Project Profile: Kandali (Bichhu Booti) Soup & Chips Manufacturing Unit in Uttarakhand

1. Introduction

Kandali, locally known as Bichhu Booti or Himalayan Nettle, is a wild leafy herb abundantly found in the mid-to-high-altitude regions of Uttarakhand. Traditionally used in local cuisines and herbal remedies, the plant is now gaining wider recognition for its nutritional value, being rich in iron, calcium, and antioxidants. When properly processed, Kandali leaves are not only safe for consumption but are also considered a superfood with therapeutic benefits. The idea of converting this local forest-based produce into marketable products like herbal soup and healthy chips provides both economic opportunity and nutritional advancement for the local population.

The proposed venture aims to establish a processing and manufacturing unit that converts Kandali leaves into instant soup powders and baked or dehydrated chips. This aligns with increasing global interest in organic, gluten-free, and immunity-boosting snacks. The unit will employ techniques to neutralize the sting of the nettle while preserving its nutrition. A unique Himalayan product like this can stand out in a crowded natural foods market and create a new value chain rooted in local biodiversity.

By building on local knowledge and modern processing, this venture promotes forest-based entrepreneurship, sustainable harvesting, and indigenous value addition. It will also help in mainstreaming lesser-known native plants into health food markets, generating employment, and contributing to Uttarakhand's vision of a green economy.

2. Industry Overview

The health food and functional snack industry in India and globally is growing rapidly due to consumer shifts towards immunity-boosting, nutrient-dense, and plant-based products. Functional soups and baked vegetable chips have gained immense popularity among urban consumers seeking convenience without compromising health. The market for instant soups alone in India is valued at over ₹500 crore and is expected to grow at a CAGR of 12–15%,

while healthy snack foods, including millet-based and herbal chips, are expanding at an even faster rate.

Kandali-based products represent an emerging segment within this broader trend. Forest-based produce is being promoted under various national and state-level policies such as TRIFED's Van Dhan Yojana, the One District One Product (ODOP) scheme, and Uttarakhand's Rural Business Incubation policies. These create a conducive ecosystem for ventures that build on indigenous resources with modern marketing strategies.

Furthermore, the expansion of e-commerce, organic grocery chains, and health-focused retailers has opened up new channels for niche natural products. Kandali soup and chips can find a place alongside herbal teas, moringa powders, and jackfruit snacks in urban shelves and online marketplaces, provided quality, branding, and supply chains are robustly managed.

3. Products and Applications

The unit will manufacture two core products—Kandali Herbal Soup and Kandali Chips. The soup product will be sold as an instant dry powder mix, available in single-serve sachets and larger refill pouches. It will contain processed nettle leaf powder along with natural additives such as Himalayan herbs, salt, and mild spices. The chips will be prepared by blanching and baking or air-frying Kandali leaves, optionally seasoned with local spices and herbs, and packaged in sealed pouches for retail sale.

Kandali Soup is targeted at health-conscious consumers, including fitness enthusiasts, older adults, and urban professionals seeking natural, iron-rich supplements in easy-to-use formats. It can also be positioned as a functional immunity booster. Kandali Chips, on the other hand, appeal to young consumers and snack lovers looking for alternatives to fried snacks without compromising taste or crunch.

Additional application potential includes ready-to-cook soup kits for cafes, hostel messes, and mountain resorts, as well as combo packs for wellness hampers. Over time, Kandali powder can also be used as an ingredient in multigrain blends or nutraceuticals.

4. Desired Qualification

The entrepreneur should ideally have a background in food processing, agriculture, nutrition, or business management. A graduate degree in food science, botany, or commerce is desirable. Those with experience in food startups, herbal processing, or packaging industries will find it easier to understand production workflows and food safety compliance requirements.

Basic awareness of FSSAI standards, food dehydration techniques, and HACCP principles will be helpful. Entrepreneurs can benefit from short-term technical training in post-harvest management, recipe formulation, and food-grade packaging through state or national institutions like NIFTEM, IIFPT, or MSME training centres.

