



REGIONAL CONFERENCE

INCLUSIVE ENERGY TRANSITION IN SOUTH ASIA AND BEYOND

L 3867-8376 : Scaling up Demand Side Energy Efficiency Sector Project



ENERGY EFFICIENCY SERVICES LIMITED
A JV of PSUs under the Ministry of Power

7–9 MAY 2024 • Galle, Sri Lanka

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EESL is a joint venture company of four Public Sector Enterprises of Ministry of Power, Govt. of India



पावरग्रिड
Power Grid Corporation of India



REC
dless energy. Infinite possibilities.



ENERGY EFFICIENCY SERVICES LIMITED
A JV of PSUs under the Ministry of Power

- Founded in 2009 to unlock energy efficiency market in India by way of innovative business & implementation models

- **Vision**

Universal access to sustainable energy solutions to enable a low carbon future, with significant economic and social impact

- **Mission**

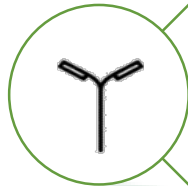
To enable ecosystems for responsible energy adoption with innovations and market creation approaches



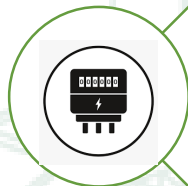
Market Transformation: Demand Aggregation & Bulk procurement bringing competitive advantage & vendor development



Super Efficient Appliances: LED Bulb prices declined by 90% in 3 years



Street Light National Program (SLNP): Street Light prices declined by 60%



Smart Meters : Prices dropped to 40% as compared to other procurements



Electric Mobility: EVs procured at almost 40% of international prices



Energy Savings : ~57 billion kWh per year, Avoided peak demand of 11,200 MW



GHG Emission reduction : More than 45.5 million t of CO₂ per year



Estimated **Monetary Savings:** INR 96,000 Crore



Widespread Outreach



Affordable Technology



Facilitating Women's Participation & Empowerment




Demand Side Energy Efficiency Sector Project


 Duration - Jan 2019 to Dec 2022


 4.4 M LED streetlights installed

 More than 2,900 Super-Efficient Air Conditioners sold

 186 PCS & 152 DC chargers installed

Scaling up Demand Side Energy Efficiency Sector Project

 Duration - Feb 2020 to Sep 2025

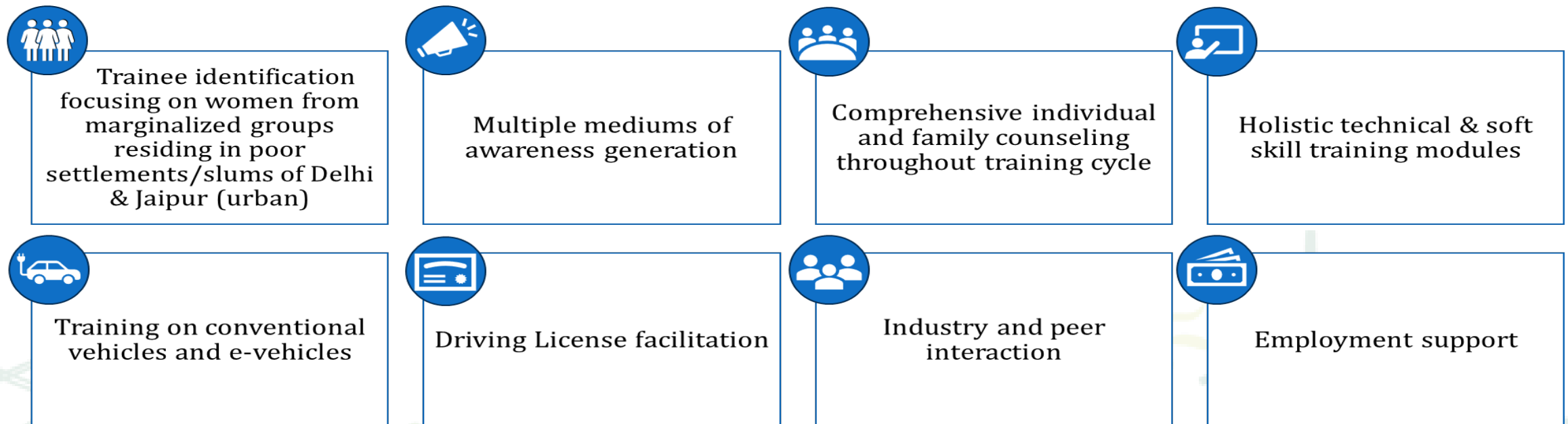
 1,570,326 smart meters installed

 74.45 MW distributed solar photovoltaic installed

 533 electric vehicles deployed

Training of 200 women in age group 18-35 years in commercial driving using 4-wheel (LMV) and 2-wheel conventional engine & electric vehicles.

