

Pro-poor ACCESS to ENERGY in Developing Countries

GTZ Lessons Learnt from the “Energising Development Programme”

ESMAP 2010 Knowledge Exchange Forum

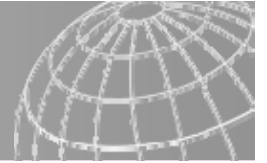
“Exploring Cutting-Edge Energy Solutions: ESMAP Initiatives and Partnerships”

Washington, 25 March 2010

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Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH

Poverty-oriented Basic Energy Services (HERA)



What is the Energizing Development Programme (EnDev)?

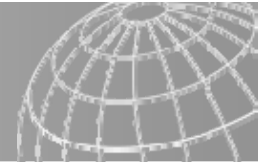
Partnership on Energy Access

Netherlands Minister for Development Cooperation (DGIS) & German Federal Ministry for Economic Cooperation and Development (BMZ)

Provide 6,1 Mio people with access to energy in a sustainable manner until 2014

(Phase 1: 2005-2009, Phase 2: 2009-2014)





What is the Energizing Development Programme (EnDev)?



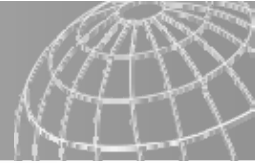
EnDEV provides:

- Energy for households
- Energy for social infrastructure
- Energy for productive use / income generation



Predominantly in rural areas



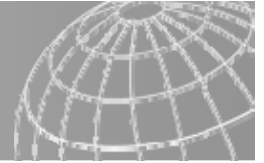


What have we done so far?

During EnDev Phase 1 (2005-2009)

over 5 Million people have been provided sustainably with access to energy (total costs: 60Mio€)





>5 Million people – What does that mean?

- Each of these 5 Million people...

