25 Lakhs students benefitted!

Solar PV Cook-stove wins the Solar Chulha Challenge

Featured Photo Story

Stories from the field
Milestone Achieved: 25 Lakhs students benefitted

The 70 Lakhs Solar Study Lamp Scheme, initiated as part of the Solar Urja through Localization for Sustainability (SoULS) initiative and sanctioned by the Ministry of New and Renewable Energy (MNRE), aims to distribute solar study lamps to students residing in the rural areas of Assam, Bihar, Jharkhand, Odisha and Uttar Pradesh. IIT Bombay is implementing the project at the grassroots level in coordination with Energy Efficiency Services Limited (EESL) and the respective State Rural Livelihood Mission (SRLM). The key objectives of the scheme include supporting education, livelihood generation, curbing kerosene dependency, generating awareness and confidence in solar technology and reaching out the most marginalized communities. On May 26, 2018, a significant milestone has been achieved when the distribution crossed 15 lakh students providing them with high quality, affordable clean light in the form of solar study lamp through skill transfer to local communities. The very first batch of lamps distributed under the project was on July 31, 2017 in a school in Barwadih block of Latehar district in Jharkhand. This milestone demonstrates the scale, skill and speed with which the project is reaching out to the target beneficiaries, thus, nearing towards fulfillment of its objectives. It is based on Localization-Affordability-Saturation (LAS) model as its own conceptual framework for the implementation of the scheme. Localization ensures participation of local communities through skill and knowledge transfer to ensure availability of solar products at affordable prices. Saturation represents adoption of intervention by a large proportion of community enabled by operational viability leading to its assimilation.

“Localization drives affordability, promotes Saturation, which reinforces Affordability and further increases Localization”.

The SoULS Desk

<table>
<thead>
<tr>
<th>Students Benefitted</th>
<th>Local People Trained</th>
<th>Blocks Covered</th>
<th>CO₂ reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>15,20,038</strong> Overall: 26,99,776</td>
<td><strong>2,035</strong> Overall: 5,170</td>
<td><strong>104</strong> Overall: 223</td>
<td><strong>6,933</strong> Overall: 13,150</td>
</tr>
</tbody>
</table>

Overall includes 1 Million SoUL program, Dungarpur Initiative, 70 Lakh and 5 Lakh Schemes

*Assuming that lamp is operating for 24hrs/day over 1 year and 6 months for 1MSP and Dungarpur Initiative respectively.

Jharkhand

- 4,92,670 Students benefitted across 8,842 schools
- 663 People Trained Female: 545, Male: 100

Assam

- 79,404 Students benefitted across 2,498 schools
- 144 People Trained Female: 139, Male: 5

Bihar

- 6,01,616 Students benefitted across 9,950 schools
- 752 People Trained Female: 713, Male: 39

Uttar Pradesh

- 3,46,348 Students benefitted across 40,084 schools
- 476 People Trained Female: 454, Male: 42

Note: The data and numbers displayed in the figures are as per those on May 31, 2018. Please download the app for live status.
Solar PV Cook-stove wins the Solar Chulha Challenge

ONGC, under Ministry of Petroleum & Natural Gas launched the “Solar Chulha Challenge” as mandated by the Honorable Prime Minister Shri. Narendra Modi, on September 25, 2017 to mark the occasion of Pt. Deendayal Upadhyay’s birth anniversary. ONGC was urged to organize a challenge to work towards making an ‘efficient electric chulha (stove)’. The idea was to come up with an affordable, clean, efficient and reliable cooking prototype that could be further developed and made accessible to both rural and urban households.

