

Thesis Summary: Challenges of Gender, Power and Change in Solar Energy Interventions in Rural India: Imagined Geography and the Makings of Women's Empowerment in the Village Electrification Project: Karina Standal

This study explores how the implementation and distribution of solar energy in rural India, in the form of a public-private partnership, has brought changes to the everyday lives of people, with an emphasis on women and women's empowerment in the local communities being electrified. The consequences of inadequate access to modern energy are devastating. On a global scale, indoor air pollution from the use of traditional fuels for heating and cooking take about 4.3 million lives annually. Further, lack of electricity and light has negative effects on education and income-generating opportunities. Often women are disproportionately affected by these consequences. This study situates itself within 'geographies of energy', taking energy research from the technological and economic domains, to unpack how the social, cultural, and political dimensions of energy production and consumption are constituted through concepts of space and place. The objective of this study is to produce knowledge needed to address the interrelated global problems of energy poverty and the necessity of moving towards a low carbon economy. This research focuses on an important element in bridging the energy poverty gap: how rural electrification distributed through the emerging trend of private sector-led development can affect gender relations and women's empowerment.

Using a qualitative approach, this study explores the Village Electrification Project initiated by a Norwegian company specialising in solar power production, and Norwegian and Indian government development institutions. The research draws on three project sites within the Village Electrification Project; the villages Jyotipur and Ashapura in Uttar Pradesh that have implemented Community Solar Power Plants for water, household and community electrification; and Reshamgaon village in Jharkhand that has implemented a Community Solar Power Plant for women's livelihood activities.

The analysis in this thesis shows that the Village Electrification Project has brought important benefits to communities, families and individuals, by providing opportunities for increased income, access to communication through mobile phones and media, as well as well-being and improved health in terms of light, fans, and water. However, the Village Electrification Project and implementation of Community Solar Power Plants were set out on the premises of an imagined geography that understood this process as mainly technical and economic, devoid of the cultural and social aspects of 'village politics' and hierarchy. By not sufficiently addressing the social complexities of families and communities in the project, the

electrification process for household energy in Jyotipur and Ashapura to a large extent excluded women, as well as partially excluded people of lower caste and class from participating in the implementation process, reinforcing their marginalisation. Moreover, socio-economic differences in the communities meant that the ability to benefit from the electrification was not equally distributed or able to bridge the inequalities that prevailed in the communities. Ultimately, the failure to understand the 'customer' in the local context also played an important part in the demise of the Village Electrification Project.

The distribution of household electricity in Jyotipur and Ashapura was connected to the responsibilities and cultural norms of women's place in the home. It subsequently brought women empowerment through their capacity to improve domestic work. This compromised their empowerment in others areas, as it reinforced patriarchal structures of gendered divisions of labour and authoritative knowledge. In Reshamgaon, where the Community Solar Power Plant was used to increase productivity and income in an existing women's livelihood project, the project provided women empowerment to carve out a space of their own outside the 'cults of domesticity', renegotiating the moral landscape of women's legitimate role. However, this process of empowerment was situated in a discourse that sees empowerment primarily as a depoliticised and individual process. As such, the empowerment women gained from the project was still severely limited by lack of formal political and legal support that inhibits women's ability to change gender relations in their communities. Still, the merger of access to electricity and the existing women's livelihood project illustrates well how a holistic approach to energy interventions can put women in a position to (at least) actively challenge gender norms and traditional perceptions of women's authoritative knowledge, which in the long run might lead to changes in discriminatory gender relations. Lastly, this study points to how private sector-led development for providing rural electrification signifies interventions where responsibilities are distributed between public and private partners of development. As the ambitions and interests of the private commercial partners are directed towards entering new markets and gaining profit by providing technical and economic models of development, complex issues of gender equality are easily abandoned, reducing the democratic and sustainable aspects of such interventions.