

PRODUCT PROFILE

DAIRY PRODUCT PARLOUR IN LADAKH



1. INTRODUCTION

Ladakh, a high-altitude cold desert region in northern India, is characterized by its pastoral communities, pristine environment, and traditional dependence on livestock rearing. Dairy farming—particularly from cows, dzos, and yaks—plays a vital role in rural livelihoods, providing milk, butter, cheese, and curd that form an integral part of Ladakhi cuisine and culture. The region's pure fodder, minimal use of chemicals, and cold climate contribute to the production of **high-quality, organic milk** that is rich in nutrients and flavor.

Despite this potential, the local dairy sector remains largely **unorganized and under-commercialized**. Most milk and dairy products are consumed domestically or sold unprocessed, while hotels, cafés, and restaurants often rely on **imported dairy products** such as butter, cheese, and paneer from the plains. Limited cold-chain infrastructure, lack of small-scale processing facilities, and minimal branding have prevented Ladakh from realizing its full dairy potential.

This project proposes the establishment of a **Dairy Products Parlour in Leh**, designed as a modern yet locally rooted enterprise to produce, process, and market both **traditional Ladakhi dairy items** and **value-added products**. The venture will combine traditional dairy craftsmanship with hygienic processing, cold storage, and modern packaging techniques to serve both **local consumers and the tourism market**.

The Dairy Parlour will offer:

- **Fresh products:** Milk, curd, butter, paneer, and ghee
- **Value-added products:** Yak cheese, flavored milk, lassi, milkshakes, and Ladakhi “Chhurpi” (dried cheese)
- **Tourist-oriented offerings:** Gift packs of artisanal cheese, butter tea mix, and organic ghee in eco-friendly packaging

The enterprise will operate under a **farm-to-parlour model**, sourcing fresh milk from local farmers and self-help groups (SHGs), ensuring steady income for rural households while strengthening the local dairy value chain.

Aligned with Ladakh's *Enterprising Ladakh* initiative, this venture aims to:

- Promote **self-reliance in dairy products**,
- **Empower rural producers** through value addition, and
- Create a **sustainable, locally branded dairy identity** for the region.

2. OBJECTIVES

- To establish a hygienic and modern dairy products parlour in Leh.
- To process and market locally sourced milk into high-quality, value-added products.
- To support local dairy farmers and SHGs by creating a steady market linkage.

- To cater to the growing demand from locals, tourists, hotels, and restaurants.
- To encourage the use of eco-friendly and locally inspired packaging.

3. PRODUCT & ITS APPLICATION

The Dairy Products Parlour in Ladakh will offer a wide range of **traditional, value-added, and premium dairy products**, carefully designed to meet local nutritional needs, serve the hospitality sector, and attract the growing tourist market. Each product category highlights Ladakh's unique dairy heritage while integrating modern hygiene and processing standards.

1. CORE OFFERINGS

A. Traditional Products

These items reflect Ladakh's cultural and culinary heritage and will appeal strongly to both locals and visitors seeking authentic mountain flavors:

- **Chhurpe (Dried Cheese):** A high-protein, shelf-stable traditional snack made from yak or cow milk, popular in rural Ladakh. It will be packaged hygienically for retail, catering to both local markets and tourists as an ethnic delicacy.
- **Mar (Butter):** Traditionally churned butter used in cooking, tea preparation, and religious offerings. The parlour will produce both salted and unsalted varieties.
- **Gur-Gur Cha (Butter Tea):** A traditional beverage made with tea leaves, butter, and salt, consumed widely in cold climates for warmth and energy. The project will introduce ready-to-drink and instant powder forms for retail and travel convenience.
- **Fermented Yogurt:** Locally made curd with rich probiotic properties, ideal for daily consumption. It will be supplied to households and commercial kitchens in both small cups and bulk containers.

B. Value-Added Products

These products will leverage modern dairy processing techniques to create items that appeal to urban consumers and hospitality clients:

- **Pasteurized Milk:** Fresh, hygienically processed milk packaged in eco-friendly pouches and glass bottles to replace imported brands.
- **Flavoured Yogurt:** Fruit-flavored and sweetened yogurt cups in apricot, sea buckthorn, and berry flavors — reflecting Ladakh's local produce.
- **Paneer (Cottage Cheese):** Fresh paneer for household and restaurant use, with options for low-fat and organic varieties.
- **Ice Cream:** Seasonal artisanal ice cream made from local milk and natural ingredients such as apricot, sea buckthorn, and saffron, targeting hotels and cafés.
- **Flavoured Milk:** Ready-to-drink milk beverages enriched with natural flavors, targeting students, travelers, and cafés.

