



Skills for a Solarised Future Impact Report 2018-2019







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EXECUTIVE SUMMARY

In 2018, DFID India conceptualized an initiative to improve the participation of women in the solar sector workforce. They designed a project with SEWA Bharat and other partners to skill unemployed youth (a majority being women) in NP Kunta, Anantapur district, one of the backward regions in Andhra Pradesh. This program provided specialized skills training, aligned with the operational and maintenance needs of the upcoming solar park in the district. With focus on supporting women, a Solar Skills Training Centre was established, and has since trained 183 candidates to build their potential at the 5000-acre solar park being developed in the state.

After understanding the employment needs of the private sector, and mapping the skill-gaps of men and women from marginalized backgrounds, a technical training program was designed, based on the guidelines developed by the National Skills Development Corporation (NSDC). The pilot program was launched with a vision to showcase and scale a successful community development initiative in the solar sector.

After thorough assessment with sector experts including Ayana and the Green Jobs Sector Skill Council (GJSSC), SEWA Bharat shortlisted four jobs for the training program. Implementation of the program was split into three phases - set-up, training and placement. The team faced several challenges in the set-up phase of the training centre, including low availability of infrastructure in the remote areas of NP Kunta, and lack of trainers with command over local language, among others. The team was able to overcome these, as well as address some key barriers of entry for women in the sector, by engaging with local SHGs, Panchayat members, and families of the women. They were also able to influence the GJSSC to change the eligibility criteria for women, thus making the four jobs identified for the program suitable for women.

The SEWA Bharat team engaged in rigorous recruitment activity during the set-up phase as it was important to not only educate the local community about employment opportunities, but also to change mindsets to allow women to work. The SEWA Bharat team conducted additional training and awareness programs for the communities on health and financial literacy, through local volunteers, with support from ASHA workers, Panchayat members and the local police, to increase grassroot engagement and create impact.

The training phase of the program was launched in partnership with SEED via a multi-stakeholder launch in December 2018, with successful enrolment by 86 women and 97 men. SEWA Bharat and SEED teams jointly organized training events with private sector players, to overcome challenges of transportation to the training centre, ensuring the womens' safety, curbing dropout rates, among many others. This encouraged the students to perform better. The training phase was successfully delivered to 168 students graduating from the class.

Post training, the placement phase had its own set of challenges, where a strong focus was placed on building the candidates' confidence, and additional training on digital literacy. The team witnessed much resistance from employers about women's placements, including women not being suited for physical work, issues with night shifts for women. SEWA Bharat, with support from its network of partners, continues to tackle these challenges today. The team has been closely lobbying with private sector companies to change mindsets and showcase the benefits of employing women, while also preparing solar parks and the sector for women in the workforce.

Local community development and women employment are imperative to the success of a solar park in India. The pilot project has given us various learnings which we would like to share with the broader community as this program can be easily replicated in existing and proposed solar parks across the country.

Key Recommendations Based on our Learnings

Minimum qualifications under Green Jobs Sector Skill Council to be re-assessed, specifically for women candidates to help them gain a fair chance for employment in solar parks, as the current requirement of ITI/Diploma eliminate many potential women trainees from enrolling.

Encourage senior leaders of private companies to recruit women, as a top-bottom approach is key to changing the attitude towards women's employment in the solar sector

Skills training centres should be established in close proximity to solar parks for ease of access for local people, who can then be given relevant theoretical and practical skills training

Improve gender equity in the sector by reserving the **number of positions for women** in the solar parks

Working environment in solar parks to be made conducive for women by:

1. Providing toilets for women
2. Providing transport facilities
3. Eliminating night shifts
4. Building childcare centres
5. Sensitizing employees on the role of women in the workplace

Encourage **ownership of mobile phones by women**

Sensitizing the local community about sending women for training and working in solar parks

Use of audio-visual and other digital tools to aid in mobilization towards a mindset shift, and to support in training