Encouraging holistic capacity development of women for entry and retention in the male dominated arena of passenger mobility & logistics sector



Economic empowerment

Human capital development

Enhanced leadership & decision making

Outcome



Esha started working in Even Cargo post training and is also pursuing further education.

Key Achievements

Outreach and awareness through door- to-door survey, mike prachars, basti meetings, canopy set up etc. Outreach to more than 31,000 persons

228 women enrolled; All trainees from poor settlements in Delhi & Jaipur. More than 70% trainees from marginalized groups

201 trainees have successfully completed the training

163 trainees have qualified test and obtained driving license

152 trainees have been provided employment facilitation out of 141 were employed



Posters developed for information dissemination



Awareness and mobilization through canopy



Development of handbooks in Hindi



On Ground Practice



Nurturing soft skills

Rising Above Challenges: Hazel Praveen's Wings Towards Freedom

"When I heard about the driver training program, I thought that this is the only chance for me to get a permanent job for myself. In spite of resistance from my husband who was concerned about the children's caretaking, I enrolled in Azad with the support of my parents.

After joining the program, I have attended different types of training such as driving skills, electric vehicles, women's rights, violence, and laws related to protecting ourselves, Reproductive Health, First Aid.

All these trainings have given me lots of courage and increased my confidence. I also understood the importance of proper communication, punctuality, time management.

I am living a happy life now and can take my own decisions. With the money that I am earning I can build a good future for my children. That gives me immense happiness. My work has given me new wings towards freedom."



Hazal was enrolled in the South Delhi Center. She is now working with BluSmart

Enhancing Livelihood Opportunities for Rural Women

Promoting entrepreneurship opportunities through training on marketing and sale of energy efficient appliances

- More than 800 EE BLDC fans sold through solar marts owned and operated by *Solar Mart didi's* under EESL-IIT, Mumbai Project in Bihar
- Potential for leveraging Didi's potential for enhancing sale of BLDC fan identified
- 23 Solar Mart Didi's trained in collaboration with State Rural Livelihood Mission & BLDC fan manufacturer
- Training of 75-80 additional solar mart didi's in other Districts of Bihar planned
- Broadening of product range – BLDC fans, inverter bulbs, induction cook stoves envisaged

Expected Impact

Enhanced skills & income for Didi's

Greater adoption of EE products in rural markets



Solar Mart Shops



Session on Energy Efficiency



Session on Marketing



Session on Technical Aspects



Practical Session on Assembly of BLDC fans



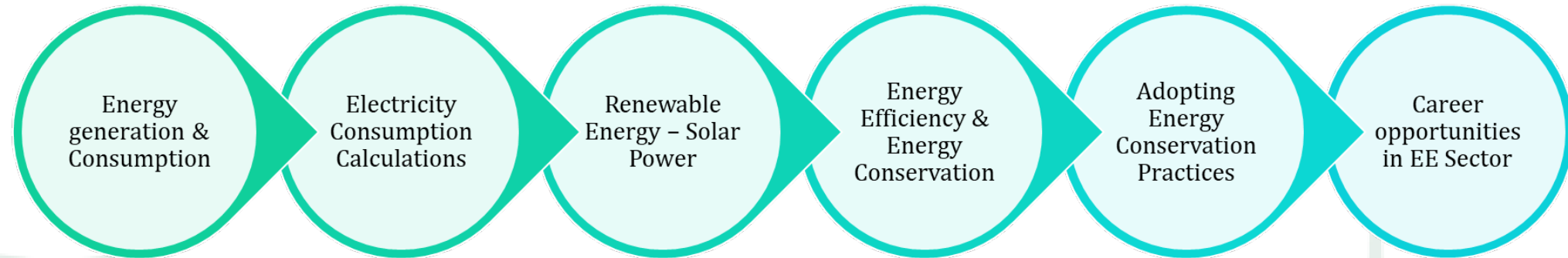
Encouraging Adoption of Energy Conservation



End-user awareness sessions on renewable energy and energy efficient technologies for school students, youth, NGO members and community

