
Women in Energy
Challenges and Opportunities
BHUTAN

Trivandrum
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Structure

- Country characteristics
- Energy Sector in Bhutan
- Impacts on Women
- Electrification Plans
- Gender and Energy Initiatives
- Government policies
- Opportunities and Challenges
- Expectations from the workshop

Country Characteristics

- GDP – US \$ 834 (2005)
 - GDP growth rate – 7.5 %
- Population – 0.64 million
 - Rural - 69%
 - Urban – 31 %
- Women: Men ratio – 100:118
- Employment in agriculture – 43.6 %
 - Men – 20.7 %
 - Women – 22.9 %
- Health facilities is provided free of charge
 - In 2005 89 % accessed health facilities in their district

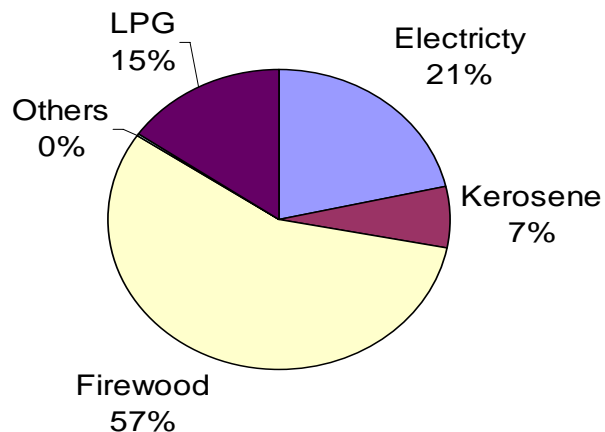
Energy Sector in Bhutan

- Electricity Supply- primarily renewable
 - Hydropower – 99% of the installed capacity
 - Existing installed capacity – 1500 MW
 - Capacity addition of 5000 MW by 2020
 - Solar energy and diesel generation -1%
- Other forms of Energy
 - Coal
 - Imports – Diesel, Petrol, kerosene and LPG

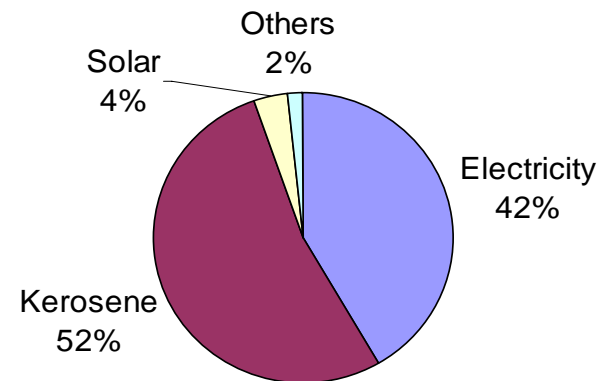
Energy Sector contd....

- 52% of country electrified
- Huge dependence on biomass
 - Per capita biomass consumption -1.14 tonnes
 - Residential sector -0.85 tonne/capita

Rural - Cooking



Rural - Lighting



Impacts of Energy usage on women

- Women and children spend a significant amount of time in collecting fuel wood
- Reduces time which could have been spent on
 - Child care
 - Studies
 - Income generating activities
- Smoke in the kitchen (adverse health impacts)

Future electrification plans

- Electricity for all by 2020 through
 - Grid extension
 - Expensive
 - Dispersed population and difficult terrain
 - Off grid
 - Solar (high potential)
 - Wind (under study)
 - Mini and Micro Hydro Plants

Gender and Energy Initiatives

- Energy Efficiency
 - Promotion of efficient clay stoves in rural areas
- Solar
 - Pilot testing of solar water heating systems.
 - Plans to pilot test the solar driers systems
- Gender initiatives
 - 35 women from rural areas trained for O&M of the Solar PV system in India (Japan Fund)
 - Involvement of women in management of community based micro hydro plants

Government Policies

- Encouraging use of renewable energy by:
 - Keeping electricity tariff low
- Promotion of Energy Efficiency (EE) by
 - Audio visual programs on TV
 - Workshops and seminars if EE awareness
 - Distribution of Pamphlets and Calendars with energy saving tips
 - Distribution of CFL bulbs at subsidized rates

Expectations from the workshop

- Renewable energy initiatives for women in other countries
- Income generating activities for women in rural areas
- Funding sources
- Energy Efficiency

THANK YOU