1. ABOUT THE PROJECT

SEWA Bharat, a national federation of women-led institution, is working with a consortium of partners to develop and implement a demand-sensitive skill development module, to train and employ 200 beneficiaries in solar parks. SEWA Bharat has worked with the following companies for implementation and execution of the project, with support from DFID and CDC Group:

- Ayana Renewable Power Private Limited (Ayana), a renewable energy company established with support from CDC Group, has provided support for economic empowerment of women under the project
- Xynteo India, through India2022, a purpose driven business-led coalition committed to leveraging the power of collaboration to unlock future-fit business and growth opportunities in India, has been involved in private sector engagement and communications for the project
- SEED CSR, an integrated CSR implementing agency offering a range of services for businesses to achieve the overall vision of ensuring equitable growth and opportunities, was the accredited training partner for the project

The Skills for a Solarised Future program is a market-driven, customized skill development solution for unemployed youth, especially women. The pilot project under this program is implemented in NP Kunta, Anantapur, Andhra Pradesh, and is aimed at systematically mapping the employment needs of the private sector in solar parks, and the skill-gaps of men and women from marginalized backgrounds in the area, to identify their training needs. The key aim of this pilot has been to design and implement a model that can be replicated and scaled as a multi-year, multi-geography project for solar parks across India.

1.1 The Objectives

- To promote local employment of local youth (men and women) and reduce migration
- To identify pathways for addressing gender barriers for employment in the solar sector
- To bridge the gap and increase women's participation in the solar sector workforce, a space currently male-dominated for skilled and semi-skilled jobs
- Holistic development of trainees and the community to be achieved by providing life and job skills through awareness campaigns, training programs, workshops, literacy sessions, exposure visits, among others



1.2 The Context

With a focus on women, especially youth, this Solar Skills Training Centre aimed to train 200 candidates and gainfully employ them in the upcoming 5000-acre solar park in the region.