More than 1,500 participants covered across 12 states with more than 80% female participation

Comprehensive & interactive sessions include information on:



Stride towards enhancing gender equality in human capital development and decision making



Sessions with School Students



Interaction with Youth & Community



Synergising Students Pursuing Higher Education



Encouraging Adoption of Energy Conservation



Catalysing Conscious Energy Purchase & Use Choices

Partnerships –
NGOs, Schools,
Higher
Education
Institutions,
State
Designated
Agencies

Training of
Trainers

Demonstration
of RE & EE
technologies

Assessment of
learnings

Leveraging
social media

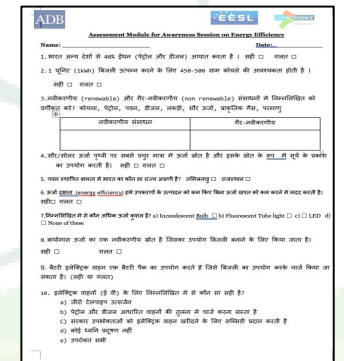
Focus on institutionalization and scale up at National Level through engagement of State Offices & Collaboration with Bureau of Energy Efficiency



Demonstration of EE Technologies



Leveraging Social Media



Assessment of Learning



Encouraging Adoption of Energy Conservation



Catalysing Conscious Energy Purchase & Use Choices

Partnerships –
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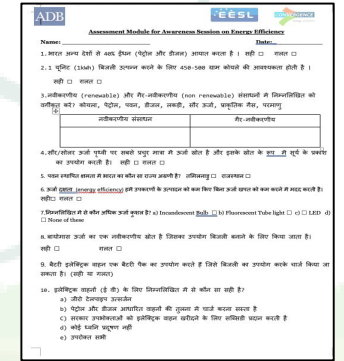
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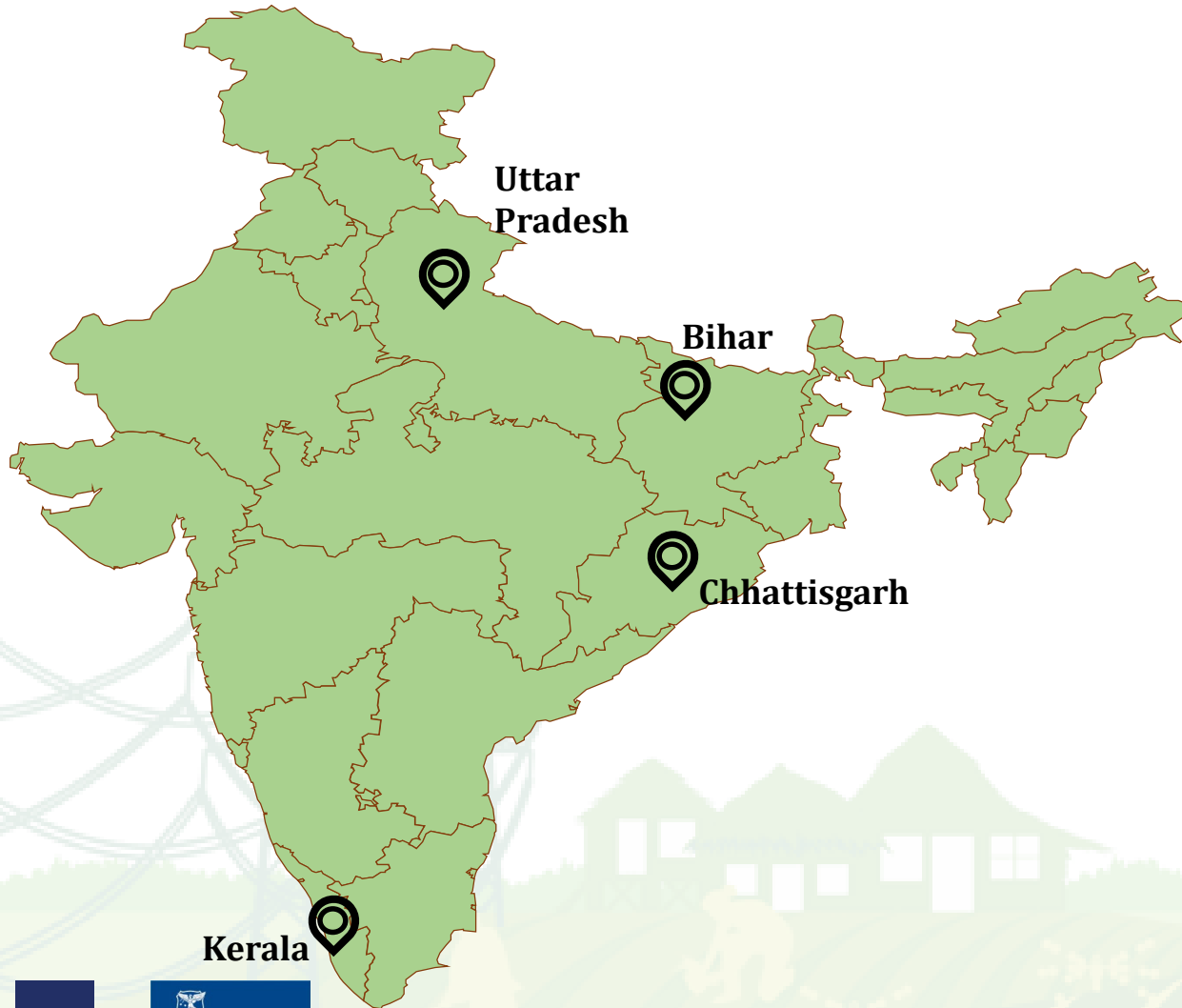
Demonstration of EE Technologies