Either owns and uses an improved stove

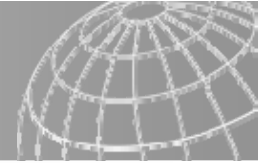


Or has and uses a Solar Home System on his/her roof

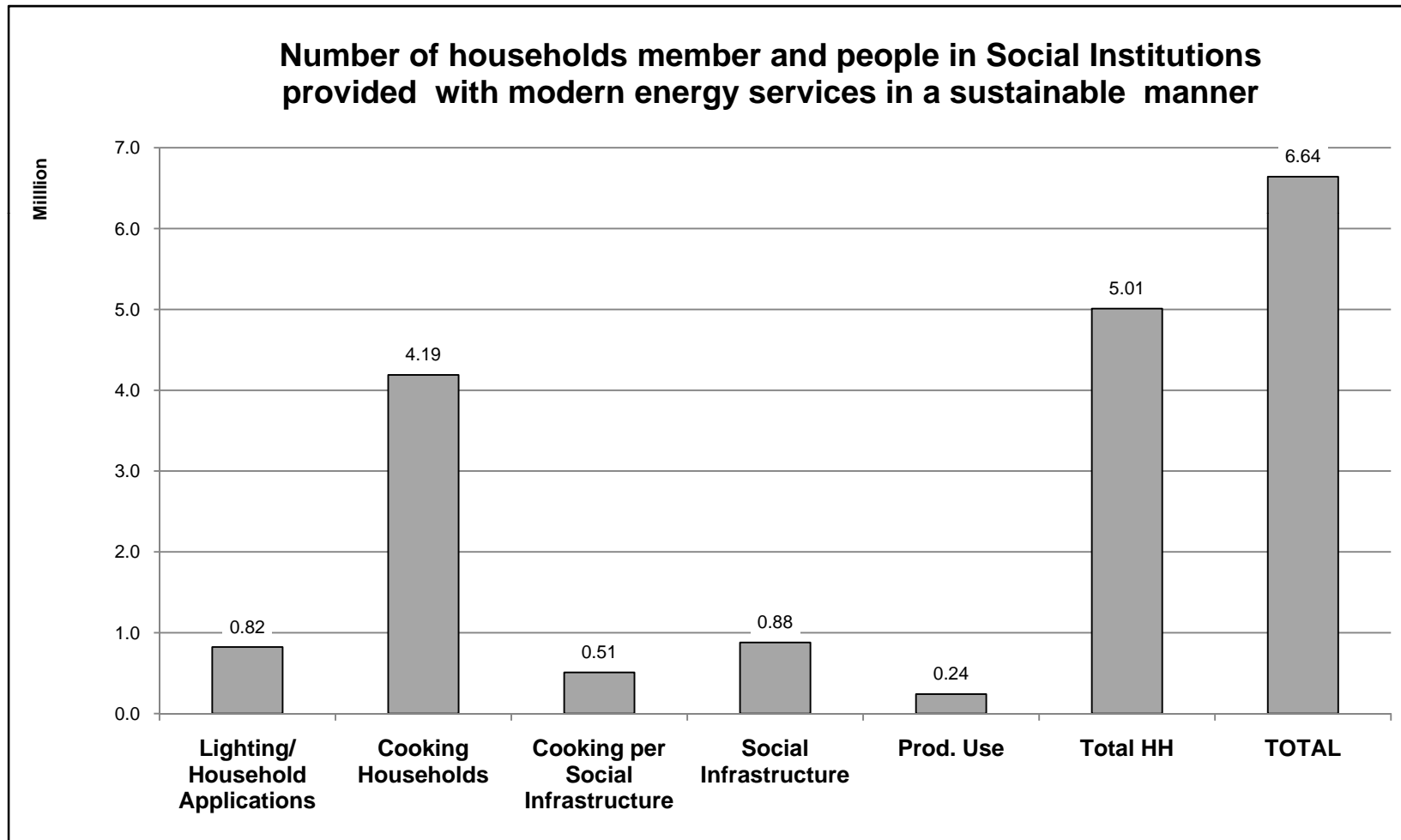
Or has been connected to

