

Lighting the Path towards Gender Equality – The impact of Solar Electrification on Rural Women

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Abstract: Solar energy has become an increasingly important factor in development assistance to rural electrification . The consequences of being deprived of proper sustainable energy solutions are very high in India. Rural India being a neglected sector, the lack of energy solutions are increasing every day. The solution to rural electrification has been met with several problems as needs are more diversified. Rural area has been transformed towards new style of living .Rural areas are being undergoing changes towards diversification & these diverse activities are demanding more energy links. The utilization of Solar energy towards brining sustainability in rural areas is becoming popular & Indian rural sector is being lit up with solar lights. But debates over solar energy can be harnessed towards bringing total energy solutions is gaining attention of the policy makers .This paper examines the impact of rural solar electrification & its impact on gender equality . The challenges of rural solar needs are Government should look forward to increasing solar competency by augmenting simple, reliable, and affordable & maintenance free solar implements to rural women.

Keywords: women, rural energy, structure, challenges

“ We need to bring sustainable energy to every corner of the globe with technologies like solar energy mini-grids, solar powered lights, and wind turbines”-*Ban Ki Moon*

Introduction

The rural India faces a crisis in energy heavy power cuts , serious lack of grid electricity

connectivity all queue up to make the rural Indian scene very pathetic. Governments have been very vehement in

approaching the energy demands of rural people which has led to the sporadic widespread of solar installation in rural India. (Avilash Roul- Solar Power In India- Greening India's Future 'S Energy Demands Eco World .Com 2013).

Objectives of Study

1. This paper focuses on the impact of rural solar electrification on rural women
2. This paper focuses on the impact of enhancing the usage of solar energy in rural areas towards on gender equality.
3. This paper focuses on the challenges of rural solar needs
4. This paper focuses on the governmental mechanism for augmenting solar use & empowering women

Methodology

This paper has been prepared through the resources form secondary sources as well as the sources form government publications & official websites in the subject.

Key Indicators

Solar Energy can be utilized for varied applications. So the answer to "Why Solar" question can be sought from two different perspectives: utilizing solar energy for grid-interactive and off- cells and CSP Plants on a large scale. The grid connection is chosen due to following grid (including captive) power generation. Grid interactive solar energy is derived from solar photovoltaic .Solar Energy is available throughout the day which is the peak load demand time. Solar energy conversion equipments have longer life and need lesser maintenance and hence provide higher energy infrastructure security. Low running costs & grid tie-up capital returns (Net Metering). Unlike conventional thermal power generation from coal, they do not cause pollution and generate clean power. Abundance of free solar energy throughout all parts of world (although gradually decreasing from equatorial, tropical, sub-tropical and polar regions).It could be utilized almost everywhere. & hence rural areas

are being linked through solar solutions.

The Ministry of New and Renewable Energy provides 70 percent subsidy on the installation cost of a solar photovoltaic power plant in North-East states and 30 percentage subsidy on other regions. (The Report Of Ministry of Renewable Energy Government of India in 2014).yearly installation has risen from 313 MW in march 2014 to 1112 Mw march 2015(The Report Of Ministry of Renewable Energy Government of India in 2014).

The government of India is promoting the use of solar energy through various strategies. In the budget for 2010/11, the government had announced an allocation of 1000 crore towards the Jawaharlal Nehru National solar mission. (The Report Of Ministry of Renewable Energy Government of India in 2014).⁵¹ Solar Radiation Resource Assessment stations have been installed across India Encouraged private

solar companies by reducing customs duty on solar panels by 5% and exempting excise duty on solar photovoltaic panels. This is expected to reduce the cost of a roof-top solar panel installation by 15–20%.(The Report Of Ministry of Renewable Energy Government of India in 2014).

Challenges of Rural Solar Usage

But the problem was surfaced when villagers avoided purchasing solar kits & demanded free installation.(The Report of Ministry of Renewable Energy Government of India in 2014). They had least knowledge about it working its maintenance & its affordability hence they stayed away from purchasing But governments & NGOs studied the situation very closely & came to the conclusion that the inclusion of women SHGs in rural belt can augment the solar energy installation. (Avilash Roul- Solar Power In India- Greening India's Future 'S Energy Demands Eco World

.Com 2013). The support from these groups proved beneficial in some case studies & hence the demand for including women as participatory stake holder in enhancing solar usage in rural areas. (Avilash Roul- Solar Power In India- Greening India's Future 'S Energy Demands Eco World .Com 2013). With a gender lens approach to energy programs energy access initiative of the government proved a greater impact on women empowerment(The Report Of Ministry of Renewable Energy Government of India in 2014). Expanding access to electricity in the developing world with renewable energy is creating economic opportunities for women through assisting businesses, microfinance and longer workdays.

This can help also promote employment opportunities & constructive work culture. local SHGs, local rural banks, micro finance institutions, state / National level solar missions organizations, rural political

organizations, nonprofit NGOs, micro level women associations & all community stake holders should be made to involve in evolving an integrated policy towards empowering women through solar energy needs.

Benefits to Women through Solar Power

Solar power is empowering women as it is assisting them in sustaining energy solutions. The impact of solar energy solutions in rural areas has changed the energy scenario. Solar power equipment installation training is being provided through Public private partnerships as it has helped women to overcome their poverty .Now they are investing their time in other household constructive work. Besides it has helped their children to study better & for longer hours. The awareness is slowly helping the rural women to get educated towards sustainability .

Role of women SHGs

SHGs in rural India are very strong & hence women through SHGs can be made to evolve &

strengthen policies towards solar solutions. The village women across the country are to be informed towards the benefits of solar energy solutions. (The Report Of Ministry of Renewable Energy Government of India in 2014). The SGHs members should be given orientation on village lighting through solar, solar pack installation, provision for solar LED study lights for school going children, LED home light projects etc. THE SHGs should be made to act as a device towards bringing awareness about women empowerment through solar installations. The SGHs should know the benefits of social upliftment, economic progress, educational, cost effective & less toxic energy solutions usage of specially designed solar kits for rural areas & information on loan facility, bank transactions etc. (Muneer & Others – Sustainable Production Of Solar Energy In India 2012).

Empowering Rural Women through Partnerships

Government mechanisms can be best utilized in empowering women through solar electric solution such as considering Partnerships with

1. Local funding agencies
2. National / in funding agencies
3. Electrification through solar campaigns in rural India
4. Door to door campaigns
5. Women awareness programs
6. Tie up with local NGOs about creation of solar awareness programs
7. Training partnerships on usage & installation repair
8. Creating local access to solar products is very much necessary. The Report Of Ministry of Renewable Energy Government of India in 2014 opined that solar usage is spreading by leaps & bounds in Rural India.

Solar energy is not only replacing old traditional methods of living in rural India but it is a giving access to women towards other constructive works. (Muneer &

Others – Sustainable Production Of Solar Energy In India 2012). An integrated policy towards delivering a sustainable & innovative solutions to empower rural India with solar energy options & reduce the burden of women in domestic works can be re viewed.

Conclusion

Basing on the study, it is suggested that the government should deliver sustainable & innovative solutions to empower rural India with solar energy options & reduce the burden of women. Government can hold talks with local SHGs, rural banks, micro finance institutions, Charity organizations, rural political organizations, nonprofit NGOs, NABARD & all community stake holders regarding creating awareness about solar energy solutions. It should look at the considering finance mechanisms & supply chain minimalist strategies by enabling solar entrepreneurship among women. Government should

look forward to increasing solar competency by augmenting simple, reliable, affordable & maintenance free solar implements to rural women.

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