Resilient Micro Businesses
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Access to energy, in a sustainable manner, is among the most important poverty alleviation tools. It underpins all other development goals.
Sustainable Energy in Micro businesses
Resilience building for micro entrepreneurs

Equipping micro enterprises with sustainable solutions for livelihoods (that combine efficient appliances, clean energy systems and efficient building designs with affordable financing models), can contribute to increased productivity and income, reduced expenses (on other energy needs), improved well-being and resilient local economies.

The Energy gap in micro businesses, when addressed, shows a direct impact on the entrepreneurial spirit and wellbeing.
Decentralised Development
Through strengthening micro entrepreneurs

What is Resilience for a Micro Business?

- Scaling Up (increase production)
- Diversifying (products and channels)
- Value add (product quality)
- Sustainability (environment and business)
- Aspiration

Strengthening Local Micro businesses will lead to:

- Boost the economy
- Create Local Employment opportunity
- Decentralised availability of services

Decentralised Development
Through strengthening micro entrepreneurs

What is Resilience for a Micro Business?

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Energy Led Solutions for empowering Micro Businesses

1. TECHNOLOGY
   Energy efficient Appliance + Energy system + Building designs

2. OWNERSHIP & SOCIAL MODELS
   SHG/ individuals/ group run

3. FINANCE & BUSINESS MODELS
   Backward & Forward Linkages, Financing, Trainings

Approach

- Food Processing
- Retail & Services
- Manufacturing & Production
## Sustainable Energy for Micro businesses

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Ecosystem of Micro businesses

- Human resources/Capacity building and Skilling
- Policy
- Appropriate Technology
- Energy efficient Infrastructure & workspace
- Market linkages-Backward & Forward
- Access to Finance
- Retail & services
- Food Processing/ Snack making
- Manufacturing/ Production
- Typology:
  - Home based, Workshop, Mobile units, Retail shop
Energy for Manufacturing & Production

Solution: Renewable energy source, Efficient Appliances, Work space design, Lighting system

- Pottery and Diya making units
- Tailoring units
- Paper plate making units
- Coir Rope making
Energy & Workspace for Pottery
Energy for Livelihood Activities: Snack making

Solution: Renewable energy source, Efficient Appliances, Work space design, Lighting system

- Flour milling
- Spice grinding
- Roti rolling
- Hotels and eateries
- Chips making
Energy for Retail & Services

Solution: Renewable energy source, Efficient Appliances, Work space design, Lighting system

- Petty shop
- Juice shops (sugarcane)
- Saloon/ beauty parlour
- Blacksmithy
- Fish shops
- Printing shop
Energy for Retail & Services
Sustainable Energy Driven Micro business
Petty Shop
Sustainable Energy Driven Micro business
Auto Mechanic Shop
Sustainable Energy Driven Micro business

Food Truck

Before

After
Sustainable Energy led Food Truck run by Preetisha

Interventions
Technology and Infrastructure: To address the particular needs of Preetisha, a 3 wheeled vehicle, with modifications to convert it into a mini food truck along with a solar powered fridge and light are suggested for her business.

Financial Linkages: The total project cost is INR 548000 with a contribution from Transgender Resource Center of INR 20000, SELCO foundation contribution of INR 248000 and a hand loan of INR 280000.

Digital marketing: Consultations and assistance was provided by SELCO Foundation on setting up an online social media page along with designing the menu card for the mini food truck.
Sustainable Energy led Food Truck run by Preetisha

- Food Truck running in Chennai
- Consistent income of INR 1500 per day
Sustainable Energy Driven Micro business
Mobile Printer shop

**Technology:** Mobile unit for the service, solar energy supported printing

**Financial Contribution:** Rs.10,000 from SF and 25,000 from the enduser for the solar printing, Rs 17,000 for portable unit

**Branding:** Logo development
Sustainable Energy led Training Unit run by Girls Trends Unit

10 transgender and former women sex worker run the tailoring unit support by swasti

**Technology:** Solar powered Sewing machines for reliable energy support

**Financial Contribution:** Rs.61,000 from SF for the solar materials and Rs.40,000 from Madurai city ladies circle 6 for sewing machines.
Physically disabled end user aspiring to run her own businesses

**Technology:** Solar powered roti rolling machine with 500 rotis per day

**Financial Contribution:** Rs.55,000 loan from KVGB (Rural regional bank) and 20,000 from SF
Visually Impaired end user moved to running his own business as a post covid unemployment scenario

**Technology:** Solar powered printing facility and petty shop for reliable energy support

**Financial Contribution:** Rs.1,10,000 from SF for the workspace and Rs.45,000 from end user
Micro-enterprises and Livelihood Training & Production Centers

With the onset of the COVID-19 associated lockdowns, a large number of micro-enterprises failed to continue their regular business operations as well as many other individuals lost their jobs.

Solutions Deployed

Customised and resilient technology and energy solutions for micro-businesses

Customised and resilient technology and energy solutions for livelihood centers

The micro-enterprises and livelihood centers SELCO Foundation worked with faced the following range of problems -

Need for resilient livelihoods and ability to diversify in emergencies or continue unhampered

With lockdowns and emergencies constantly disrupting supply and market linkages, micro-enterprises need to be agile and have the ability to pivot their businesses. This can be carried out via multiple strategies linked to asset ownership.

Need for appropriate technologies and access to energy

Many micro-enterprises and livelihoods lack access to productive appliances which can greatly improve their processes. With lack of access to reliable energy, technologies are inefficiently utilised or incur an additional recurring cost of fuel.
To ensure greater resilience against the economic effects of a pandemic strong, decentralised livelihoods are a necessity. SELCO piloted Solar powered livelihood applications with women's groups residing in slum communities of the capital city of Odisha, Bhubaneshwar.

In one instance, a group of women who were already engaged in food processing and snack making were assessed and it was found that flour milling is a major part of their production process. The flour milling service they usually dependent on was expensive and also closed during the lockdown, severely hampering their business. A solar powered flour mill was introduced to mitigate this issue.

In another instance, a group of women which had been conventionally engaged in uncertain daily wage labour had been supported by a local NGO - Radha to manufacture incense sticks for sale in the nearby temple markets. The women however found it difficult to produce many manually. Towards this a Solar Powered Incense making unit was set up as a means to ensure secure livelihoods.

“The badi and papad business that we had was seasonal, but the idea of running a flour mill and then selling flour under our own SHG brand name has really given us a path for an interrupted market. Having the unit solar powered really helped us, we are now able to work in the luxury of our homes, without being affected by power cuts or lock downs and without being worried about additional electricity bills that would have otherwise been a burden.”

Food Processing and Snack Making Women’s Group

“The lockdown took away our income as househelps from nearby societies- we look forward to working in this unit which is set-up close to our house and which we can call it as our own business”

Women’s Group Member

“The initial support at such times that organisations can provide should not be seen as subsidies, but as an investment for ensuring long term sustainable and dignified livelihoods for the poor”

Member from Radha NGO