



# Rethinking Energy Access: What it means to the Common man

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Aditya and Ritika brings forward a new face of India where Energy Access has a different meaning.

## Second Side of India's Coin

As we walked across the barren fields, we reached the humble, two-room house of Sonabai who lives with her husband in Dindori district of Madhya Pradesh, India. Sonabai was tending to her grandchildren while her husband and sons had gone to work in the fields. Our field workers introduced us to Sonabai and told her that we had come to research on issues pertaining to energy access focusing on cooking and lighting. She listened silently and then began with recounting her struggle to make ends meet. The little land they owned gave them just enough for subsistence. The other income flows came from daily wages as agricultural labourers and selling firewood. Most of the time, firewood was exchanged in return for household cooking items such as masala and spices. She walks about 10km each day to the forest to bring back one bundle of firewood (approximately 10kg) of which half is used at home and the remaining is sold or exchanged. Their woes do not end here – they had taken a loan of Rs.6000 about 10 years ago which they are still struggling to repay. Their major expenses are on food

and health which amount to about Rs.1200 every month.

As we sat on a sack of grains, Sonabai continued, "Electricity comes for only one hour a day in total...the bulb is always on...It suddenly lights up in the middle of the night or in the day... what is the use... it was better without electricity...We still spend Rs.100 every month on kerosene and now we have to pay another Rs.60 for electricity which is of no use."

Sonabai's husband and sons returned home from the fields and joined the conversation. "I cook twice a day and each time it takes at least 2 hours. But I have no choice.... Firewood is the only the option. LPG is too expensive", she continued. We told her that maybe she could use the improved chulha for cooking. "Even Rs.100 for a cookstove is too much. I know that my wife sits for hours in the smoke while cooking, but we have no choice", said her husband.

She left us with a pertinent question, "What is access?" and while we pondered over that, Sonabai went back to making her mud cookstove. With seasonal income flows, no substantial savings, no access to

basic services, there are many like Sonabai who make us realize that energy access and development are deeply interconnected.

## Rural Statistics and Energy Trends

In rural India, almost 76% households are still dependent on the most polluting traditional biomass fuels to meet their cooking fuel requirements. The cleaner cooking fuels such as LPG have very little coverage (about 12%) among rural households. In comparison, almost 65% urban households indicate use of LPG as a primary cooking fuel.

As per the latest NSS data (NSSO 2010; 66th Round), about 29.50 kg of firewood and chips (per capita per month) are consumed in rural households on an average in India while the per capita average LPG consumption is about 2.31 kg per month, used mainly for cooking purposes. Access to clean energy fuels is a challenge among rural households and the use of traditional biomass fuels for cooking is predominant among rural households.

Ensuring equity and access are critical. It is not just sufficient that a fuel is available but it is equally important that there exists a

minimum level of physical infrastructure to ensure easy availability to a household when the requirement arises. It is also important to facilitate a shift to cleaner fuels such that the overall benefits of energy access are greater in terms of additional health and livelihood benefits.

Further, the provision of modern energy sources at an affordable price to the user is very critical to achieve the goal of universal energy access. Affordability has two key aspects – the ability of the individual to pay and the willingness of the individual to pay.

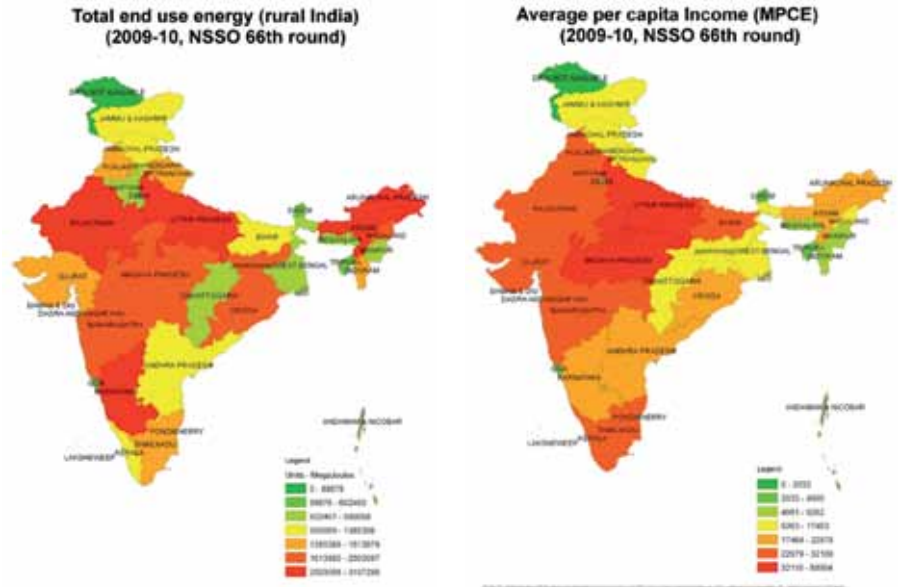
More often than not, it is the ability to pay that acts as the biggest threat or barrier to energy access. It is most often driven by constraints of income whereas the willingness to pay is driven by the availability of the resource and the opportunity cost (perceived benefit) of investing in a particular fuel type.

