Upesi Stove







Why to choose this solution?

The Upesi Stove meets the needs of its users for a clean, efficient, and fast-cooking stove that saves 40% firewood and that produces upto 60% less smoke compared to the three-stone open fire.

Savings per day or production:

Savings of up to KSh 7,200 (USD 72) per year. Rural wages average KSh 600 (USD 6) per month. KSh 20 (USD 0.20) on firewood per day.

Cost in money and in own time to construct:

Costs KSh 1000-4000 (USD 10-40).

Lifetime:

4 years.

Maintenance needed:

Occasional repair of ceramic liners.

Resources needed in use:

Dry firewood; can also burn crop waste, such as maize stalks and cobs, and animal dung.

Problems and limits:

Produces some smoke, so good ventilation is needed in the kitchen.

Where and how can you get it or make it?

Skills needed to produce, install. maintenance, use:

The production of ceramic liners requires pottery skills and training in stove installation. The ceramic liners are bought by marketing groups or installers. The ceramic liner is then installed into a hearth made from mud and stone.

How to use it:

https://youtu.be/TRXP8l4MKfc

How to maintain it:

Not relevant.

Climate effect (if any):

Fuel savings of 90 kg per month for each household using Upesi stoves, representing 40 % savings in fuel use, which can have a positive environmental and climate effect in terms of less felling of trees.

Where it is used and how many users are there?

Used in some rural and urban households in Kenya, with over 1500 users.

Why is it successful?

It is efficient, low in smoke, and affordable. The manufacturers are also known to the local market for the quality of their products.

If you can make it, a short description, typical problems, materials needed:

Materials needed include clay liner, water, flat or round stones, anthill soil, and either murram or a mixture of soft sub-soil, sand and ash. It needs a skilled potter to make it.

How to make it (if possible):

To be added.

How is it delivered and by whom?

A number of organisations involved in renewable energy purchase the products directly for onward selling. In total, the group has 42 stable customers who purchase from them on a regular basis. Global Village Energy Partnership (GVEP) also facilitates networking for all players in the value chain, in order to ensure effective reach of energy products to the market. They have links with artisans in Kisumu town who buy their stoves in bulk. Actors or intermediaries involved in the marketing chain include stove producers, distributors, retailers, promoters, and installers.

Successful financial model

What policies and strategies helped the success?

The marketing strategy was based on insights gained from a visit to an ITDG / Practical Action stove project in Sri Lanka by produce and sell the stoves commercially within rural areas.

More info:

http://www.bioenergylists.org/stovesdoc/Kenya/05_Kenya.pdf, https://youtu.be/TRXP8l4MKfc.

Sources:

Keyo Pottery Women Group, Kisumu, Kenya.

When was the case uploaded?

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Case from Catalogue of Local Sustainable Solutions in East Africa. Read more and see partners at localsolutions.inforse.org