

Sustainable Livelihoods in the
Kailash Sacred Landscape

Promotion of the Chyura Soap and Lip Balm Value Chain in India



ICIMOD



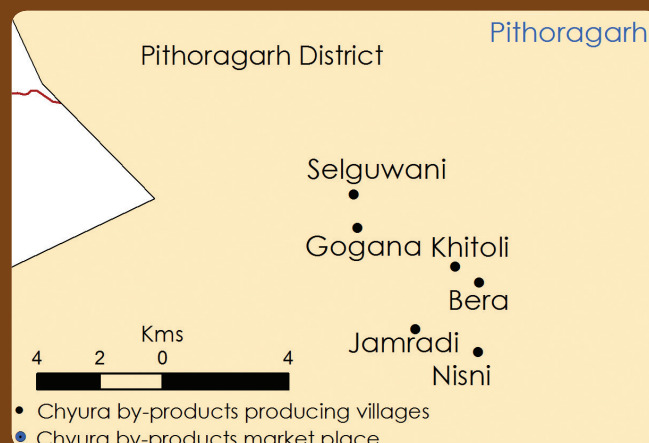
FOR MOUNTAINS AND PEOPLE



The Kailash Sacred Landscape Conservation and Development Initiative (KSLCDI) includes remote portions of the Tibet Autonomous Region of China and contiguous areas of Nepal and India. The landscape is environmentally fragile and its people are highly vulnerable to climate change and environmental degradation. KSLCDI aims to improve livelihoods by carrying out activities in farm and non-farm sectors while simultaneously promoting ecosystem management and the efficient use of natural resources including water and energy. The mountains of this landscape provide a rich variety of high value, low volume products, such as non-timber forest products and medicinal and aromatic plants. However, the primary producers and collectors of these products generally receive a relatively low share of the return due to limited access to markets and credits, insufficient knowledge of the market chains, lack of processing facilities, and inadequate quality control. There is a need to ensure participation of the local communities through value chain development in order to increase their incomes.

In India, KSLCDI has identified potential value chains in selected pilot sites that have been prioritized for upgrading and promotion through product development and improved market linkages. These value chains include chyura honey, value-added products from chyura butter (soap, lip balm, etc.), off-season vegetables, kidney beans, and bamboo handicrafts. These products were selected based on their potential for pro-poor value chain development, existing and potential markets, and environmental sustainability of production and trade.

Figure 1: Map of chyura soap and lip balm pilot site



What is chyura?

Chyura is the common name in northern parts of India for the Indian butter tree (*Bassia butyracea* or *Diploknema butyracea*). Other commonly used names are phulwara, phulwa, phulel, or chyuri in Nepal and gophal in Bengal.

It grows across the foothills of the Himalayas at elevations between 600 and 1,500 m. Its habitat is primarily along rivers and in shady valleys. After 5–6 years, the Indian butter tree reaches its productive potential; its economic life is about 50 years. The tree flowers between October and December, and fruits ripen between July and August.

Chyura is a multipurpose tree:

- The tree helps in soil and water conservation
- Leaves are used for fodder
- Its wood provides quality fuel and is also used to make furniture
- The flowers are a good source of forage for honeybees and are also used to make jaggery
- Butter, locally called 'ghee', can be extracted from seeds to be used in cooking and frying
- Chyura butter is used as skin emollient and applied to treat headaches
- Residues from producing oil (called oil cake) is used as an insecticide and fertilizer
- The oil cake contains saponins and is used for making soap and for medicinal purposes (topical application for rheumatism)
- Candles from oil cake burn without smoke or an unpleasant smell
- The bark of the tree is used in the treatment of rheumatism, ulcers, and itching

Reasons for choosing the chyura soap and lip balm value chain for the Kailash Sacred Landscape (KSL) in India

- **Indigenous tree to the KSL-India:** Chyura trees are plentiful in Pithoragarh, Champawat, Nainital, Almora, and Bageshwar districts of Uttarakhand.
- **One tree provides multiple benefits and sources of income:** In addition to numerous soil and water conservation benefits, each chyura tree can contribute at least INR 1,000 to farmers' yearly income from oil production (about 5 kg) with additional benefits from its bark and oil cake. High-value products like soap and lip balm can be made from chyura oil.
- **Building on traditional knowledge:** Local people have rich traditional knowledge on the processing of chyura oil.
- **Possibilities in niche markets:** The niche market for high-end, branded, responsibly sourced, organically certified, and well-packaged chyura soap and lip balm products in nearby tourist areas (Nainital, Pithoragarh).
- **Reducing environmental risk:** Sustainable development of the chyura soap and lip balm value chain, including the introduction of organic certification and promotion of modern technologies, is needed to reduce environmental risks (overusing fuelwood needed to dry oil seeds; environmental degradation from the use of hazardous ingredients in soap production).