IIT Bombay’s team (SoULS technical team) with its innovative prototype: Solar PV cook-stove won the first place in the competition and was awarded the prize money of INR.10 lakhs by the Honorable Minister of State for Petroleum and Natural Gas, Shri Dharmendra Pradhan. The model was thoroughly evaluated on the parameters like technology used, readiness of solutions, ability to cook all types of Indian cuisine dishes, adaptability in kitchen, time required for cooking, etc. by expert committee members and ONGC officials, including the CMD. The team’s abstract titled ‘Design and development of Solar PV powered electric stove for domestic application was shortlisted by the expert panel of scientists headed by Dr. Anil Kakodkar, of scientists headed by Dr. Anil Kakodkar, Former Chairman, Atomic Energy Commission as one of the best submissions among over 1,500 applications received by ONGC. The team presented the prototype design on February 24, 2018 based on which it catapulted to the final round alongwith 5 other finalists. In the final round, live cooking demonstration was given to the panelists and the guest of honors.
Foundation for module manufacturing plant laid in Gaya, Bihar

On the occasion of the 127th birth anniversary of Bharat Ratna, Dr. B. R. Ambedkar on April 14, 2018, Honourable Union Minister of State for Power and New & Renewable Energy, Shri R. K. Singh laid the foundation stone for the setting up of a solar PV module manufacturing plant of 1 MW capacity at at Sherghati block in Gaya, Bihar on April 14, 2018. The event was preceded by signing of Memorandum of Understanding (MoU) between IIT Bombay and BRLPS Jeevika, with IIT Bombay providing the technical support. The PV module manufacturing plant will be owned and operated by women SHG members under JEEVIKA (Bihar SRLM).

On the same day, the new Assembly and Distribution Centre (ADC) at Arrah, Bihar was also inaugurated by the honorable minister who also distributed solar lamps to school going children of Rajkiya Buniyadi Vidyalaya, Arrah.

Green water-pumping workshop on user experience and propagation strategy organized at IIT Bombay

SoULS, in collaboration with the Centre for Technology Alternatives for Rural Areas (CTARA), organized a one-day workshop on Green water-pumping on May 8, 2018 to review the ongoing interventions with treadle pump and drip technology in Wardha district in Maharashtra. The objective of the workshop was to evaluate the progress of the intervention and to understand the user experience to devise a propagation strategy. The workshop was attended by Shri Shailesh Naval (District Magistrate, Wardha), Professor Satish Agnihotri (IIT Bombay), self help group (SHG) members from Wardha and officials from UMED (Maharashtra SRLM) & Foundation for Ecological Security (FES). Through this workshop, the concept of Water Ecosystem by Local for Local (WELL) was explained to the participants and how the insights from the model adopted by SoULS initiative for increasing efficiency, livelihood generation & economic development can be utilized in the ongoing program.
Prof. Chetan S. Solanki participated in the Global Off-Grid Solar Forum & Expo held in Hong Kong

The event, held from January 22-24, 2018 in Hong Kong, was the fifth edition of a biennially returning forum that is focused specifically on off-grid solar and gathered the complete off-grid sector for an extensive 3-day program (2 days of conference, a day of side events and during all three days an exhibition floor with 55+ exhibition booths). The event provided a unique platform for an excellent place to connect with the full spectrum of stakeholders in the off-grid solar sector for knowledge exchange, networking and showcasing off-grid solar products and services. The aim of the event was to accelerate development of the global off-grid solar market for achieving universal energy access by 2030. SoULS initiative, being one of the key innovators in this sector, shared its prototypes, models of innovation and subsequent experiences of implementing the same at grassroots level with a wider audience through this platform.

A half-day vendor meet was organized with Lighting Asia/India

Female entrepreneurs of Bodh Gaya district in Bihar, working under the SoULS initiative, attended a half-day vendors’ meet on May 8, 2018 organized in partnership with Lighting Asia/ India, an innovation of International Finance Corporation, World Bank Group that aims to increase access to clean, affordable energy in rural India. Representatives from vendor companies viz. d.light, SunKing, Dharma Life and ONergy demonstrated the types and quality of products they manufacture and distribute. It was an interactive session encouraging new entrepreneurs to get detailed information from the vendors on the product performance, distribution opportunities and pricing. The event concluded on a successful note.

