



Providing Access to Modern Cooking Energy

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Situation

- 3.3 bn people use biomass for their daily cooking needs
>4 Mio people die every year due to incomplete combustion of biomass fuels
- Depletion and degradation due to unsustainable supply of biomass fuels
- 3,3 billion people resp **650 Mio homes** need access to better cooking energy services:
(better means: clean, efficient, sustainable, affordable, convenient, daily available)



Global cooking energy targets

- **100 Mio homes by 2020** (Global Alliance for Clean Cookstoves)
- **Universal Access** (\pm 650 Mio homes) by **2030** (UN – SE4All)
- **Universal Access** by **2030** (upcoming: SDG 7)





GIZ (former GTZ) has long-term experience in Cooking Energy

- First projects started 1980
- Most famous programme: Energising Development (**EnDev**), co-financed by German, Dutch, Norwegian, UK, Australian and Swiss Government
- 2013: more than 1,5 mio stoves introduced to market
- Implemented in 15 **countries** with focus on Africa
- **Supporting local production**
- Concentrating on highly efficient but low cost **wood-fuel stoves**
- Stoves save at least 40 % of biomass fuel compared to traditional system





Cooking Technologies promoted by GIZ



Inkawasi stove Peru



Roundé Stove Burkina Faso



MIRT Stove Ethiopia



Eclair Charcoal Stove Benin



Mud Rocket Stove Uganda



Nrick Rocket Stove Kenya



Different price ranges offered – e.g. Malawi products

Household size



1 USD



8 USD



20 USD

Restaurant / canteen size



50 USD

80 USD



50-100 USD



200 - 300USD



Achieving Millennium Development Goals

more time available
 less indoor air pollution
 saved househ. budget
 improved safety
 environmental protection
 income generation
 business & job creation

increased access to modern cooking energy

increased use of improved woodfuel stoves

more stoves on the market

increased demand & awareness

stove quality control
 stove marketing
 training of trainers
 stove producers
 stove technology development

household energy awareness campaigns
 mainstreaming household energy in public sector

stove producers & sales persons

stove customers & users

Capacity development

Policy advise

Monitoring: output-
 impact-sustainability

highly agg. impact

impacts of intervention

outcomes

use of output

outputs

activities

Impact Chain
 OECD DAC



Lesson No 1

Woodfuel stoves are still a necessary and also viable solution, especially for rural and low income HH population *

Stove needs to

- be convenient and adopted to local cooking habits
- offer improvements and be still affordable
- be easy to maintain and to replace.

What has changed since the 80's?

- Concept of technology introduction: from subsidized stoves or self-help production to commercial market introduction
- The product: from “odd looking” or “exotic” models to modern looking stoves with efficient combustion chambers

*This does not mean that Biogas, Plantoil, Ethanol, Solar, LPG, Kerosene or Electric Cookers are not an option, but often they are not at reach for rural and poorer households.



Lesson No 2

Changing cooking habits requires time and efforts

- Workload, smoke, decreasing resources are not seen as primary problems in low income households. **Constant and long-term awareness raising** is needed.
- Cooking habits vary from region to region and require different products: there is no one-fits-all stove. **Research and technology adaptation** is necessary
- Clean cooking is a function of four elements:
 - clean burning fuel
 - clean burning stove
 - user behavior

Capacity development on all is required.



Injera Baking in Ethiopia – traditional and improved



Lesson No 3

Development of local markets is a viable and sustainable solution*

- Creation of **local employment**
- Increase in **local know-how and knowledge**
- Lowering import and foreign currency dependency
- Possibility of **adaptation to local cooking habits**,
- Near-by access to repair and quality control of stoves



Stove Production in Ethiopia

* This does not oppose the market introduction of imported products



Lesson No 4

A global programme permits efficient scaling-up

- Cross country experience exchange allows for **accelerated concept improvements**
- Creation of competition between countries. Allocation of funds to those countries with favorable potential.
- High **cost effectiveness**:
Program Costs for providing access to improved cookstoves : **<5 Euro / Person**

(EnDEV result after 8 years of implementation)



Stoves in Burkina Faso and Kenya



Thank you for your attention



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Rocket Stove in Malawi