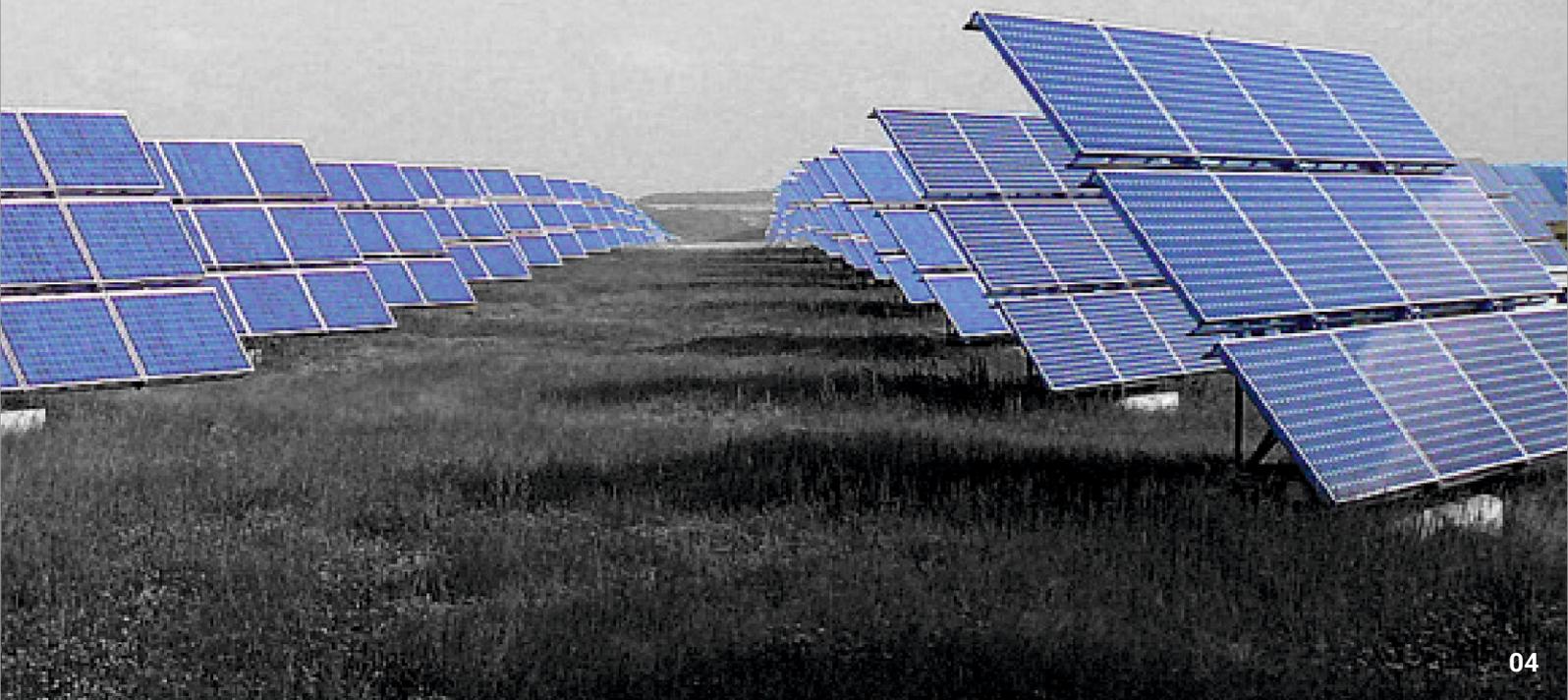


NP Kunta Mandal is located 126 KM East of the district headquarters at Anantapur, consisting of 126 villages and 13 panchayats. The region is drought hit, with low ground water levels. Given that agriculture is the mainstay occupation, over time, this has led to distress and unemployment in the region.

Farmer suicides are high, leaving several women widowed with no income-earner in the family. Migration of youth to employment-rich areas of Bangalore, Hyderabad and Kerala results in a further drain of workforce from these villages. The community has also witnessed human trafficking of young girls who are sold to the Gulf countries, among others. So, there is a need for local employment and livelihood generation opportunities. For the local population to enter the solar sector in the state, quality skill development and training would be required.

In collaboration with sector expert Ayana and the Green Jobs Sector Skill Council, four job roles were identified, based on market demand. These job role qualification packs have been identified as per the guidelines developed by the Green Jobs Sector Skill Council and industry requirements:

Solar PV Project Helper	Solar PV Maintenance Technician-Civil	Solar PV Installer Civil	Solar PV Installer Electrical
<ul style="list-style-type: none"> Assist in activities related to erection and maintenance of solar PV power plants 	<ul style="list-style-type: none"> Maintenance of the civil and mechanical works of the solar power plant 	<ul style="list-style-type: none"> Specialize in civil and mechanical installation of solar PV systems 	<ul style="list-style-type: none"> Specialize in civil and mechanical installation of solar PV systems
<ul style="list-style-type: none"> NSQFL Level 2 	<ul style="list-style-type: none"> NSQFL Level 4 	<ul style="list-style-type: none"> NSQFL Level 4 	<ul style="list-style-type: none"> NSQFL Level 4
<ul style="list-style-type: none"> Trainee eligibility - minimum 5th pass 	<ul style="list-style-type: none"> Trainee eligibility - minimum 10th pass 	<ul style="list-style-type: none"> Trainee eligibility - 10th pass + ITI/Diploma 	<ul style="list-style-type: none"> Trainee eligibility - 10th pass + ITI/Diploma



1.3 Key Features of the Program

The program was developed for four job roles - Solar PV Project Helper, Solar PV Maintenance Technician - Civil, Solar PV Installer - Electrical, and Solar PV Installer Technician - Civil, in collaboration with sector expert Ayana and Green Jobs Sector Skill Council. To deliver the program, the training centre was set up with 4 classrooms, 1 for each job role, with a practical classroom area. The curriculum was translated to Telugu and quality trainers were hired to deliver the curriculum.

Technical training (theory and practical) and personality development sessions were organized along with seven exposure visits to solar parks for practical exposure.

Additional features included guest lectures, community mobilization and practical sessions on technical and job-readiness training. Certificates were provided on successful completion of the training.



Guest lectures by experts from the solar industry.



