

INNOVATING ENERGY

Women at the forefront of India's energy sector: Innovation and Resilience



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EDITORIAL TEAM

Animesh Mishra

Karan Gupta

Jai Kumar

Fareen Choudhary

Disha Khosla

Ishita Agrawal

FOR EDITORIAL DETAILS AND ADVERTISEMENT ENQUIRIES



u_kgupta@eesl.co.in



011- 45801260



Editor's Note

Harleen Sachdeva

General Manager (HR)

Energy Efficiency Services Limited (EESL)

Dear Reader,

The adverse effects of climate change have long been apparent. The resource-intensive practices of today can no longer sustain the world. Each year, the earth gets warmer, and its effects reverberate throughout the world. While preserving our environment has to be our topmost priority, it cannot happen at the behest of growth and prosperity. Herein, emerges the path of sustainable development, with renewable energy being a vital component of it. The benefits of renewable power are two pronged- it is inexhaustible and most importantly clean and sustainable. India has been leading the charge in climate action and has made considerable headway towards the goal of ensuring a low-carbon future.

India's women have emerged as the torchbearers for this energy revolution, as we witness the emergence of both women leaders and changemakers at the grassroots. It is vital that we create entrepreneurial and employment opportunities for women in the renewable energy sector, in a bid to usher in a transformation. In this newsletter, themed, **"Women at the forefront of India's energy sector: Innovation and Resilience"**, we deep dive into the pivotal role women play in the energy value chain and how their increased participation can bring about long-term energy security in the country.

In *"Tracing the linkages between gender inequality and climate change,"* we build a case for climate programmes to foster an in-depth understanding of the differentiated impacts of climate change on both genders. *"Initiatives of the Ministry of MSME for existing and aspiring women entrepreneurs"* delves into how with ground-level initiatives to encourage and empower women, and strong policy support, the MSME and renewable energy sectors can help India take big strides towards its sustainable development goals. In the article *"Policy and Intervention for Women in Renewable Energy"* we discuss the need for policy support to ensure that energy provided to women is available, accessible, and affordable. Finally, in *"Women leading the way toward a climate resilient panchayat"* we examine the role of women in catalysing climate action in India's rural areas.

The next phase of India's energy roadmap will hinge on strong participation of women in the sector. Only by fostering new opportunities for women in the energy space, providing strong policy support, and building an equitable ecosystem can India truly realise its lofty climate goals.





Tracing the linkages between gender inequality and climate change

Poonam Pande

AVP & Head – International Marketing
Indo Asian (Legrand)

Climate change is the biggest crisis of our times. It impacts every man, woman and child, no matter where they are in the world. But this impact is not borne by men and women equally, who have different levels of vulnerability to climate change.

Towards blueprinting and implementing national and global initiatives for climate change adaptation and mitigation, it is important to understand its many linkages with gender inequality. Without this holistic understanding, we risk weakening climate change actions.

As articulated by the United Nations, the climate crisis is not “gender neutral”. Instead, its greatest impacts are faced by women and girls. Women have less access to economic, political and legal solutions and therefore are more vulnerable to the adverse effects of the changing climate.

Across the world, women and girls have fewer assets and are therefore more dependent on natural resources; in many regions, securing food, water, and fuel is among their many major responsibilities.

Agriculture is the primary source of subsistence and earning for women in low-and-middle-income countries (LMIC)s. Climate change, which sometimes triggers drought and erratic rainfall, forces women to work and struggle harder as agricultural workers and primary procurers. Consequently, schoolgirls are forced to abandon education to help their mothers cope with the increased burden.

Women are also more vulnerable to the direct impact of adverse climate events. For example, as the UNDP’s Global Gender and Climate Alliance report observes, “During the Asian tsunami in 2004 (70 per cent of the victims were women), many women and children were trapped inside their homes while most men were out in the open.” **More recently, report after report show that the Covid 19 Pandemic had at least 20% more adverse impact on women compared with men, whether in terms of employment loss, education loss or physical & mental health.**

Women comprise a majority of the people displaced by climate change, and also a majority of the victims of premature deaths due to illness caused by indoor air pollution, primarily from smoke produced while cooking with solid fuels.

Women, who are deeply involved at the household and community level, can be effectively leveraged as social leaders to drive climate interventions. According to the United Nations, this change can be driven by integrating gender perspectives into mitigation and adaptation actions. Consultations with women to understand how their unique skills and knowledge can be leveraged will be critical.

