

PROJECT PROFILE



# HIMALAYAN PINK SALT PROCESSING



## 1. INTRODUCTION

Ladakh, a high-altitude Union Territory nestled in the northernmost part of India, is globally recognized for its unspoiled landscapes, rich biodiversity, and unique cultural legacy. Set against the backdrop of the majestic Himalayas, Ladakh shares geographical proximity with the broader Himalayan salt belt, which stretches across parts of India and Pakistan. While Pakistan's Khewra mine has dominated the global Himalayan Pink Salt trade, India's side of the Himalayan range—particularly regions in Ladakh like Tso Kar, Rupshu Valley, and Changthang—also holds significant but underexplored salt deposits. These salt-rich areas were historically tapped by indigenous nomadic tribes such as the Changpas, who extracted and bartered salt as part of an ancient trans-Himalayan trade network with Tibet and surrounding regions.

Himalayan Pink Salt, prized for its characteristic rosy hue, subtle mineral-rich flavour, and reputed health benefits, contains over 84 naturally occurring trace elements including magnesium, calcium, and potassium. It has gained international acclaim in recent years across culinary, wellness, and decorative markets. However, Ladakh's role in this global phenomenon remains minimal due to a combination of logistical challenges, inadequate processing infrastructure, lack of market linkages, and limited awareness about the region's latent potential in salt mining.

This project proposes the establishment of a modern, eco-conscious Himalayan Pink Salt enterprise in Ladakh—one that blends traditional knowledge with contemporary technology. The initiative will focus on the sustainable extraction, solar-powered processing, and branding of premium salt products, including culinary salts, spa-grade bath salts, and handcrafted decorative items such as salt lamps. It aims to serve both domestic and export markets, catering to the rising consumer demand for organic, ethically sourced, and artisanal wellness products.

By aligning with national initiatives like *One District One Product (ODOP)*, the *PM Formalization of Micro Food Enterprises (PMFME)* scheme, and the *Carbon Neutral Ladakh* mission, the project envisions socio-economic empowerment for local communities, creation of green jobs, and positioning Ladakh as an emerging hub for high-altitude wellness and gourmet products. With the right investment, infrastructure, and market access, Ladakh has the potential to become not just a geographic landmark of Himalayan Pink Salt, but a globally recognized brand of purity, sustainability, and Himalayan heritage.

## 2. PRODUCT & ITS APPLICATION

### Core Offerings:

- **Culinary Salt:** Coarse, fine, and flavoured variants infused with local herbs like sea buckthorn.
- **Wellness Products:** Salt lamps, bath salts, exfoliating scrubs, and therapeutic inhalers.
- **Industrial Salt:** Unprocessed blocks for animal feed, water softening, and de-icing.

### Applications:

- **Culinary:** Gourmet cooking, health supplements, and specialty food products.
- **Wellness:** Spa treatments, aromatherapy, and holistic healing practices.
- **Decorative:** Lamps, candle holders, and souvenirs for tourists.

- **Industrial:** Bulk supply to food processors, cosmetic manufacturers, and water treatment facilities.

### 3. DESIRED QUALIFICATION FOR PROMOTER

- **Education:** Degree in Geology, Mining, Food Technology, or Business Management.
- **Experience:** Minimum of 2 years in mining, FMCG, or wellness product development.
- **Skills:** Proficiency in salt processing techniques, quality standards, and export regulations.
- **Local Knowledge:** Familiarity with Ladakh's mining policies, environmental norms, and community engagement practices.
- **Certifications:** FSSAI, APEDA, and Bureau of Indian Standards (BIS) compliance.

### 4. INDUSTRY OUTLOOK AND TRENDS

- **Global Demand:** The Himalayan Pink Salt market is projected to reach USD 342.2 million by 2033, growing at a CAGR of 4.76% from 2022 to 2031.
- **Trends:** Increasing health consciousness, demand for natural products, and expanding applications in food, wellness, and home décor.
- **Ladakh-Specific:** Government initiatives promoting sustainable mining under the Ladakh Industrial Land Allotment Policy and the "Carbon Neutral Ladakh" vision.