Community mobilization to encourage students, especially women, to enroll in the skill training program and challenge stigmas attached to women working.



Practical classes based on curriculum prescribed by National Skill Development Corporation (NSDC).



Financial Literacy and Communication sessions for the community members to build trust and contribute to community development.



Certification of all trainees post successful completion of the training.

1.4 Key Activities

Empowering the community through the training program

The training focused on all-round growth of the trainees. SEED CSR, the training partner for the project, focused on theory as well as practical knowledge.

The trainees went through rigorous classroom training, and their progress was tracked every month through monthly assessments. Feedback on their performance helped facilitators design effective classes and also helped their future scores.

The activities conducted with the students and the community also aimed to address the mobilization challenges that the program team faced. Some of the major activities conducted during the program included:

1. ENGAGING WITH LOCAL LEADERS



Local leaders (government, police department, civil society, community leaders, ASHA workers, SHG groups, Panchayat leaders, etc.) supported and promoted the project which was a great way to gain trust and build confidence of local people in field efforts.

Particularly to target women, it was crucial to tap into networks of local SHGs and ASHA workers. This is because it is more difficult to meet with and talk to women in public spaces due to household responsibilities and restrictions on free mobility.

2. AWARENESS SESSIONS AND WORKSHOPS



SEWA facilitated 7 awareness sessions and workshops in collaboration with local SHG and ASHA workers to impart information and work towards community development.

- Health awareness sessions were organized, with a focus on maternal health, menstrual hygiene and nutrition
- Financial literacy sessions, with a focus on the importance of saving, safe and smart loans, and available banking services, were also organized
- Workshops on skill development in solar jobs were conducted, including answering queries regarding the training

3. MEET AND GREET WITH EMPLOYERS



The Launch and Inauguration event in March 2019 brought together diverse stakeholders on one platform to interact, share experiences, learn, inspire and grow.

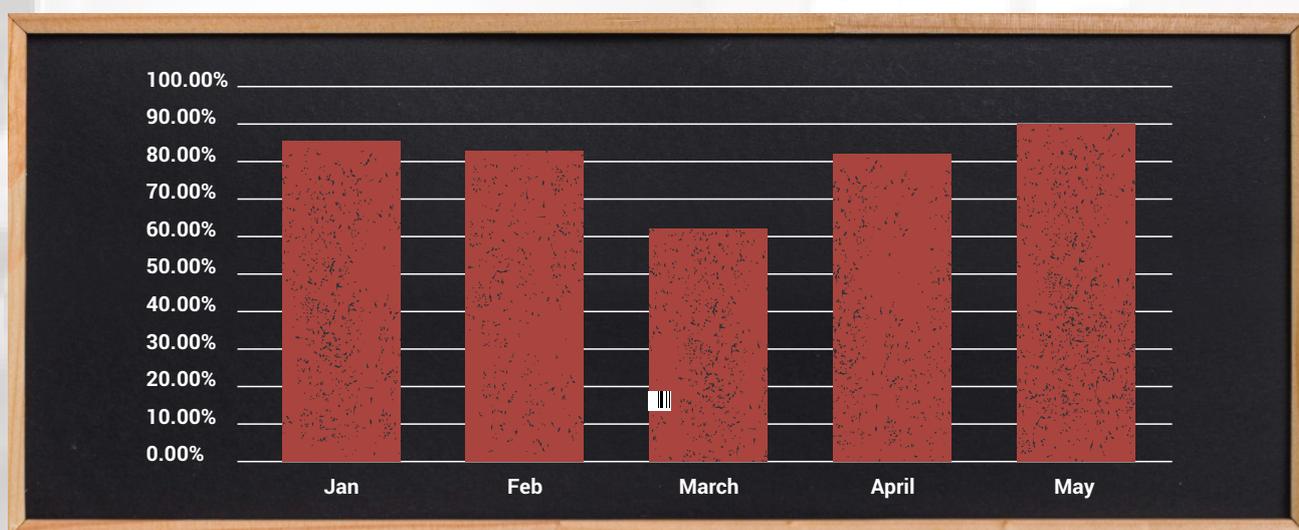
One of the key highlights of the event was the informal Q&A session which was an open interaction between the industry experts and the students.

