



Cultures and Indigenous Conservation Practices of Lepcha Community in Khangchendzonga Landscape, India





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Citation: Chhetri G., Gaira K.S., Pandey A., Joshi R., Sinha S., Lepcha U.P., & Chettri N. (2023). Cultures and Indigenous Conservation Practices of Lepcha Community in Khangchendzonga Landscape, India. NIHE, pp.

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Cultures and Indigenous Conservation Practices of Lepcha Community in Khangchendzonga Landscape, India

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Table of Contents

Foreword	v
Preface	vi
Acknowledgements	vii
Summary	viii
1. Introduction	1 - 11
Origin	2
Methodology	3
The Khangchendzonga Landscape (KL)	5
Geographical distribution	7
Characteristic features of the Lepchas	8
Language	9
Summary	11
2. Culture and Custom	12 - 26
Religion and belief system	14
Traditional attire	15
Folk music	18
Folk songs	18
Folk dances	21
Festivals	22
Summary	26
3. Foods and Dietary Habits	27 - 31
4. Handlooms and Handicrafts	32 - 39
Handlooms	34
Handicrafts	36
Summary	39
5. Bioresource Utilization	40 - 43
6. Conservation practices	44 - 53
Cultural aspects of conservation of resources	46
Biodiversity and culture conservation through Sacred Groves	48
Bamboos and canes: conservation significance	50
Traditional agriculture practices and conservation of natural resources	53
7. Conclusion and Recommendations	54 - 58
8. References	59 - 60
9. Annexure	61 - 64

Foreword

The Khangchendzonga Landscape is culturally rich; its ethnic communities have vast traditional knowledge and practices inherited from past generations. The Lepchas, the aboriginal tribal community of the landscape, have extensive knowledge of natural resources and their uses – for food, shelter, medicine, household items, agricultural tools, and livelihood sustenance. Over the years, their traditional practices and knowledge on sustainable utilization and management of natural resources have been studied by many.

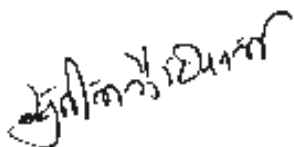


However, cultural artefacts such as Lepcha handlooms and handicrafts renowned for their unique designs, their cuisines, which features wild and cultivated resources, are not, as well documented. In fact, with value addition and marketing, indigenous Lepcha cuisine and food habits could be popularized in the food market. Other traditional knowledge-based practices can also be promoted through value addition.

There is a need for current conservation plans to be expanded to look into revitalizing eroding cultural practices. In a globalized world, retaining traditional identities and cultures is an important priority requiring concerted efforts. Conserving and reviving indigenous knowledge and practices is also crucial from a socio-ecological sustainability perspective.

With these priorities, the Sikkim Regional Centre of the NIHE took a lead to systematically document the traditional knowledge-based practices of the Lepcha community. This work was conducted under the Khangchendzonga Landscape Conservation and Development Initiative (KLCDI). The present document highlights the traditional, nature-based practices of the Lepcha community that requires conservation and promotion.

The authors of this publication deserve special praise for the efforts made for documentation of cultures and indigenous conservation practices of Lepcha community in the Khangchendzonga Landscape. I believe this document will interest multiple stakeholders – the scientific community, researchers, ethnic communities, general public, and entrepreneurs and tourists interested in indigenous cultures and traditions. I sincerely hope readers will enjoy this useful document which would serve as a reference document.



Prof. Sunil Nautiyal
Director, GBPNiHE
2023

Preface

The Khangchendzonga Landscape (KL) is one of the six transboundary landscapes identified by the International Centre for Integrated Mountain Development (ICIMOD), Nepal, in the Hindu Kush Himalaya region. The KL spreads across the three neighbouring nations of Bhutan, India, and Nepal, and it harbours a rich biological diversity that supports the indigenous ecosystems of the Eastern Himalaya.

This wealth of biodiversity coexists with a rich cultural diversity; the ethnic communities that inhabit the region have lived in harmony with nature for centuries. In India, the Khangchendzonga Landscape Conservation and Development (KLCDI) programme is guided by the objectives of equitable access to resources for the landscape inhabitants. With a vision of conserving the biological, social, and cultural diversity of the landscape, the KLCDI programme works towards the goal of sustainable development in the region.

The book is a compilation of the vast repository of traditional knowledge of the Lepcha community, the aboriginal indigenous inhabitants of the KL. This document aims to promote the vanishing conventional arts and crafts of the Lepchas.

We believe that efforts to encourage bio-cultural-based handlooms and handicrafts and their entrepreneurship through ecotourism enterprises across the KL and eventually beyond can help conserve traditions that are fast disappearing. The same also applies to the promotion of traditional Lepcha cuisine. Such efforts will expand the livelihood opportunities in this landscape and ultimately help to conserve conventional practices that are rapidly changing.

We also hope this book will help to encourage the tribes of the KL (and other Himalayan regions) to promote their successive generations to ensure awareness and conservation of traditional nature-based practices. While this book has aimed to capture the cultural and traditional practices of the Lepcha community, the synthesis of information may also serve as a learning tool for other tribal communities of Himalaya.

Authors

Acknowledgements

We are grateful to the Ministry of Environment, Forests, and Climate Change (MoEF&CC), Government of India, for entrusting and supporting the Institute to implement the KLCDI program in India and for the continuous guidance during its implementation.

We indebtedly grateful to late Dr. R.S. Rawal, former Director NIHE and National Coordinator, KLCDI-India, for his invaluable guidance, affirmative support, and inspiration. We sincerely thank Prof. Sunil Nautiyal, Director, NIHE, for his consistent support and guidance in accomplishing this task.

We are highly grateful to our partner Mutanchi Lom Aal Shezum (MLAS) for their relentless support. The team spirit we have encountered in planning, developing, and implementing all KLCDI-India activities for the Dzongu pilot site has been heartening.

We express our gratitude to the community-based organization developed under KLCDI-India, the Songbing Tourism Development & Management Committee (STDMC), Lingdem, for their contributions in providing valuable information and successfully implementing project activities through a participatory approach.

We are incredibly thankful to the resource persons of the online webinar, "Promotion of cultural practices of Lepcha community for conservation and livelihood security," Dr. Bhoj K. Acharya, Dr. Sandhya Thapa, and Dr. Charisma K. Lepcha of Sikkim University for providing valuable inputs which helped to improve the content of this document. The community representatives, Ms. Nimkit Lepcha, Jila Panchayat; Mr. Dupzor Lepcha, President, STDMC; and Mr. Joden Lepcha and Ms. Ongkit Lepcha, local entrepreneurs from Dzongu are also thanked for their valuable suggestions in improving this document. Sincere thanks go to Mr. P.T. Simik of Nassey village, Kalimpong; Mr. O.T. Gowlookmoo of Sindeybung, Kalimpong; Padmashree Late Sonam Tshering Lepcha of Bong Busty, Kalimpong; Ms. Reymit Lepcha, Sikkim University; and Ms. Hissay Lhamu Lepcha, HDO, Dzongu for providing valuable information during compilation of this document.

We want to extend our heartfelt gratitude towards the Lepcha communities of Sikkim (Dzongu) and Darjeeling and Kalimpong districts of West Bengal for sharing their precious knowledge, sparing valuable time, and for their cooperation during the field survey.

Authors

Executive Summary

The Lepchas are the aboriginal inhabitants of the foothills of Mount Khangchendzonga. Their indigenous knowledge of the natural world is a valuable repository of nature-based and nature-derived solutions. Traditionally, the Lepcha people are nature worshippers with a rich folk life built around the spirit world, where both good and evil spirits dwell. Boongthings (priests) and muns (priestesses) are regarded as custodians of the indigenous culture, and they officiate at various tribal rituals.

With modernization and globalization in full force, language, culture, and customs of the Lepcha community is also changing. Traditional knowledge systems – of medicine, weather forecasting, arts and crafts, and agricultural practices – are rapidly being lost as their traditional practitioners (including boongthings, muns, and artisans) are getting older, and those from the younger generations are not picking up where their predecessors left off.

It is essential to document, conserve, and promote traditional cultural practices. Such practices have excellent significance not just for cultural conservation but also for biodiversity conservation. Traditional Lepcha culture is intrinsically attached to nature as a core of their indigenous practices that need to be carried forward. In this view, promoting Lepcha traditional arts and crafts for livelihood security is vital. The culture includes greater recognition and support for conventional healers like boongthings, muns and maondaok. Moreover, identification of the tribe's cultural practices, their documentation, and scaling and strengthening of those practices that are easily transferable to modern ways of life can improve communities throughout the KL and support the wellbeing of the Lepcha people.

A complete documentation of the Lepcha tribe – their origin, history, culture, and customs, including their indigenous religion and belief systems; traditional attire; handlooms and handicrafts; food habits; and other traditional practices intrinsically linked with nature conservation – is necessary because their nature-based culture and customs are on the verge of extinction. With this in mind, this book has attempted comprehensive documentation.

The work was carried out through field surveys in different locations with dominant Lepcha populations: Sikkim (Dzongu) and the West Bengal hills (Kalimpong and Darjeeling districts). The research team conducted household surveys with the help of structured questionnaires, formal and informal interviews, and group discussions with tribe elders with rich knowledge of indigenous ways and customs and other knowledgeable persons, including Lepcha boongthings, muns, and maondaoks. Efforts were also made to gather information on the use of local plants in preparing traditional dishes; preparation details were documented with the help of elders' women with the most excellent knowledge of these processes. Moreover, attempts were made to attend traditional rituals and festivals to document the event details. The gathered data thus were verified by consulting available literature on the Lepcha tribe from the Khangchendzonga Landscape (KL) and crosschecked among the different surveyed villages to examine whether practices diverged amongst communities. Furthermore, an online event, a "Workshop for promotion of cultural practices of Lepcha community for conservation and livelihood security", was organized to validate the information collected from primary and secondary sources.