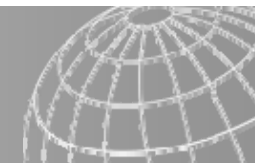
- the national grid
- or a local grid powered by a biogas or a small scale hydropower plant



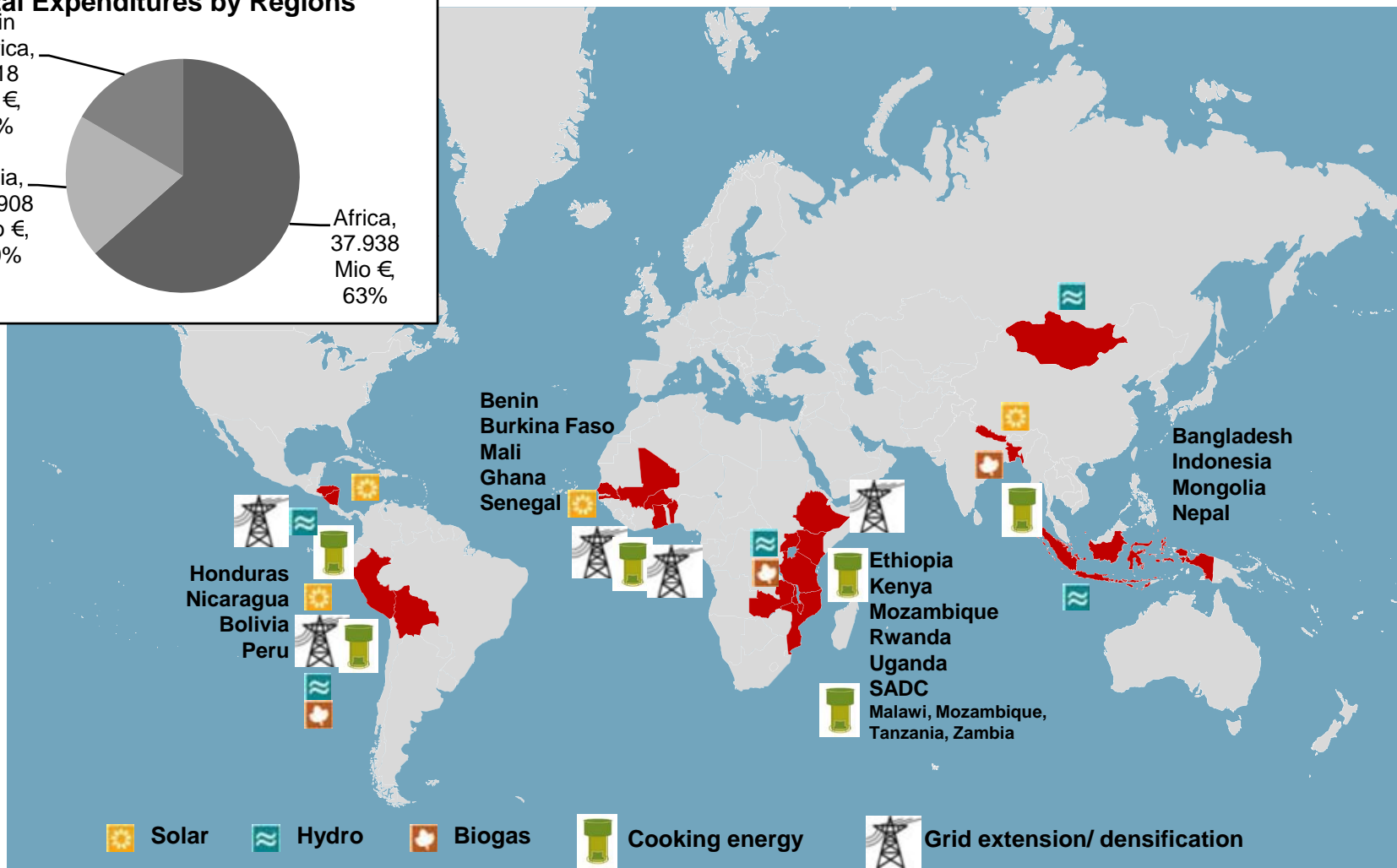
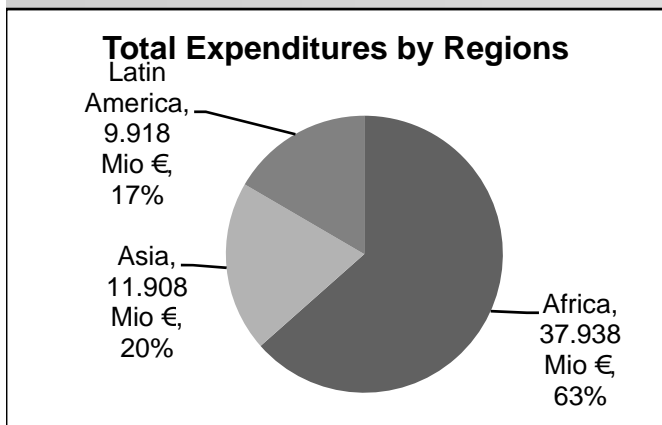