Pilot site for chyura soap and lip balm value chain in KSL India

The production of chyura by-products is being promoted in six villages – Gogna, Khitoli, Bera, Sailguwani, Jamrari, and Nishni of Bin block in Pithoragarh District of Uttarakhand (see map) where there is an abundance of chyura trees. There are an estimated 10,777 fully grown chyura trees in this area with the potential of producing about 55,000 kg of butter per year worth INR 6 million (USD 100,000).

Farmers currently sell chyura butter for INR 100-120 (USD 1.60–2.00) per kilogramme. However, the product's full potential has not yet been exploited. Most chyura butter production is used within households, with few families selling it locally or in Pithoragarh. Only 32,000 kg of chyura butter is harvested per year, leaving 42% of the potential production untapped. As the demand for chyura butter is limited, additional butter has the potential to be processed into non-perishable products like soap and lip balm, which can be sold in district markets and nearby tourist areas. If the production process is organic and socially responsible and the products are well-packaged and branded, the soap and lip balm can reach India's growing niche market of responsibly processed organic cosmetic products. If the total production potential for chyura butter in the selected villages is harnessed and by products developed, it is estimated to bring an additional income of up to INR 30 million (USD 500,000) per year to households in the area.

Steps in the chyura soap and lip balm value chain

- **Input supply:** Chyura seeds needed for processing of butter are collected. Additional ingredients for soap and lip balm production are also sourced.
- **Traditional method of processing chyura seeds:** The seeds are cleaned and boiled, after which they are spread on the floor and pressed to split the kernels into two parts (kernels and seed coat).
- **Oil and butter making:** The kernels are dried in the sun to remove moisture. After this, the oil is extracted using an expeller at the community level. After boiling oil and butter milk, chyura butter is extracted.



Success Story of Madho Singh

Madho Singh, a community member from the village of Salla in Pithoragarh District of Uttarakhand, India, had the attributes of an entrepreneur but lacked necessary inputs and technical support. Mr Singh previously worked with an NGO on chyura by-products and already had some knowledge on using chyura butter to produce soap and lip balm. Mr Singh promoted chyura products in his village by distributing samples and training other villagers to process products from chyura oil and butter. He motivated other villagers to request further training and exposure visits. Seeing their interest, ICIMOD organized a transboundary exposure visit to Nepal so villagers from Salla could learn how to make value-added chyura products from experts.

Mr Singh purchased materials from the Nepalese trainer and began to produce soap upon returning to his village.

Additionally, Central Himalayan Environment Association (CHEA) organized a training session for a selected community representative to explore possible by-products such as chyura soap, body lotion, lip balm, and moisturiser. These chyura products offer additional opportunities for farmers to generate income. It is hoped that Mr Singh will continue to be a key member of the team that CHEA works with to promote the production of chyura by-products like soap and lip balm. It is expected that the village will produce a total of 5,000 soap bars by the end of 2016 to sell in nearby markets.

- **Soap making:** Chyura butter is mixed with other oils and key ingredients to make soap and lip balm in a step-by-step process outlined by experts.
- **Branding and packaging:** Chyura by-products are designed, branded and packaged at the self help group or cooperative level.
- **Trading:** Finished products are retailed to consumers through direct sale or outlet sale in responsible fair trade and organic shops.

