UNLOCKING PMFME: A Catalogue on Greening Food Processing Enterprises

LIVELIHOOD CHALLENGES:

- Lack of last mile energy access
- Lack of technology integration into livelihoods
- Lack of localized livelihood opportunities
- Lack of support for training on marketing and capacity building
- Lack of awareness at the grassroots about social security schemes, upskilling, etc.

SUSTAINABLE ENERGY MODEL FOR LIVELIHOOD SOLUTION

TECHNOLOGY:
- Energy efficient Appliance, Energy system, Building designs

BUSINESS PLANNING:
- User centric solutions according to ownership models (individuals, SHG, FPOs)

FINANCIAL LINKAGES:
- Linkages, Financings, Trainings.

THE NEED FOR LOCALIZED SUSTAINABLE SOLUTIONS:

Unlocking for Sustainable Energy Food Processing Units
- Show a Higher Degree of Resilience to Shocks and Stresses
- Help in Creating New Job Opportunities and Transferring Skills
- Help in Diversifying Enterprise Or Household Income Sources
- Help in Creating Safety Nets with Decentralized Assets and Systems
KEY INSIGHTS – GREENING OF FOOD PROCESSING ENTERPRISES VIA PMFME

Types of DRE Food Processing Solutions

- Roti Making
- Dc Refrigerator and Sugarcane
- Snack Making
- Hotels and Eateries
- Dall Mill and Flour Mill Units
- Oil Extraction
- Paddy Processing
- Millet Processing

50+ Food Processing Solutions

<table>
<thead>
<tr>
<th>Types of Food Processing Units</th>
<th>Commodities</th>
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<tbody>
<tr>
<td>Home based, Shop based production units</td>
<td>Roti Making</td>
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<tr>
<td>Snack Making</td>
<td>Chakli, Chips, Papad, Rava, Puffed Rice</td>
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<tr>
<td>Grain Processing</td>
<td>Dall Mill and De-Oiler/Flour Mill</td>
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<tr>
<td>Hotels and Eateries</td>
<td>Juicer, Wet Grinder , DC refrigerator, Sugarcane Processor</td>
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<tr>
<td>Oil processing</td>
<td>Groundnut, Safflower, Sunflower Oil Extraction,</td>
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<td>Spice processing</td>
<td>Turmeric, Chilli Pounding etc.</td>
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<tr>
<td>Post harvest Processing</td>
<td>Millet &amp; Paddy</td>
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<tr>
<td>Sweet making</td>
<td>Khova and Vermicelli</td>
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**Customized Food Processing Solutions**

- Across 7 types of DRE technologies

**40% of the implemented DRE-based solutions are owned by women entrepreneurs**

**Conducted 40 training workshops across 5 districts on book keeping, skilling and usage of DRE appliances**

**145 Food Processing Units Intervened**

**First time PMFME energy integrated solutions at scale**

**Implemented 7+ solar powered productive use technologies**

**Unlocked 2 Cr Bank Loan and leveraged 1.4 Cr PMFME Subsidy**

<table>
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<th>Avg Income Increase</th>
<th>Production Increase</th>
<th>Average Incremental Profits</th>
<th>Avg Break Even Period</th>
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<td>INR 20,000</td>
<td>1.5x</td>
<td>INR 15,000</td>
<td>3.5 years</td>
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</table>

**Income Increase:** The average increase in monthly income is **INR 20,000** for the **145 intervened DRE solutions across 5 districts** of Karnataka.

**Production Increase:** Owing to the technology integration the average production increase for food processing units (e.g. roti making, Khova making, oil extraction) is **1.5x** as compared to the previously practiced manual process.

**Break even period:** An average loan investment of INR 4 lakhs to **INR 5 lakhs** can be repaid within **3.5 years** owing to the average incremental profits of **INR 15,000**.

**Incremental profit:** The integration of energy led technology into the existing or new enterprises yields an average profit of **INR 15,000**. The increase in profit for existing enterprises is **50%** and **100%** for new enterprises.
Since we are already doing a lot of manual work – washing utensils, clothes, drying, carrying water from tap to home, having a technology integration in my business and earning is very liberating.

I got married at an early age and found myself engrossed in household chores. I always wanted to start something of my own but couldn’t pursue due to lack of local opportunities. As a participant at the district industries center’s training, I realized the opportunity of running a home based business. I had been making rotis all my life, I was extremely happy to turn it into a business.

I enjoyed working at home but always wanted to pursue my ambition of being able to earn but couldn’t due to lack of local opportunities and awareness on schemes. On an exposure visit to Bagalkot as part of our training in DIC, I learnt about safflower oil processing. I diligently attended the training to learn about the technology, its usage and applicability. I couldn’t believe I started running a business.