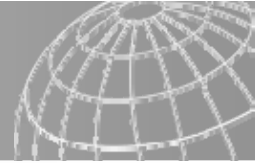
> 5 Million people – Distribution according energy applications





> 5 Million people worldwide: 22 activities in 21 countries





EnDEV Approach: outcome based but ensuring sustainability

- **Rigorous monitoring** (2x per year, >50% of beneficiaries registered individually)
- **Building local markets**
(training of producers/installers/users, marketing and awareness campaigns, quality control, after sales service, finance services; etc)
- **Embedding in national strategies**



Solar



Micro Hydro Power



Biogas

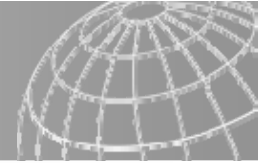


Stoves



Grid densification

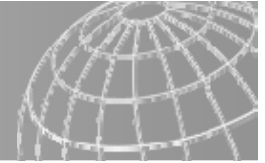




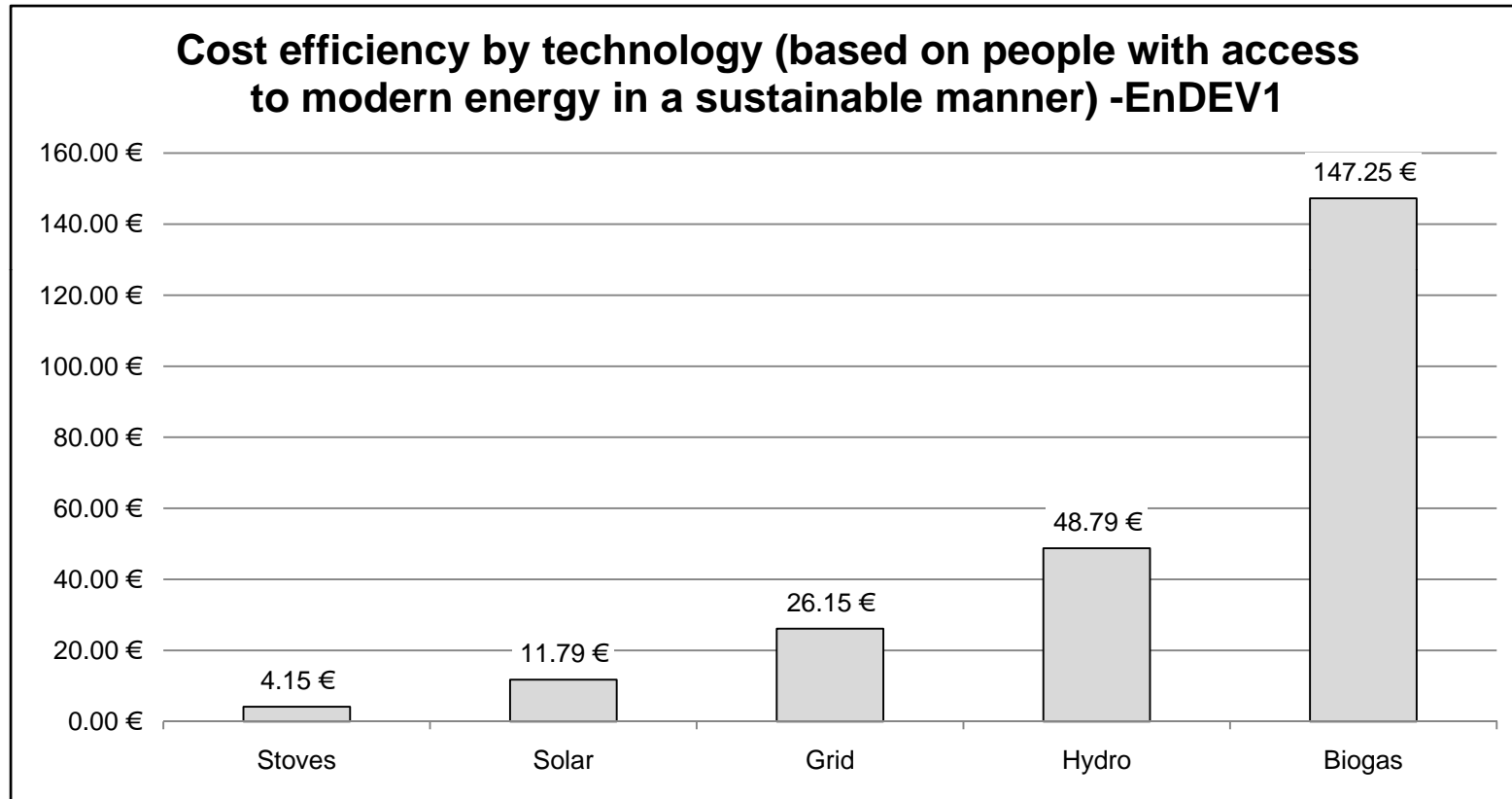
EnDEV Approach: outcome based but ensuring sustainability

- **Use of adjustment factors**
 1. **“sustainability adjustment factor”** (considering that use of modern energy technologies is not sustainable in all cases)
 2. **“windfall gain factor”** (if households supported by EnDev would have gained access even without this support)
 3. **“double energy factor”** (if households/social institutions which eg received an improved stove already had access to electricity)

EnDEV Phase 1: Number of people with access to modern energy services							
	Lighting/ Household application	Cooking	Cooking per SI	Social Infra- structure	Productive Use	HH Total	Grand Total
	1	2	3	4	5	(1+2)	Sum (1-5)
Without adjustment	0,98	7,92	0,83	0,91	0,33	8,90	10,97
With Adjustment	0,82	4,19	0,51	0,88	0,24	5,01	6,51

