Communities to Climate Action:

Building Sustainable Livelihoods through Climate Entrepreneurship

February, 2026

About Hariyali Gram

Launched in 2019, the Hariyali Gram (Green Village) Initiative is a joint effort undertaken by NRDC and SEWA, and supported by the Association of Renewable Energy Agencies of States (a society under the Ministry of New and Renewable Energy (MNRE), Government of India). The initiative promotes Decentralized Renewable Energy (DRE)–such as rooftop solar energy, micro-hydro energy, bioenergy, small wind energy–especially in remote, underserved villages. DRE solutions improve access to energy, reduce reliance on costly grid extensions, and create socio-economic equity at the last mile level. The Hariyali Gram initiative integrates clean energy with rural development, thereby improving livelihoods and supporting India's climate and development goals. The latest impact assessment report of the initiative, launched during the World Sustainable Development Summit in March 2025, makes a few key observations–such as, limited implementation of climate-friendly DRE interventions at a small village level (with about 200 to 300 households) can avoid approx. 280 tons CO_2 emissions annually, which is the emissions equivalent of an individual taking 480 roundtrip flights between Delhi and Mumbai. Scaling this effort to about 30,000 villages, i.e., 5 percent of India's total villages, has the potential to avoid nearly 8.4 million tons of CO_2 emissions annually.[1]

About NRDC

With over 50 years of experience, the Natural Resources Defense Council (NRDC) combines the power of more than three million members and online supporters with the expertise of over 700 scientists, lawyers, and policy experts to drive climate and clean energy action, protect nature, and promote healthy people and thriving communities. NRDC works in the United States, China, India, and key geographies to advance environmental solutions.

In India, NRDC partners with leading organizations on clean energy access, climate resilience, and clean air and healthy cities. For over 10 years, NRDC has also worked with government officials at the national, state, and city level partnering with local groups and businesses to combine scientific research and policy acumen to implement impactful climate solutions.

https://www.nrdc.org; @NRDC_India

About SEWA

The Self Employed Women's Association (SEWA) is the only national trade union in India that exclusively represents the needs of women workers in the informal sector economy. SEWA has a membership reach of 3.2 million across 18 states of India, with strong grassroots penetration in both rural and urban areas. Internationally, SEWA also works with the women workforce in Afghanistan, Nepal, Sri Lanka, and Myanmar.

SEWA's work is driven by two primary goals–full employment and self-reliance. While full employment entails guarantee of work, income, food, and social security (healthcare, childcare, nutrition, shelter, and insurance), self-reliance involves empowering members to take decisions individually and collectively on matters of trade, economy, life, and livelihood. SEWA helps organize women into self-owned collectives–self-help groups, producer groups, cooperatives–based on their trades. It provides information, awareness, health services, skills training, and financial support (savings, credit, insurance, pension). It also builds market linkages to help members sustain and scale livelihoods.

Guided by these goals and principles, SEWA has organized its members into 4,813 self-help groups, 160 cooperatives, 15 economic federations, and 3 producer companies.

https://www.sewa.org/; @SEWAComm

Cover photo credits: NRDC India

Table of Contents

SEWA has a membership reach of 3.2 million across 18 states of India, with strong grassroots penetration in both rural and urban areas.

Source: NRDC India

Climate Change Awareness and Skill building at the Rural Level – Beyond Urban Boundaries

Educating and equipping rural communities with the necessary skills fosters collective awareness on the issues of climate change, while ensuring that the non-urban population is not neglected in the transition to clean energy. Several organizations across India have been working extensively to improve access to energy in rural areas and explore the opportunity skilling and job creation in the renewable energy sector, thereby supporting policy integration at all levels, with a focus on improving lives and livelihoods for rural communities. An assessment of clean energy workforce in India estimate that, as of Fiscal Year 2022, India's solar and wind energy sectors employ around 164,000 workers–a 47 percent increase from the previous year–and 84 percent of these workers were employed in the solar energy sector.[2] For distributed clean energy technologies installed mainly in rural India, several resources are available to skill communities on climate-friendly technologies such as off-grid solar photovoltaic systems, biogas plants, solar water pumps. These resources introduce readers to key technological components, installation and usage steps, and operations and maintenance.[3] To emphasize the importance of climate education for rural communities, several grassroots organizations are building skilling programs that cover topics such as climate literacy, green enterprise and technical skills, business and financial training, digital tools, leadership development, market linkages, policy awareness, and mentorship to enable rural women to build sustainable, climate-resilient livelihoods.[4]