Leveraging Social Media

Assessment of Learning



Stakeholder Consultations to gauge potential for e-mobility solutions for rural areas



Objective

Awareness creation, Need analysis, travel pattern , feedback

Field study Format

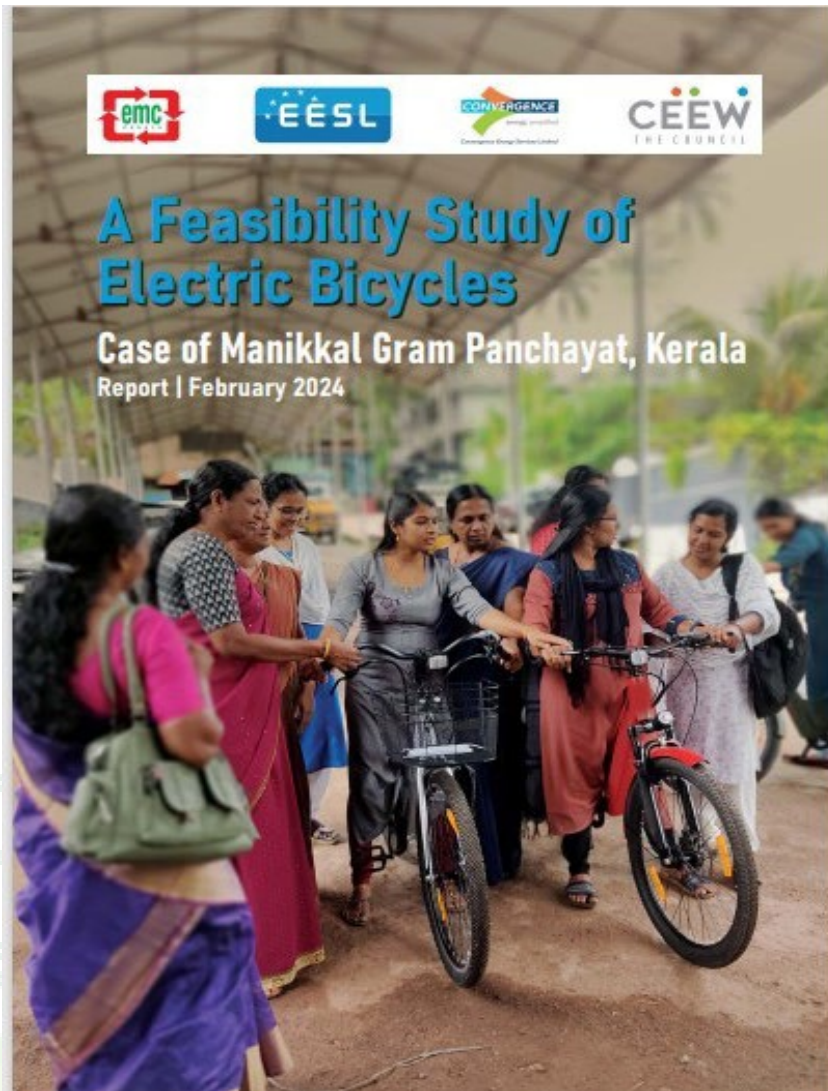
*Workshops, Focused Group discussions, **Pilot Demonstration***