This book has been organized into eight chapters. Chapter 1 serves as a background, covering the tribe's origins, history, population status, and geographical distribution throughout the KL. It also glances at their distinctive features and language (including the

influence of religion and population admixture on the Lepcha language). It also covers the methodology – the approaches adopted in gathering primary data from the field and the secondary sources consulted in preparing this document and about the Khangchendzonga Landscape (KL).

Chapter 2 looks at the culture and customs of the tribe, including religion and belief systems, traditional attire, folk songs, folk dances, and festivals. This chapter highlights the crucial aspect of nature worship in Lepcha culture and explores how this is reflected in their songs, dances, and festivals. Again, it becomes evident that all cultural practices have nature at the centre, with respect for natural entities and sustainable utilization of natural resources at the core of the tribe's traditional philosophy and way of life.

Chapter 3 sheds light on the traditional foods and food habits of the Lepcha community by providing details on the preparation of some important dishes. It highlights the cultural importance of the traditional drink (*chi*), prepared from finger millet. This chapter also emphasizes the promotion of these delicious and nutritious dishes through ecotourism for the economic benefit of the community.

Chapter 4 explores traditional Lepcha handlooms and handicrafts. It emphasizes the tribe's traditional knowledge of bamboo crafts and nettle fibre extraction, as well as their handloom weaving skills and its potential to be promoted as one of the best livelihood options for the community.

Furthermore, the chapter highlights initiatives taken by NIHE under KLCDI-India to translate such community-specific knowledge into a viable livelihood opportunity involving a local partner – Mutanchi Lom Aal Shezum (MLAS), Dzongu – to strengthen and extend bamboo crafts- and nettle fibre-based traditional knowledge to engage underprivileged youth.

Chapter 5 covers bioresource utilization by the Lepcha community in their day-to-day life. It describes agricultural and horticultural crops commonly grown by the community and highlights cash crop cultivation. It also covers the various wild resources used as food and medicine. Furthermore, the chapter presents previously published work on using plant resources such as medicine, food, beverages, spices, and construction materials. Likewise, Chapter 6 deals with traditional conservation practices of nature and natural entities. It reflects on the cultural aspects of the conservation of natural resources. It covers preserving water bodies, rocks, forests, and forest patches as abodes of deities and mentions related legends and folklore. Moreover, it cites the sustainable agricultural practices of the Lepchas and their unique agroforestry systems for the conservation of soil, water, and diverse plant and animal species.

The final chapter, Chapter 7, presents the concluding remarks and recommendations. Most importantly, it identifies the gaps that need to be filled and worked on in the future. The chapter also highlights the urgent need to raise awareness among the Lepcha youth to promote and safeguard their traditional culture and heritage. While the world is heading towards modernization and globalization, it is necessary to ensure that traditional knowledge systems are granted the unique space they need to contribute to sustainable development. The chapter also advocates for interventions and support from government and non-government bodies or leveraging resources and training and capacity-building programmes. A particular focus on underprivileged youth towards employment generation through the utilization of traditional skills is needed. This can play a significant role in promoting and conserving the indigenous knowledge of the Lepchas, helping safeguard the rich cultural heritage of the community across the KL.



I. Introduction

Origin

The Lepchas are an indigenous tribe living in the Himalaya on the southern and eastern slopes of Mount Khangchendzonga. They have their unique religion, language, culture, and customs. They are considered aboriginal inhabitants of this large tract of mountainous land that stretches from Ilam district of Nepal to the hilly areas of India's West Bengal (comprising Darjeeling and Kalimpong districts) and Sikkim and the Chumbi Valley of Tibet as well as the Har Chu and Ammo Chu valleys of Bhutan. Thus, their population extends from mid-Bhutan in the east to central Nepal in the west. But, before the formation of political boundaries, the land of the Lepchas supposedly stretched over 120 miles along the southern face of the Himalayas, from the river Koshi in Nepal on the west to about 50 miles east of the river Teesta[1].

The origin of the Lepcha tribe is topical among historians and anthropologists [2]. Whether the Lepchas originated from the Nagas or are associated with the Jimdars and Mech in their eastward migration from central Nepal, some scholars have also found similarities between the Lepchas and the tribes of Arunachal Pradesh, and some believe that they are related to the Khasis of Meghalaya [2]. Some historians believe that Lepcha is of Tibeto-Burmese and Chinese origin, while some modern scholars even relate them to the Japanese; some even believe that the place of Lepcha origin is the holy mountain Kailash (Ti-se) way up in Tibet. The Lepchas refer to their homeland as Ne Mayel Lyang (Hidden paradise) and Ne Mayel Maluk Lyang (Land of Eternal Purity). They consider Mt Khangchendzonga – Kang-chen-mdzod-Inga in Tibetan means the Great Glacier of the Five Store Rooms [3] – their place of origin and mythological country to be *Mayel Lyang*. There are pieces of evidence to show that they have lived in this region since early times, as most of the mountains, rivers, and other prominent places in the region have Lepcha names and abound in Lepcha folklore. The Lepchas call themselves Mutanchi Rongkup Rumkup – the Children of Mother of Creation and Almighty God. They also call themselves Rong, or the People of the Valley. The Tibetans call them Mon, and the Bhutanese address them as Meri.

As per the census of 2011, the total population of Lepcha in Sikkim and northern parts of West Bengal (Darjeeling and Kalimpong districts) is 76,871. In Nepal, Ilam accounted for 3000 Lepchas [4] whereas in Bhutan Lepcha population is 3000 [5].



Methodology

Initially, before collecting primary data, the available secondary information based on various sources like journals, books, magazines, newsletters, unpublished documents, reports, and government notifications on various aspects of the Lepcha community were reviewed thoroughly. An extensive web search also added to the trove of relevant information. Further, to study and document the traditional practices of the Lepcha community, primary information/data were collected from the Lepcha-dominated villages in the far-flung areas of Darjeeling and Kalimpong districts of West Bengal as well as Dzongu, the Lepcha reserve in Sikkim. In these remote areas, the traditional lifestyle of the community is still practiced in its pristine form. Altogether, nine Lepcha-dominated villages covering 30–40 percent of the population from each village were surveyed. The information on the traditional knowledge system of the Lepchas, including their culture, customs, handlooms, handicrafts, food, agriculture, and conservation practices, was collected through household surveys using a structured questionnaire, formal and informal interviews, and group discussions, which were conducted with the elderly having rich experience on indigenous knowledge as well as with other persons like the Lepcha medicine men, the *maondaoks*, and the priest-cum-healers- the *boongthings*. The questionnaire covered various traditional aspects of the community, such as bioresource utilization and conservation, rituals, folk traditions, ethnic food, and other ethnobiological features. Mostly, the elderly were chosen for these interviews as they possessed the traditional knowledge that has been passed on through generations. This survey comprised 65 percent of the total respondents aged 50 years and above. The artisans from the Lepcha community were also interviewed on traditional handicrafts to gather information on threats and challenges in continuing these traditional practices in the modern era, the status of these traditions, and prospects. Furthermore, all attempts were made to attend the traditional rituals and festivals



Primary data collection
through survey with
Lepcha community
(Photo credit:
Bhim Pandey, NIHE, SRC)

of the Lepcha community to document visual images and capture important information on these cultural and religious events.

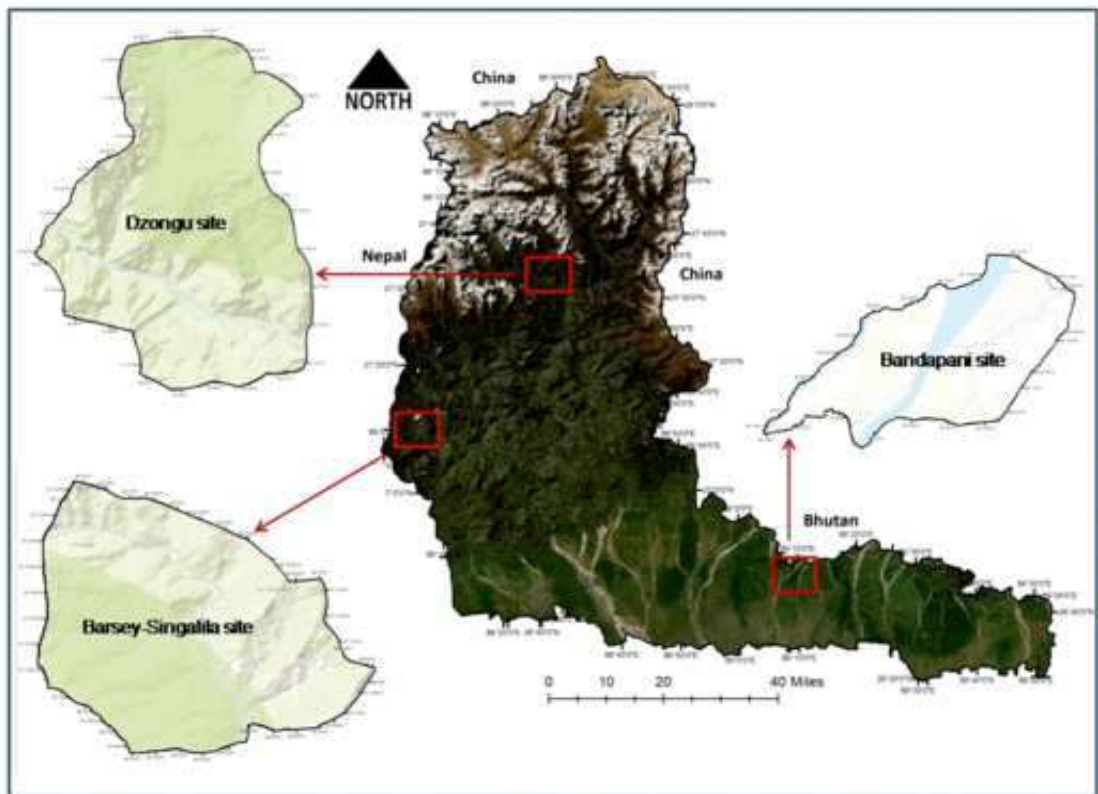
Efforts were also made to gather information on the use of local plants in preparing traditional dishes and document their processes, particularly from elderly women of the community who are repositories of percolated through generations. All these primary information were then compared and cross-checked with the available literature from the region [1][6][7][8][9][10][11][12][13][14][15][16][17][18][19]. The correct botanical names of the plant species being used by the community were verified using online portals like <http://www.tropicos.org> and <http://www.plantsoftheworldonline.org>. Finally, an online workshop on 'Promotion of cultural practices of Lepcha community for conservation and livelihood security' was organized on 23 July, 2021 to validate the prepared document and invite suggestions and comments from experts for improving the document. Subsequently, experts' suggestions were incorporated into the document. The document was further validated in the field with the community in Dzongu as per suggestions received during the workshop.