One example is the Suryamitra Skill Development Program, conducted by the MNRE's National Institute of Solar Energy (NISE), a 600-hour residential program that trains individuals for employment

Currently, in India, there are a growing number of programs that are helping the climate and clean energy skill-building ecosystem to evolve and expand. One example is the Suryamitra Skill Development Program, conducted by the MNRE's National Institute of Solar Energy (NISE), a 600-hour residential program that trains individuals for employment in the installation, operation, and maintenance of solar energy projects.[5] Another example is the Women in Solar Energy (WISE) initiative, undertaken by the National Solar Energy Federation of India (NSEFI) and the Skills Council for Green Jobs (SCGJ), that focuses on the 3E's, maximizing women's access to energy, education, and ease of doing business in the energy sector.[6] The Climate Entrepreneurship Program, described in this document, aims to provide new avenues for public policy integration with grassroots climate movements and improving rural livelihoods.

Source: NRDC India

About SEWA's Climate School

The Climate School, established in 2022 by SEWA members, builds on NRDC and SEWA's efforts (such as the Hariyali Gram initiative) to impart necessary information about climate change and its regional impact to SEWA members, while scaling livelihood transformation. With 3.2 million members from diverse regions across the country, the Climate School ensures that the various approaches to raise awareness and adopt green solutions remain progressive, relevant, inclusive, and sustainable.

The Climate School aims to:

- Raise climate awareness among members and their families
- Share contextual knowledge of climate impacts on lives and livelihoods
- Equip members with strategies to improve resilience toward increased instances of adverse climate events
- Build a network of women climate educators and climate entrepreneurs
- Restore the earth to a vibrant, fertile, and clean state

This program ties in with SEWA's grassroots Swaccha Aakash Campaign (Building Cleaner Skies), SEWA members' collective response to climate change that addresses livelihoods through four interconnected elements:

- Clean Fire (energy): better access to and adoption of clean energy
- Clean Land: making land cleaner and more productive
- Clean Air: improving air quality through sustainable practices
- Clean Water: conserving and recharging water sources

The image below illustrates the interconnectedness of these elements–for example, biogas plants provide clean cooking energy, improve farm productivity via bio-slurry, reduce waste, and lower fertilizer and pesticide use when paired with drip irrigation, thereby preventing groundwater pollution.

Source: NRDC India

Other related initiatives include raising awareness about climate finance among SEWA members and sharing the various climate financing avenues and opportunities with them.

The Climate Entrepreneurship Program is one of the initiatives undertaken by the Climate School. Other related initiatives include raising awareness about climate finance among SEWA members and sharing the various climate financing avenues and opportunities with them.

To ensure a wider impact on rural communities, the Climate Entrepreneurship Program helps the local community members with information and insights on issues such as:

- Awareness of climate change and its impact
- Clear understanding about the impact on regional livelihoods
- Acknowledgment of human contributions to climate change
- Adaptation and mitigation for resilience
- Adoption of renewable energy and climate-friendly solutions
- Collecting the data in line with policy action and policy advocacy

Source: NRDC India

Climate Entrepreneurship Program

Roots of the Climate Entrepreneurship Program

The program combines SEWA's goals of self-reliance and full employment with the urgent need to respond to climate change.[7] NRDC and SEWA's work on clean energy and climate-friendly technologies, as part of the Hariyali Gram initiative (solar lamps, solar pumps, solar fencing etc.), highlighted the potential for DRE to sustainably strengthen livelihoods. The Climate Entrepreneurship Program expands on this by training women as educators, entrepreneurs, and master trainers that spread knowledge and awareness, lead adoption, and earn incomes through commissions and services. The program builds a network of change agents at the local level that systematically works at the village level to create, nurture, and sustain the Hariyali Gram.