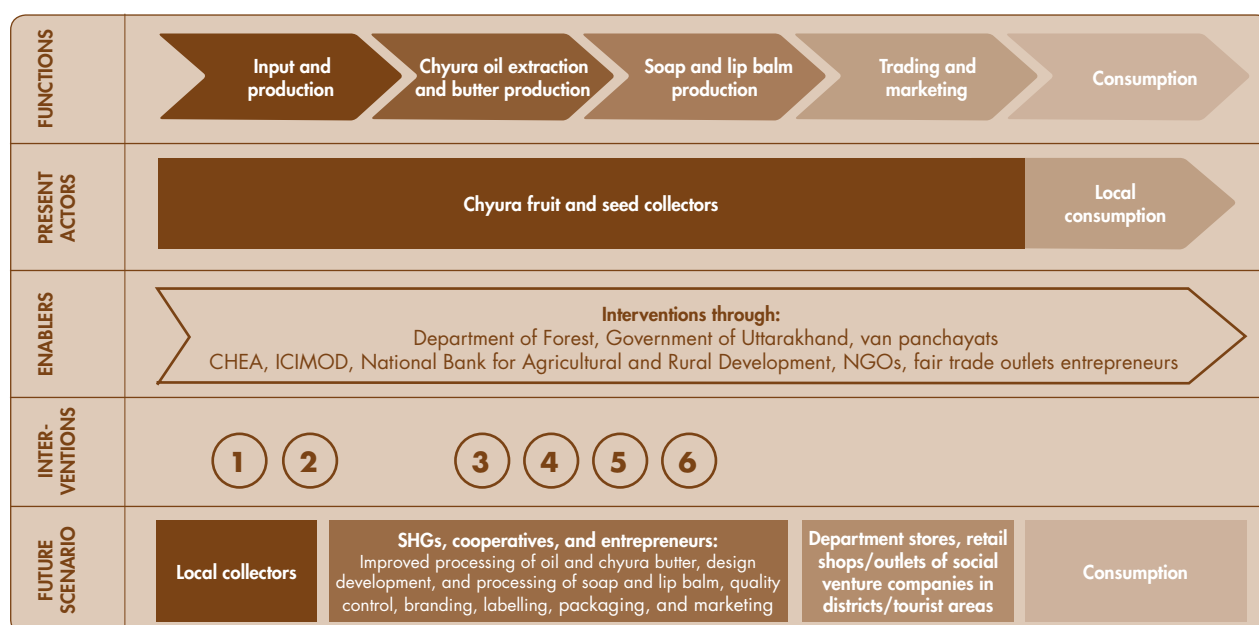
Chyura seeds boiled to take out kernels

Chyura kernels roasted before extracting oil

Solidified chyura ghee



Steps in value addition in the chyura soap and lip balm value chain in KSLCDI



Chyura soap and lip balm value chain interventions and upgrading strategies

1	Capacity building and skills development: Through trainings and exposure visits, farmers are acquiring skills in production, branding and packaging, certification, and product marketing. Improved kernel extraction and oil extraction techniques are being introduced in the pilot sites to enhance efficiency and improve product quality. Water and energy issues are taken care of by introducing technologies like roof water harvesting and support in providing biogas units through the project and also by linking them to concerned government outlets.
2	Mobilize farmers into self help groups (SHG) and cooperatives and ensure the sustainable use of chyura: Farmers and locals who collect chyura flowers, fruit, seeds, and bark have been organized into SHGs and cooperatives. Support is being provided to establish chyura tree nurseries, which will expand the coverage of chyura trees and ensure long-term benefits from chyura trees on both private and community land. Focus has been given to include women and the poor in value chain development by encouraging their participation in joint liability groups and building their capacities through training, exposure visits, and the provision of material and equipment.
3	Facilitating access to information: Chyura collectors, the SHGs and cooperatives are being linked to information service providers to gain access to information on markets, prices, and quality and government subsidies. Stakeholder meetings and workshops are being conducted to provide forums for information sharing.
4	Facilitating market access: Market surveys are being undertaken to assess market demand and requirements in terms of quality and quantity. Meetings to link chyura collectors with traders and service providers will be organized to create new avenues for interaction and the products will be marketed in fair trade shops in Nainital, Pithoragarh, Haldwani, and other outlets.
5	Facilitating access to finance: Self help groups and cooperatives require financial resources to effectively carry out chyura soap and lip balm value chain activities. Buying additional ingredients to make soap and lip balm require financial capital. The project links self help groups and cooperatives to banks to improve access to microfinance.
6	Development and promotion of new products and branding and certification processes: The value-added end products in this value chain will be branded and packaged for effective marketing and promotion. Certification processes are being planned to ensure that responsibly produced and traded chyura products have access to high-end niche markets, including organic chyura products in the cosmetics sector.

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