Women also need to be provided greater opportunities to improve their health, education and livelihoods, to bring about greater environmental and productivity gains and better ROIs across the Sustainable Development Goals. The planning and implementation of climate change efforts must incorporate women’s issues, needs and contributions.

Adaptation actions in the space of sustainability should prioritise making women more resilient to climate change, including access to land, access to credit and education. Actions, technologies and strategies must take into consideration gender realities in how they are designed, implemented and evaluated. Most importantly, all climate programmes must foster an in-depth understanding of the differentiated impacts of climate change on both genders.



Initiatives of the Ministry of MSME for existing and aspiring women entrepreneurs

Mercy Epao

Joint Secretary

Ministry of Micro, Small & Medium Enterprises, Government of India

Women entrepreneurship has been recognized as an important engine of economic growth. Promoting entrepreneurship among women benefits future generations through multiplier effect. Women entrepreneurs create new jobs for other women and help in increasing work participation rate among women. Research has also shown that the return on investments in women – owned enterprises is much higher than that owned by men. Women are known to be good managers. The rate of formation of NPAs is known to be much less among women entrepreneurs

However, women entrepreneurs are still under-represented in the business ecosystem across countries. In India, though women constitute close to 50% of the population, only 20.37% of all the proprietary MSMEs are women- owned MSMEs. Women entrepreneurs across both the manufacturing and services sector face many barriers in running their businesses. Lack of access to institutional finance, lack of collateral, lack of access to market information, lack of digital literacy, poor networking skills, etc make it difficult for women to break the social stereotype and establish their own enterprises. This calls for institutional support through specific interventions for women entrepreneurs to help them overcome the challenges and help them take up new entrepreneurial ventures.

Recognizing these barriers faced by women, the Ministry of MSME, Govt of India has taken many initiatives to bridge the gender gap in entrepreneurship. It offers many schemes for promoting capacity building, for credit, for establishment of new enterprises etc.

Initiatives by Ministry of MSME to Support Women Entrepreneurs

The Ministry of MSME implements various schemes that address the need for credit, technology, market development, capacity building etc of the MSMEs. Women entrepreneurs are encouraged to avail the benefits of these schemes through various fora. A few of the schemes having greater focus on women are detailed below:

a. **Mahila Coir Yojana (MCY)** : Mahila Coir Yojana is a sub-component of the Coir Vikas Yojana. MCY is a 100% women oriented and intensive two-month training programme which aims to provide training to rural women engaged in the coir sector, on sophisticated machinery/advanced technology in order to upscale their living standards and thereby attain self sustainable employment. Under this programme, the women beneficiaries are given skill training in coir spinning. They are provided stipend during the training. The trainees are encouraged to apply for a loan under the Prime Minister's Employment Generation Programme (PMEGP) thereafter, for starting their own micro coir enterprises. During the last five years, more than 11,000 women artisans engaged in the coir industry were trained.

b. **Prime Minister's Employment Generation Programme**: This flagship programme is a credit-linked subsidy programme for aspiring micro entrepreneurs to start their own enterprises in rural and urban areas. Women applicants are provided a higher subsidy than the general applicants. Aspiring women entrepreneurs have been increasingly benefiting from this programme. During the last eight years more than 1.83 lakh women availed assistance under this scheme, and turned micro entrepreneurs.

c. **Public Procurement Policy:** In November 2018, Hon'ble Prime Minister announced a few key initiatives for the MSME sector. Among these, was an amendment to the Public Procurement Policy, 2015, mandating that 3% of procurement made by Central Ministries/Departments/Public Sector Enterprises has to be done from women entrepreneurs. The public procurement from women entrepreneurs has increased from Rs 232.56 cores in 2018-19 to Rs 1632.93 crore in 2021-22, with the procurement percentage from women entrepreneurs being around 1%

Capacity building through training programmes in the areas of entrepreneurship development, management development, market development, skill development, etc are provided through the Entrepreneurship and Skill Development programmes. During the last three years, around 3 lakh women were provided trainings through KVIC training centres, Tool Rooms, Technology/Extension centres situated across the country. The Ministry aims to train the maximum number of women.

