Outcome-Based Approach for the Dissemination of Renewable Energy Technologies in Developing Countries

GTZ Lessons Learnt from the “Energising Development Programme”

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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 Mio people with sustainable energy until 2014
What is the Energizing Development Programme (EnDev)?

- According to the needs & desired impacts...

EnDEV provides:
- Energy for Households
- Energy for social infrastructure
- Energy for productive use / income generation
What have we done so far?

So far (2005-2009), EnDev has provided over 5 Million people with sustainable energy.
5 Million people – What does that mean?

- Each of these 5 Million people...

  - Either owns an improved stove
  - Or has a Solar Home System on his roof
  - Or has been connected to
    - the national grid
    - or a local grid powered by a biogas or a small scale hydropower plant
How did we achieve this?

- We divide the programme in countries & use different technologies

Currently 18 countries (10 Africa, 4 Latin America, 4 Asia)
How did we achieve this?

<table>
<thead>
<tr>
<th>Ownership of the partner country and stakeholders involved</th>
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<tbody>
<tr>
<td>Expected cost efficiency (low transaction costs per beneficiary)</td>
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<td>Expected sustainability (structures are in place that secure access for decades to come)</td>
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<td>Scaling up potential (approach that has the potential to reach a high number of people)</td>
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<td>Accountability (people with new access are clearly the consequence of the EnDev intervention – and not of any other’s donor intervention)</td>
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<td>Complementarity (the interventions are most efficient if they are complementary to other project supported by BMZ or other donors).</td>
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„Energising Development“: People provided with access to energy

Outcome data consider the sustainability of the achieved access as well as windfall gain effects and a so-called double energy effect.
„Energising Development“: Costs per person provided with access to energy

Average project costs per person for energy services

<table>
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<th></th>
<th>ICS</th>
<th>PV</th>
<th>Grid</th>
<th>MHPP</th>
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<tbody>
<tr>
<td>Costs</td>
<td>2.7</td>
<td>15.67</td>
<td>19.29</td>
<td>56.41</td>
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</table>
Impacts on quality of life and poverty

- Saving work load and time of women and children: Improved cooking stoves reduce HH fuel consumption by 40-80% and consequently the time to collect firewood.
- Improved Indoor air quality and improved safety and hygiene in the kitchen
- 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
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
Thank you for your attention

Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (GTZ)

HERA – Poverty-oriented basic energy services

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