NRDC and SEWA's past work on clean energy and climate-friendly technologies, as part of the Hariyali Gram initiative (solar lamps, solar pumps, solar fencing), highlighted the potential for DRE to sustainably strengthen livelihoods

Objectives of the Program

The program's overarching goal is to:

- Create awareness and opportunities for the adoption of clean energy, clean air, clean land, and clean water solutions for approx. 3.2 million SEWA members
- Integrate climate-friendly solutions to support self-reliant livelihoods
- Ensure that a minimum of 30 percent of the members in a village adopt at least three renewable or climate-friendly solutions to achieve Hariyali Gram status

The program's goals are achieved by developing two teams–while one team works at the grassroots level, the other independent team monitors the work in an unbiased manner.

About the Participants

Candidates from local communities are interviewed and selected for further professional development, to become the agents of change.

The participants are within the age range of 18 to 46, with the majority being 20 to 35 years of age. Their previous or current livelihoods include home makers, Casual laborers in the farms of big farmers, students, farmers and milk related

Participants are also identified based on a diverse range of educational qualifications, with most of them at least 10th pass, some are 12th pass, and a handful are graduate - BA and BComm.

The first cohort of participants consisted of 28 women climate educators, and the second cohort consisted of 16 participants, from various states and districts. Gujarat (Patan, Mehsana, Ahmedabad, Anand, Kheda, Chota Udepur, Surendranagar, Morbi, Aravalli), MH (Jalgaon and Sambhajinagar) and Kashmir.

Each climate educator supports and mentors 10 climate entrepreneurs.

Home makers, Casual laborers in the farms of big farmers, students, farmers and milk related

The climate entrepreneurs, in turn, help grassroots members get acquainted with the available solutions.

Participants are generally required to meet the following minimum qualifications: high school graduates (i.e., completed 12th grade), comfortable with owning and operating a smart phone, and a preferred work experience of 2 years or a teaching background.

Structure of the Climate Entrepreneurship Program

The core training modules, across all program levels, include foundational information on:

- SEWA values and the organization
- Climate change science, impact, and resilience
- Swaccha Aakash campaign
- Climate-friendly solutions (energy, land, air, water)
- Soft skills (e.g., facilitation of discussions with family and local community members)
- Basic business skills (accounting, profit & loss, business plans).

In addition to the core areas listed above, the program offers three additional levels of training, with progressive depth, that includes topics such as:

1 Grassroots Awareness (2 sessions, 2 hours each for 2 days)

- Covers the basics of climate change, impact, adaptation and mitigation.
- Includes field visits to Hariyali Gram villages and hands-on exposure to climate-friendly technologies. The participants get to interact with farmers for a peer-to-peer learning experience. The first-hand experience of the workings of specific technologies, along with interactions with early adopters, leads to increased trust in innovative technologies and better adoption of climate-friendly solutions.

2 Climate Entrepreneurs (3-week, in-house course; held at the SEWA office in Anand, Gujarat)

- Climate science education, including greenhouse gases, global climate impact indicators, case studies of impact on various members across 18 states.
- Climate-friendly solutions, including energy efficiency and Star rating of appliances, installation and operation of precision irrigation, and biogas.
- Soft skills, clean energy technologies, and business planning.
- In-depth training in operations and maintenance of DRE technologies.
- Facilitation and business negotiation skills and banking correspondent training.
- The expected outcomes include support for SEWA members in adopting clean energy technologies.

3 Climate Educators (3 to 3.5 months, in-office and field trainings)

- Advanced climate and business modules.
- Each climate educator is expected to train 10 climate entrepreneurs as part of the course.
- Other assignments include promoting climate insurance, helping with KYC/Aadhaar updates, etc.
- A climate educator is trained to be the first point of contact for climate entrepreneurs to assist them with technical know-how and problem solving.