### 5. MARKET POTENTIAL AND MARKETING STRATEGIES

#### Potential:

- **Tourism:** Over 600,000 tourists annually seeking authentic souvenirs and wellness products.
- **Domestic & Export Markets:** Gourmet stores, spas, e-commerce platforms, and international retailers.
- **Industrial Buyers:** Food processors, cosmetic brands, and wellness centres.

#### Challenges:

- **Regulatory Approvals:** Navigating mining permits and environmental clearances.
- **Logistics:** Addressing transportation challenges from remote mining sites.
- **Competition:** Competing with established brands from Pakistan's Khewra Salt Mine and Himachal Pradesh.

#### Marketing Strategies:

- **Branding:** Position products as "Ladakh's Liquid Gold" with eco-conscious packaging.

- **Partnerships:** Collaborate with luxury resorts, yoga retreats, and online marketplaces like Amazon and Flipkart.
- **Education:** Highlight mineral benefits, such as being iodine-free and possessing detoxifying properties, to inform and attract health-conscious consumers.

## 6. RAW MATERIAL REQUIREMENTS

- **Primary:** Raw pink salt sourced from Ladakhi mines in regions like Leh and Kargil.
- **Secondary:** Local herbs for infusion, packaging materials (glass jars, jute bags), and polishing tools.
- **Energy:** Utilize solar-powered processing units to minimize carbon footprint and align with sustainable practices.

## 7. MANUFACTURING PROCESS

1. **Mining:** Employ manual or semi-mechanized extraction methods from salt deposits.
2. **Crushing & Refining:** Remove impurities and grade salt by grain size.
3. **Infusion (Optional):** Blend with local herbs or minerals for value-added products.
4. **Polishing:** Craft decorative items like lamps and candle holders.
5. **Packaging:** Use airtight containers to preserve quality and extend shelf life.

## 8. MANPOWER REQUIREMENT

- **Skilled:** 2 geologists, 1 food technologist, and 1 artisan for lamp carving.
- **Semi-Skilled:** 10 workers for mining, crushing, and packaging operations.
- **Sales & Marketing:** 2 executives to manage B2B and retail partnerships.

## 9. IMPLEMENTATION SCHEDULE

| Phase | Activity                             | Timeline   |
|-------|--------------------------------------|------------|
| 1     | Mining permits and land acquisition  | Months 1–3 |
| 2     | Setup of solar processing unit       | Months 4–5 |
| 3     | Trial production and quality testing | Month 6    |
| 4     | Branding and market launch           | Month 7    |

## 10. COST OF PROJECT

| Component                       | Cost (INR)      |
|---------------------------------|-----------------|
| Mining rights and land lease    | 10 lakhs        |
| Machinery (crushers, polishers) | 12 lakhs        |
| Packaging and branding          | 5 lakhs         |
| Marketing and distribution      | 3 lakhs         |
| Contingency                     | 2 lakhs         |
| <b>Total</b>                    | <b>32 lakhs</b> |

## 11. MEANS OF FINANCE

- **Equity:** ₹15 lakhs (Promoter's contribution).
- **Debt:** ₹12 lakhs (NABARD loan at 7% interest).
- **Subsidy:** ₹5 lakhs (PM Formalization of Micro Food Enterprises Scheme).

## 12. LIST OF MACHINERY REQUIRED

- Salt crusher and grinder.
- Polishing machine for decorative items.
- Solar dryer for moisture removal.
- Vacuum sealer for packaging.
- Carving tools for lamp and souvenir production.

## 13. PROFITABILITY CALCULATIONS (YEAR 1)

- **Revenue:**
  - Culinary salt: 5,000 kg × ₹200/kg = ₹10 lakhs.
  - Wellness products: 1,000 units × ₹500/unit = ₹5 lakhs.
- **Operational Costs:** ₹12 lakhs (including mining, labour, and marketing).
- **Net Profit:** ₹3 lakhs (pre-tax).

