

PROJECT COMPLETION REPORT

Upgradation and Expansion of Gale Rural Livelihood Processing Center Women Empowerment

Project by: Rotary Club of Bombay
Implementation Partners: Diganta Swaraj Foundation



Gale Village, Maharashtra

Project Duration: 12 Months (Completed in March)
Total Investment: ₹ 24,36,000





EXECUTIVE SUMMARY

The upgradation of the Gale Rural Livelihood Processing Center represents a comprehensive transformation from irregular, constrained operations to a stable and scalable rural enterprise. The project combined reliable renewable energy, improved storage systems, and upgraded infrastructure to unlock the full productive potential of the center.

The installation of a 15 KW solar power system addressed the most critical bottleneck—frequent power outages—enabling uninterrupted operations. Alongside this, the project strengthened storage facilities, improved ventilation, and undertook essential repairs to create a more efficient, safe, and organized working environment.

Together, these interventions have enabled a transition from intermittent production to a full 8-hour daily production cycle, significantly improving output, efficiency, and income potential.

Key Achievements:

- ▶ Full 8-hour daily production cycle enabled
- ▶ 30–50% increase in production capacity
- ▶ Improved storage systems reducing material loss by 15–20%
- ▶ Enhanced workspace conditions through better ventilation and infrastructure upgrades
- ▶ Streamlined workflow and processing efficiency
- ▶ 52 individuals engaged in stable livelihoods
- ▶ 168 farmers integrated into value-added supply chains
- ▶ Improved product quality and timely order fulfillment

The center is now positioned to achieve ₹18 lakhs turnover in the coming year, with growth potential beyond ₹25 lakhs as operations stabilize and scale.

PROJECT BACKGROUND AND BASELINE

The Gale Livelihood Processing Center was established to create decentralized livelihood opportunities for rural and tribal communities through value-added processing.

At baseline, the center had:

- ▶ ₹10 lakh annual turnover
- ▶ Multiple product lines (cashew, rice, groundnut oil, patravali)
- ▶ Active participation from women's self-help groups and rural youth



However, operations were constrained by:

- ▶ Frequent power outages disrupting productivity
- ▶ Lack of structured storage systems leading to losses
- ▶ Poor ventilation and aging infrastructure affecting working conditions
- ▶ Inefficient workspace layout limiting scalability

Despite these challenges, the center demonstrated strong demand and clear potential for expansion. Scope of Work and Interventions.

SCOPE OF WORK AND INTERVENTIONS

Solar Electrification – The Core Transformation (Expanded & Strengthened)

The installation of a 15 KW rooftop solar power system has been the single most critical intervention in transforming the Gale Rural Livelihood Processing Center from an intermittently functioning unit into a stable and efficient production enterprise.

Baseline Energy Constraints

Prior to the intervention, the center faced severe energy reliability challenges:

- ▶ Frequent and unpredictable grid power cuts
- ▶ Daily interruptions ranging from 2–4 hours or more
- ▶ Inability to operate processing machinery continuously
- ▶ Idle labor time and underutilization of installed capacity
- ▶ Production planning was inconsistent and unreliable

These constraints created a cascading effect:

Power Cuts → Interrupted Production → Reduced Output → Lower Income

Solar System Intervention

To address this, a decentralized renewable energy solution was installed:

- ▶ System Capacity: 15 KW rooftop solar plant
- ▶ Application: Powering processing machinery, lighting, and essential operations
- ▶ Operational Model: Daytime solar-powered production aligned with working hours
- ▶ Grid Dependency: Significantly reduced reliance on unreliable grid electricity

The system has been designed to match the center’s load requirements, ensuring optimal utilization during peak working hours.

Operational Transformation

Post-installation, the center has undergone a fundamental shift in operations:

- ▶ Uninterrupted Power Supply: Continuous electricity during working hours
- ▶ Full Production Cycle: Ability to operate for a complete 8-hour workday
- ▶ Machine Utilization: Significant increase in active machine hours
- ▶ Production Planning: Shift from reactive to planned, schedule-based operations
- ▶ Workforce Efficiency: Elimination of idle time caused by outages

This transition has effectively converted the center into a predictable and reliable production system.

