

Workshop on efficient energy management and renewable energy

Country presentation - India

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India: Development indicators

- Population: 1021 million (2001 census)
- 26% below poverty line (1991)
- Inequality adjusted rural per capita consumption expenditure Rs 360 / month (60% on food)
- 28.6% rural households without safe drinking water, toilets and electricity
- Rural literacy: Male 71% Female 46%
- Maternal mortality rate 407 /100000 births
- Overall sex ratio females / 1000 males 933
- Anemia among women 51%.

Overview of the energy sector

India is a net importer of energy and one of the fastest growing economies in the world (30% of India's energy needs are met through imports).

The per capita energy consumption of 520 kg of oil equivalent, is low compared to many developed and developing countries. The per capita annual electricity consumption is of 612.50 kWh (CEA, 2006).

To deliver a sustained growth of 8% the primary energy supply needs to grow 3-4 times and electricity supply at 5-7 times of today's consumption (Planning Commission)

Overview of the energy sector

85% of Indian villages are considered electrified. 57% of rural households and 12% of urban households do not have electricity

Nearly 700 million people are without access to modern energy (census 2001).

Nearly 300 million people do not have access to electricity

About 625 million people do not have access to modern cooking fuels (Parikh, 2007). [

Household energy in India

Household energy consumption (excluding energy used for private transport) is 30% of the total energy consumption in the country (Reddy & Balachandra 2003)

In 2000, about 200 million households consumed 7000 PJ (peta joules) of energy @ 35 GJ per household per annum (CMIE, 2001).

A large percentage of the household energy consumption is for cooking

Household energy activities are women centric

Cooking energy in India

72% of India's 140 million households (nearly 100 million) rely on traditional forms of energy for cooking (firewood, dung, agro residues)

33.5 million households use LPG

12.5 million households use kerosene

Very clearly 100 million women need better cooking energy technologies

Women's energy needs are almost exclusively linked to cooking

Gender and energy in India

Women's time must be freed from firewood collection and invested in productive activities

Even with increased access to energy, there are very few gender friendly energy linked income generation options for rural women

Women's need to be engaged in productive, income generating activities is largely ignored. This is manifest in the limited technology options for local level income generation

Women's work is synonymous with drudgery but the link between drudgery and access to energy / electricity is generally not made

Gender disaggregated roles in household energy services

Household energy supply and consumption is almost exclusively a woman's responsibility

A woman's access to energy is largely limited to biomass energy and her metabolic energy

Metabolic energy is also additionally deployed for collecting water, agricultural activities and productive activities to increase household income

The primary energy interest of men is for irrigation and entertainment

Impact of burden of provision of household energy

Girls more likely to be taken out of schools

Women become vulnerable to sexual assault and other risks

As women's tasks are not monetarily rewarded women's poverty is aggravated

Limited ownership of productive assets and limited time for productive activities

Severe impact on women's health because of exposure to indoor air pollution & hazards associated with firewood collection

Gender sensitive energy schemes & policies

Electrification of all households by 2009

Ensuring consumption of at least 1 KWH per day as a socially desirable minimum level by 2012.

Rajiv Gandhi Grameen Vidyutikaran Yojana

Remote village electrification program

National Program on Improved Chulha

Village Energy Security Project

Integrated Energy Policy document of the Planning Commission

Expectation from the workshop

Consensus on need for gender disaggregated data not confined to energy access alone

A methodology for establishing the link between women's health and access to & quality of energy supply

A compilation of products, processes and practices for meeting women's productive energy needs largely in rural areas

Recommendations on policies & programs that ensure access to at least 1 KWH of electricity per household per day