

Sakkanal Stove

Senegal



Type

Portable metal household stove in two versions:

“Mono-marmite” for a fixed pot size

“Multi-marmite” for flexible pot sizes

Names

“Sakkanal” stove in Senegal

Fuel

Fuelwood and charcoal

Country of origin / Dissemination area

Launched in Senegal in 1986, the stove was developed by the research centre CERER¹.

The dissemination within FASEN² started in 2006 with support from the GIZ programme PERACOD³.

By December 2010, over 2,200 stoves had been produced and sold in the intervention areas.



Users

Urban and rural households

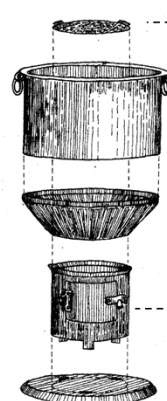
General description

Portable metal stove with skirt for one pot:

- Fixed grate for fuelwood use, removable grate for charcoal use
- Fuelwood-inlet can be closed for air regulation when used with charcoal
- Handles

- In case of the fixed-pot size Sakkanal, the skirt is vertical and customized to fit the pot size in order to enhance heat transfer

One-pot size Sakkanal



Multiple pot size Sakkanal



Stove dimensions

Eight different stove sizes are sold on the market (six one-pot size stoves and two multiple pot size stoves):

Common sizes	Diameter (cm)	Height (cm)
One-pot stove for 5 kg pot	34	47
Multi-pot stove (2 - 5 kg pots)	34	33

Estimated lifespan

At least two years

Materials used

At least 1 mm thick scrap or new metal sheet

Performance

The stove saves at least 30% of fuelwood compared to a three-stone fire.

¹ Centre d'Études et de Recherches sur les Énergies Renouvelables

² Foyers Améliorés au Sénégal

³ Programme pour la Promotion de l'Électrification Rurale et de l'Approvisionnement durable en Combustibles Domestiques

Production / Supply

The stove is produced by local tinsmiths.

Standardized templates are used to outline the different stove parts on a metal sheet; then they are cut out along the indicated lines.

The use of templates allows the producers to maintain standard, quality standards and to increase the number of produced stoves per day. The cut pieces are assembled without electricity.

An intense quality control system supported by the project, the trained artisans and the research centre ensures the quality of the stove and the customers' satisfaction.



Price (2011)

The price for an average stove (5 kg pot) is about 8.00 € (5,000 FCFA).

Strengths and weaknesses

Positive

- + Efficient stove
- + Portable
- + Decentralised production
- + Standardized templates allow high quality production
- + Enhances local income generation
- + Use of both charcoal and wood

Negative

- Expensive in rural areas

Available documents

- Guide de fabrication du foyer Sakkanal (CERER, 1986): https://energypedia.info/index.php/File:Fabrication_Sakkanal.pdf



Source of pictures: GIZ Senegal
Last update: April 2011

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