4. JOB PREPAREDNESS TRAINING



The trainees received thorough training on interview preparation during the training and placement phase of the pilot. Each trainee received individual feedback on their resume, and were taken through a mock interview drill. This helped to build the confidence of the trainees, many of whom were first-time interviewees.

5. PROVIDING A TRANSPORT FACILITY AND STIPEND



The program also compensated the trainees partly for loss of income by providing a stipend of INR 2000 to all trainees. This motivated them to enroll and participate in the skill training program. The training program set a goal of full-attendance for trainees so that they could make use of the curriculum to the fullest.

The variation seen in attendance was due to lack of proper infrastructure. Some trainees had to travel for over 60 KM everyday, leading to a drop in attendance over a period of time.

To address this challenge, SEWA with DFID arranged for a transport facility to the training centre for trainees travelling a distance of 30 KM or more. 20 trainees used the transport facility, 12 of which were women. The transport facility helped in encouraging women to travel safely to the training centre.

6. PARENT-TEACHER MEETING AND HOME VISITS



To further encourage students, SEWA identified the need to recognize students with high performance and high attendance.

A reward ceremony was held where trainees with the highest scores in monthly assessments and the highest attendance were rewarded.

2. OUR IMPACT

2.1 Impact on the Community

- **Total Placements: 70 (Male: 66 | Female: 4)**
- **Average Monthly Salary: INR 11,900**
- **Median Monthly Salary: INR 12,000**



ACHIEVEMENTS FROM THE TRAINING PROGRAM

85% of trainees are first time employees who have never worked before

Average age of students placed is **23 years**

The average family size of students placed is **4** people with only **1** earning member in the family

67% of the students placed belong to the farming community

25% of the students placed come from families where labour is the primary occupation

87% of the students placed saw an increase in income by over **INR 4,000**, which is more than 30% compared to the baseline

100% women placed had an increase in income by over **INR 8,000**, which is **50%** more than the baseline

18 potential job placement leads from 9 solar companies, and **30+** pre-placement offers

4 placement drives held at the training centre

A Student's Journey of Inspiration

V. Aparna, 22, NP Kunta Mandal

Aparna lives in NP Kunta with her parents, who are farmers. As the income through farming is low in the drought-stricken region, Aparna was determined to explore an alternate livelihood opportunity. She pursued her engineering with this goal, despite backlash from her relatives. She was the first woman in her family to complete higher education. She was not able to get a job after completing her education, and was spending time at home waiting for a job opportunity, within a 100 KM radius.



She joined SEWA's training program with no expectations. She had lost confidence of being able to work as an engineer. Once she joined the training, she was inspired by the quality of training, and the fact that the program could find employment opportunities in the village, without having to travel to nearby cities. She studied hard and excelled in the training, and because of her dedication, today she is the first female employee at the solar park.

Her family and friends supported her during the training, which helped her succeed. She cannot believe that she has made history, and wants many more women to follow in her footsteps.

A Student's Journey to a Better Future

Ravi, 19, NP Kunta

Ravi lives with his father who can no longer work because of old age. Ravi was the first person to join the training as a volunteer, and accompanied SEWA representatives during mobilization. As a single child, he found family in the SEWA team, and also became friends with other trainees during the program.

Today, Ravi is the first trainee from the program to work outside NP Kunta, in Pavagada, about 100 KM away. He did not want to wait till the plants were commissioned, as he wanted to gain experience as soon as possible. Leaving his father alone has been a hard decision, but he knows that he will come back soon, with more skills and better opportunities. He says that he would also be willing to pay for such trainings in the future.

