

Chatham House Clean cooking Report – Simi Stove

Annualised stove and fuel costs and Efficiency

How does Simi Stove compare?

For the purposes of calculating annual cooking fuel costs, it is assumed that one person requires 1.4 gigajoules (GJ) of energy per annum.

This figure was extracted from the raw data used in Chatham House's economic analysis of energy provision to displaced populations, applying an average thermal efficiency of 36 per cent across the sampled cookstoves

Energy content Ethanol = MJ/unit 31.1

1.4 GJ divided by 31.1 = 45.016 Kg ethanol fuel required per person

The following costs are assumed;

- 1 kg of Ethanol = \$1.00
- Ethanol cost per person = \$45
- Cost of stove is based on a family of 5

Where information was unavailable on cost, lifespan or efficiency, the average value for other devices in the same category was used.

Chatham House ethanol stove average figure per person

- Average cost per person per annum for Ethanol = \$95
- Average Cost per person per annum for LPG devices = \$140
- Average cost per person per annum for Electric Induction Option = much costlier
- **Simi Stove cost per person per annum is \$51**
Simi Stove costings. \$15 each (based on a two-year life).
\$30 divided by 5 = \$6
(Using the same calculations for stove and fuels)

Special Note

Based on a family of 5 using 45kg of ethanol per person = 225kg ethanol

225Kg of ethanol will cook for 2,700 hours using the Simi Stove. This equates to well over 7 hours of cooking each day

Simi Stoves efficiency rating is 67.3%