Locations

Lucknow, Trivandrum, Nalanda , Baloda Bazaar, Mahasamund, Kerala



Latitude: 21.266037
Longitude: 82.464518
Elevation: 252.2738 m
Accuracy: 11.1 m
Azimuth: 185° (S)
Pitch: -16.1°
Time: 23-03-2023
Note: mahasamund pithora goodbahar



Demonstration of e-cycles for women service providers in Manikkal Panchayat, Kerala



Sample – ASHA workers, Kudumbashree CDS workers, Haritha Karma Sena, Anganwadi teachers, and Anganwadi helpers – 175 women



Key Finding - A significant number of women felt that e-cycles could be a good alternative to their existing modes. It would help improve their work efficiency and reduce their fatigue



Key Finding – A greater number of beneficiaries who earlier wanted the e-cycle free of cost, are willing to pay around INR 5000-15,000 to own e-cycles post demonstration

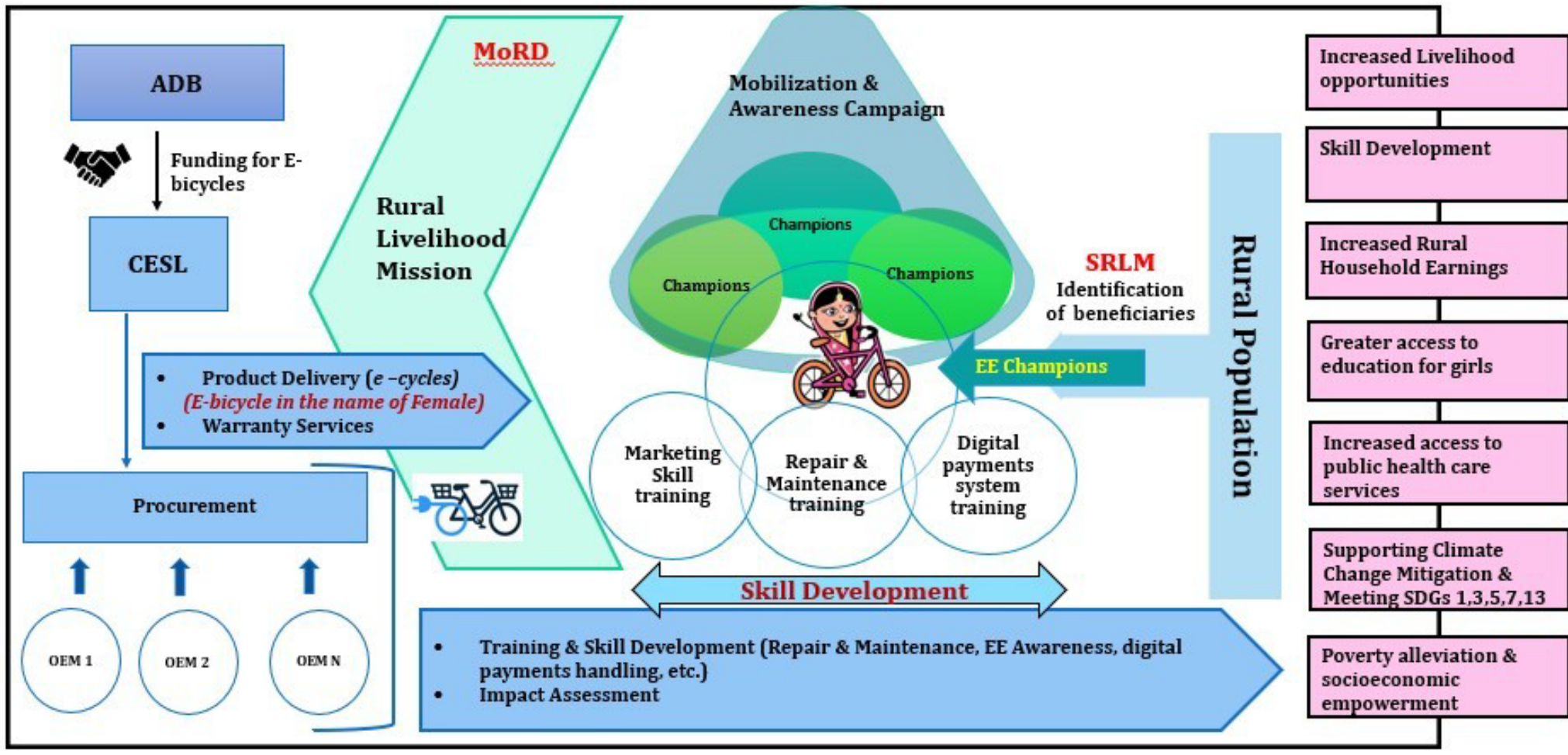


Key Finding – Electric bicycles have a potential of reducing the travel cost of these women by 70%-80% . Increased disposable income would lead to better access to health care, education and quality of life for women and families

