

Nansu Unfired Clay Stove

Benin



Type

Portable single-pot household stove from air-dried, unfired clay for use with charcoal

Name

“Foyer Nansu céramique non cuit” (Benin)

Fuel

Charcoal

Country of origin / Dissemination area

Benin

The design emerged from the ‘Nansu stove’, the Benin-version of the Kenyan Ceramic Jiko. The ‘Nansu céramique non-cuit’ stove is made from air-dried, unfired clay and has no metal cladding.

It is ideal for rural areas with difficult access to metal and low purchasing power.

2006, the Benin improved stoves project FABEN¹ introduced this stove within ProCGRN².

By December 2010, about 50,000 “Nansu unfired clay” stoves had been sold in Benin.



Users

For reasons of affordability, the stove is mainly used by rural households with low purchasing capacities.

General description

Portable ceramic stove for one pot:

- Designed for round-bottom pots
- Air-hole underneath the grate
- Three pot rests made of clay



Stove dimensions

Dimensions for an average sized pot in Benin (pot size no. 3 equivalent to 6 litres):

- Height: 24 cm
- Diameter: 26 cm

Estimated lifespan

At least one year

Materials used

Clay

Performance

The Nansu Ceramic unfired stove can save over 40% of charcoal compared to the simple all-metal stove made from a car-rim. The actual savings depend greatly on the duration of the cooking time and the model of stove compared against.

Production / Supply

The stove is produced by local potters, mainly women, who are trained by technical experts.

¹ Foyers Améliorés au Bénin

² Programme of Conservation and Management of Natural Resources

Moulds and clay are used to ensure standardized production of the stove. The stove is only air-dried and not fired in a kiln.

An artisan can produce about ten to fifteen improved stoves per day.

Price (2011)

Average price in Benin is 1.00 – 1.50 € (600 – 1000 FCFA) depending on stove size and region.

Strengths and weaknesses

Positive

- + Can be made from local clay, independent from metal supply
- + Can be made without a kiln and without access to firewood for firing
- + Efficient and affordable stove
- + Portable
- + Decentralised production
- + Raw material is cheaper than metal
- + Moulds facilitate standardized production
- + Enhances local production, especially on the part of women

Negative

- Easily breakable
- Short lifespan

Available documents

- Fiche technique FA céramique Bénin (GIZ):
https://energypedia.info/index.php/File:Fiche_technique_FA_C%C3%A9ramique.pdf
- Tests des FA (EPAC 2008 and 2010)



Source of pictures: GIZ Benin
Last update: April 2011

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