The Khangchendzonga Landscape (KL)

The Khangchendzonga Landscape (KL) [26° 21' 40.49" and 28° 7' 51.25" E latitude and 87° 30' 30.67" and 90° 24' 31.18" N longitude], delineated in January 2014, extends from the southern stretch of Mount Khangchendzonga (8,586 m asl) and spreads over varied ecological zones in eastern Nepal, Sikkim and northern West Bengal in India and western Bhutan. The Indian part of KL covers a spatial area of 14,126.36 km² as a significant region of Eastern Himalaya ranging from 40 m asl upto 8,586 m asl. It includes 17 protected areas (PAs), of which four PAs have transboundary settings with neighbouring countries.

With rich floral diversity (more than 5500 sp.) and the fauna taxa (over 1500 in record), the KL-India assemblages various socio-economic and cultural diversity. Considering the facts and a vision, "The Khangchendzonga Landscape represents the biological, social and cultural entity, which is continue celebrated by the community living in the landscape through equitable access and conservation of natural resources", the Khangchendzonga Landscape Conservation and Development Initiative (KLCDI) programme has been implemented under the broad objectives:

- i) Enhance well-being of women, men, and children in the landscape;
- ii) Improve ecosystem management and conservation through inclusive and equitable benefit sharing of natural resources, community-based approaches, and economic valuation and incentive mechanisms;



- iii) Strengthen local and national level mechanisms for evidence-based decision-making through long-term environmental and socio-ecological monitoring; and
- iv) Strengthen regional cooperation for transboundary.

The KLCDI-India has implemented the activities in the three identified pilot sites in KL-India.

1. Bandapani site includes part of the Alipurduar district in West Bengal, situated on the Indo-Bhutan border. Along with its significant location in continuation with the Bhutanese foothills, the region has various transboundary issues. The region has the assemblage of Nepalese and Adibasi (tribal) communities, and their respective socio-cultural uniqueness adds to the importance of this place. The region is well known for being an Elephant corridor and is severely affected by the Human-Elephant interface issues.
2. Barsey-Singalila site shares part of the Darjeeling district, West Bengal, and part of West Sikkim. The site is essential for its transboundary nature with Nepal along with many related transboundary issues, ecological values of the two protected areas, Singalila National Park, West Bengal, and Barsey Rhododendron Sanctuary, Sikkim (where the site identified forms the connectivity between the two regions/PAs), the socio-cultural assemblage of the various ethnic groups, the socio-economic issues including the Human-Wildlife conflict, etc. and the site has potential for ecotourism destination.
3. Dzongu site falls under the Khangchendzonga Biosphere Reserve (KBR), UNESCO's World Heritage site in North Sikkim. Dzongu is reserved to protect the tradition and culture of the indigenous Lepcha community of Sikkim, with rich biological resources and socio-cultural values. The site has various issues related to the human-wildlife interface, local livelihood, ecosystem management, etc. It has various opportunities to develop itself as an ecotourism destination dealing with conservation and livelihood.



Geographical Distribution

The Lepchas are commonly divided into four groups according to their region. The Lepchas from Sikkim are called *Renjóngmú*; while those from Kalimpong, Kurseong, Mirik, and Darjeeling are known as *Támsángmú*. There is some debate over whether the Lepcha from Kurseong, Darjeeling, and Mirik should belong to the *Renjóngmú* or the *Támsángmú*, as some people use the name *Támsángmú* strictly for Lepcha living in and around Kalimpong. Similarly, Lepchas living in the Ilam district of eastern Nepal is known as Ilammu, whereas in Bhutan, they are known as Promu [24].

In India, their population is concentrated in Sikkim and the northern parts of West Bengal (WB), largely in Darjeeling and Kalimpong districts. In Sikkim, a higher concentration of the Lepcha population is found in Dzongu, Mangan, and Kabi-Tingda in the North district. The Dzongu area has been declared a Lepcha reserve where outsiders cannot settle. The other areas in Sikkim with significant Lepcha populations include Ragdong-Tintek, Rumtek, Ranka, and Assam Lingzey in the East district; Wok and Rateypani in the South district; and Rinchengpong, Daramdin, Dentam, and Tashiding in West district of Sikkim [3]. In Kalimpong district (WB), Lepchas are settled in the villages of Bong Busty, Gitdabbling, Sindeybung, Nassey Busty, Lingsey, Lingsekha, and Tandrabong. In the Darjeeling district, they are found in villages of Maney Dara-Singringtam, Lower and Middle Lingding, Chegra, Lanku, Rolak, and Sittong.



Characteristic Features

The Lepchas are mongoloid in appearance, with oblique eyes, short in stature, and fair in complexion. They have been described as an amiable, cheerful, hospitable, shy, good-humored, sociable, polite, and peace-loving set of people. Generally, they were hunters, agriculturalists, and herdsmen in the past. They used to live a nomadic life, taking large herds of cattle for good pastures and hunting and fishing. Their traditional method of cultivation was slash-and-burn shifting cultivation. Later, during the mid-nineteenth century, they started practicing settled agriculture [20], wherein their preferred crops were paddy, oranges, and cardamom. Being a tribe of the forest, they are known to have an intrinsic and harmonious relationship with nature [21].

The Lepchas are well acquainted with wild resources and their uses. They are mostly dependent on wild eatables and can easily distinguish wild edible roots and efficiently use medicinal herbs [15]. Besides, they are well versed in indigenous techniques of freeing poison from some poisonous roots and making them edible [22]. They are also good at identifying the names and behavioural patterns of wild animals, birds, insects, fish, frogs, etc.

The Lepcha people in their traditional outfits
(Photo credit: G. Chhetri, NIHE, SRC)





Language

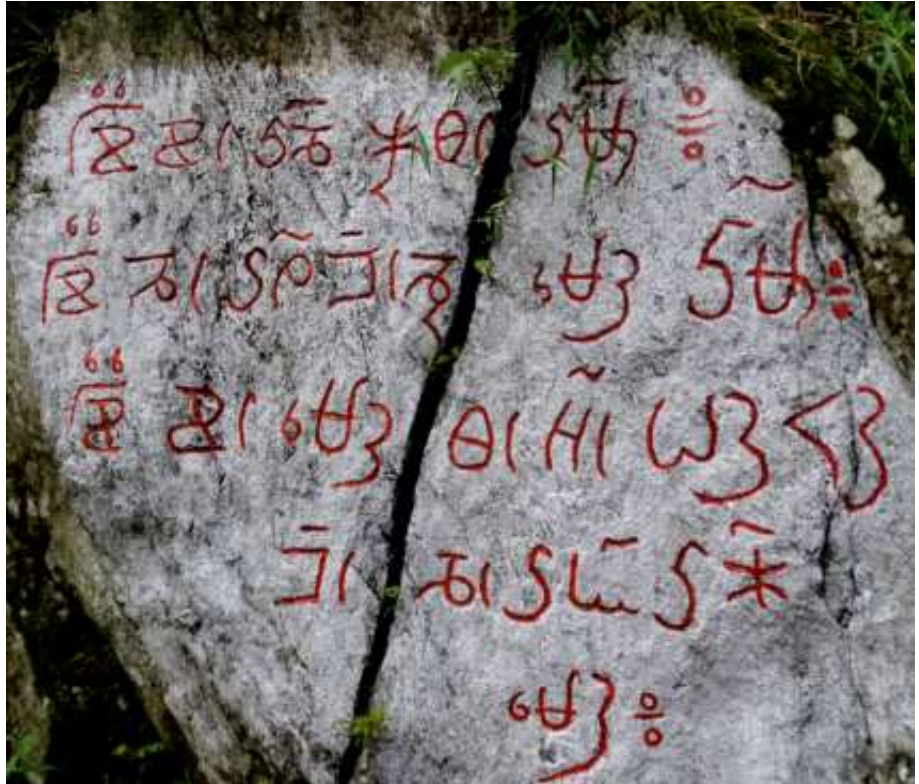
The Lepchas have their own language, known as Rongring, and script, which is known as Mutanchi Rong Aming having 28 consonants and eight conjoint letters written from left to right. The Lepcha language is derived from the Tibetan script and has Burmese influence; it was developed during the seventeenth century by a Lepcha scholar, Thikung Mensalong. Rongring is known to be one of the oldest and richest languages in the world. It was recognized as an official language of Sikkim in 1977 [3]. However, before the era of the Namgyal dynasty (1642–1975) it was largely spoken in Sikkim. It was also the official language of the Darjeeling hills until 1911, as can be seen from the Darjeeling Deeds of Grant 1835 written in Rongring with its Hindi translation at the bottom and Royal Seal of the Maharaja of Sikkim on the document [8].

