

Jiko Kisasa

Kenya



Type

Inbuilt household stove for one or two pots with ceramic liner and without a chimney.

Name

“Jiko kisasa” in Kenya

Fuel

Fuelwood

Country of origin / Dissemination area

The Jiko isasa stove was originally developed in Kenya in the late 80's by various players including GIZ, universities and local potters. Dissemination was started then until phasing out in 1995. About 180,000 stoves were disseminated.

Since 2006, the same stove is disseminated within the German-Dutch Energy Partnership programme, Energising Development (EnDev). Until June 2011, 384,000 stoves were disseminated.

Users

Rural and peri-urban households, small social institutions such as schools and restaurants

General Description

- Fixed ceramic liner
- One or two pot-holes
- Single fuel feed and combustion chamber
- A ready ceramic liner fixed with good clay or red soil
- The same stove size can accommodate different pot sizes up to 50 litres.
- No skirt for the pot

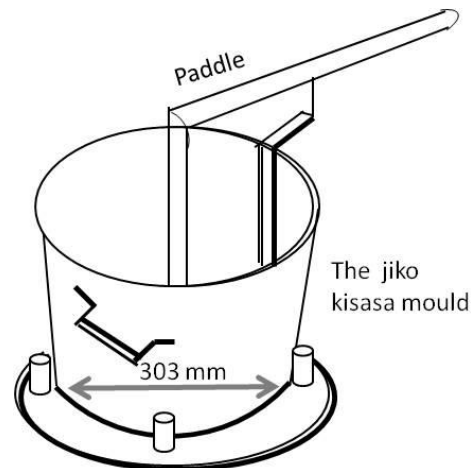
- The stove is a continuous feed without firewood shelf

Stove dimensions

Circular shape of 17 cm height and 28 cm top internal diameter and 23 cm bottom internal diameter with 3 cm wall thickness.

Estimated lifespan

Up to 4 years and longer



Materials used

The ceramic liner is a fired clay product which serves as a lining for the fire chamber while the stove body is made of normal clay, anthill soil or good red soil.

Performance

The stove saves between 35 – 40% of firewood compared to the three stone fire based on CCT-test.

Production / Supply

The ceramic liner is a prefabricated standardized product. It is produced by local small and medium enterprises in small decentralized centres, and marketed and installed at the final place of use.

Users purchase the ceramic liner and pay an installation fee at the market price.

Through training in technical and entrepreneurial skills, the project supports stove dealers to emerge into stove business.

Price (2011)

On average the ceramic liner costs Ksh 250.00 - 300.00 plus an installation fee of Ksh 100.00 - 200.00. (€ 2.00 - 2.45 and € 0.80 - 1.60)

The prices vary in different regions of the country.



Strengths and weaknesses

Positive

- + Fast cooking
- + 30% emissions reduction (IAP study 2007)
- + Local availability of materials and the employment of local stove builders and installers

- + Low investment costs makes it also accessible for very poor people
- + Screened fire reduces danger of burns

Negative

- Clay only available in specific area
- Transport can be difficult /costly in far away area
- Easily breakable
- Need regular maintenance

Available documents

- Construction manual: [https://energypedia.info/index.php/File:GIZ_ROCK_MOULD_ADJUSTMENT_TRAINING_REPORT\(2\)_2\).pdf](https://energypedia.info/index.php/File:GIZ_ROCK_MOULD_ADJUSTMENT_TRAINING_REPORT(2)_2).pdf)
- Cost benefit analysis: https://energypedia.info/index.php/File:Kenya_-_ICS_2010_Stoves_Entreprise_Budgets_Main_Report_Edition_final_Ndungu_.pdf

Source of pictures: GIZ PSDA in Musungu, Kenya

Name of Photographer: Anna Ingwe

