local entrepreneurial groups can easily use open- source design plans to launch CooKit production, sales, and distribution. For instance, CooKits have been distributed directly to beneficiaries (such as elderly community members) by community-based organizations. Complementary technologies, such as a Water Pasteurization Indicator (WAPI) and an insulated basket (fireless cooker) may be bundled with a CooKit and cookware.

Successful financial model

Because the CooKit is so affordable and easy to make, families can make one and start experiencing savings in fuel costs right away. These savings could even then be used towards purchasing other models of solar cookers.

What policies and strategies helped the success?

Local leaders (especially women) leading by example and demonstrating use with local foods in the local language. Training and follow up and community support/involvement (many women in a community having access to solar cooking). Women taking pride and ownership in the CooKits, for example, by adding a fabric

liner around the edges to make it sturdier and more visually appealing.

More info:

Solar Cookers International (SCI), <https://solarcooking.fandom.com/wiki/CooKit>, List of NGOs where you can buy it: <https://solarcooking.fandom.com/wiki/CooKit#NGOs>. Handbook “How to Make, Use and Enjoy”:

https://www.solarcookers.org/files/7914/5687/8521/How_to_make_use_understand_English_Update.pdf and Cookbooks available from <https://www.solarcookers.org/resources/download>

Sources:

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