Quantified Impact

The solar intervention has delivered measurable improvements:

- ▶ 30–50% increase in production capacity due to uninterrupted operations
- ▶ Near-zero downtime during working hours
- ▶ 20–25% reduction in electricity costs
- ▶ Improved order fulfillment timelines, enhancing market credibility
- ▶ Higher utilization of labor and machinery, improving overall efficiency

Integrated Impact with Infrastructure Improvements

The impact of solar electrification is significantly amplified when combined with storage and infrastructure upgrades:

- ▶ Reliable energy ensures continuous processing
- ▶ Improved storage ensures uninterrupted raw material availability
- ▶ Better ventilation and workspace conditions support sustained full-day operations

Together, these create a complete production ecosystem, where energy availability is effectively translated into output and income.

Strategic Insight

This intervention highlights a critical development insight:

In rural enterprise systems, energy reliability is not just an operational input—it is a primary driver of productivity, income generation, and enterprise scalability.



The solar system has not only solved a technical constraint but has unlocked the economic potential of the entire value chain.

Conclusion (Refined Closing Line)

The solar electrification component demonstrates that decentralized renewable energy is a foundational enabler of rural enterprise transformation. When combined with infrastructure and storage improvements, it creates a system where productivity, income, and sustainability reinforce each other.

Storage and Processing System Strengthening

To address inefficiencies in material handling:

Interventions:

- ▶ Dedicated raw material storage areas
- ▶ Finished goods storage racks
- ▶ Basic inventory management systems

Outcomes:

- ▶ 15–20% reduction in material loss
- ▶ Improved product quality and shelf life
- ▶ Increased storage capacity for bulk production
- ▶ Streamlined workflow



Infrastructure Improvement and Workspace Optimization

The project undertook targeted infrastructure upgrades to enhance efficiency, safety, and usability.

Key Interventions:

- ▶ Improved ventilation for better air circulation and reduced heat
- ▶ Minor civil repairs to strengthen existing structures
- ▶ Reorganization of workspace layout for efficient movement
- ▶ Upgradation of processing areas for hygiene and safety

Baseline Challenges:

- ▶ Poor ventilation and uncomfortable working conditions
- ▶ Structural wear and inefficiencies
- ▶ Congested and unorganized workspace

Post-Implementation Outcomes:

- ▶ Improved worker comfort and productivity
- ▶ Safer and more hygienic work environment
- ▶ Reduced delays in material handling
- ▶ Better utilization of space and resources

Integrated Impact:

These improvements complement solar and storage systems by ensuring that increased production capacity is supported by efficient and worker-friendly infrastructure.

KEY OUTCOMES AND IMPACT

Production, Energy, and Infrastructure Impact (Strengthened Add-on)

- ▶ Transition from energy-constrained to energy-secure operations
- ▶ Full 8-hour production cycles consistently achieved
- ▶ 30–50% increase in production capacity directly attributable to solar electrification
- ▶ Near elimination of downtime due to power outages
- ▶ Improved synchronization between energy availability, storage systems, and processing workflows

Economic Impact Pathway

The project establishes a clear causal chain:

Reliable Energy + Efficient Infrastructure → Full Production → Higher Output → Increased Income

- ▶ Earlier: Limited hours → lower output → constrained income
- ▶ Now: Full capacity operations → higher output → increased revenue

Livelihood Impact

- ▶ 52 rural women and youth engaged in direct employment
- ▶ 168 farmers integrated into value-added supply chains
- ▶ 230+ indirect beneficiaries

Productivity and Efficiency Gains

- ▶ Faster processing cycles
- ▶ Reduced downtime
- ▶ Improved workflow efficiency
- ▶ Better worker productivity due to improved conditions
- ▶ Higher consistency and quality in outputs

HUMAN-CENTERED IMPACT

The project has significantly improved both livelihoods and working conditions:

- ▶ Women now work in safer, better-ventilated, and organized environments
- ▶ Improved infrastructure reduces physical strain and enhances dignity of work
- ▶ Farmers benefit from better storage and reduced post-harvest losses
- ▶ Youth engagement in improved facilities reduces migration pressures

The center has evolved into a community-owned, reliable economic asset.



