

SOLAR COOKING

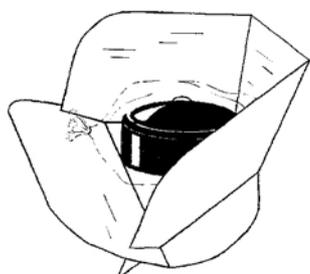
What is this Action Sheet about?

- Are you looking for ways to save fuel and make less smoke when cooking?
- Do you have mostly sunny days for several months of the year?
- Do you have a space outside that is sunny for several hours, sheltered from high wind and safe from theft or tampering?
- Are your cooking fuels expensive or scarce?
- Does your kitchen sometimes get too hot and smoky?
- Do you worry about the safety of small children near your kitchen stove or open cooking fire?
- Do you want to prepare for emergencies or camping when you may not have safe drinking water?
- Would you like carefree cooking you can leave unattended?

If you answered yes to more than two of these questions, you may find this Action Sheet interesting. It is about solar cooking, a way of using the heat of the sun to cook food.

How do you cook with the sun?

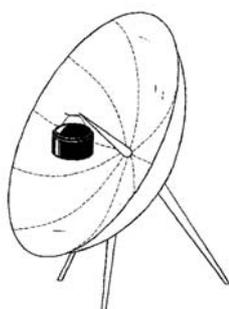
A solar cooker or stove focuses sunlight on to a pot of food, heating it up and cooking it. Depending on the weather where you live, a solar cooker could be a useful option for most or part of the year. As the sun does not always shine, solar cooking is usually used alongside other cooking methods, helping to save fuel. You can make your own solar cooker, as described in Action Sheet 61. There are many different designs. In some places, you can buy solar stoves which cook food quickly at high temperatures.



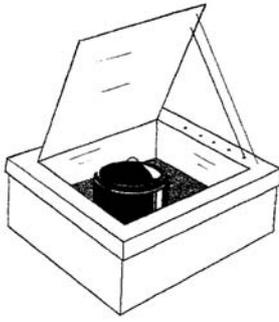
*Solar Cookit
(Image: SolarCookers International)*



*Parabolic solar stoves
(Images: Solar Cookers International, CEF)*



*Panel solar cooker, in use in Ethiopia
(Image: SolarCookers International)*



*Solar box cooker in Mbamba, Tanzania
(Image: Solar Cookers International)*



*The Anahat – a Vietnamese hat lined with reflective material
(Image: BoxAid –<http://www.geocities.com/boxaidinfo/>)*

What are the benefits?

Once you have got solar cooking equipment, solar cooking is free. In Kenya, people spend about 40% of their income on fuel. Cooking with a solar cooker reduces fuel used by 60%. A family that cooks with the sun can spend far less on fuel, leaving more for other things! Using solar cooking means that less firewood and charcoal are needed. This saves time spent collecting fuel and helps us manage the natural resources of forested areas. Solar cooking doesn't produce any smoke or pollution.

Are there any drawbacks?

- You need to have a secure outdoor area where you feel comfortable cooking. Solar cooking will work out better if you are able to leave the solar cooker or stove alone without worrying about it
- Most solar cookers take quite some time to cook food and work best when the sun is high in the sky, so you may need to be able to make some changes to your schedule and be prepared to start cooking the midday meal in mid morning
- You can only use them to cook during the day. For example, you would still need to use other fuel to heat food up for an unexpected evening guest!
- You still need to have other sources of fuel for cloudy days
- If you are used to having a fire, you may miss it as a place for gathering, keeping warm and feeling safe

FOR MORE INFORMATION

Action Sheet 61 describes how to build your own solar cooker.

CONTACTS

Solar Cookers International
Energy Development Corporation, South Africa
The PACE Directory Energy section on the CD includes many solar cooking organisations

References

A variety of solar cookers are described on the Solar Cooking Archive <http://solarcooking.org/plans.htm>

In South Africa, the Energy Development Corporation is supporting entrepreneurs who are developing solar stoves for the mass market.

www.cef.org.za/about/edc/solarcook.htm

SOLAR COOKER RECIPES

Ugali

Take an equal measure of maize flour and cold water.

Pour the water in to the solar cooking pot, gradually stir in the flour, mixing well until all the flour is used up and there are no lumps of flour left.

Put the black cooking pot lid on and place in the plastic bag and put in the solar cooker for 2 to 2½ hours. Your Ugali will be sweet and ready to eat without stew.

(Dinah Chienjo, Project Officer, Sunny Solutions, Kenya; Solar Cookers International (East Africa) SuNews, January to June, 2005)

Chicken

Ingredients

1 medium chicken (broiler)

4 cupfuls roasted groundnuts (you can roast with the sun!)

2 medium onions

2 medium tomatoes peeled

Salt and pepper to taste

½ tsp Sodium bicarbonate

Instructions

Clean the chicken, cut into pieces and put into the black pot

Pound the roasted groundnuts

Chop onions, tomatoes and add spices. Mix with groundnut paste and add to the chicken in the pot

Cook for 2 hours

(Solar Cookers International (East Africa) SuNews, January to June, 2005)