Enterprise development activity kick-started at Assembly & Distribution centers

It is imperative to build a network and ecosystem of solar entrepreneurs who can make affordable solar products available in the vicinity of rural marginalized communities. These solar entrepreneurs should be nurtured through systematic trainings combined with practical experience. The enterprising activity has started in the full swing with the very first Training of Trainers (ToTs) on Entrepreneurship Development organized in Ranchi, Jharkhand in April, 2018. Subsequent trainings were organized at Khunti in Jharkhand and Bodh Gaya in Bihar.
Photo Story

To pilot the initiative, seven demonstration tribal households (three electrified and three non-electrified) were chosen for deployment of solar off-grid technology. These households were given home lighting systems with 5 bulbs, 1 mobile charger and 2 socket charger, powered by a 100 W panel. The major impact of the piloting the initiative was that the electrified households have given up the grid connection completely, post switching to solar electricity based on their experience that solar was far more efficient and reliable source of electricity than grid system.

The deployment of technology was done by DURGA Energy (Dungarpur Renewable Energy Pvt. Ltd.), one of its kind of module manufacturing plant completely owned and operated by tribal women and established under the SoULS initiative. The pilot was successfully initiated in coordination with Rajeevika (Rajasthan SRLM).

The SoULS initiative has always focused on going beyond the solar lamps, and towards transforming lives through solar power. Ensuring access to clean, affordable and reliable power to meet their daily energy needs and reduce vulnerability to energy poverty. SoULS team ideated a concept of provision of “24X7 reliable power through solar home systems” in one of the most backward and remotest districts of India-Dungarpur, Rajasthan.
Rukmani didi along with Chanda didi from DURGA installing the first home lighting system at one of the households in Jhontri cluster of Dungarpur Block, District- Dungarpur, Rajasthan on February 14, 2018
Opinion

Breaking Shackles around ‘Gender’ at Workplace

What is gender sensitivity? Are workplaces in today’s India gender sensitive? Is the harassment of employees at workplace on the rise? Do the incidents get reported? Are only women being the victims? These are some of the burning questions and issues at hand in today’s work environment. Multiple companies across all industry sectors are beginning to take note of these issues and address them. Before getting into the issue, let’s start with the basics.

‘Gender’ and ‘Sex’ are two words that are colloquially used interchangeably without realizing the vast difference between the definition and connotation of the words. ‘Sex’ refers to the biological and physiological characteristics that define men and women while ‘gender’ refers to the socially constructed roles, behaviors, activities, and attributes that agiven society considers appropriate for men and women. Thus, while sex is permanent and universal, gender varies from one society to another. To put it in another way, “male” and “female” are sex categories, while “masculine” and “feminine” are gender categories.

Gender sensitivity essentially refers to making the concerns and experiences of men and women an integral dimension of the policies and programs in an organization, so that women and men benefit equally and inequality is not perpetuated. Gender issues are sensitive and complicated and affect both women and men regardless of status. The ability of an organization to identify and handle such issues underpins its success in creating a gender sensitive and inclusive work culture.

As mentioned before, gender issues are highly pertinent to the modern workplace that is more heterogeneous and complex than ever in its workforce constitution. The International Labor Organization (ILO) has standards and guidelines for the prevention of sexual harassment at the workplace. It focuses on “Gender Equality and Decent Work”, which highlights the importance of an employee’s right to work with dignity and decency. Harassment in any form or manner at work and the reason why we are talking about breaking gender stereotypes is talked about below.

With 1000 plus employees from various socio-economic backgrounds, SoULS management felt that it was crucial to spread awareness on the aforementioned issues to ensure that each employee, regardless of gender, feels comfortable at the workplace and voice out their concerns and complaints if any such incidence occur. A step towards this direction was organizing 2-day sessions (June 5-6, 2018) on “Harassment and sexual harassment at workplace” for the SoULS employees wherein Prof. (Dr.) Parthasarathy, Dr. Smita S. Pendharkar and Dr. Indu Rai from the Humanities and Social Sciences Department, IIT Bombay, were invited as key speakers.