Under the SFURTI scheme, 80 clusters with women majority (i.e, with over 50% representation) have been approved under SFURTI scheme since July 2019

All the schemes implemented by the Ministry, like the Credit Linked Capital Subsidy Scheme, Scheme of Fund for Regeneration of Traditional Industries (SFURTI), Lean Manufacturing Competitiveness Scheme, Zero Defect and Zero Effect (ZED), Credit Linked Capital Subsidy Scheme for Technology Upgradation, MSE-Cluster Development etc. also provide financial and technical support to MSMEs, including women-owned MSMEs. Details of these schemes are available at <https://www.msme.gov.in>.





Policy and Intervention for Women in Renewable Energy

Dipa Singh Bagai

Country Head - India

Natural Resources Defense Council (NRDC)

India's long term goal of achieving net-zero by 2070 was enhanced at COP-26 in Glasgow when India updated its Intended Nationally Determined Contributions (NDCs). The addition of 'Lifestyle for the Environment (LiFE) Movement' to the NDCs was aimed to propagate sustainable lifestyles based on traditions and values of conservation and moderation. The commendable commitments by India towards climate change and LiFE fosters close interlinkages with women in renewable energy. Both initiatives are closely interlinked with empowerment of women and communities, focusing on energy security and sustainable lifestyles.

Energy access has increasingly been recognized as a key enabler of economic growth and poverty reduction in developing countries. It has the potential to address the climate crisis and facilitate economic recovery while playing a critical role in community development. Clean energy access facilitates affordability and accessibility to technologies that can reduce the drudgery of women at the household level, and enable them to deploy technologies for productive use, thus providing better livelihood options. Additionally, women can influence their communities to adopt climate-friendly solutions and consequently provide scale to the interventions.

Research shows that women are disproportionately affected by climate change. Yet, their participation in the decision-making process - ranging from policy representation to technology selection - is highly underrepresented. Efforts are required across the value chain to build the capacities of women and ensure their representation in the renewable energy value chain. One such intervention is the "Women in RE" initiative of the Ministry of New and Renewable Energy (MNRE). This initiative strives to recognize the efforts of women in renewable energy and support their development through training and capacity building programmes. MNRE supports the efforts to bring women at the fulcrum of energy transition and encourages women to take a lead role in driving the renewable energy revolution.

Recognizing the role of quality and reliable energy at the grassroots level, MNRE has recently launched a Framework for Promotion of Distributed Renewable Energy (DRE) Livelihood Applications, intending to facilitate the development of an enabling ecosystem for the widespread adoption of DRE-based livelihood applications. The policy framework recognizes the need to scale up the currently available DRE livelihood applications and support the development of new ones. It also recognizes the critical role of research and development and access to finance in scaling up DRE applications.



DRE solutions, if deployed strategically, can address the last-mile supply and reliability issues, and can contribute significantly towards meeting India's climate commitments. Many clean technologies are required to be implemented on-ground to ensure holistic growth of the communities.

On the intervention front, Association of Renewable Energy Agencies of States (AREAS), the Natural Resources Defense Council (NRDC), and the Self-Employed Women's Association (SEWA) are implementing the Hariyali Gram initiative. Currently implemented in 15 villages of Gujarat and Rajasthan, the Hariyali Gram initiative facilitates accelerated adoption of clean energy solutions and supports women's empowerment in villages. The initiative focuses on comprehensive policy and market solutions to reduce energy poverty and improve livelihoods in rural India.

Improving women's productivity and incomes through reliable and affordable access to energy for economic activities could help in accomplishing Sustainable Development Goals 5 (gender equity), 7 (affordable and clean energy), and 8 (decent work and economic growth). Critical inferences can be drawn from the ground-level experiences of the Hariyali Gram initiative to develop better policies and interventions to scale up adoption of clean energy solutions.

To scale up the implementation, interventions are required at the ground level in terms of capacity building, financing, and policy. For instance, capacities are required to be built for facilitating documentation to get access to electricity from the grid, subsidies from the government, or credit support from the financing institutions. The households under the Hariyali Gram initiative are usually marginalized and face the challenge of navigating paperwork. Handholding support can accelerate the scale-up of clean energy solutions through timely paperwork completion.

The next intervention can be identification of the most appropriate financing instruments. A host of financing mechanisms are offered by many financing institutions, including banks and microfinance institutions, that can be leveraged by households to finance the procurement of clean energy solutions. However, it is important to identify the right financing instrument that matches the risk-return profile and provides flexible repayment options to households to avoid unwarranted financial burden.