Lepcha women in the villages of Kalimpong

(Photo credit: G. Chhetri, NIHE, SRC)

Influence of religion on language

Religion plays a significant role in the functioning of any language [35]. With the advent of the Tibetan rulers and the foundation of the Namgyal dynasty, Buddhism was introduced in Sikkim and Darjeeling hills which then overshadowed the Lepchas' indigenous belief systems, including their language, leading to the introduction of Tibetan or Bhutia languages. Moreover, many of the Lepchas started studying in monastic schools, which were more inclined towards the Tibetan or Bhutia language. Further, the influence of Christianity expanded among the Lepchas.



Lepcha script
'Rongring'

(Photo credit:
Jarina Lepcha
NIHE, SRC)

Vowels									
ᱠ	ᱡ	ᱢ	ᱣ	ᱤ	ᱥ	ᱦ	ᱧ	ᱨ	ᱩ
a	aa	ae	ai	ao	aao	au	aoo	aey	
Consonants									
ᱪ	ᱫ	ᱬ	ᱭ	ᱮ	ᱯ	ᱰ	ᱱ	ᱲ	ᱳ
ka	kha	ga	nga	cha	chya	jya			
ᱴ	ᱵ	ᱶ	ᱷ	ᱸ	ᱹ	ᱺ	ᱻ	ᱼ	ᱽ
nya	ta	tha	da	na	pa	pha	ba	ma	
᱾	᱿	ᱠ	ᱡ	ᱢ	ᱣ	ᱤ	ᱥ	ᱦ	ᱧ
tsha	tsha	za	ya	ra	la	ha	va	sa	
ᱨ	ᱩ								
sya	wa								

Influence of population admixture on language

Intercommunity marriages resulting in a population admixture are not an exception in the Lepcha community. The children of such families do not acquire Rongring as their mother tongue [13]. It is another factor for declining the Lepcha language. Presently, most of the Lepchas communicate (especially the new generation) in Nepali, and they are unfamiliar with the Rongring language. Therefore, greater awareness among parents for encouraging their kids to learn the Lepcha language and regular use can help to revive and preserve the language.

Summary

At present, the use of the mother tongue among the Lepcha community is rare. It is seen that while the Lepchas of remote areas use their own language in their community, they speak Nepali to communicate with other communities. Previously, the language spoken in the Lepcha reserve of Dzongu in North Sikkim was strictly Rongring, and most of the Lepcha community did not know the Nepali language. Only the educated younger generation had knowledge of other languages besides their own. But now, most of them are well acquainted with the Nepali language, and some are well-educated and conversant in Hindi and English languages because the functional tourism activities support them in picking up other languages.

It is good and necessary in today's world to know other languages besides one's own mother tongue. However, along with societal advancement and globalization, communities must take responsibility for preserving indigenous culture and language central to their identity.



2. Culture and Customs

Religion and belief system

The primitive Lepchas were animists and nature worshippers of mountains, rocks, trees, rivers, streams, and other natural elements, as they believed these were where their spirits lived. The description of the existence of Gods and demons in Lepcha cosmology is relatively abundant. The *muns* (priestesses) and the *boongthings* (priests) are the ritual specialists of Lepchas who act as mediators between Gods, humans, and spirits. They are regarded as the custodians of Lepcha culture and officiate at various rituals, right from birth to death. Most of their prayers are directed to the mountains, trees, rivers, streams, and other forms of nature, indicating an ecocentric cosmology [4]. The term *boongthing* is derived from two Lepcha words, *aboong* and *athing* – *aboong* meaning mouth and *athing* meaning a good orator or speaker. The *boongthings* are believed to be able to stop evil spirits from harming and acquire these supernatural powers through constant prayer and deep meditation.

Moreover, they are efficient medicine men who treat sick people by mantras as well as by using medicinal herbs. They are believed to be God's sons and occupy an iconic place in the Lepcha religious lexicon. The Lepchas express the idea of God by the word *Rum*. Among them, the concept of health and illness is guided by the belief in the supernatural. They believe that certain semi-divine beings or guardian spirits live in huge trees, a cluster of trees, grasses, hillocks, rocks, caves, and other natural objects. If they are disrespected by polluting or any act of disobedience, it may lead to suffering the entire village or a particular individual. According to them, the world is governed by a good spirit (*Rum*) and the bad spirit (*mung*). So, all-natural calamities, diseases, a bad crop yield, and other misfortunes are believed to be the action of *mung*.

In contrast, good health, a greater crop yield, and prosperity are believed to be the actions of the good spirit [23]. The Lepchas also believe in animal sacrifices to propitiate the Gods [6]. Importantly, the *muns*, or the priestesses are believed to possess similar powers as the *boongthings*, and thus they occupy an equivalently high place in Lepcha society. In the past, the Lepchas professed their own indigenous identity, culture, and tradition. Nevertheless, these very features which made them unique were replaced in the gradual process of Lepcha societal development due to the introduction of Buddhism, which overshadowed their indigenous religion, culture, and belief systems. Buddhism was officially introduced to the Lepchas of Sikkim in the seventeenth century [4]; however, indigenous Lepcha shamans managed to coexist with Buddhist customs. Thus, Buddhist Lamas and Lepcha shamans have presided over important ceremonies in Lepcha society. Later, in the mid-nineteenth century, many Lepchas were converted to Christianity, resulting in a completely new outlook on their indigenous religious system, culture, and identity. Thus, many Christian Lepchas have distanced themselves from the old shamanistic rituals and beliefs [24]. Whereas, the Lepchas of Dzongu have retained the rich cultural heritage of their community [11].

With this change in their religion, the original Lepcha belief system is gradually fading. As a result, the number of *boongthings*, the custodians of the Lepcha religion, is also gradually declining, and so is their knowledge transfer to the next generation.



Lepchas in their traditional costumes

Photo: Bhim Pr. Pandey
& Geetamani Chhetri,
GBPNiHE, SRC

Lepcha traditional attire

The Lepcha traditional attire is typically tribal, made from their self-woven handlooms in different designs or patterns. The Lepcha male dress comprise *dum-praa*, *kuzoo vaadoah*, *thokroh*, *nomrek*, *menchhyo*, *tago*, *tomoo*, *thyaak tuk*, *papri*, *samoak*, *yaanglo*, *tanggyip*, *tc*.

The first in the list, *dum-Praa*, is used as a dressing garment during the day and as a blanket at night. This dress has three designs or patterns: *tagaap*- considered the oldest design; *khemchu*, which has scissors-like patterns; and *tamblyoak* having a butterfly-like design.

Kuzoo vaadoah is the oldest Lepcha dress, made of *kuzoo*, or nettle, and has a dark-green shade. It is light and soft but without any pattern or design. No dye too is used in *kuzoo vaadoah*.

Thokroh is made up of soft fibres and does not have any embroidery. It is multicoloured with typical Lepcha patterns and has a *nomrek* (belt) tied around the waist.

Menchhyo has beautiful embroidery at the top and bottom of the dress.

Tago is a loose shirt with a stiff high neck at the back and slightly open in the front. Here, it is to specify that the Lepchas do not wear *tago* with *dum praa* while going for hunting and fishing expeditions.

Tamoo is a pair of Lepcha trousers reaching up to the calf made from thick cotton fibre; they are whitish and worn while working in the fields. *Tamoo* is designed to protect from leeches in the fields during monsoon.

Anok thyaak tuk, commonly known as the Lepcha hat, is made of fur or black velvet. In it, there is a cloth and jewellery knot in the middle part, with the central knot having nine sub-knots which symbolizes the ten sub-castes in the Lepcha tribe; the knots are nine in number because the person wearing it makes it a count of 10 heads altogether. The hat is decorated with birds' feathers and worn during ceremonies and social functions.

Papri thyaak tuk is another type of hat used in all weather conditions and is made from cane or bamboo designed on the top part; in it, the trademark Lepcha patterns of a spider web with porcupine spikes are attached in the front part, which is believed to act as a helmet that protects the Lepchas from negative and hovering spirits.

Samoak thyaak tuk is an artistically made hat with delicate and small cane splits and is an excellent specimen of Lepcha art and craft. It is also the oldest form of Lepcha craft. The hat is intricately woven with *ru* (cane) and local bamboo. Each part of it and its artistic design hold its own traditional meaning and significance. This hat used to be the headgear of the Sikkim guards during the Chogyal regime. The Lepchas wear this headgear during marriage ceremonies, prayers, and other rituals, and it is mandatory to wear it. Presently it costs appropriately INR 25,000.

Seyraboo thyaak tuk is a hunters' hat, made from straws and with an intricate binding of bamboo stripes. The straws are coiled in such a way that it forms a cushion over the skull and act as a protective gear or an effective helmet.

Soring thyaak tuk, or the "sun hat", is made of straws and bamboo, with the Lepcha trademark symbol on top. It is worn while working on the farm.

Yaanglo is a shawl generally worn by rich Lepcha men. It is maroon and white in colour without any pattern.

Tanggyip is a typical Lepcha bag hung on the shoulders; it is also called *tokvyoal*.

The dress of Lepcha females comprises *dum bun*, *tago*, *jyoordong tago*, and *taroo*.