For those from non-technical backgrounds, a partnership with a food technologist, nutritionist, or herbal expert will ensure product quality and regulatory compliance. Collaborations with local universities and Krishi Vigyan Kendras (KVKs) can provide ongoing R&D support.

5. Business Outlook and Trend

The business outlook for niche herbal food products is strongly positive, with a growing consumer base seeking authentic and natural alternatives. Kandali-based products, being deeply rooted in Himalayan tradition yet underutilized commercially, offer first-mover advantage in a competitive health food landscape. The integration of local knowledge with food innovation can unlock long-term success.

With increasing awareness of local superfoods and government support for FPOs and forest produce-based enterprises, the Kandali product line can be scaled through rural clusters or cooperatives. Innovations in packaging, branding, and recipe formulation can help the product cater to both premium urban markets and institutional buyers.

The trend toward conscious consumption, plant-based nutrition, and sustainable sourcing is expected to intensify in the coming years. With proper positioning and consistent quality, this business can expand regionally and nationally, and eventually even explore export to wellness markets abroad.

6. Market Potential and Market Issues

There is significant market potential for Kandali soup and chips in urban health food stores, online platforms like Amazon and BigBasket, and specialty organic chains such as Organic India and Nature's Basket. Boutique resorts, yoga centers, and naturopathy clinics across India also present B2B opportunities for bulk orders or co-branded lines.

However, a few market issues need to be managed carefully. First, consumer awareness of Kandali is currently low, and significant effort will be needed to educate buyers about its health benefits and safety. Second, raw material availability can be seasonal and affected by overharvesting or forest regulations, so sustainable sourcing and drying practices must be adopted.

Also, quality consistency and taste will be crucial in winning repeat customers. Packaging must be both appealing and food-safe, with a strong narrative connecting the consumer to the Himalayan origin and wellness value of the product.

7. Raw Material and Infrastructure

The primary raw material for this unit is Kandali (Bichhu Booti) leaves, which are available in abundance in the mid-altitude regions of Uttarakhand such as Chamoli, Pauri, Almora, and Pithoragarh. The leaves must be harvested at the right maturity stage and then processed immediately to remove the stinging component through blanching or thermal treatment. Additional ingredients like Himalayan salt, herbs, and spices will also be required, all of which are locally available.

The infrastructure requirements include a processing shed of around 2,000–2,500 sq. ft., equipped with raw material storage, washing and blanching section, drying/dehydration chamber, grinding unit (for soup), baking or air-frying unit (for chips), a hygienic packaging zone, and finished goods storage. Power, clean water supply, and ventilation are critical. A solar dryer can also be considered to reduce energy costs and improve sustainability.

Machinery required includes washing tanks, blanchers, tray dryers or solar dryers, pulverizers, baking/air-frying equipment, sealing and packaging machines, and a quality control lab setup. Equipment should be food-grade stainless steel to meet FSSAI norms and ensure shelf-stability of products.

8. Operational Flow

The Kandali Soup and Chips Manufacturing Unit will follow a streamlined operational workflow: raw material collection → leaf cleaning and sorting → blanching and de-stinging → drying → product-specific processing (grinding for soup, baking for chips) → seasoning → packaging → quality testing → labeling and dispatch.

Operational Flow Chart

Harvesting and Transport
↓
Washing and Sorting
↓
Blanching (De-stinging Process)
↓
Drying (Tray or Solar Dryer)
↓
Grinding (Soup) / Baking (Chips)
↓
Flavoring/Seasoning
↓
Packaging and Sealing
↓
Labeling and Storage
↓
Market Distribution

9. Target Beneficiaries

The primary beneficiaries of this venture will be local youth, women's self-help groups (SHGs), and marginal forest dwellers who can be engaged in sustainable harvesting,

preprocessing, and packaging activities. The project can also create value chain opportunities for transporters, cold storage providers, herbal traders, and digital marketers in Uttarakhand.

This venture is particularly suitable for returnee migrants, educated women, and students under the Devbhoomi Udyamita Yojana (DUY) who are looking for environment-friendly, nutrition-focused business ideas rooted in local ecology. Institutional partners like forest cooperatives and Van Panchayats can also benefit through organized leaf harvesting.

