Bringing Gender to Life

The Energy Development Intervention in Ethiopia

GIZ Energy Coordination Office Ethiopia
(GIZ ECO Ethiopia)

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Outline

- Introduction
  - Gender in GIZ
  - The energy infrastructure and gender in Ethiopia
- GIZ ECO and the project intervention
Bringing Gender to Life

Gender is not an “add on” but an integral part of our work

The integration of gender is a standard procedure in all stages of the project cycle

- **Project design**: Start out with a gender analysis to provide gender disaggregated data for appropriate planning
- Intensify gender knowledge during implementation
- Follow-up activities via Gender-sensitive indicators during monitoring and impact assessments
- Correct project activities if men and women are not targeted properly
Bringing Gender to Life

We are successful when we think and act gender-sensitive

- **Gender equality** is a crucial element in German development policy!

- GIZ has adopted a new **Gender Strategy** for the period of 2010 – 2014 following a dual approach: mainstreaming gender in programs and in the personnel policy

- The Africa-Department has developed its own **implementation concept** with concrete indicators accounted for every year
Bringing Gender to Life

Gender is a central factor for success in infrastructure projects

- The **German Development Cooperation** has gathered substantial experience on gender issues over the last two decades.

- Gender issues in **infrastructure programs** are being tackled at the macro-, meso-, and micro-level.

- The following example from **Ethiopia** is an example for gender-engagement at macro Mezzo as well as micro level.
The energy infrastructure and gender in Ethiopia
Final Energy Consumption by Fuel Type

<table>
<thead>
<tr>
<th>Sector</th>
<th>%</th>
<th>Share of Total Energy</th>
<th>Of Fuel Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Biomass</td>
<td>Petroleum</td>
</tr>
<tr>
<td>Household</td>
<td>89.0</td>
<td>96.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Industry</td>
<td>0.6</td>
<td>0.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Services</td>
<td>3.5</td>
<td>3.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Transport</td>
<td>6.0</td>
<td>No BF</td>
<td>80.0</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.9</td>
<td>1.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>
Cooking is the exclusive domain of women

The widely used traditional open fire is wasteful and harmful:
  - indoor air pollution
  - Excessive exposure to heat
  - Frequent fire accidents

The energy infrastructure and gender in Ethiopia conti…
Typical indoor pollution concentrations from a typical wood-fired cookstove:

- Carbon Monoxide: 150 mg/m³
- Particles: 3.3 mg/m³
- Benzene: 0.8 mg/m³
- 1,3-Butadiene: 0.15 mg/m³
- Formaldehyde: 0.7 mg/m³

Wood: 1.0 kg Per Hour in 15 ACH 40 m³ kitchen

Typical standards to protect health
The core natural resources’ situation

Land and forest

- 2 billion m³ top soil is lost annually due to erosion
  - (of which 10% is lost irrecoverably)
- ~200,000 ha forest cover is lost annually
  - from 40% of the land area at the turn of the century to less than 2.7% now
- Farm yield potential is reduced by 2% annually
Diminishing natural forests
The Adverse Impact of Climate Change (in the Ethiopian context)

Major feature of Climate change
- Discrepancy of Rainfall patterns is adversely affecting the Ethiopian agriculture the main dwelling of ~ 85% of the population

Gender implication
- Women are disproportionately more affected
  - Mainly home bound and hence stay around (no additional income generation)
  - Have to take care of the domestic affairs (collecting increasingly inaccessible fuel and water)
Lack of access to modern energy services in rural Ethiopia

- Only under 2% of rural Ethiopia is electrified and the supply of any modern fuels is severely constrained
- Women are disproportionately more affected
  - Diminished opportunities for alternative income generation options in the domestic sphere
  - Disproportionate exposure to health hazards
  - The domestic chorus (ills of traditional cooking, and taking care of the sick)
  - The risks related to Pregnancy and child birth
GIZ ECO and the project intervention
Overall Objective

- To contribute to the overall development of the energy sector in Ethiopia

Specific Objectives

- To implement the EnDev Programme in Ethiopia as current core business of ECO
- To advise the Ministry of Water & Energy (MWE) and other governmental stakeholders on pertinent energy policy and strategy issues as well as on sector legislation and regulation
- To promote investment and private sector participation in the energy sector of Ethiopia with special focus on Renewable Energy

GIZ ECO and the project intervention
Energising Development (EnDev)

- A Dutch German Partnership for Energy development in developing countries
- Operating in 22 countries worldwide, thereof 14 in Africa