Dum bun is an ankle-length outfit made from silk and is also called *dum den* or *dumdyan*. In the Nepali language, it is known as *gadha*.

Tago is a long-sleeved, loose blouse worn with *dum bun*. It is reddish in colour and without any pattern.

Jyoordong tago is a long-sleeved flowing gown worn over the *dum bun* and is worn by married Lepcha women.

Taroo is a white scarf worn by women around their heads.

Ornaments such as *namchok* (earrings), *lyaak* (necklace), and *gyar* (bracelet) are worn by women. Moreover, *sambrang-bur*, a cluster of silver waist amulets resembling the *bur* (flower) of a special tree (*sambrang*), and a multicoloured belt called *nomrek* accompany the female attire. Silk, gemstone, and bamboo are often used to craft fashionable outfits.



Later, under the gradual influence of the Bhutia culture, the Lepchas started wearing *bakkhu* and *honju*. Recently, their traditional costumes remain occasional wear during festivals, social and religious ceremonies. The younger generation usually prefers to wear western clothes and Indian outfits in their day-to-day life. However, traditional outfits along with western attire are worn during special occasions.

The traditional Lepcha attire, such as nettle-fibre handlooms and finely prepared bamboo hats (*thyaktuk*), have become too expensive for the common people. It is due to the rapid decline in the number of artisans of such products and the difficulty in accessing raw materials. The field survey found that the high price of Lepcha traditional costumes makes them go for other options. Hence, it is high time to rectify this matter through governmental interventions – this could be possible by providing subsidies or supplying the necessary machinery to reduce prices and thus make traditional outfits more popular.

Nevertheless, change is inevitable; the phenomena of globalization and modernization have influenced every culture, every society, and every individual. In this ongoing process of progression, the specific community can preserve its own ethnicity. It is equally relevant in the case of traditional attires, which represent the community at a glance. However, modern wears are equally essential to adjust to the ways of today's world, although they should not surpass traditional outfits. Hence, it is the prime responsibility of the community concerned to protect and promote its traditional attires with which its ethnic identity is attached.

Folk music

The Lepchas have their own distinctive folk songs, dances, music, and musical instruments, which truly reflect the old ways of Lepcha life, their tradition, culture, ancient religion, customs, manners, character, civilization, joys, sorrow, and the surrounding environment. They believe that the songs, dances, music, and musical instruments were conferred on them by Naraok Rum, the God of Lepcha music [25].

Folk songs

The Lepchas have their own folk songs for different occasions and for various activities like sowing and harvesting as well as for collecting fodder and firewood. These songs are broadly categorized as follows:

- i) *Lenchyovom*: Love songs
- ii) *Afan Athen Vom*: Songs of humour
- iii) *Asyot Vom*: Ceremonial songs
- iv) *Nyot Eyok Vom*: Songs relating to agriculture
- v) *Bree Vom*: Marriage songs
- vi) *Lyang tot vangtok Vom*: Patriotic songs
- vii) *Apat Achok Vom*: Songs of planting seasons
- viii) *Aparya-Vom*: Classical songs
- ix) *Aparya Apet vom*- Competition songs



Rice plantation
Photo credit: Bhalerao et. al 2016

Some examples of such folk songs related to agricultural activities are cited below:

1. Title of song: *Mayal Lyang (The Hidden Land)*

Recorded on: 2.05.2015

Language of recording: Lepcha

Location of recording: Gyathang, North Sikkim

Name of singers: Dawa Lhamu Lepcha, Laksomit Lepcha, Pem Choden Lepcha

Lyrics/Compused: Namgyal Lepcha

Recorded by: KVK North Sikkim

Collected and recorded by: T.T. Bhutia (Programme Coordinator), Nakchung Bhutia (Accountant), Diki Palzom (Programme Assistant, Computers), Rajesh Basnett (Driver)

Lyrics

Ho...ho...ho...

Mayul Lyang arey sha purtamarey ka

Mayul Lyang arey sha Nungdi

Knyot Kha, Jho Thyang tho Jho mal theo

(twice in refrain)

Jho khup jho mu min lyal knon tho (twice in refrain)

Ek ka lay ek ka jokkup arey

Ek nu lha thu ka syung tho kha (twice in refrain)

The hidden land in the mountains, the land of

Mayal mu luk lyang abryang thup

Rum thik say thing knun ra tho bu sukya

Thing knun bo tho bo gyo nu la tho ka thukbi

ali (twice in refrain)

Ho...ho...hoooh

Knon kalay anum knon ka lay jo pum ka

knon ka, knonka lay

Knun ka lay amum knon ka lay jo pum ka

knon ka lang knon ka lay

Jomu sa jukup arey pum ko ley lam kop um

ka ley

Samrangthing khung sa nyot arey ka jyar

tyolang om jang ming dab u

Jo orey rem chunbunu pum ka lay lam ka

pum ko lay

Gyumnula aryum pum tho ka ren rit song

chon nu laynun tho ka

Jo mu sa jukup arey pum ka lay lamka tyom

ka lay.

Meaning

In the fields of a hidden land

Preparing the land for zoom cultivation

The paddy is mature and ready for harvest

It's time to collect and dry the crop

Blessed by the Goddess Annapurna

plenty

Let us protect our crop

Come, brothers and sisters, let us carry the
harvest to the threshing floor

Our golden harvest is so lovely and
attractive

Let us take it to the threshing floor

Come one, come all, young and old

Let us do the threshing

Let's collect the grain properly one by one,
without

wasting any and store

1. Title of song: Ka Ku

Recorded on: 2.05.2015

Language of recording: Lepcha

Location of recording: Gyathang, North Sikkim

Name of Singers: Dawa Lhamu Lepcha, Laksomit Lepcha, Pem Choden Lepcha

Lyrics: S.T. Lepcha (Tamsang)

Recorded by: KVK North Sikkim

Collected and recorded by: T.T. Bhutia (Programme Coordinator), Nakchung Bhutia (Accountant), Diki Palzom (Programme Assistant, Computers), Rajesh Basnett (Driver)

Lyrics

Ka ku ku

Nam ta cha ka ku ku

Hun death mo ka ku ku

Zeng labo nam ta cha hun death mo ka ku ku

Lyang thang bar yong thong bar play la rong
shen la ka ku ku

Num na nong ba nayag ka rong shen la

Pyar sher sam dhar bhor layel luk ma oh ka
ku ku

Zocup zomal bhor tha zeat rayong
rayong

Mang sayla mang ep mo aka to ding mo
rayong rayong rayong

Zo mal la zocup bhor tha zeat rayong rayong
rayong

Nang lam mang bar bhor death mo rayong

rayong rayong

Chak don has come to eat the bamboo shoots

Damra zocup mantha chet rayong rayong

rayong hon death mo rayong rayong rayong

Chak don don chak don don chak don don fo

go nam tha chat nak ka yo chak don don

Dank ka thi ba phosur phosem apot zocung
chak don don

Panjak sede depka bam ha nan nung sa

Fur fur pangko dhot lung sa chak don don

Gona go pong na chu ni chu rong mo ka ku
ku ka ku ku...

Meaning

Ka ku ku (Name of a bird in Rongring)

It's time to sow the seed, ka ku ku

The time has come and the water has
started to
collect in the spring

Brother and sisters, come out and see the
flowers in full bloom

It's time to sow rice

Lets prepare the fields

It's time to do the weeding in our field

It's time to harvest

Chak don (name of a bird in Rongring)
has come
to visit the fields

Now the birds are back in the dense forest
Hiding and grooming themselves

Source: [26]



Dance related to agricultural activities
(Photo credit: G. Chhetri, NIHE, SRC)

Folk dances

The folk dances, or the *Lok*, of Lepchas is classified as:

- i) *Aaeit-adey lok* (Nature dance)
- ii) *Zomal –lok* (agricultural dance-cultivation of paddy)
- iii) *Fen-lok* (war dance)
- iv) *Pasyalyon or Guru lok* (historical dance)
- v) *Mun-lok* (Mystical dance relating to mythology)

Nature dance imitates the various movements of different creatures in nature and tries to catch the spirits of different subjects in various forms. It imitates some insects, birds, and animals like deer and tiger. Sometimes, the dance imitates insects, beasts, and plants together. To perform this dance, men put on bright, multicoloured handwoven clothes but leave their right shoulder bare. A sash is tied around the waist, and a feather crown is worn over the head.

Agricultural dance, or *zomal lok*, is usually performed when sowing dry rice or *zomal*. It usually takes place in June and July. This dance exhibits five agricultural activities: ploughing, sowing, weeding, harvesting, and threshing. The paddy threshing dance is called *jootyam lok* and is performed by a group of boys. This dance is performed after paddy harvesting, mainly during November and December.



Dance related to hunting
(Photo credit:
KS Gaira, NIHE, SRC)

Festivals

Due to religious conversion, the Lepchas now celebrate all Buddhist festivals, and many of them follow Christianity. It is being observed that most of the Lepchas of Darjeeling and Kalimpong areas have adopted Christianity. The traditional festivals which are exclusively celebrated by the Lepchas are discussed below.

Naam Soong or Namboon

This festival is the most important festival of the Lepcha community and relates to the legend of truth triumphing over evil and bringing everlasting peace to the land of Khangchendzonga. The death of the devil Lasso Mung marks the celebration of a new beginning and heralds the New Year for the Lepchas. Lasso-Mung-Pano is considered the most dangerous among the many *mungs*, or devils. In Rongring, *lasso* means “to change”, and *mung* means “devil”, while *pano* stands for king, so he is the king of the devils. He used to confuse his assailants by changing his appearance into twelve different animal forms; hence, killing him took long [4]. The Lepcha New Year is observed in the month of *Kurnyit Lavo* of the Lepcha calendar, which usually falls between the last week of December and the first week of January and is celebrated with much fanfare by the Lepcha communities of Sikkim, Darjeeling, and Kalimpong. During this time, the lasso is sung door to door, and happy tidings are conveyed to every Lepcha house.