Enabling Micro Mobility based Entrepreneurship for Women



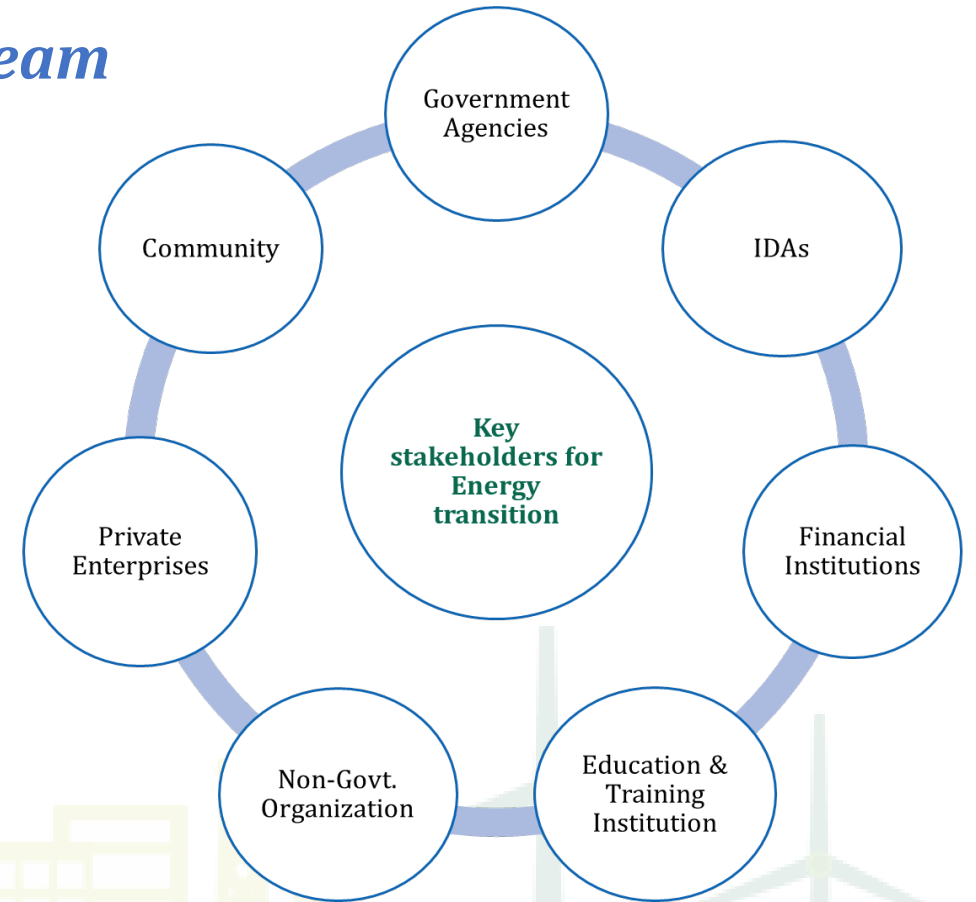
Pilot project for capacity development of SHG women as Energy Champions & addressing mobility needs of rural female entrepreneurs



Fostering Inclusive Energy Transition: It Takes a Team

Incorporating the needs of communities, especially women, into the design, development and promotion of clean and sustainable energy solutions ensures

- ✓ active participation and support
- ✓ overall well-being, empowerment, and socio-economic development



BUREAU OF ENERGY EFFICIENCY
Government of India, Ministry of Power



Inclusion Initiatives by Technology Driven Organizations Creates Ripple Effects

Introduction to gender & inclusion initiatives enable technical organizations in

- ✓ gauging grassroots issues
- ✓ capacity development of staff
- ✓ design & implementation of unique interventions to address critical challenges



Commercial driver training → **Micro mobility-based entrepreneurship model**

Awareness sessions with schools/ higher education institutions → **Collaboration with National & State Nodal Agencies for scale up**

Thank You

