

For Clean Cooking Energy in Rural India: Women's Empowerment and LPG as Prestige Good

Policy Brief

State of Affairs: Over a period of 12 years (1999–2000 to 2011–12) the reduction in the proportion of rural households primarily relying on firewood has been from 86.1 percent to 77.2 percent in 2011–12 in a period of high economic growth. This raises the question: Besides economic growth, what else is needed at the policy level in order to bring a quick transition from solid biomass to clean fuels, LPG or electricity?

The use of firewood as cooking fuel results in two problems. One is that there is a release of carbon (black carbon) contributing to the build-up of greenhouse gases (GHGs) in the atmosphere. It is estimated that 30 percent of ambient air pollution in India is due to household air pollution from cooking with solid biomass (Global Alliance, 2017). Second, black carbon and other unburnt particulate matter are inhaled by the household, particularly by women and small children who spend more time around the cooking fire. The WHO estimates that there were 1.3 million deaths in India due to household air pollution from using solid fuels (WHO, 2016).

The UN Sustainable Development Goals' indicator (7.1.2) is, "Percentage of population with primary reliance on clean fuels and technology." In India almost 80 percent of rural households use solid biomass as the primary cooking fuel (67.3 percent rely on firewood, with another 9.6 percent dung cake), while only 15 percent use LPG (NSS, 68th Round, 2011–12).

Experiences of Government Programmes: The Government of India has recently launched the Ujjwala Programme, under which it is expected to provide 50 million LPG connections to women under the poverty line in their own name. A subsidy of Rs.1,600 (USD 24) is provided out of the cost of about Rs.2,000 of a new connection, not including the stove, which would be another Rs.1,200. The cost of refilling cylinders comes to roughly around Rs.370 per cylinder. Thus, initially the poor women

who get the subsidy would have to bear an additional initial expense of Rs.1,600, equal to the amount of the subsidy, and a recurring cost of Rs.375 per cylinder. Reportedly as of April 2017, 20 million LPG connections have been provided.

The Ujjwala scheme is certainly the largest programme for the subsidized distribution of LPG connections. But it is not the first such scheme. In view of earlier such programmes it is important to see whether or not this programme would be adequate to switch from solid biomass to primary reliance on LPG.

The World Bank's Deepam project launched in 1999 covered 1.2 million rural households in the state of Andhra Pradesh. A study by Rajakutty and Kojima (2002) found that 90 percent of recipients retained their LPG connections. But, officials also reported that they thought the actual incidence of retention of LPG was much lower. The study figure was likely to be high since selling or giving away one's subsidized connection was illegal. In other areas too there have been reports of diversion of LPG from domestic to commercial use. More important, most households, almost *90 percent of those who retained LPG, combined it with wood, which continued to be the primary fuel.* LPG was used more in the monsoon months when demand for labour was high, and less in the summer when cash earning opportunities were low. A recent study of Rajasthan (Nielsen 2016) also found that 24 percent of studied households had LPG but used it only sparingly in making tea and snacks for guests.

The Rajiv Gandhi Grameen Vitaran Yojana (RGGVY) was launched in 2009 to ensure LPG connections to rural household who were facing trouble accessing LPG because of a lack of distributors in their area. Following the launch of RGGLV in five years, 4,000 LPG distributorships were set up under the reduced infrastructure requirement. A number of women SHGs were given training and responsibility for promotion, management and distribution of

LPG in neighbouring villages. However, soon after the launch it was argued that the limit of 1,800 customers and 600 refills was not a viable scheme. In 2015 the scheme was stopped.

Where wood can be collected with women's unvalued labour, capital subsidy at best leads to fuel stacking and not fuel switching.

Recently, we noted that in Tamil Nadu a programme to subsidize LPG equipment seems to have been quite successful in bringing about fuel switching. In our 2016 study of three Self Help Groups (SHGs) in Dharmapathurpathi village in Dindigul, Tamil Nadu, all 30 women had LPG and used it as the primary cooking fuel. This was important in saving time, not just in collecting wood, but also in cleaning vessels. They said that they would never go back to cooking with wood because they worked on the farm or as wage employees in non-farm work from early morning onwards. There is a link here between women's involvement in non-household employment and women's adoption of LPG as the principal and only cooking fuel.

Women's Income Earning Opportunities Make the Difference in Turning Access into Use of Clean Cooking Fuels: Clean fuels are not only good for women's health, they are also labour-saving systems of cooking. But monetary cost, both capital costs of equipment and running costs of fuel, are involved in switching to clean fuels. Wood, on the other hand, is collected largely by women with their unpaid labour, meaning there is no monetary cost involved.

Where there are few opportunities for women to use the wood-collecting labour time saved in income-generating activities, it is unlikely that they will spend cash on LPG. Such economizing of women's labour time is more likely to occur where women are substantially involved in income-generating activities and, therefore, some empowerment with a greater say in household decisions. Thus, it is increasing pressure on women's time in production that is likely to lead to the adoption of clean cooking methods, which are also labour-saving methods.

Generally, men dominate household spending decisions, assigning last priority to LPG connections. Ignoring impacts on women's health, they are likely to utilize available money on entertainment or other such uses, rather than in re-filling LPG cylinders. But this choice hierarchy could be changed **if cooking with LPG becomes a prestige good.**

Prestige goods can also be looked at aspirational – the aspiration to a certain desired type of life, which requires the use of those prestige goods or gadgets.

The two aspirations that can be linked to cooking with LPG are those of minimizing household air pollution and reducing women's drudgery. To set up LPG as a prestige good requires (1) spreading information on the negative health aspects of cooking with solid biomass; and (2) campaigning among young women to produce a bandwagon effect:

Promote LPG cooking as a prestige good that can improve women's and children's health and reduce women's drudgery. This will add a Nudge to capital subsidy and women's empowerment to promote switching to LPG.

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