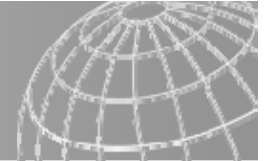


EnDEV Approach: priority to cost efficiency and consumer affordability

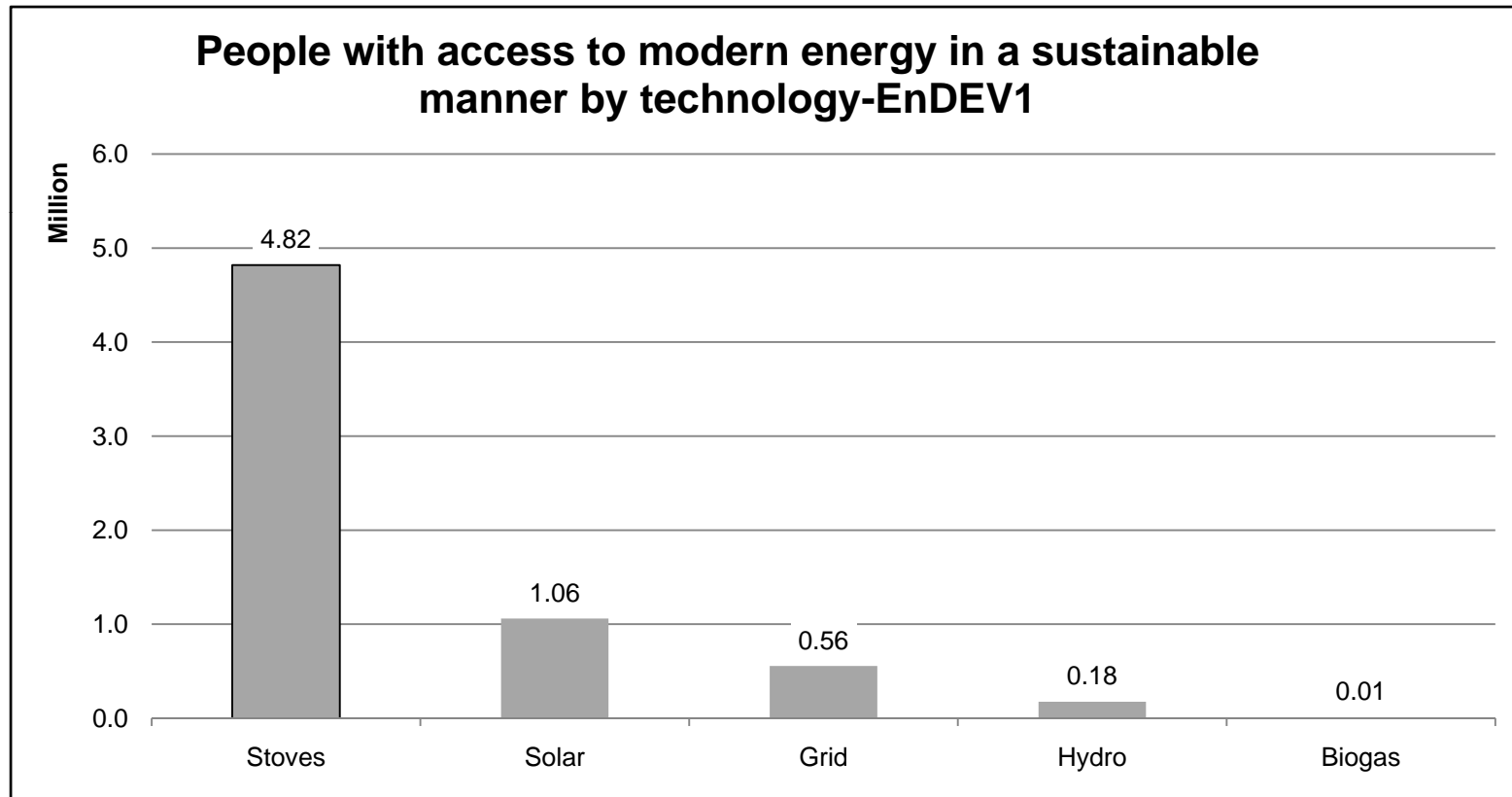


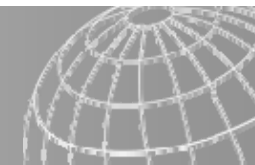
Costs are covering all direct and in-direct expenditures: capacity development, quality control, awareness raising, investment subsidies, policy advice and other activities, administrative project costs.