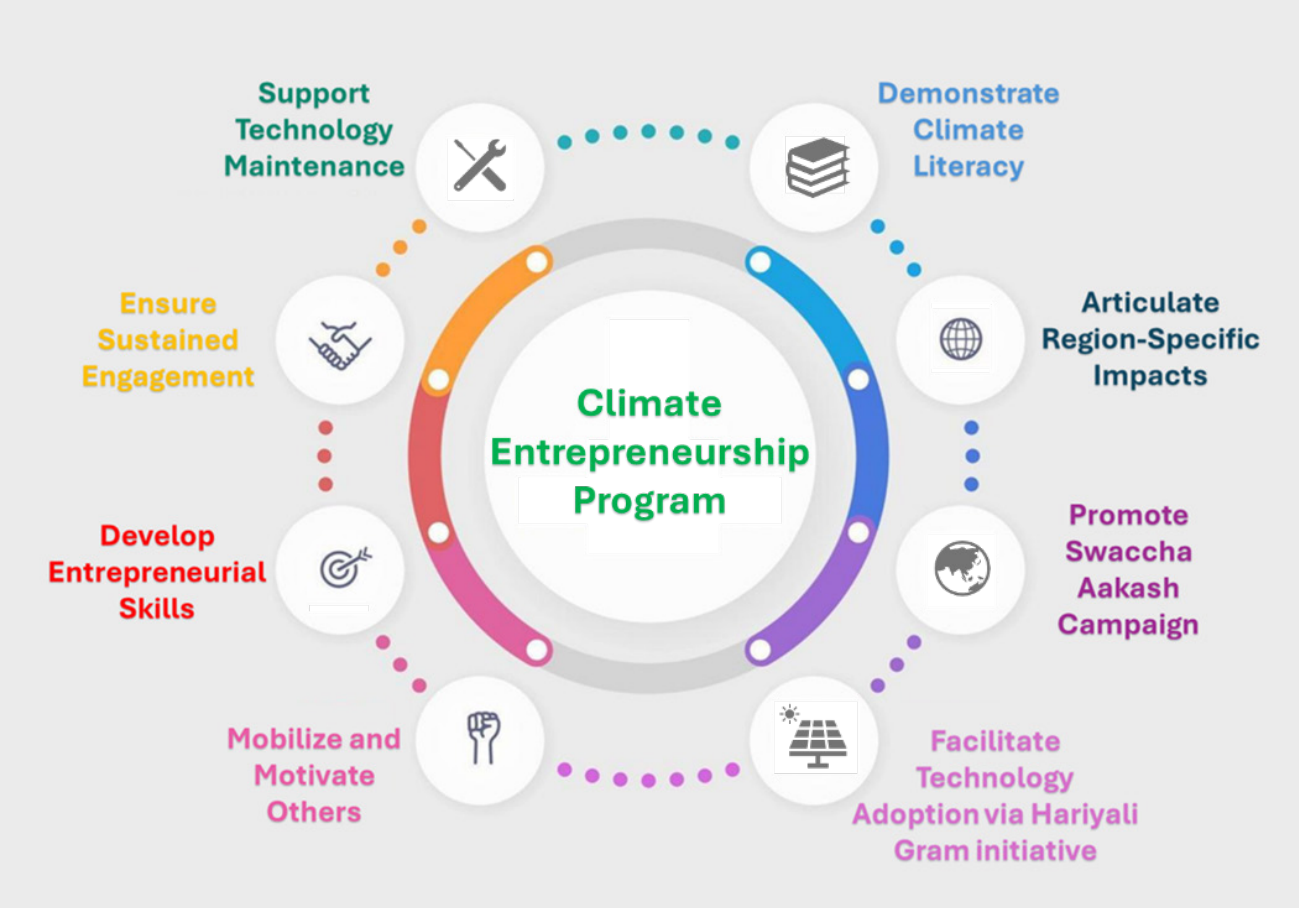
As of November 2025, two batches have successfully graduated the Climate Entrepreneurship Program:

- The first batch included 28 trained climate educators.
- The second batch included 16 trained climate entrepreneurs.