EnDev Ethiopia

- GIZ Energy Country Programme
- Managed by the GIZ Energy Coordination Office (GIZ-ECO)

Overall Objective of EnDev Ethiopia

- The supply of lower-income households, social facilities and small & medium productive enterprises with modern energy technologies and/or services is sustainably improved.
  - Duration of Phase 2: Up to 30/06/2012
  - Budget: 6 Mio EURO
(Core Business: EnDev)

department 1:
Bio-Energy (AMES-Cooking)

Department 2:
Electrification (AMES-Electricity: Solar-PV, mini-hydro)

Department 3:
Policy, Private Sector Devt. & Services
(incl. AMES-Policy/Strategy)
GIZ ECO and the project intervention conti…

Bio-Energy Department
(AMES-Cooking)

Mirt Injera Stove  Tikikil Cook Stove  Institutional Rocket Stove
Gender sensitive strategies

- Primarily Improving the traditional open fire injera backing:
  - The most hazardous household cooking practice
  - Excessive exposure to toxic smoke and heat for women and usually accompanying infants
  - Constitutes 50-60% of the household energy consumption
Bringing Gender to Life

GIZ ECO and the project intervention conti…

New technologies being introduced
Gender sensitive strategies

- Raise the awareness of men on the issues of stoves and the Ethiopian kitchen
- Empower women both technically and economically
coverage

- Stove sales and establishment of private sector stove producers (production units)
  - **Mirt:**
    - 500 production units
    - covering 234 districts and 286 towns located in Oromia, Amhara, Tigray, SNNPR and Addis Ababa.
    - Around 400,000 Mirt stoves sold (reported)
  - **Tikikil:** 30 production units
    - Located in Oromia, Amhara, Tigray, Addis Ababa, Diredawa and Harari
    - 16,059 stoves sold (in the process of scaling)
Coverage conti …

- IRS (Institutional Rocket Stove):
  - 34 production units established
  - Located in Oromia, Amhara, Tigray, Addis Ababa, Diredawa and Harari
  - 37 IRS stoves sold for institutions (in the process of scaling up)

- Adoption of an Improved stoves constitute one major criteria for the national grin award of farmers
Gender proportion of New stove producers added established

- Gender segregated Data monitoring revealed that women producers are more effective. Hence the recruitment of new stove producers is made to be more females.

<table>
<thead>
<tr>
<th>Year</th>
<th>M  %</th>
<th>F  %</th>
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<tbody>
<tr>
<td>1998-2006</td>
<td>62</td>
<td>38</td>
</tr>
<tr>
<td>2006-2008</td>
<td>58</td>
<td>42</td>
</tr>
<tr>
<td>2008-2011</td>
<td>33</td>
<td>67</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>57</strong></td>
<td><strong>43</strong></td>
</tr>
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</table>
Electrification Department (AMES-E)

Solar Energy Unit

- Priority to Health Centres
  - 100 Solar Photovoltaic Systems installed in Health centres all over the county as pilots to provide electric power
- PV solar systems have enable them to
  - have light in the evenings
  - to run electric driven medical equipments.
  - be able to offer services for inpatients, delivery and vaccination in reliable quality
Spatial distribution of the health centers
Community Centre photovoltaic (PV) installations

- a concept of “Schools as community centers” being introduced in 3 pilot schools
  - The community centers shall run different educational programs, such as nutrition, hygiene and, child care
  - provide night schooling as well as infotainment
Hydropower Unit

- Four pilot micro hydro power (MHP) pilot sites in Sidama Zone
  - Enterprise development, local employment and lighting permits income generation beyond daylight hours
  - Improve the environment for quality life of women and children.
- At least 30% mandatory female representation in the management of the MHP schemas fostering gender balance by design
In the support the review & formulation of suitable policies, strategies & programmes as well as laws & regulations in respect to improved access to modern energy services: mainstreaming gender is a priority: the supported processes are:

- Support and supervise the gender segregated Energy Sector Mapping & Database Development (ESMAD);
- Support the formulation of a new energy policy;
- Support the Biomass Energy Strategy (BEST);
- Support govt. stakeholders in need assessment for AMES;
- Support energy legislation formulation processes (feed-in tariff, efficiency, energy legislation & regulation).
Challenges and way forward

- Keep conscious focus in monitoring gender issues and react timely
- Go beyond the inherent gender elements of household energy improvement
Thank You