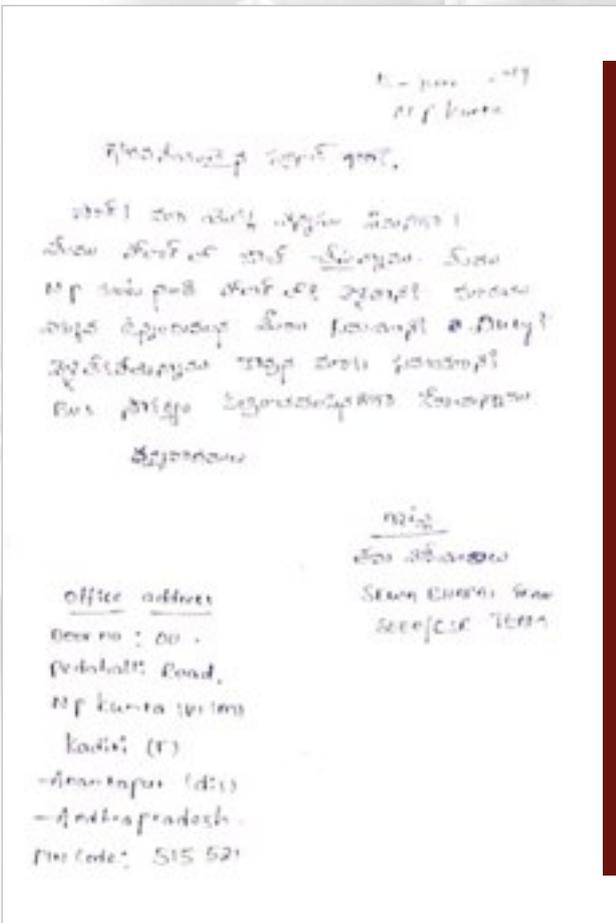


2.2. Impact on the Ecosystem



SEWA BHARAT worked with the trainees and the community to help them realise their potential to bring about change not just in their own lives, but also in their community. Several such initiatives that impacted employment opportunities, and livelihoods of youth and women, were led by the trainees. These efforts will play a critical role in bringing long-lasting impact to the community.

Bringing a change in the public transport system for better employment opportunities:



The public transport system in the region is limited. The current bus routes do not extend to the solar park site. Buses are usually delayed and unreliable, even for the routes where they do exist. As the plants are located in remote areas, the trainees faced transportation challenges.

SEWA held meetings with the Sarpanch (local village leader) of the village to highlight the transportation issue. Our trainees then wrote to the Sarpanch of the village, to request change in the bus route to accommodate a stop near the new park location. The Sarpanch recognized the problem and agreed to write to the Andhra Pradesh State Road Transport Corporation (APSRTC) to accommodate the request.

Apart from this, SEWA's team got in touch with the bus drivers to educate them about office timings and held negotiations to solve the issues.

2.3 Impact on the Private Sector

1. CHANGING THE MINDSET

To achieve the first objective of this project, to increase participation of women in the solar sector, a mindset shift from the existing deep-rooted biases was required. SEWA Bharat made efforts to alter the status-quo of this sector by negotiating with the stakeholders at two levels-



LOCAL

At the local level, the SEWA and SEED teams negotiated and encouraged the human resource divisions of the solar companies to hold a discussion with the women trainees on their aspirations to work at the solar park.



NATIONAL

At the national level, SEWA negotiated with country heads of Tata Power Solar to highlight the employment gap for women that exists in the solar sector. Tata Power Solar recognized the problem and decided to join hands on this issue. Through these discussions, today there are two women candidates, Siva Parvathi and Aparna, placed at the Tata Power Solar plant in NP Kunta as Quality Assurance Engineers.

2. NIGHT SHIFTS FOR WOMEN



The transport infrastructure in the region is poor, making it difficult for women to commute safely to and from their homes, as solar parks are usually in remote locations. Furthermore, they work in open fields, and are also expected to work at night. Given that parks have minimal security, women do not feel safe and hence do not prefer to work the night shifts. Since all employees hired at the parks work night shifts at least twice a month, this could discourage companies to hire women, so it was important to overcome these hurdles. SEWA met Tata Power Solar's senior leadership to present the issues faced by women in working at the park, especially during night shifts, and discussed the possibility of accommodations for women at their solar park. Tata Power Solar agreed to remove night shifts for women, thus taking the first step towards permanently including women in solar park workforce.