By building linkages with rural business incubators and MSME departments, the enterprise can offer long-term income security to Himalayan communities while reducing distress migration.

10. Suitable Locations

Ideal locations for setting up this unit include forest-fringe or semi-urban areas in Chamoli, Rudraprayag, Pauri, Bageshwar, Almora, and Pithoragarh, where Kandali grows abundantly in the wild and road connectivity is improving. These regions also have active SHGs and FPOs that can be integrated into procurement and primary processing.

If proximity to markets and logistics is prioritized, locations near Haldwani, Rishikesh, or Dehradun with cold storage and e-commerce access may also be considered for the final packaging and distribution unit. Clusters under One District One Product (ODOP) schemes can also be explored for convergence and financial support.

Setting up within MSME parks or Food Processing Clusters in Uttarakhand can provide access to shared services, lower utility costs, and easier compliance with regulatory norms.

11. Manpower Requirement

The project requires a compact but skilled team to manage harvesting, processing, quality control, packaging, and distribution. A total of 10–12 personnel will be sufficient for initial operations. This includes 1 operations manager, 1 food technologist/quality supervisor, 2–3 processing technicians, 2 packaging workers, 1 marketing associate, 1 accountant/logistics coordinator, and 3–4 general helpers or seasonal staff.

As demand grows, the workforce can be expanded, and outsourcing of packaging or dispatch may be considered to optimize costs. Engagement of SHGs or rural women as part-time processors will enhance social impact and reduce turnover.

Periodic training on hygiene, product safety, documentation, and semi-automated equipment usage will be necessary. Support from local DICs or MSME Tool Rooms can be availed for skilling.

12.Implementation Schedule

The project can be implemented in a 7 to 9-month timeline from concept to operations. Initial months will focus on land identification, approvals, and training, while equipment procurement and trial runs will follow.

Implementation Schedule Table 1

Activity	Timeline
Feasibility Study & DPR Preparation	Month 1
Land/Shed Acquisition	Month 1–2
Licenses and Registrations (FSSAI, IEC)	Month 2–3
Machinery Procurement & Installation	Month 3–5
Team Hiring and Training	Month 4–6
Trial Production and Product Testing	Month 6–7
Marketing and Channel Tie-ups	Month 7–8
Full-Scale Launch	Month 8–9

13. Estimated Project Cost

The total cost for setting up the Kandali Soup and Chips Manufacturing Unit is estimated at ₹26.75 lakhs, including equipment, working capital, and packaging/branding.

Estimated Cost Table 2

Head of Expense	Estimated Cost (INR Lakhs)
Plant Infrastructure & Utilities	3.00
Equipment & Machinery	7.50
Raw Material & Packaging Inventory	2.00
Licensing, Branding, Certifications	1.50
Working Capital (6 months)	10.00
Marketing & Distribution Setup	1.75
Miscellaneous & Contingency	1.00
Total	**26.75**

14. Means of Finance

The project can be financed through a mix of promoter equity, institutional bank loans, and government subsidies available under central and state-sponsored schemes such as PMEGP, SFURTI, or DUY. The entrepreneur can also explore support from NABARD or Forest Department-based livelihood programs.

Means of Finance Table 3

Source of Finance	Amount (INR Lakhs)
Promoter's Contribution (20%)	5.35
Bank Term Loan (60%)	16.05
Government Subsidy/Grant (20%)	5.35
Total	**26.75**

15. Revenue Streams

Revenue will be generated through direct product sales, bulk institutional orders, and co-branded packaging partnerships. Both B2C (direct to consumers) and B2B (cafes, resorts, wellness stores) streams will be pursued to diversify income sources.

