



A solar cooker is a device which uses sunlight as its energy source. A mirror or alluminium shiny sheets is used to concentrate light and heat from the sun into a small cooking area. (Kutlwano Mulale)

Solar Cooker ()

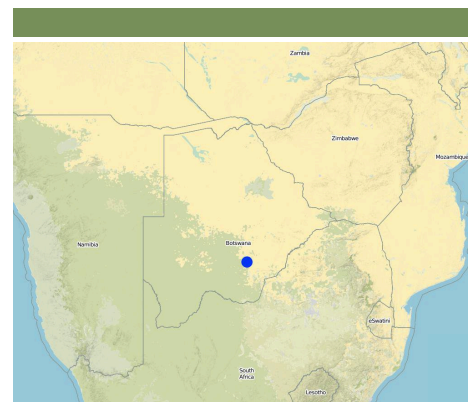
Setofo sa marang a letsatsi

Harnessing solar energy through solar cookers

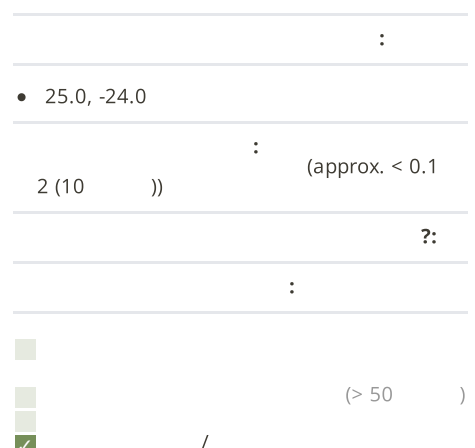
The basic principle of all solar cookers is to concentrate sunlight using a mirror or some type of reflective metal. It is used to concentrate light and heat from the sun into a small cooking area making the energy more concentrated and therefore more potent. Parabolic shaped solar cookers - when a three dimensional parabolic is aimed at the sun, all the light that falls upon its mirrored surface is reflected to a point known as the focus.

The technology is supplied by the Rural Industries Innovation Centre (RIIC) in Botswana. The solar cooker is maintained by cleaning the reflector mirrors with soft cloth soaked in soap and rinse with clean water. Turn reflector anti-clockwise until it hits the stand leg to lock it in place when it not in use. The solar cooker requires frequent adjustment and supervision for safe operation.

The solar cooker is best used in an open atmosphere with direct sunlight. A solar cooker needs an outdoor spot that is sunny for several hours and protected from strong winds and where food will be safe. Solar cookers do not work at night or on cloudy days.



: Southern District, Botswana,



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
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



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Pula

) 1 USD = 6.6 Pula

Material followed by labour

n.a.

n.a.

< 250

251-500

501-750

751-1,000

1,001-1,500

1,501-2,000

2,001-3,000

3,001-4,000

> 4,000

✓

Seasonal summer rains in 6 months dry (LGP=75-179 days)
Thermal climate class: subtropics. Subtropical thermal climate.
Semi-arid with dry winters (LGP=75-179 days)

(0-2%)

(3-5%)

(6-10%)

(11-15%)

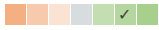
0-100

101-500

501-1,000

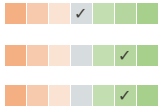
1,001-1,500

[illegible]



With respect to firewood collection

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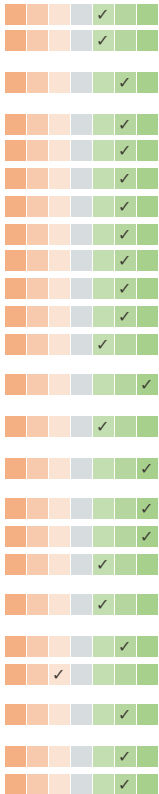
Less demand on the time and labour of women and the girl child who are the main collectors of firewood

It provides cheaper alternative sources of energy.Reduced workload for firewood collectors(women and girl child)

Improved livelihoods and human well-being

decreased increased

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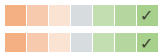
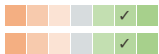
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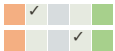
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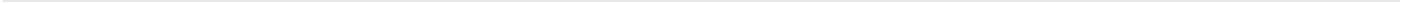


Cloudy weather



- 1-10%
- 11-50%
- > 50%

- 0-10%
- 11-50%
- 51-90%
- 91-100%



- ?
- ?
- ?



- Helps conserve trees,otherwise cut for fuelwood-saves 1 ton of wood per year
- How can they be sustained / enhanced? Disseminate the technology to rural household
- Reduces labour time for gathering fuelwood
- How can they be sustained / enhanced? Improve incomes of rural household so that they could afford the technology
- 1) Helps conserve trees,otherwise cut for fuelwood-saves 1 ton of wood per year
- How can they be sustained / enhanced? Disseminate the technology to rural household
- 2Reduces labour time for gathering fuelwood
- How can they be sustained / enhanced? Improve income of rural households so that they could afford the technology
- Solar energy is renewable and entirely non-polluting
- Smoke free cooking
- Solar energy is free

- Strong winds can upset cookers and pots on them if not sheltered
- Build unroofed shelter around cooking area
- Open cooking exposes food to dust
- 1)Only cook when it is sunny Safe storage facility
- 2)Parabolic cookers need frequent adjustment Build unroofed shelter around cooking area
- Need to stole cooker during rainy season
- Strong winds can upset cookers and pots on them if not sheltered
- Open cooking exposes food to dust



Editors

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: 16

2010

: 19

2019

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https://qcat.wocat.net/km/wocat/technologies/view/technologies_1385/

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- University of Botswana (University of Botswana) -
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