Tendong Lho Rum Faat being observed on Tendong Hilltop
(Photo credit: G. Chhetri, NIHE, SRC)

Tendong Lho Rum Faat

This festival is celebrated on 8 August of every year by the Lepchas of Sikkim and on 22 August by the Lepcha tribal association of Kalimpong. As this festival is based on the Sikkimese Lepchas' beliefs, they celebrate it with a great splendour on Tendong Hilltop, South Sikkim. The festival relates to the legend of a deluge that nearly drowned Sikkim but was ultimately stopped by *Rum*. At this auspicious time, the Lepchas pray to Itbu-Debu-Rum-Daor, the creator as well as the destroyer of Sikkimese Lepchas. They pray through their priests and offer to the God *chi* (millet beer) and all available fruits and ripened crops of the season. They pray for the well-being of humans, animals, insects, and vegetation.

Boongthings and *muns* also perform a ritual dance on the Tendong Hilltop. Similarly, this festival is celebrated at the historic site of Kabi Lungchaok in North Sikkim.

Muk Zyuk Ding Rum Faat

In Rongring, *muk* means "grass", *zyuk* means "to sprout", and *ding* means "to stand forth". This festival is connected with nature and is celebrated in February every year. It celebrates the season of plant sprouting, from vegetables to different shrubs and trees. The festival is marked by offering prayers to Rum by the priests for favourable weather through timely rains and adequate sunshine, clean air, and water. The prayers are also intended to avert natural calamities like floods, landslides, and famine. The prayer altar is decorated with various shrubs, medicinal herbs, food crops, and flowers. A stone pillar (*lungchaok*) is erected near the altar.

Sakyo-Rum-Faat

This festival takes place during October–November after the harvest season and is marked by the offering of food. The Lepchas believe that the seeds of all kinds of agricultural and horticultural crops were brought from the seven immortal couples of Mayel Kyong, or the Hidden Village. They also believe that these Lepcha couples will come down and save them from extinction in times of distress. They believe that birds are also sent to them to announce the season of sowing seeds. Hence, to express their gratefulness and to seek guidance, they offer to the immortal couples of Mayel Kyong all kinds of food, grains, and vegetables, along with *chi* in bamboo vessels sprinkled on top of uncooked rice from the new harvest. Dancing and singing are an essential feature of this festival.

Chu Lho Rum Faat

In Rongring, Chu stands for the Himalayan peaks with their pure-white snowcaps. Every year, during the Lepcha month of Kurnyit Lavo (January), the Lepchas perform the Chu Lho Rum Faat ceremony in obeisance to Mt Khangchendzonga, the guardian deity of the Lepchas. During this occasion, they prepare two large *choka laongs*, which are conical ceremonial figures made of moulded rice'; these represent Khangchendzonga and Mt Pandim, while several smaller *choka laongs* represent the lesser snowy peaks; these *choka laongs* are placed on a raised bamboo platform outside houses facing the Himalaya. In front of the *choka laongs*, a cupful of *chi* is also kept; *chi* is considered a holy brew and used every occasion from birth to death. Apart from *choka laongs* and *chi*, three freshly laid eggs, a red cock, rice grains, and flowers are offered, accompanied by the burning of incense and the lighting of a lamp made of moulded rice. The Lepcha priests disperse the rice grains, flowers, and drops of *chi* into the air as a thanksgiving gesture to the mountains. The occasion also witnesses traditional folk dances.

Li Rum Faat

In Rongring, *li* means "house", and Li Rum is the household deity of the Lepchas. In Lepcha lore, mothers are believed to be the preservers and devotees of the household deity. They are supposed to teach their daughters how to please the deity to bring prosperity to the new family where they go after marriage. When a woman starts running her own household, she follows her maternal lineage and is given a thunderstone, or *sadder long*. The prayers and offerings are made to the deity on all days of the week except Sundays. In the morning, the mother of the house appeases the deity by offering him a fresh cup of *chi* and fruits, vegetables, and grains before she consumes the same.

Lyang Rum Faat

In Rongring, *lyang* means earth, and so Lyang Rum stands for the God of the Land. The festival is marked by prayers to the earth and is performed once a year during the spring season in honour of Itbu Deboo Rum. The head of the family, the family priest, performs the chi sacrificial ceremony. On the day of the offering, the whole village gathers at some predetermined spot, and sacrifices are made of local fowls, and offerings of eggs, *chi*, rice, fish, fruits, and various produce from their land are made. The local village communities (*shezums*) are the ones who organize the festival through contributions from their members. It is believed that if it rains during the ritual, the land deities are pleased with the prayers and offerings.

Pong Rum Faat

Every year in October, the Lepcha hunters make an annual sacrifice to Pong Rum and his wife, Sugi Rum, who are the patron saints of the hunters. The sacrifice made to the protector of all wild things. As a part of the ritual, *chi* must be offered to the deities that have to be prepared by the senior most member of the family; otherwise, the deities would be offended, and the hunting would not be successful. Apart from *chi*, the offerings consist of dry fish, roots, tubers, fruits, and flowers.

Peek Sat

Lepchas observe Lut Dyan (a symbolic discarding of all undesirable things for the coming year), followed by the Peek Sat ritual, or purification prayers conducted at the household level by the head of the family, who is the main coordinator of the ritual. After the Lut Dyan and Peek Sat rituals, there is the practice of paying obeisance and respect to the family's elders by bowing heads. There is also the custom of drinking *chi* turn by turn from the same pot, starting with the eldest member of the house; it is believed that this communal round of drinking will help bring all the Lepcha kinfolk together.

Satap Rum Faat

It is an offering ceremony to Satap Rum, the God of Hailstorms. It is performed by the priests during the winter season around January and is marked by prayers to Satap Rum, asking not to send hailstorms, floods, or any other natural disasters.

Rongnyo Rum Faat

Following the devastating earthquake in Sikkim on 18 September 2011, Teesta or Rongnyo Rum Faat was observed with a ceremonial prayer and offering at the confluence of the Rongnyo (Teesta) and Rangeet rivers on 30 January 2012. It was carried out by the Lepchas of Kalimpong to prevent natural disasters like earthquakes and landslides [4].



Cultural events
during Songbing
festival
(photo credit:
KS Gaira NIHE)

Newly introduced festival

Songbing cultural festival

This festival was initiated in the year 2017 in Dzongu under the KLCDI (Khangchendzonga Landscape Conservation and Development Initiative) India programme in association with Mutanchi Lom Aal Shezum (MLAS) and the Songbing Tourism Management and Development Committee (STDMC). This festival is unique in its process and intends to promote ecotourism in the region. The festival's primary focus is to showcase the Lepcha community's culture, customs, and traditions. The festival promotes diverse traditional foods and beverages, local agricultural products, handlooms, and handcrafts of the Lepchas; it also stages cultural programmes and indigenous games. This festival was initiated to promote the Songbing area of Dzongu worldwide as a tourist destination by highlighting ethnic Lepcha culture and tradition.

3. Food and Dietary Habits

In the past, the Lepchas were hunters and used to hunt down animals and birds for meat. They used to trap fish and toads using a unique bamboo net. They also have a deep knowledge of wild eatables, berries, roots, and veggies, so food shortage has never been an issue with the Lepcha tribe. Overall, rice, meat, and vegetables are their staple food. However, those living in remote areas still eat wild roots, frogs, and toads. As for beverages, tea, milk, and *chi* are the standard fare.

Chi

Chi is a traditional fermented beverage prepared from finger millet. This mild brew is so popular that it has imbibed itself into every Lepchas social and cultural aspect. Without *chi*, their social and religious rituals are incomplete. From the cradle to the grave, this traditional beverage plays a significant role in Lepcha culture, and they consider it a holy brew. They believe that their creator God, Itbu Deboo Rum, and other Gods and Goddesses, as well as evil spirits, accept the offering of *chi*; hence, Lepchas always offer *Chi* to their God, guardian deity, and spirits with prayers before drinking; this ritual is called *Chi Faat*. The Lepcha use *Chi* in all the ceremonies. The priests and priestesses have to be served with *Chi* when they come to any house to perform social and religious rituals. It is also seen as a medicine that helps to deal with the hardships of living a physically exhausting life attributable to the difficult terrain in the forests [14]. *Chi* is regarded not just as an alcoholic beverage, but also as food. Therefore, *chi* is also called chi zaom, with zaom being derived from the word azaom, meaning food [8]. Besides finger millet, other crops, including cereals and fruits, are used to prepare *chi*.



The traditional
drink chi
(Photo credit:
G. Chhetri
NIHE, SRC)

With time, the Lepchas' food habits have changed along with those of the communities around them. Nowadays, fish and meat (ox, buffalos, pigs, goats, and domestic fowls) are popular. Traditional dishes are often only prepared during festivals and rituals. Traditionally,



Moongurbuk (sweet potato)



Kafferbuk (purple yam)



Tunglubuk (cassava)



Punzok buk (wild yam)



Singtee (taro)



*Moongurbuk, leebuk
(sweet potato & yam)*

Tubers commonly eaten as staple food by the Lepchas

(Photo credit: G. Chhetri, NIHE, SRC)

as a forest tribe, the Lepcha people were consumers of tubers and roots. This tradition continues in consuming boiled moongurbuk (sweet potato) and kasalok (yam).