SUSTAINABILITY AND OPERATIONAL CONTINUITY

The project strengthens long-term sustainability through:

- ▶ Reduced energy costs via solar power
- ▶ Lower material losses due to improved storage
- ▶ Durable infrastructure ensuring long-term usability
- ▶ Efficient workspace enabling scale
- ▶ Strong community ownership

IMPACT TIMELINE

Baseline:

- ▶ ₹10 lakh turnover
- ▶ Irregular production
- ▶ Weak infrastructure

Current Status:

- ▶ Solar operational
- ▶ Storage systems established
- ▶ Infrastructure upgraded
- ▶ Production stabilized

Outcome: Ready for scale

Year 1 Projection:

₹18 lakh turnover

Growth Phase (Year 2–3):

₹25 lakh+ turnover

KPI DASHBOARD

Energy & Production

- ▶ Solar Capacity Installed: 15 KW
- ▶ Energy Reliability: Near 100% during working hours
- ▶ Production Cycle: Increased to full 8 hours/day
- ▶ Downtime: Reduced from 2–4 hours/day to near zero
- ▶ Production Increase: 30–50%

Economic Indicators

- ▶ Baseline: ₹10 lakh
- ▶ Year 1 Projection: ₹18 lakh
- ▶ Growth Potential: ₹25 lakh+

Livelihood Impact

- ▶ 52 direct beneficiaries
- ▶ 168 farmers linked
- ▶ 230+ indirect beneficiaries

Infrastructure & Operations

- ▶ Storage loss reduced by 15–20%
- ▶ Improved ventilation and working conditions
- ▶ Minor repairs completed
- ▶ Optimized processing layout

Social Impact

- ▶ Improved income stability
- ▶ Increased women's participation
- ▶ Reduced migration

Sustainability

- ▶ Renewable energy adoption
- ▶ Lower operational costs
- ▶ Self-sustaining enterprise model



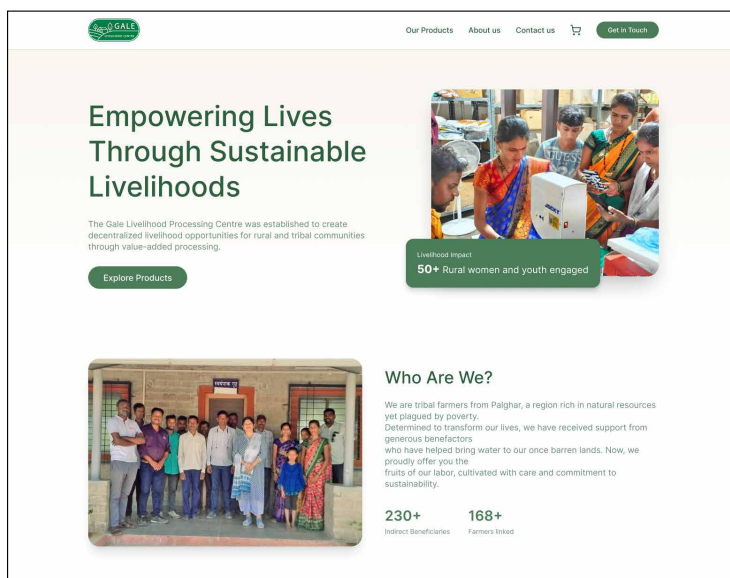
CONCLUSION

The project demonstrates that **integrated infrastructure development**—combining **energy access, storage systems, and improved working conditions**— is essential for sustainable rural enterprise growth.

While solar electrification enabled uninterrupted production, the addition of improved storage, ventilation, and infrastructure ensured that this capacity could be effectively utilized with efficiency, quality, and worker well-being.

The solar electrification component demonstrates that **decentralized renewable energy is a foundational enabler of rural enterprise transformation**. When combined with infrastructure and storage improvements, it creates a system where productivity, income, and sustainability reinforce each other.

From the village to your doorstep - Gale Livelihood Centre goes online



The Rotary Club of Bombay has launched a Shopify storefront for Gale, bringing the Centre's cashew, rice, groundnut oil and patravali directly to urban consumers. The site removes intermediaries, sends a larger share of every rupee back to the women, youth and 168 linked farmers, and turns every purchase into visible support for solar-powered, community-owned rural enterprise.

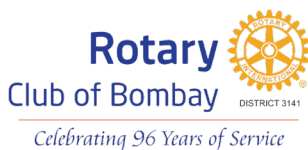
For more details – visit www.gaale.com

RETURN ON CSR INVESTMENT

An investment of ₹24.36 lakhs has enabled:

- ▶ Strengthening of a rural enterprise ecosystem
- ▶ Creation of sustainable livelihoods
- ▶ Integration of farmers into value chains
- ▶ Establishment of long-term productive infrastructure

*This reflects a **high-impact, infrastructure-led development model**, where returns grow progressively over time.*



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