3. TOILETS FOR WOMEN



Solar parks lack toilets for women. This is an important infrastructure requirement for safety and hygiene. SEWA is currently negotiating with companies to build toilets for women in and around their solar parks.

4. POSH AT WORKPLACE



Prevention of Sexual Harassment at Workplace (POSH) Act, 2013, was enacted by the Government of India as a comprehensive legislation to provide a safe, secure and enabling environment, free from sexual harassment, to every woman. As solar companies are in the process of employing the first set of women in solar parks, SEWA has taken on the responsibility of informing all employees, both women and men, about the POSH Act. This will help in creating a more enabling space for women. Tata Power Solar and SEWA are currently planning an orientation session with their employees.

2.4 Impact on Policy

As part of the program, SEWA Bharat has taken an ecosystem approach to make employment of women in the sector more conducive. The program has also focused on working with solar power companies to provide employment opportunities to the local community at the solar parks.

Efforts in this direction have been led by SEWA. One such initiative is to change the eligibility criteria for women to encourage them to join the solar workforce.

Some of these criteria include:

Educational qualification:

- Original eligibility: 12th standard + ITI/diploma
- New eligibility: 12th standard (science)

Age:

- Original age criteria: 18-35 years
 - New age criteria: 18-35+ years
-





3. LEARNINGS AND RECOMMENDATIONS FROM THE PROGRAM EXPERIENCE: THE WAY FORWARD

Implementation of the program in NP Kunta has provided various learnings, from which recommendations have been synthesized for any future solar projects in the country. These recommendations can be considered both at the community and the ecosystem level.

At the Community Level:



Post-placement Support

All program alumni should be provided post-placement support to improve job retention. This will also help in documenting progress and concerns involving placements.



Community Engagement

Community involvement is essential to prevent resistance to work at solar parks, create awareness on livelihood opportunities, and to encourage trainees to retain their jobs.



Documentation of Efforts

Document the success stories of placing trainees in solar parks, especially for women. Those placed as part of this pilot were the first few women in India to join the solar sector workforce.



Transport Infrastructure Improvement

Improving access to the solar park through private or public bus services, promotes trainees and employees to travel from their villages. This is especially helpful for women.



Solar Park Policies and Infrastructure

Providing toilets for women, and creating flexible shifts for women, are some initiatives that can promote women joining the workforce.



Mindset Change

Make efforts to remove the stigma attached with women working at solar parks through awareness sessions with employers and employees.

At the Ecosystem Level:



Adopt a holistic approach by educating men in the family, industry and the community about the additional livelihood potential by adding women to the workforce.



Qualifications under Green Jobs Sector Skill Council need to be modified to cater to the local population and women.



Companies can consider reserving a certain number of positions in the solar parks for women.



Every solar park should have a training centre, making training and upskilling easier.



A top-down approach with a push from senior management is required, to change hiring practices so that more women are hired.

The hope from this program and the pilot at NP Kunta, Anantapur, Andhra Pradesh is that the learnings and recommendations can be applied across India, in any geographies where solar parks exist or are proposed.



ACKNOWLEDGEMENT

We would like to recognize the contribution of all stakeholders who supported and promoted the project at various stages.

DFID and CDC have worked closely with all partners to conceptualize the pilot project to promote local employment and end gender gaps in the solar industry.

SEWA Bharat has provided valuable inputs in designing the concept, and has led implementation in the NP Kunta region.

We would like to thank Ayana Renewable Power Private Ltd (Ayana) for providing expert industry inputs to the training program, and for supporting placement linkages for the trainees. We would also like to thank SEED CSR, our Accredited Training Partner for providing quality training and supporting placement linkages; and Xynteo India for managing communications and monitoring the project.

National Skill Development Corporation and Green Jobs Sector Skill Council have been our partners throughout and have supported our efforts in making the solar sector space more gender inclusive.

The valuable support from local leaders and the local government at NP Kunta is appreciated, as this to the learning and building of trust in the community.







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