Finally, it is pivotal to formulate women-centric DRE policy. Access to DRE solutions, as an enabler of economic growth and poverty reduction, could become the lever for women's economic empowerment by enhancing productivity and incomes. The draft policy framework for DRE livelihood applications is a positive step in providing impetus to DRE solutions as a critical enabler to generate livelihood opportunities in rural India. However, the limited participation of women in policy design is a recurring issue that has emerged during the interactions on the ground. Women have limited decision-making authority, especially in rural communities. Thus, it is important to develop women centric DRE policies, making women the main stakeholders and beneficiaries of the policy and interventions.

Recognizing the important contributions of women as decision-makers, stakeholders, educators, and experts across sectors and at all levels can lead to successful, long-term solutions to climate change.





Women leading the way toward a climate resilient panchayat

Disha Khosla

Consultant - International Department
Energy Efficiency Services Limited (EESL)

A recent report from UN climate change states that while countries are bending the curve of global greenhouse gas emissions downward, the current efforts still remain insufficient to limit global temperature rise to 1.5 degrees Celsius by the end of the century.

This means that we need to intensify current climate action and carve out new pathways to sustainability. However, the imperative now is to enhance the inclusivity in the climate action space, to accelerate the momentum in the sector. Women play a crucial role in building climate resilience and their increased participation can greatly ramp up climate change mitigation efforts.

India has around 253,400 rural local bodies at the village level Gram Panchayats, and 6613 intermediary or block-level Panchayats, and 630 district level panchayats. These Panchayats have about 3 million elected representatives, out of which 1.3 million are women. This essentially means that nearly 70 per cent of India's population is covered through these local governance institutions.

Thus, Gram Panchayats play a catalytic and systematic role in the achievement of the SDGs and building climate resilience. They are vital in breaking social barriers and in empowering the communities. The Elected Women Representatives (EWRs) are at the heart of the transformational economic, environmental, and social change in India. With nearly half of all the elected representatives in the Panchayati Raj institutions being women, they are central drivers climate resilience at the village level.

A UNWOMAN survey in 2018 found that women are well situated to create community awareness about clean energy systems as they hold strong social capital. At the micro level, empowering women to run localised and distributed renewable projects can uplift entire households and lead to an improvement in community resilience. Additionally, it can reduce the time and energy women spend on labor intensive tasks and provide them some control over savings and new incomes.

An IPCC report highlights several natural resource-related interventions such as water management in irrigation, rainwater harvesting, soil moisture conservation, land restoration, agroecology, and agroforestry as critical for climate change mitigation. In India, given the large number of women involved in the management of soil, water and forests, implementing any intervention cannot happen without women leading the action. Studies suggest that women outdo men in terms of their involvement in the use and management of natural resources including water and forests - which are at the core of climate action efforts.

There is a need to step up and start implementing climate action efforts at scale at the Panchayat level. And women in India's rural areas will lead this at the frontline

Top Energy Trends From India & Across The Globe

International Solar Alliance to discuss climate financing at COP27

The International Solar Alliance is set to raise the issue of climate finance for energy transition and energy access in developing countries at the upcoming UN Climate Change Conference (COP27) in Sharm El Sheikh, Egypt between November 6 and 18, ISA co-President and Union Minister for Power and New & Renewable Energy RK Singh said. ISA, a global partnership for increased deployment of solar energy technologies as a means for providing energy access and ensuring energy security was launched by India and France in 2015 during COP 21, has 110 member countries.

Airports in India to completely switch to green energy, aims to become carbon neutral by 2024

The Indian government has been working relentlessly to reduce carbon emissions and switch to green energy in every possible way. From initiating public electric vehicles and motivating people to go for electric vehicles to switching several Indian airports to green energy, India aims to reach net zero emissions by 2070. The Centre has further kept a target of turning 90 airports into carbon neutral by 2024. In June this year, the international airport in New Delhi adopted green energy, using only hydro and solar power for all its energy needs. Since June 1, the Delhi airport has adopted renewable energy use from the hydropower plant for its demand of the remaining 94 percent, thus ending its dependency on non-renewable power.

PM Modi launches Mission LiFE in the presence of U.N. Secretary General

Prime Minister Narendra Modi, in the presence of U.N. Secretary-General Antonio Guterres, launched 'Mission LiFE' (Lifestyle for Environment), a new initiative for sustainable and healthy lifestyle at the Statue of Unity in Gujarat. Listing climate change and global warming as the main challenges before the world and mankind, the Prime Minister underlined that Mission LiFE makes the fight against climate change democratic with the contribution of everyone in per own capacity. PM Modi described the Mission LiFe as a global initiative by India to help the world in its fight against climate change and lead to a sustainable way of life to achieve the sustainable development goals set by the U.N.

