

BIHAR SRLM - SOLAR SHOPS



PROBLEM:

Bihar has been ranked as one of the poorest states in India consistently. To address shortage of electricity access in Bihar, various grant and subsidy linked models were brought to state in the form of solutions. On the other hand, there was also a gradual shift in private and individual models who wanted to work on generating and distributing electricity through independent and decentralized systems or otherwise as retail stand-alone products. But there were loopholes which needed to be addressed. First, due to lack of technical knowledge there was no after sales service and absence of spares-bank to replace damaged goods made clean energy products less trustworthy. Second, value added resellers, operating on a small scale, fixed configurations of products only they sourced and were not equipped to customize energy systems to suit specific household energy needs, making their offerings limited in scope and responsiveness. Third, these situations also lead the value-added resellers to stock cheaper equipment that allowed them to sell product at higher rates.

Therefore, it became vital to design a market-based approach that supports the need of renewable energy products and services for

Below Poverty communities. To implement the project, TERI in partnership with JEEViKA, picked Purnia as one of the first places to begin with. Purnia is one of the most poverty-stricken districts of Bihar. 89 per cent of the households, only 8 per cent have access to electricity and the district holds a network of over 40,000 women SHGs or self-help groups (BRLPS 2015a). Each group on an average has membership of 10–20 women. TERI concluded Dhamdaha block would be the most apt area for intervention.

INTERVENTION:

Market creation was an evident and important step. It was mainly achieved in three stages, namely, seeding, base building, and growth and consolidation. In Purnia, TERI developed indicators, basis which JeeVika picked villages for implementation. Field surveys highlighted the apparent need of energy solutions that would meet basic requirements in communities such as lighting and mobile handset charging. TERI then, to address the specific needs of Damdhaba block, designed and tested a customized solar home lighting system (SHLS). The system comprised of two LED luminaries and a socket for mobile charging that were powered by a battery charged through a solar panel. To solve the ineffectiveness of SHLS in seasonal variations, TERI built a custom SHLS 12V system that required a 10 Ah lead-acid tubular battery. The aim was to convert demand to actual purchase, JEEViKA agreed to facilitate up to 60 per cent of the hardware cost as a loan to its SHG members. TERI's clean energy partnership with DFID led to the extension of viability gap funding of upto 40 per cent of the hardware cost. Together with soft loans this led to successful purchase of SHLS by SHG members.

In Purnia, TERI aided the formation of the

ecosystem that comprised of enterprise-based delivery model and institutionalization of last mile EEs or Uttam Urja Kendras. EE was the key business unit between a manufacturer and end user as it ensured supply of quality products to the end user.

The EE entrepreneur operated from a brick-and-mortar structure that was sometimes build inside the village and at times on the outskirts. EE operated as a micro-enterprise and lived close to target audience to interact with them on daily basis. The network of EEs is an important factor to increase after sales service delivery of clean energy products to the remote areas. Institutionalizing and operating EE requires relatively small ticket funding and EEs operate at relatively lower business risks. As the last step, TERI placed orders to manufactures and vendors to facilitate the growth in the village. In the more later and mature stages, EE will place the orders (at times) under supervision from TERI. More than 30 men from the SHG families were incentivised to gain technical training at the EE during the course of implementation.

IMPACT:

With support from JEEViKA and DFID, TERI facilitated access to clean lighting to over 13,000 self-employed women or SHG members of JEEViKA. Since commencement of JEEViKA-TERI partnership, three EEs14 have been working closely with SHG members. Independent of TERI, together, these EEs have undertaken sales of over 0.15 million since institutionalization and have scaled up their product/service portfolio that includes sales of standalone solar systems and assembling, installation, and commissioning of higher specification products in rural areas of Bihar. This has also attracted interest of external players in the solar business. With relatively

lower business risks, EEs are able to provide customized renewable energy-based solutions to rural consumers and that too on terms that are mutually agreeable upon between the EE and buyer.

ABOUT THE ORGANIZATION

BRLPS is community-based organization working with 11.7 million rural women of Bihar with the aim of holistic development of community. JEEViKA is working on various sector like Health, Financial inclusion, Capacity building, Livelihood, Social development, enterprise devpment etc. Community enterprise development is one of key activity of JEEViKA to strengthen and ensure livelihood of rural community members and the idea is to open 3000 solar energy based enterprises in Bihar in all 38 districts and 534 blocks with an aim to localize solar energy services at village/ community level.