The objectives of these sessions were to make the participants aware of the implications of harassment and sexual harassment, its impact on the individual(s) and the organization, identification of such behavior, appropriate handling of such issues/incidents and the manner of conducting oneself within the work environment. The sessions were informative and engrossing. The expert deliverables from the speakers saw the participants opening up and discussing the issues. It came to light that it was high time such sessions were conducted and it is the right time that the organization is thinking of forming a grievance redressal committee to address and resolve such issues and sensitize its entire workforce on prevention, prohibition and redressal of harassment in any form of employees, irrespective of their gender.

It is time to recognize that every employee of every organization needs to be sensitive, respectful, watchful and inclusive. One must not be afraid and must speak up against any form of harassment. SoULS, on its part, has taken this pro-active approach, along with its employees, to be the agents of change and create a harassment-free workplace where both women and men are treated with dignity, equality and respect.
परिस्थिति से परे, सपने उड़ान भरे...

नाम - आदित्य कुमार
पिता का नाम - महेंद्र प्रसाद गुप्ता
स्कूल का नाम - प्राथमिक विद्यालय, खजुरी
पता - खजुरी, पोस्ट - दुर्ग, जनपद - सोनभद्र, उत्तर प्रदेश

"हम अब देर तक पढाई कर पाते हैं, घर काम भी पूरा करते हैं. स्कूल जाने में अब ज्यादा अच्छा लगता है।"

"हम घर में पांच भाई बहनें हैं और हम सब स्कूल जाते हैं पर घर आकर पढाई करने में दिक्कत होती थी। घर काम स्कूल में करके न ले जाने से टीचर से डाँट भी पड़ती थी। हमारे घर में विजिली कनेक्शन नहीं है और इसीलिए शाम को अंधेरा होने के बाद हम पढाई नहीं कर पाते थे।" - आदित्य की तरह इस गांव में ऐसे और भी बच्चे हैं जिनकी पढाई करने में इस दिक्कत का सामना करना पड़ता है।

बजह है गरीबी। ऐसे में केसरिन के चिरा गे जो भी रोशनी मिलती है लोग उसे घर के बाकी काम जैसे की स्वास्थ बनाना, स्वास्थ और बाकी जरूरी काम में लगाते हैं। आदित्य के पिताजी की तबियत ठीक नहीं रहती। ऐसे में सिर्फ उसकी माँ ही घर में कमाऊं और वो दिहाड़ भुजड़ी करती हैं। उनकी कमाई बहुत कम है पर अपने सारे बच्चों को पढ़ाने का उनका जब्ता तरीके के काबिल है - "में सूरत तो पढ़ी लिखी हैं नहीं इसीलिए आज इस गरीबी में हूं। में चाहती हूंं की मे बच्चे पढ़ लिख जाये और बहुत बड़े बने। स्कूल जाने से कुछ नहीं होगा अगर मेरे बच्चे स्कूल के बाद पढाई न कर पाए और बिजली या केसरिन का स्वास्थ उठाने में में भी असक्षम हूं। "

आदित्य और उसके भाई बहनों को 70 लाख सौर ऊर्जा लैप योजना के तहत सौर लैप दिया गया है। आदित्य के शब्दों में, " हम अब देर तक पढाई कर पाते हैं, घर काम भी पूरा करते हैं. स्कूल जाने में अब ज्यादा अच्छा लगता है क्योंकि डांट नहीं पडती. हम सब अब सुबह पड़ेगे और माँ का सपना पूरा करेगी। "

सौर लैप में ना कोई स्क्वार्च है और इस्तेमाल करना बहुत आसान है।" मेरी कोशिश कब रंग लाती ये पदा नहीं पर इस योजना के तहत जो लैप मेरे बच्चे को मिलता है उससे अब में चितामुक हूं। ये लैप के स्वाराव होने पर दीदी ठीक भी कर देगी। एक आशा की किरण बनकर हमारे जीवन में आया है। " - आदित्य की माँ जैसे हजारों माओं का सपना पूरा करना ही इस योजना का उद्देश्य है।
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