Expected Outcomes of the Program

SEWA's Climate School envisions cultivating a dedicated, well-trained group of confident, capable, and community-rooted climate educators and entrepreneurs. These grassroots leaders are not only trained in climate science but are also equipped to integrate climate-friendly solutions into daily life and promote new livelihood opportunities for their communities.

Upon successful completion of the training, the participants are expected to:



1. **Demonstrate Climate Literacy**
   Participants will develop a strong understanding of climate change–its causes, consequences, and direct impact on underserved women workers in the informal economy. They will also be able to interpret how climate disruptions affect agriculture, water availability, health, and local economies.
2. **Assess Region-specific Impact of Climate Change**
   Drawing from their local experiences and knowledge, participants will contextualize how climate change is linked to the most visible challenges in their region–be it rising heat, irregular rainfall, prolonged droughts, or water scarcity–and understand how these changes affect their communities and livelihoods.
3. **Promote the Swaccha Aakash Campaign**
   Climate educators will actively spread awareness about clean energy, clean air, clean land, and clean water under the Swaccha Aakash campaign. They will raise awareness among SEWA members as well as the local youth and children, through community dialogues, rallies, and school visits, thereby ensuring early adoption of eco-friendly and sustainable practices.

4. **Facilitate Technology Adoption via Hariyali Gram Initiative**
   Participants will guide families and communities to understand, adopt, and maintain DRE and other climate-friendly solutions such as biogas, solar lighting, solar water pumps, drip irrigation systems, solar fencing, and solar trap lights, especially in agricultural settings.
5. **Mobilize and Motivate Others**
   As grassroots champions of climate action, climate educators will inspire fellow community members to adopt climate-friendly behaviors, adopt green technologies, and participate in the larger movement toward sustainability.
6. **Develop Entrepreneurial Skills**
   Climate educators and entrepreneurs will learn to manage green businesses using basic business tools–such as income-expense tracking, P&L statements, and business planning. They will also be able to connect beneficiaries with government subsidy schemes and loan facilities to ensure long-term financial viability.
7. **Ensure Sustained Engagement**
   Trained participants will regularly visit households and villages to ensure that awareness translates into continued usage of clean technologies. They will follow up on repayment cycles, adoption status, and emerging needs to ensure behavioural change is maintained.
8. **Support Technology Maintenance**
   Climate entrepreneurs will provide basic repair, troubleshooting, and user guidance for DRE products and green technologies in their communities. As and when challenges may arise, they will orient users on appropriate usage and upkeep, thus ensuring the longevity of each intervention.

Source: SEWA

Monitoring, Evaluation, and Learning

A simple yet effective Monitoring, Evaluation, and Learning (MEL) framework has been developed to ensure that the Climate School continues to improve and remains impactful and accountable.

SEWA is currently in the process of developing a one-stop, in-house mobile app which will include the unique ID of all SEWA members along with climate educator profiles, training and outreach schedules, and a list of topics and technical information imparted.

The Climate School employs a two-tier monitoring approach:

- **Grassroots-level engagement** through daily updates from climate educators
- **Independent monitoring** by a separate team for unbiased progress evaluation

All climate educators are virtually connected through **dedicated WhatsApp groups**, **district-level check-ins**, and **regular Google Meet sessions**. Their daily activities–including awareness sessions, outreach details, and participation data–are shared on these virtual platforms in real time. Daily reporting is also being digitized with the help of Google Forms to streamline the monitoring process.

Further, an in-house **Management Information System** is under development. This system will maintain and update educator profiles, outreach plans, and training modules. It will also help track the various training and awareness sessions, topics covered, and the participation by SEWA members (through their unique IDs), thus ensuring transparency and consistency across regions.

Together, these efforts will allow the program to track the:

- Reach and frequency of climate outreach
- Topics covered and technology promoted
- Level of community participation
- Feedback from the field.

This MEL structure guarantees that the Climate School can respond dynamically to field realities, document what works, and lay the foundation for future replication and scaling.