Not included are: local contributions by the clients and partner organisations



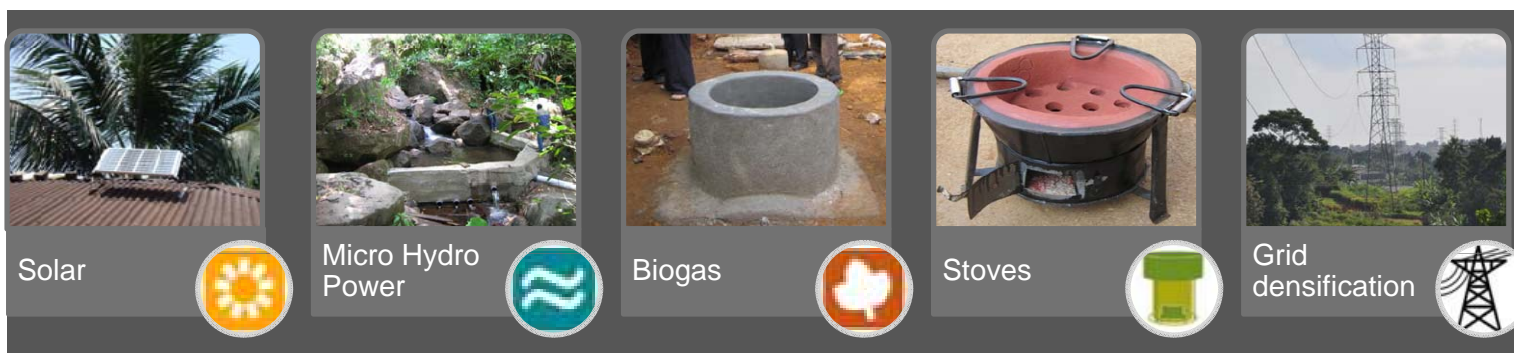
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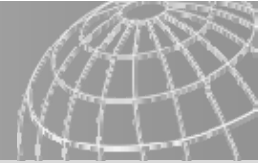




EnDEV 1: Impacts on quality of life and poverty

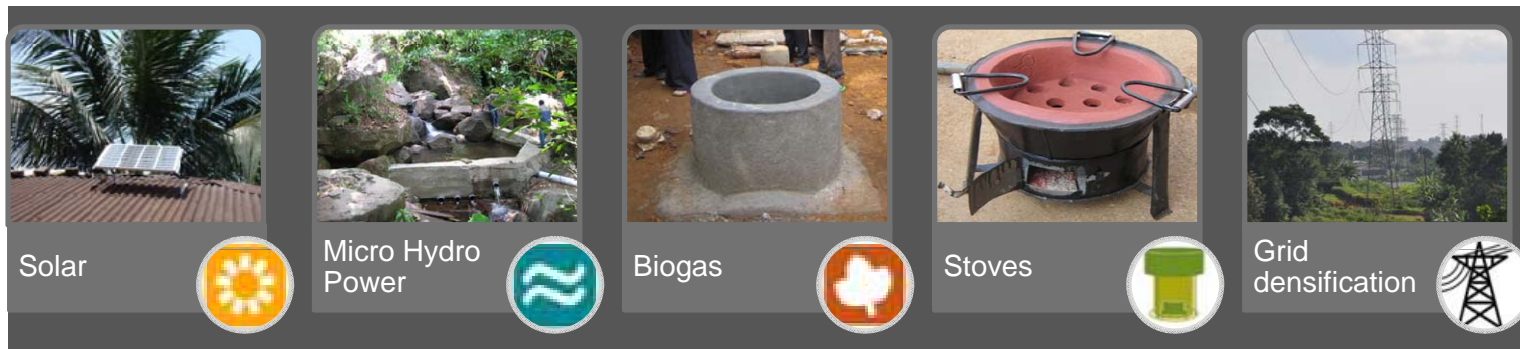
- Efficient cook stoves reduce fuel consumption by 40-80% and consequently time or expenditures for collection or purchase of woodfuels
- Improved combustion reduces Indoor air pollution and GHG Emissions
- More time to study or to do work at home through electric light
- More intensive use of information and communication technologies
- Increase of income for producers and retailers of energy technologies

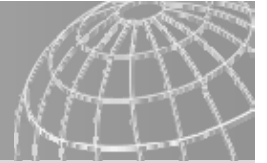




EnDEV 1: Structural Impacts

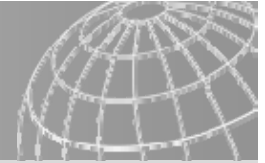
- Improved political framework for renewable energies and access activities (e.g. feed in law, national access campaigns)
- Enhanced private sector for energy technologies and services
- Creation/Promotion of markets through increased demand
- Emerging financial services for energy technologies (producers, retailers, customers)
- Quality Inspection Agency established/strengthened





Challenges and opportunities

- EnDEV is a model for further scaling-up and replication
- EnDEV is mostly „piggy-packed“ to other development programmes and thus ensures quick implementation
- Competition between countries speeds up implementation; cross border experience exchange allows for introduction of mature technologies and approaches for market development
- Establishment of self-sustaining markets need time
- Conflicts arise if other access programmes are providing higher and long term subsidies



Thank you for your attention



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HERA – Poverty-oriented basic energy services

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