## 14. BREAK-EVEN ANALYSIS

- **Fixed Costs:** ₹10 lakhs (machinery and permits).
- **Variable Costs:**
  - Culinary salt: ₹100/kg.
  - Lamps: ₹200/unit.
- **Selling Prices:**
  - Culinary salt: ₹200/kg.
  - Lamps: ₹500/unit.
- **Break-Even Point (BEP):**

- Culinary salt: ₹10 lakhs / ₹100 = 10,000 kg.
- Lamps: ₹10 lakhs / ₹300 = ~3,334 units.

## 15. STATUTORY/GOVERNMENT APPROVALS

- Mining lease from the Jammu & Kashmir Mining Department.
- FSSAI License for edible salt production.
- GST Registration and APEDA Certification for exports.
- Environmental clearance for sustainable mining practices.

## 16. BACKWARD AND FORWARD INTEGRATIONS

- **Backward Integration:** Collaborate with local miners and provide training in sustainable extraction methods.
- **Forward Integration:** Establish supply chains with luxury hotels, wellness centres, and online platforms like GeM for broader market reach.

## 17. TRAINING CENTERS AND COURSES

- **Indian Bureau of Mines (IBM):** Workshops on sustainable mining practices.
- **PMFME Scheme:** Training in food safety standards and packaging techniques.
- **Defence Institute of High-Altitude Research (DIHAR):** Courses on solar processing technologies suitable for high-altitude regions.

## 18. SUPPLIERS

### Salt Processing Machinery Suppliers

#### 1. Shriraam Engineering

- **Location:** Tamil Nadu, India
- **Offerings:** Comprehensive salt processing machinery, including crushers, grinders, and packaging units.
- **Website:** [saltmachinery.com](http://saltmachinery.com)

#### 2. Confider Industries LLP

- **Location:** Ahmedabad, Gujarat
- **Specialization:** Rock salt grinding machines and crushers.
- **Website:** [confiderind.in](http://confiderind.in)

### 3. NS Steel Engineering

- **Location:** Gujarat, India
- **Products:** Salt grinding and crushing machines tailored for industrial use.
- **Website:** nssteelengineering.in

### 4. J K Pulverizer

- **Location:** India
- **Specialty:** Industrial-grade rock salt grinding machines with adjustable speed controls.
- **Website:** jkpulverizer.com

### 5. Tab Tech Solution

- **Location:** India
- **Focus:** Salt tablet press machines suitable for water treatment and food processing applications.
- **Website:** tabtechpharma.in

## Solar Dryer Manufacturers

### 1. Raheja Solar Food Processing Pvt. Ltd. (RSFP)

- **Location:** Indore, Madhya Pradesh
- **Products:** Range of solar dryers, including the RAHEJA SAMAGRA-3, designed for commercial purposes.
- **Website:** [rsfp.in](http://rsfp.in)

### 2. Kosol Energie

- **Location:** Ahmedabad, Gujarat
- **Offerings:** Solar dryers and air heating systems suitable for various drying applications.
- **Website:** kosolenergie.com

### 3. ATR Solar (India)

- **Location:** Tamil Nadu, India
- **Specialization:** Solar greenhouse dryers and cabinet dryers for industrial drying needs.
- **Website:** [atsolarindia.com](http://atsolarindia.com)

### 4. Rudra Solar Energy

- **Location:** India
- **Products:** Solar dryers and other solar thermal equipment for sustainable processing.
- **Website:** rudrasolar.in

## Additional Equipment Suppliers

### 1. Vacuum Sealing Machines

- **Product:** LIMBANI BROTHERS Vacuum Sealer Machine
- **Price:** ₹1,049
- **Available at:** Amazon.in

## 2. Salt Carving Tools

- **Product:** Wood Carving Set of 12
- **Price:** ₹180
- **Available at:** CraftAdda

## 18. CONCLUSION

This Himalayan Pink Salt venture aims to harness Ladakh's natural resources and cultural heritage to produce high-quality salt products for domestic and international markets. By integrating sustainable mining practices, solar-powered processing, and strategic marketing, the project not only promises economic growth and employment opportunities for local communities but also positions Ladakh as a key contributor to the global wellness and gourmet food industries.

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