The issues of access, availability and affordability are quite tangible and thus very often quoted as the barriers to energy access. But something that is not as tangible, and on further probing becomes an important factor when it comes to achieving energy access for all, is the attitudes and perceptions of people which are driven largely by individual experiences.

As we spoke to other residents of the village and enquired about their cooking habits, we found various other reasons why people preferred using firewood and not LPG for cooking. Apart from cost considerations of LPG, there were many who said that they preferred the taste of the food, especially the roti (an Indian preparation of wheat), which was cooked on firewood rather than the one cooked on an LPG stove. There were some women in the group who mentioned that using firewood as a cooking fuel served more than one purpose.

Apart from cooking, the smoke from the firewood helped keep the house free of mosquitoes and it kept the house clean (this arises out of a traditional Indian custom where the worship of the Fire God is considered sacred and said to keep the air purified). The discussion brought out interesting issues ranging from access, availability, affordability and how people perceive a typical choice and most importantly an issue which more often than not goes unnoticed – that of gender, as it is most often the women who carry out daily household chores.

The United Nations General Assembly



Figures: Regional variations in energy consumption and per capita income.

has designated 2012 as the “International Year of Sustainable Energy for All”. Ensuring energy access and transitioning to cleaner energy is a challenging task especially in India, where over 300 million Indians lack access to modern forms of energy with most of them living in rural areas, among a very different socio-economic cultural context as compared to urban India.

### Energy for Common Man

With the enormous regional variation that exists in energy use, consumption patterns and energy choices are not driven primarily by income, thus making it imperative to understand in detail the causes for these differences so as to facilitate appropriate policy design and effective implementation. Successful energy planning for the domestic sector would need a proper understanding of existing energy consumption patterns and the various factors that impact household energy choices. The choice of fuel by a household is governed by a mix of factors that include whether the fuel is available easily or not; whether any alternative being provided is easily substitutable for the traditional fuel choice; whether the appliance design in which the fuel would be used is easy to operate, for example, the case of traditional versus improved cook-stoves; which among the available fuel choices fits best in the household consumption basket, i.e. within the income or budget constraint; and finally, whether the choice of fuel and appliance designs are user friendly and fit within

the socio-cultural structure of the society.

Thus understanding regional diversities is essential to influence energy policy at the state level which would facilitate development of strategies aimed at achieving the goal of universal energy access and fuel development in rural areas.

Access to modern energy services is fundamental to fulfilling basic social needs, driving economic growth and fueling human development. This is because energy services have an effect on productivity, health, education, safe water and communication services. As emphasized by Indian government, both energy security and energy access are integral to sustainable development and to the achievement of Millennium Development Goals (MDGs).

India has defined its energy security as “...when we can supply lifeline energy to all our citizens as well as meet their effective demand for safe and convenient energy to satisfy various needs at affordable costs at all times with a prescribed confidence level considering shocks and disruptions that can be reasonably expected”. (Planning Commission, Government of India)

While we design a policy or any program aimed at achieving universal energy access, it is very important to take into consideration the needs and convenience of the people and their consumption baskets. While significant efforts have been made through government programs like the Rural Electrification Program (RGGVY), we still have “...miles to go.