C. Premium Offerings

These high-end products are tailored for niche and health-conscious consumers, as well as the gifting and tourism markets:

- **Organic Yak Milk Cheese:** A signature Ladakhi product, rich in nutrients and flavor, positioned as a gourmet and export-quality item.
- **Probiotic Drinks:** Functional dairy beverages fortified with natural probiotics to promote gut health, aimed at wellness-oriented customers.
- **Lactose-Free Products:** Specially formulated milk and yogurt for lactose-intolerant consumers, broadening the product's appeal to urban and tourist markets.

2. APPLICATIONS

The applications of these dairy products span across **daily consumption, hospitality supply, and tourism retail**, creating a multi-dimensional market presence.

A. Daily Consumption by Locals

- Fresh milk, butter, and yogurt will be sold through the parlour and local retailers to cater to households, schools, and government institutions.
- Affordable packaging (250 ml to 1-liter packs) will make products accessible for all income groups.
- Health-oriented options such as probiotic yogurt and lactose-free milk will support modern dietary needs.

B. Supply to Hotels, Cafés, and Homestays

- Regular supply of fresh milk, paneer, butter, and yogurt to the hospitality sector, which faces difficulty in sourcing quality local products.
- Partnership with hotels and homestays to use “**Proudly Made in Ladakh**” branded dairy products, promoting regional identity.
- Customized products like mini butter packs, small curd cups, and flavoured milk bottles for tourist serving convenience.
- Artisanal cheese and yogurt can be included in breakfast menus or local delicacy platters offered to tourists.

C. Retail Packs for Tourists as Souvenirs

- Vacuum-packed **Chhurpe**, artisanal **yak cheese**, and **instant butter tea mix** as authentic Ladakhi souvenirs.
- “Taste of Ladakh” branding for retail counters at airports, markets, and tourist hubs.
- Small gift hampers combining multiple dairy specialties — ideal for eco-conscious and culture-seeking travellers.
- Collaboration with local handicraft enterprises for eco-friendly packaging using paper, bamboo, or traditional textile wrapping.

4. DESIRED QUALIFICATION FOR PROMOTER

- Education:** Degree in Dairy Technology, Food Science, or Business Management.
- Experience:** 3+ years in dairy processing or FMCG sector.
- Skills:** Supply chain management, quality control, knowledge of cold-chain logistics.
- Local Knowledge:** Understanding Ladakhi dairy practices, cultural preferences, and seasonal challenges.
- Certifications:** FSSAI training, HACCP, or GMP certification.

5. INDUSTRY LOOKOUT AND TRENDS

- Growth Drivers:** Rising demand for packaged dairy products, tourism influx, and government focus on rural dairy development.
- Trends:** Organic and probiotic products, eco-friendly packaging, and hybrid products (e.g., herbal-infused yogurt).
- Ladakh-Specific:** Revival of traditional dairy practices and yak milk-based products.

6. MARKET POTENTIAL AND MARKETING ISSUES

Potential:

- Local Demand:** 50,000+ residents in Leh district.
- Tourist Demand:** 3+ lakh annual tourists seeking authentic local experiences.
- Institutional Buyers:** Hotels, Indian Army units, and schools.

Challenges:

- Seasonality:** Tourism peaks (May–Sept) vs. winter demand slump.
- Logistics:** High transportation costs and cold storage requirements.
- Competition:** Informal local vendors and imported products from Punjab/Himachal.

Marketing Strategies:

- Branding around “Ladakhi Organic” and yak milk USP.
- Collaborate with tourism agencies and homestays.
- Social media campaigns targeting eco-conscious travellers.

7. RAW MATERIAL REQUIREMENTS

- **Primary:** Fresh milk (yak/cow), cultures, rennet, salt, sugar, natural flavours.
- **Secondary:** Eco-friendly packaging, preservatives (minimal), cleaning agents.
- **Sourcing:** Direct partnerships with local dairy cooperatives and herders.

8. MANUFACTURING PROCESS

1. **Milk Collection & Testing:** Daily procurement from local farmers.
2. **Pasteurization:** Heat treatment at 72°C for 15 seconds.
3. **Processing:**
 - *Chhurpe:* Curdling, pressing, and sun-drying.
 - *Yogurt:* Fermentation at 42°C for 6–8 hours.
 - *Ice Cream:* Homogenization, freezing, and hardening.
4. **Packaging:** Aseptic filling and labelling.

9. MANPOWER REQUIREMENT

- **Skilled:** 2 dairy technologists, 1 quality control supervisor.
- **Semi-Skilled:** 4 operators for machinery.
- **Support Staff:** 2 drivers, 3 packagers, 1 sales executive.
- **Seasonal:** Additional staff during tourist season.