Source: NRDC INDIA

Testimonials from the First Cohort

****

Kajal Vaghela (Kheda District, Gujarat)

"Before joining the SEWA Paryavaran Shala (Climate School), I was unaware of how deeply climate change affected our everyday lives. Over three months of classroom sessions and field training, I learned about SEWA's values, communication skills, personality development, and the science behind climate change. It opened my eyes to how rising temperatures and erratic rainfall hurt the livelihoods of our sisters in the informal sector."

"The hands-on training has enabled me to explain clean energy technologies and their installation processes to others. Now, I'm actively involved in spreading awareness in my village by reaching out to women and helping them understand how small changes in their lifestyle–like using solar lights or composting–can protect their families and income. The response from my community has been encouraging, and I feel proud that I can contribute toward building climate resilience at the grassroots."

****

Pinki Nadiya (Mehsana District, Gujarat)

"The SEWA Paryavaran Shala helped me find my voice. During the training, I not only learned about climate change and its impact on women, but also how to speak confidently and communicate clearly with others. I found the sessions on adaptation, green technologies, and SEWA's values especially powerful. Field visits helped me learn how to install solar equipment and highlight and explain their benefits to others."

"After the training, I started reaching out to women in my village. I focus on creating awareness about how climate change is connected to water issues, health, and agriculture. I love connecting one-on-one with my fellow village sisters, and personally helping them identify the solutions that work best for them. I aspire to build a cleaner, greener community and ensure that no woman is left behind."

****

Puja Chhasiya (Surendranagar District, Gujarat)

"Joining SEWA's Climate School was a turning point for me. I not only gained technical knowledge but also the confidence to speak, share, and act. The most impactful part of the training was understanding how small, practical steps–like changing the way we cook, grow food, or use energy–can protect us from the worst effects of climate change."

"In the field, I learned how to install climate-friendly equipment and explain the technologies to others. Now, I share my knowledge and create awareness by interacting with school children, local women, and families about clean air, clean water, and clean energy. Many of them say they never thought climate change was something they could do anything about–until now. I want to continue helping women become stronger, more aware, and climate ready."

****

Poonam Savadiya (Surendranagar District, Gujarat)

"When I joined the SEWA Paryavaran Shala I was eager to learn, but I didn't expect the journey to be so empowering. The training helped us learn about technical topics like green products and climate adaptation, while also helping us build our communication skills and personality. I began to see myself not just as a learner, but as a leader."

"After the training, I returned to my village and started working directly with women. Now, I share knowledge with them about how climate change affects our crops, water, and homes, and how we can adopt green solutions. My biggest goal is to help women at the grassroots level become climate-smart and confident. The community's feedback has been very positive, and I feel like I'm now a part of a larger movement for change."

Wider Impact and Scaling–Way Forward

NRDC-SEWA's Climate Entrepreneurship Program focuses on the social impact of the training modules by empowering participants to create awareness within their families and villages and eventually scaling up such initiatives for the benefit of communities in other regions. The program includes training sessions on clean energy technologies that have already been implemented by SEWA members and other modern technologies that they are interested in using in the future. In addition to nurturing individual climate educators, the SEWA's Climate School has also ignited a broader grassroots movement for environmental justice and sustainability. Graduates from the first cohort are already creating waves of awareness within their households and communities–engaging families, youth, and schools in conversations about climate change, resilience, and local solutions.

This vision goes beyond education, as the climate educators are determined to transform their communities into Hariyali Gram (Green Villages)–places where sustainable living, clean energy, and eco-friendly practices are a way of life. For them, the Green Village concept is not just symbolic but a practical roadmap to overcome climate-related challenges through awareness and action. They have already seen success with the implementation of technologies such as solar lamps, solar water pumps, biogas plants, drip irrigation systems, solar fencing, and insect traps.

Moving forward, the grassroots climate educators and entrepreneurs are eager to expand access to clean cooking solutions, rooftop solar units, and other decentralized renewable energy technologies. These tools are not only climate-friendly but also aligned with the daily needs of women and their aspirations for a healthier, more secure livelihood.

