

## Roundtable on “Renewable Energy-powered Mini-grids for Strengthening Rural Livelihoods: Focus on Women Empowerment”

**D**evelopment Alternatives (DA) participated in a roundtable discussion on the theme, ‘Renewable Energy (RE) powered Mini-grids for Strengthening Rural Livelihoods: Focus on Women Empowerment’ organised by the CLEAN network in collaboration with Smart Power India (SPI) and Deutsche Gesellschaft für International Zusammenarbeit (GIZ). The roundtable aimed to bring together experts, practitioners, and policymakers from the energy sector, rural development organisations, and community leaders to explore ways to improve the mini-grid scenario in India to provide clean and sustainable energy solutions to rural communities.

India has witnessed rapid expansion in electrification, as validated by the fact that over 97% of Indian households are now electrified. Yet there are gaps around reliability and power quality, and several areas in the country may be considered a “weak grid”. Lack of access to reliable and quality power affects not just access to essential services like lighting, healthcare and education but also limits communities’ ability to generate income and improve livelihoods. To tackle this challenge, mini-grids, typically powered by renewable energy sources such as solar, biomass, wind, and hydro, are emerging as clean energy alternative solutions that provide electricity access for household and commercial purposes.



Participants discussing the need for ways to improve the mini-grid scenario in India to provide clean and sustainable energy solutions to rural communities.

The roundtable focused on understanding the mini-grid landscape in India and identifying the challenges and opportunities in scaling up RE-powered mini-grids. The participants also shared their views on the role mini-grids can play in supporting the growth of rural livelihoods. They discussed recommendations for policy, investment, and programmatic approaches to help the scaling up of RE-powered mini-grids for rural livelihoods.

DA took this opportunity to share its project on "empowering" rural communities through decentralised renewable energy systems with support from The Hongkong and Shanghai Banking Corporation (HSBC) India. The project, titled "Energy Transition for Rural emPowerment", proposes a “Urja Mandala” (Energy Constellation) model to demonstrate the catalytic role of renewable energy

in the sustainable socio-economic growth of local communities through productive use of reliable power. The salient features of the Urja Mandala model are that it builds on a Public-Private Community Partnership, combining community and business-based approaches to a rural micro utility providing reliable and affordable renewable energy for productive use, thereby leading to local economic development. The model envisions being operated and managed by a women's collective, leading to increased women's agency in regional economic growth.

Additionally, the model leverages digital technologies for integrated energy and revenue management of the solar energy-powered Urja Mandala system. DA also highlighted the need for a specific policy focusing on micro-enterprises owing to the existing policy void for micro-enterprises in India. The term "micro-enterprises" now refers to all businesses whose yearly turnover is equal to or less than INR 5 Cr. The turnover range is so broad that most rural-based micro-enterprises need to be aware of this definition.

Furthermore, there needs to be more evidence of policies promoting renewable energy-based micro-entrepreneurship. DA also advocated alternative financial and clean technology solutions to ensure enterprise viability. The discussions also covered a range of recommendations in institutional mechanisms, as well as socioeconomic and cultural aspects that can help maximise impacts in the renewable energy space.