Here's a list of traditional dishes prepared with cereals:

- **Sarongbee tuluk:** This staple Lepcha porridge is prepared by cooking rice or maize flour with nettle. Nettle inflorescence or young leaves are boiled with rice or maize flour, and then chopped onions and garlic are added with salt, turmeric, and mustard oil. It is then stirred continuously for about half an hour.
- **Cho-nyok:** Rice, butter, and vegetables cooked in the porridge form.
- **Po Nguzom:** Rice, fish, and vegetables grilled in bamboo is another staple food. Rice, fish (the local *asala*), and vegetables are placed inside a green bamboo after adding salt and chilli powder. Green leaves cover the open edge of the bamboo and are then tied with a string. This bamboo, loaded with rice, fish, and vegetables, is placed over a fire until the colour of the bamboo changes to brown. Then it is removed from the fire and cut open horizontally so the food item remains undisturbed. The baked food inside the bamboo is now ready to be served.

- **Khu-zom:** Wheat, finger millet, and maize flour baked on hot stone. Khu, or bread, is prepared from buckwheat, finger millet, and corn or wheat flour. The flour is mixed with a small amount of water, salt, and chilli powder. This mixture is then placed on a hot, flat stone where it is baked, eaten with vegetables, and mixed ground chilli. Maize flour is also baked in a different way to make khu-zom. First, the maize flour is mixed with water, salt, and chilli powder and wrapped in green leaves, preferably banana and turmeric leaves, and placed inside a burning fire covered with ashes and charcoal. It is then baked for about 20 minutes – the stronger the fire, the shorter the baking duration.
- **Su-zom:** is a traditional meat-based food of the Lepchas. In ancient days, meat was baked under the earth. Depending on the quantity of the meat, a pit is prepared with a depth of at least two feet. Flat stones are placed at the bottom of this pit. Then, banana leaves or other leaves are placed on the stone. The chopped meat pieces are placed inside the pit, and burnt stones are kept on the meat. The hot stones are covered with leaves, and the pit is then filled with earth. The hot stones bake the raw meat for a night or a day [27].
- **Tok-Tok:** This is prepared from local rice and cooked as porridge with different vegetables or meat.
- **Khu-ree:** This is prepared from finger millet or buckwheat flour with leafy vegetables. It once used to be the staple food of the Lepchas. However, it is now prepared for special occasions like Namsoong (Lepcha New Year) or special guests. Mostly, the dish is now an attraction for tourists in Lepcha homestays and restaurants. Firstly, finger millet or buckwheat is sun-dried for a few days, then smashed to remove the husk, and then ground to make powder (mongtee). Then the flour is mixed with a small quantity of wheat flour for consistency in a bamboo container (po puthut), mixed with water, and stirred to make a slightly thick, consistent batter. Then a flat pan is heated (earlier, in the absence of utensils, flat stones were used). When the pan is appropriately hot, a thin layer of batter is spread over it, creating a round-shaped bread (nowadays, butter is used to add flavour and texture). In the meantime, locally available fresh wild green vegetables, especially the stalkless *Elatostema* sp. (kanchel bee, kamchol bee), are cooked along with the crushed shiso seeds (nuhum) for about 15 minutes. When the vegetable is properly cooked, it is wrapped in already-cooked finger millet or buckwheat bread and consumed with chutney. Nowadays, khu-ree is also prepared using vegetables, especially leafy ones [16].



Khu-ree preparation
(Photo credit: S Sinha, NIHE)

Summary

Historically, the Lepchas were dependent on wild plants and animals for their food. Among the various types of wild plants, they are used to harvest young shoots, flowers, buds, fruits, berries, roots, tubers, mushrooms, and ferns as sources of daily diet. They also used to hunt wild animals. However, since knowledge of sustainable utilization of resources among the Lepchas was deep-rooted, they never used to hunt baby animals. Before hunting, they used to pray to the hunters' deity (God), asking him for the weakest animal, which was about to die, and not the one who would deliver its offspring or any baby animals. It indicates the sustainable use of natural resources among the Lepcha community for their sustenance.

However, with the passing of time and change in lifestyle, along with a changing world, it is evident that food habits too have changed, which has led to lesser dependence on traditional dishes and ethnic eatables. The inclination of the younger generation is towards readymade and junk food; consequently, the dependence on agriculture for sustenance also declined. As a result, regular consumption of traditional dishes prepared with traditional crops like maize, wheat, millet, and buckwheat has reduced drastically. These days, such traditional dishes are being prepared and consumed only on special occasions by the elderly. It is a matter of concern that the younger generation needs to take an interest in preparing these dishes. In this context, the art of preparing such medicinally enriched and healthy food will gradually disappear from Lepcha society. Hence, awareness among the younger generation is of utmost importance to preserve the traditional food system.

Along with modern foods, traditional foods should be promoted as they are an essential identity marker of the Lepcha community. For example, dishes like *khu-ree* and other healthy traditional items can be promoted for income generation through community-based tourism. It will not only improve the economic status of the Lepchas but will also help in preserving their ethnic food.

Women's Empowerment through
entrepreneurship development in Orange



Objectives

- 1. To provide training and support to women in the Orange region to develop their own businesses.
- 2. To provide training and support to women in the Orange region to develop their own businesses.
- 3. To provide training and support to women in the Orange region to develop their own businesses.

Activities

- 1. Conducted awareness sessions in Orange region.
- 2. Conducted awareness sessions in Orange region.
- 3. Conducted awareness sessions in Orange region.



4. Handlooms and Handicrafts

The Lepchas have a rich tradition in handlooms and handicrafts renowned for their unique artistic designs. Mother Nature and her resources have encouraged them to use their skills to utilize its products daily. The Lepchas' art and antiquity culture comprised simple household items, traditional weapons, agricultural tools, musical instruments, and jewellery. A total of six bamboo species were recorded for making handicrafts and *Girardinia diversifolia* for weaving Lepcha handlooms (Annexure I).

The use of nettle (*Girardinia diversifolia*) bark for weaving cloths and bags by the primitive Lepchas is an excellent example of their skill. In ancient times, they used to wear clothes woven by themselves from the yarn of nettle plants (*kuzoo*). Nowadays, cotton, woollen, and silk yarn are used to weave their clothes, and they use vegetable dyes as colouring agents and modern synthetic colours. The six primary traditional colours of the tribe are white, black, green, orange, maroon, and blue [3]. Such woven cloths are called *tharas*. Traditional designs with different colours are used to make *tharas*. The *tharas* are used to make a variety of products such as bed covers, sling bags, kit bags, belts, curtains, table mats, tray cloths, scarves, shawls, traditional coats, and other traditional outfits. The Lepcha women play a significant role in handloom weaving. They learn this art at a young age and thus gain exceptional skills in weaving [28]. The handloom products range from plain to complex and colourful patterns. These handloom designs demonstrate Lepcha culture's susceptible and distinctive marks and represent their creative and artistic bent of mind.

A. Pandey, NIHE, SRC)





Lepcha
handlooms
(Photo: G. Chhetri
NIHE, SRC)





Ancient Lepcha
handloom weaving
tools prepared from
bamboo, wood, and
animal skin

(Photo credit:
G. Chhetri, NIHE, SRC)

Handicrafts

The Lepcha community has a rich cultural heritage of art and crafts. Bamboo and cane are an indispensable part of their livelihoods, mainly in food, shelter, household items, ornaments, suspension bridges, ethno-religious uses, and hunting devices like bows and arrows, traps, and fishing rods. The Lepchas use bamboo stems and leaves for treating cough, leucoderma, wounds, piles, and inflammatory conditions. The leaf extract is used as an eye lotion. The burnt roots are applied to cure cases like ringworm, bleeding gums, and joint pains [29]. The practice of using bamboo and cane for household artefacts is as old as the tribe's existence in the foothill of the Himalaya. They believe that keeping the cane and bamboo artefacts at their homes keeps them away from the ill effects of evil spirits. Hence, bamboo is deeply rooted in their culture and tradition and associated with every ritual, from birth to marriage to death. The tribe believes that domestication and planting bamboo near their houses is mandatory for sustainable use. As for Lepcha handlooms and cane and bamboo products, they are renowned for their artistic design. The spectacular variety and diverse range of bamboo crafts demonstrate their expertise and depth in traditional knowledge. The Lepcha traditional hat, sumok thyaktuk, is recognized as one of their best and oldest craft forms. This hat-making skill is essentially community-specific and restricted within the Lepcha community. The men wear this hat or headgear for socio-religious ceremonies such as weddings, the Lepcha New Year festival, and during offerings to guardian deities like Khangchendzonga and Tendong [30]. The hat comprises cane (*Calamus acanthospathus*) and po-young or small bamboo (*Cephalostachyum capitatum*). It requires the skill of an adept craftsman and almost a month or two to complete a single hat.

The maximum time is consumed in preparing the thread-like strings/poli of cane or bamboo and then made into rounded shapes about 4 mm thick; these strings are also flexible. Some locally made natural dyes, extracted from the typical climber *Rubia cordifolia*, are used to beautify the hat further. Locally available shiny, papery mica stones are also used in these hats [30], which requires skillful craftsmanship to make. However, very few Lepchas have this skill; some can be found in Dzongu and some in Kalimpong. It is due to a lack of interest among younger generations in tedious work, which requires a lot of patience and hard work. As for making agricultural tools, the Lepchas use bamboo, mainly *Dendrocalamus hamiltonii*. Bamboo is also used to prepare hunting devices such as fish traps (vir tangsit); bow and arrow (slu and chong hup); baskets for household use (taleung); baskets for carrying fodder, fuelwood, and farmyard manure (thungzyang); container for millet beer (puthyut); serving paddles (kyuk); box (bom); grains storage/carry basket (tungar); water-carrying container (padam); milk container (nen-tung-bu). Besides, bamboo is also used to make spoons (zaru); mugs, cups, and musical instruments like flutes (palit, pungtong palit); shakers (tangryam buk) etc. (Annexure - I).