Several educators have expressed a keen interest in mentoring peers in neighboring villages and districts, positioning themselves as local champions of sustainable development. With institutional backing, partnerships, and alignment with public schemes, the SEWA's Climate School model holds tremendous potential for replication and scale to build a network of Green Villages across rural India.

The Climate School is a movement for **climate justice**, **economic dignity**, and **self-reliance**. By providing SEWA sisters with the relevant knowledge, tools, and opportunities for leadership roles, the program aims to build a decentralized, women-led response to climate change that is rooted in local wisdom and powered by clean technologies.

Source: NRDC INDIA

Endnotes

1 Charu Lata et al., It Takes a Village: Assessing Impact of Climate-Friendly Solutions in Rural India, NRDC, March 2025, https://www.nrdcindia.org/pdf/It-Takes-A-Village.pdf.

2 Akanksha Tyagi et al., India's Expanding Clean Energy Workforce - 2022 Update, CEEW, NRDC and SCGJ, February 2023, https://www.nrdcindia.org/pdf/NRDC-Jobs%20report-Feb-2023.pdf.

3 Akanksha Golchha, Charu Lata, Srinivas Ethiraj, and Dhilsha Jubair, Technology Guidebook: A Compendium of Resources for End Users of Climate-Friendly Technologies (1st Edition), NRDC, SEWA and AREAS, December 2023, https://www.nrdcindia.org/pdf/technology-guidebook-20231206.pdf.

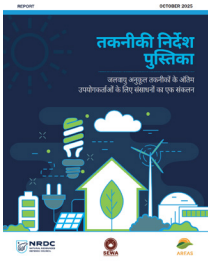
4 SELCO Foundation, Financing Decentralized Renewable Energy (DRE) Based Sustainable Livelihoods, accessed October 17, 2025, https://selcofoundation.org/wp-content/uploads/2023/11/Financial-Inclusion-Book-Odisha-Curved-compressed.pdf.

5 "About Suryamitra," Suryamitra Skill Development Programme, National Institute of Solar Energy, Ministry of New & Renewable Energy, Government of India, accessed October 17, 2025, https://suryamitra.nise.res.in/info/About-Suryamitra.html.;

6 "About Women in Solar Energy (WISE)," National Solar Energy Federation of India (NSEFI), accessed October 17, 2025, https://nsefi.in/wise-portal/about.

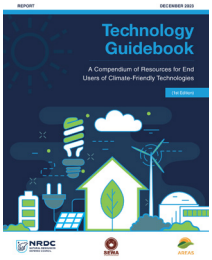
7 Charu Lata et al., It Takes a Village: Assessing Impact of Climate-Friendly Solutions in Rural India, NRDC, March 2025, https://www.nrdcindia.org/pdf/It-Takes-A-Village.pdf.

Highlighted Reports

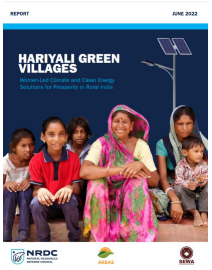


Technology Guidebook: A Compendium of Resources for End Users of Climate-Friendly Technologies (Hindi)

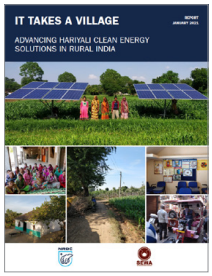
It Takes a Village: Assessing Impact of Climate-Friendly Solutions in Rural India



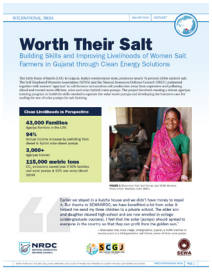
Technology Guidebook: A Compendium of Resources for End Users of Climate-Friendly Technologies



Hariyali Green Villages: Women-Led Climate and Clean Energy Solutions for Prosperity in Rural India



It Takes a Village Advancing Hariyali Clean Energy Solutions in Rural India



Worth Their Salt: Building Skills and Improving Livelihoods of Women Salt Farmers in Gujarat through Clean Energy Solutions