Key Revenue Streams Include:

- Retail sale of Kandali Soup in sachets and pouches
- Sale of Kandali Chips through wellness stores and cafes
- Online e-commerce and social media sales
- Institutional supply to yoga centres and mountain resorts
- Custom or white-labeled soup/chip packs for events or gifting

16. Profitability Streams

The venture is expected to yield healthy margins owing to the low cost of raw materials and the premium pricing potential of herbal, functional food products. Kandali Soup, with its immunity and nutrition positioning, can command a markup of 2–3x over cost. Kandali Chips, as a unique healthy snack, can generate 30–35% gross margin.

By focusing on value addition, eco-packaging, and consistent branding, the enterprise can build consumer loyalty and repeat purchases, leading to a net profitability of 15–20% by the second year of operation. Profitability can be enhanced further through combo packs, gift boxes, and cross-selling.

17. Break-Even Analysis

Given the high-value products and limited fixed costs, the project is expected to break even within 20 to 24 months from the start of commercial production, assuming a steady rise in monthly sales volume.

Break-Even Table 4

Particulars	Amount (INR Lakhs)
Fixed Costs (Annual)	10.00
Average Margin per Unit	₹40
Units Needed to Break Even (approx.)	25,000
Break-Even Revenue Estimate	₹25.00 Lakhs
Estimated Break-Even Period	20–24 months

18. Marketing Strategies

Marketing will focus on the Himalayan heritage, wellness value, and clean-label nature of the product. A story-driven, visual brand will help consumers emotionally connect with the product. Grassroots branding and influencer partnerships can help generate interest and trust.

Marketing Tactics Include:

- Launch on online platforms like Amazon, BigBasket, and Qtrove
- Collaborations with yoga retreats, spas, and wellness resorts
- Storytelling-driven packaging emphasizing “Himalayan Superfood”
- Instagram and YouTube campaigns featuring rural women and SHGs
- Participation in organic expos, fairs, and government ODOP showcases
- Influencer sampling, food bloggers, and health YouTubers

Local retail in tourist hubs (Rishikesh, Mussoorie, Nainital) and pop-up counters in organic markets can be used to test new product variants.

Machinery Required

All processing and packaging machines must comply with food-grade standards. Equipment should support flexibility for small-batch production and easy cleaning to maintain hygiene, especially when switching between product lines.

Machinery List Table 5

Equipment	Quantity
Leaf Washing Tank with Filter	1
Blanching Unit (Steam/Electric)	1
Tray or Solar Dryer	1
Pulverizer/Grinder (for soup powder)	1
Baking Oven / Air Fryer (for chips)	1
Weighing & Filling Machine	2
Sealing and Pouch Packaging Machine	1
Labelling Machine	1
Quality Testing Kit (Moisture, pH)	1 set

Vendors for this equipment can be sourced locally from Haridwar, Dehradun, Haldwani, and Delhi-NCR (as listed in the previous project).

19. Environmental Benefits

The Kandali processing venture promotes eco-friendly and low-impact industrial activity. By utilizing naturally growing wild herbs without deforestation or chemical inputs, the model enhances biodiversity conservation and reduces pressure on mainstream agriculture.

Minimal water usage, low emissions, and biodegradable packaging options further reduce the environmental footprint. Integration of solar drying and natural herb processing makes this a green business model. Moreover, by promoting sustainable harvesting, the project encourages protection of native plant ecosystems.

This aligns well with Uttarakhand's vision for ecologically responsible mountain-based entrepreneurship and contributes to climate-resilient development in forested regions.

20. Future Opportunities

The future potential for scaling and diversification is significant. Kandali can be promoted as a functional ingredient beyond soup and chips—into spice blends, capsules, tea bags, and nutraceutical powders. Institutional partnerships with Ayurveda firms or wellness startups can lead to co-branded products or licensed formulations.

Over time, the business can expand into exports under the "Himalayan Herbal" category, especially to niche markets in Europe and Japan where natural immunity boosters are in demand. A franchise model or mobile unit to promote Kandali-based ready-to-eat food in tourism belts is another viable direction.

The venture may also evolve into a forest produce innovation hub, incubating other wild edibles and herbs such as timru, ghingaru, or jakhiya for commercial development, thereby expanding the impact and visibility of Uttarakhand's Forest economy.

Disclaimer

Only a few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not imply any recommendation.