



# 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



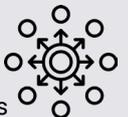
Show a Higher Degree of Resilience to Shocks and Stresses

Help in Creating New Job Opportunities and Transferring Skills



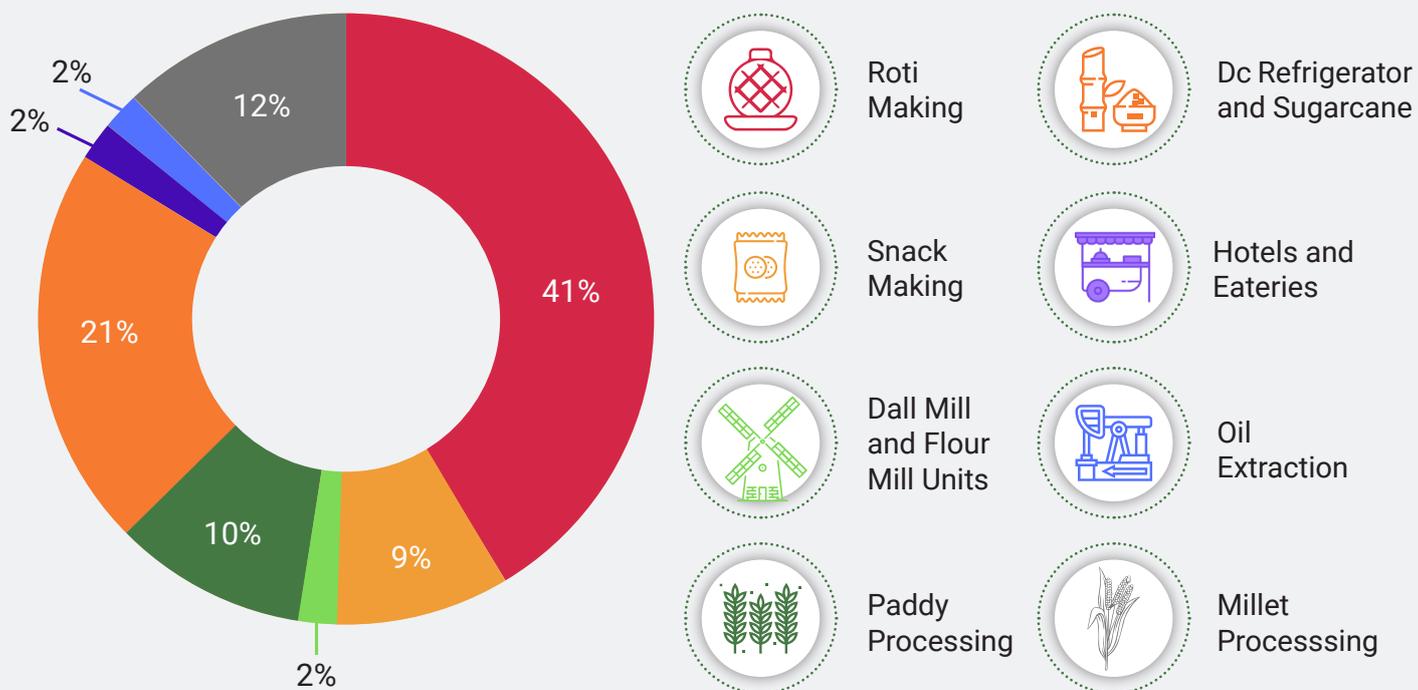
Help in Diversifying Enterprise Or Household Income Sources

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



**50+** Food Processing Solutions

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

## DIVERSITY, GENDER AND INCLUSION



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

Avg Income Increase  
**INR 20,000**

Production Increase  
**1.5x**

Average Incremental Profits  
**INR 15,000**

Avg Break Even Period  
**3.5 years**



**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.

## Prema Girimalanavar, Belgaum, Karnataka



**Profit : ₹ 20,000** (per month)  
**Revenue : ₹ 4,00,000** (per month)

Solar powered  
190 litres Khova  
making machine.

Production of  
2,160 kgs of  
Khova/month

"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."

## Kavita Parvathi, Dharwad, Karnataka



**Profit : ₹ 50,000** (per month)  
**Revenue : ₹ 2,70,000** (per month)

A solar powered  
conveyor belt roti  
rolling machine

Production of  
2500 rotis in a day

"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."

## Savita Patil, Belgaum, Karnataka



**Profit : ₹ 54,000** (per month)  
**Revenue : ₹ 3,00,000** (per month)

A solar powered  
oil extractor

Production  
capacity of 910  
litres oil in a month

"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."