10. IMPLEMENTATION SCHEDULE

Phase	Activity	Timeline
1	Site selection, approvals, and funding	Months 1–2
2	Facility setup and machinery installation	Months 3–4
3	Staff hiring and training	Month 5
4	Trial production and marketing launch	Month 6

11. COST OF PROJECT

Component	Cost (INR)
Facility (500 sq. ft. lease)	5 lakhs
Machinery	15 lakhs
Cold storage setup	8 lakhs
Raw material (3 months)	3 lakhs
Marketing & branding	2 lakhs
Contingency	2 lakhs
Total	35 lakhs

12. MEANS OF FINANCE

- **Equity:** 15 lakhs (promoter's contribution).
- **Debt:** 15 lakhs (bank loan @9% interest).
- **Subsidy:** 5 lakhs (PM Formalization of Micro Food Enterprises Scheme).

13. LIST OF MACHINERY REQUIRED

- Pasteurizer, homogenizer, yogurt fermenter.
- Cheese press, ice cream freezer, packaging machine.
- Milk testing kits, cold storage units.

14. PROFITABILITY CALCULATIONS

- **Revenue (Year 1):** $1,500 \text{ kg/month} \times \text{Avg. } ₹200/\text{kg} = ₹36 \text{ lakh annually.}$
- **Operational Costs:** ₹28 lakh (raw materials, salaries, utilities).
- **Net Profit:** ₹8 lakh (pre-tax).

15. BREAKEVEN ANALYSIS

- **Fixed Costs:** ₹10 lakh (rent, salaries).
- **Variable Costs:** ₹150/kg.
- **BEP:** ₹10 lakh / (₹200 – ₹150) = **20,000 kg annually** (1,666 kg/month).

16. STATUTORY/GOVERNMENT APPROVALS

- FSSAI License.
- Registration under PM-FME Scheme.
- NOC from Leh Municipal Committee.
- GST Registration.

17. BACKWARD AND FORWARD INTEGRATIONS

- **Backward:** Training farmers in hygienic milk production.
- **Forward:** Retail partnerships (Leh Market), supply to Indian Army canteens.

18. TRAINING CENTERS AND COURSES

- **National Dairy Research Institute (NDRI):** Dairy technology courses.
- **PM-FME Scheme:** Skill development in food processing.
- **Local NGOs:** Sustainable farming and packaging workshops.

19. MACHINERY SUPPLIERS

A small to medium-scale **Dairy Parlour & Processing Unit** will require the following equipment:

Milk Processing & Storage

- Milk Pasteurizer (200–500 L capacity)
- Cream Separator / Clarifier
- Homogenizer
- Milk Chiller & Bulk Milk Cooling Tank
- Stainless Steel Milk Storage Tanks
- Butter Churn Machine
- Paneer Press and Cutting Machine
- Ghee Processing Kettle
- Cheese Vat and Moulds (for yak and cow cheese)

Packaging and Ancillary Equipment

- Vacuum Packaging Machine (for cheese and butter)
- Bottle Filling & Capping Machine (for milk and flavored drinks)
- Weighing & Sealing Machines
- Cold Storage / Deep Freezer Units
- Display Refrigerators for the Parlour
- Lab Equipment for Quality Testing (pH meter, Lactometer, etc.)

Below are **trusted machinery and equipment suppliers** suitable for dairy processing units in high-altitude regions like Ladakh:

1. Dairy Tech India (New Delhi)

- Specializes in small and medium dairy plant equipment: pasteurizers, cream separators, cheese vats, and ghee plants.
- Website: www.dairytechindia.com

❖ 2. Process Engineers And Associates (Noida, UP)

- Manufacturers of complete dairy machinery setups and cold storage systems.
- Website: www.processengineers.co.in

❖ 3. Mahesh Engworks (Ahmedabad, Gujarat)

- Offers butter churns, paneer presses, milk cooling tanks, and milk pouch packing machines.
- Website: www.maheshengworks.com

❖ 4. NK Dairy Equipments (Ludhiana, Punjab)

- Leading manufacturer of dairy processing machinery for small enterprises.
- Website: www.nkdairyequipments.com

❖ 5. SS Engineers & Consultants (Coimbatore, Tamil Nadu)

- Offers turnkey solutions for cheese, paneer, and yogurt production units.
- Website: www.ssengineers.com

❖ 6. Refcon Refrigeration Pvt. Ltd. (Delhi)

- Suppliers of cold rooms, chillers, and refrigeration systems essential for dairy preservation.
- Website: www.refconrefrigeration.com

Conclusion: This dairy parlour capitalizes on Ladakh's pastoral heritage and tourism growth to deliver high-quality, traditional, and innovative dairy products. By addressing logistical challenges and focusing on organic branding, the project aims to break even within 12–18 months while supporting local farmers.