Indian Railways Eyes Net Zero Carbon Emissions By 2030

According to the Ministry, Indian Railways has a goal to steadily reduce its carbon impact and achieve net zero emissions by 2030. As per the report, the nation's railway system is being electrified to cut pollution and sustainably conduct transportation. The government has revealed that the Railways would make an effort to lessen their carbon footprint by getting their energy needs from renewable energy sources. Other tactics include adopting a multi-pronged strategy to electrify its lines, switch from diesel to electric traction, promote energy efficiency, build specific freight corridors, green-certify railroad facilities, etc.

India, France adopts roadmap for development of green hydrogen

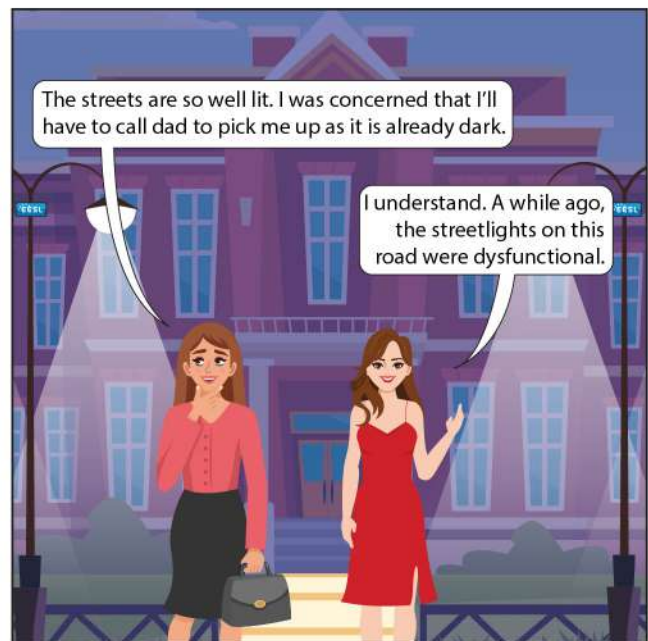
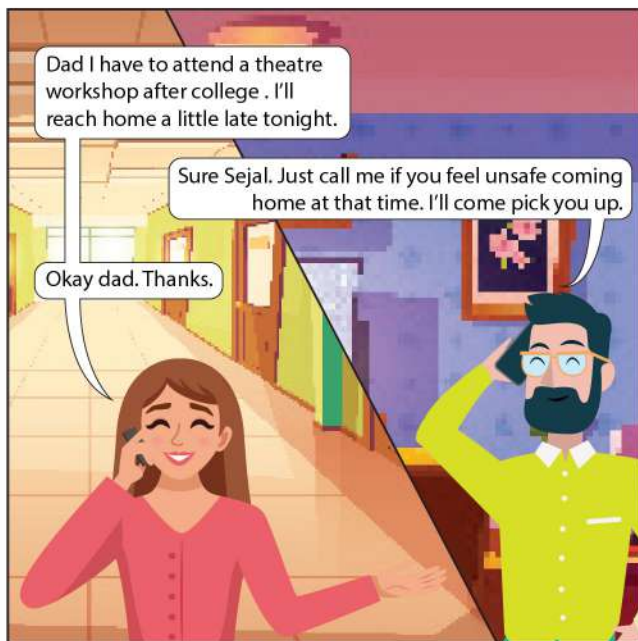
India and France have adopted an ambitious roadmap for the development of green hydrogen as part of the efforts to promote clean energy transitions and meet carbon neutrality targets. The French embassy highlighted that the roadmap aims at bringing the French and Indian hydrogen ecosystems together in order to establish a reliable and sustainable value chain for decarbonised hydrogen. the roadmap was adopted by French Minister of State for Development and International Partnerships Chrysoula Zacharopoulou and R K Singh, India's New and Renewable Energy Minister.

Channel Partner Meet



EESL Deepawali Celebration 2022





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For more information, please contact us:



Energy Efficiency Services Limited (EESL)

5th, 6th & 7th Floor, Core -III, Scope Complex,
7 - Lodhi Road, New Delhi - 110003

Phone: 011-45801260

Website: www.eeslindia.org