The procedure for making the bamboo products may be summarized as follows:

1. Collection of bamboo and cane from the surrounding forests
2. Preparation of weaving materials by cutting the culms from the internode and making thin strips with the help of a local knife, which is then smoothened; these even strips (fintok mik) are now ready for weaving
3. Weaving of different products from the prepared strips is carried out as per demand.
4. Finally, rattan and bamboo strips are used in knotting the endpoints to give them a strong finish.



Bamboo and cane product preparation procedure

(Photo credit: A. Pandey, NIHE, SRC)

Instruments such as guitar (tungbuk, sutsong) and drum (tungdar) are also made from wood and animal skin, mainly of goat and ox.

However, with the changing times, the Lepchas are giving up the practice of making and using traditional utensils and musical instruments. Moreover, younger generations, influenced by modern lifestyle and technology, are interested in something other than these traditional pursuits. Therefore, it is the need of the hour to protect and promote valuable indigenous knowledge and traditions.

Given this background, KLCDI-India started an initiative in a small pocket of the Lepcha reserve of Dzongu in North Sikkim to develop this community's specific knowledge and skills into a viable livelihood opportunity involving a local partner from the area, the Mutanchi Lom Aal Shezum (MLAS) Dzongu. This initiative aimed to strengthen the bamboo crafts-based traditional knowledge of the Lepchas through capacity-building programmes, training, and value-addition to make them more attractive for the local, national, and international markets. Though the products are popular among tourists visiting the area, more artisans would be needed once there is greater demand at a more comprehensive level, creating enough livelihood and entrepreneurship opportunities for the Lepcha community. Therefore, capacity building and training programmes were organized in Dzongu to train the younger generation, especially unprivileged youth. Such programmes in other areas will provide the Lepcha with a viable livelihood opportunity that is based on their traditional knowledge, skills, and local resources.



Traditional Lepcha utensils
(Photo credit: G. Chhetri, NIHE, SRC)



The bamboo fish trap, 'feet'



Traditional musical instruments, tungbuk, satsang, pungtong



A musical instrument from bamboo

Summary

The use of traditional handlooms and handicrafts is declining in the modern era. It is not only the case with the Lepcha; most communities prefer modern items, utensils, and appliances. With this shift comes the erosion and loss of traditional knowledge and skills. Therefore, promoting traditional handlooms and handicrafts through trade fairs and exhibitions is urgently required, highlighting their usefulness, advantages, and eco-friendly nature. Government support and interventions are also needed to create the necessary market linkages for channelizing these eco-friendly products prepared from bamboo, canes, and nettle fibre to different parts of the country and outside the country. It will promote and preserve the vanishing traditional crafts and craftsmanship of the Lepcha community and boost the local economy.



Lepcha hats prepared from bamboo and cane



Promoted Bamboo crafts and handlooms products by NIHE under KLCDI-India

(Photo credit: G. Chhetri, NIHE, SRC)



5. Bioresource Utilization

Bioresources or biological resources are life-supporting and fulfill the essential needs of humankind like food, shelter, fuel, fibre, and medicine. The use patterns of bioresources vary from place to place and community to community. The indigenous people have an important role in managing the bioresources around them. Their local knowledge, skills, and traditional practices related to the varied uses of the bioresources give their traditional homelands a distinct identity and add value to the resources. Likewise, the diverse use of natural resources is an age-old practice of the Lepcha tribe, as they are very close to nature and believe that this world has been given to them to enjoy its fruits and protect it. They sustainably use natural resources without causing any harm to their precious resources. Being very close to nature, the Lepchas are accustomed to utilizing wild resources and depend on natural resources to fulfill everyday needs. They have rich knowledge of plants, insects, and reptiles and can identify the species. They can differentiate between edible and non-edible plants and possess indigenous techniques of removing the toxins from some toxic roots to make them edible [22]. Lepcha communities in remote villages still depend on traditional herbal medicine for initial treatments.

Various researchers have studied bioresource utilization by the Lepchas in KL, India, over the past decades. These studies have documented the plants used by the tribe for various purposes, such as food, shelter, medicine, fibre, household materials, agricultural tools, hunting devices, war weapons (in the past), and so on. However, most researchers have focused on the knowledge and use of medicinal plants. Lepchas use various plants for medicinal purposes, ranging from common weeds around their habitation to wild fruits and vegetables and plants in their kitchen garden, which they efficiently use to treat various ailments. A total of 118 species of plants that are used by the tribe for medicinal purposes have been reported from Dzongu alone [10].

Similarly, another study reported 75 species of medicinal plants used by the tribe from a few Lepcha villages of Kalimpong [15]. Regarding ethno-veterinary plants used by Lepchas, 23 plant species have been reported from the Dzongu area [12]. Besides medicine, they use plant resources as food in different forms. In the past, they were food gatherers and used to collect fruits, wild vegetables, wild edible roots, and yams from the forests. Later, they started cultivating different crops for their sustenance. Studies on edible resources of Lepchas from Dzongu area reported 38 plant species being used as vegetables, followed by 19 species as underutilized or wild edibles 10 species used for fruits and 9 species for spices [29]. Wild plants and their parts are consumed raw or after processing, like boiling, roasting, and smoking with or without spices. They use leaves of various aromatic wild plants as flavoring agents. Wild fruits and vegetables are preserved after sun drying for future use. Some wild fruits like hog plum (*Choerospondias axillaris*), bastard oleaster (*Elaeagnus latifolia*), and Indian crabapple (*Eriolobus indica*) are pickled and kept for future use. Some vegetables, like bamboo shoots and leafy vegetables, are fermented and kept for later use in times of scarcity. However, roots and tubers are an essential source of nutrition for the Lepchas during scarcity.



Paddy field in a Lepcha village, Kalimpong



Finger millet cultivation by the Lepchas of Kalimpong

(Photo: G. Chhetri, NIHE, SRC)

Bamboo is widely used to construct houses, cattle sheds, and other structures. A total of 22 species of bamboo were found to be utilized from North Sikkim to construct houses and animal sheds, fences, musical instruments, utensils, hunting devices, and weapons. The tribe also uses bamboo seeds (when available) to make fermented beverages and bread in times of scarcity [31]. Early generations of Lepchas were more dependent on wild plants for their sustenance. They practised slash-and-burn agriculture and grew some cereal crops like dry rice, buckwheat, millet, and barley following a seven-year rotation cycle. Later, they started following settled agricultural practices to grow wet rice, maize, wheat, and vegetables. At the beginning of this century, the Lepchas of Dzongu area started cultivating large cardamom as a cash crop. Large tracts of Dzongu are too steep for terrace cultivation of cereal crops, whereas cardamom flourishes in these sloppy areas. So, taking advantage of the physical feature of the landscape, the Lepchas started planting large cardamom, which has now become one of the prominent cash crops of the area. Besides large cardamom, Sikkim mandarin oranges grow well in Dzongu, forming an important cash crop in the region. The quality of the Dzongu orange is superior to oranges from other parts of Sikkim. Various other types of agricultural and horticultural crops are currently cultivated in Dzongu. A primary survey in Lingdem–Lingthem GPU of Upper Dzongu (pilot site under KLCDI–India) reveals that 54 plant species, including cereals, pulses, fruits, vegetables, and spices, are being cultivated. Of these, 22 plant species were used for making local wine “*chi*”, of which finger millet, wheat, rice, and cassava are widely used. Several fruits like guava, banana, peach, plum, passion fruit, wild fig, and wild kiwi are also used to make local wines (Annexure–II).

The Lepchas of Kalimpong and Darjeeling districts of West Bengal also engage in settled agriculture. They are mostly settled in the remote parts, and many cultivate large cardamom as a cash crop. Some earn their livelihood by growing seasonal and off-seasonal vegetables; most are engaged in animal husbandry.



6. Conservation Practices

Cultural aspects of conservation of resources

Different communities across the globe have their way of worshipping and conserving nature and its components, which is associated with their respective culture, custom, and history. In the case of tribal, their socio-religious and cultural beliefs and practices are based on an inherent belief in nature which holds a sacred significance in their lives and is manifested in their folklores, legends, healing methods, etc. [32]. In the same way, the Lepchas have their way of treating nature and its components. Since they are animists and nature worshippers, most of their prayers and offerings are directed towards nature in all its forms – mountains, rocks, rivers, streams, lakes, plants, individual trees, and groves. All aspects of their folk tales and folk songs have references to nature and natural things. Most of their rituals and festivals are connected to nature worship. Separate prayer ceremonies are performed to worship mountains, forests, lands, and agricultural crops; prayers are also performed to propitiate deities to ward off natural calamities.

Moreover, they protect and conserve forest patches, water bodies, and rocks as abodes of deities. Each sacred place has a legend attached to it, and these legends are linked to the identity of the Lepchas and signify their perception of nature and its components. Such a culture of preserving the sanctity of a sacred space leads to the conservation of the same. They believe that natural objects, including stones, should not be displaced from their natural positions in forests, streams, etc.; otherwise, it would bring ill health. They also worship snakes and their habitats. They consider birds as their messenger who conveys to them the right time to sow and harvest crops, forecast weather and identify the existence of root tubers.

Dzongu in North Sikkim is considered the holy land of the Lepchas, the place of their origin, where the Lepcha culture is in its purest form. The Lepchas of Dzongu is known for carrying the legacy of their rich cultural heritage despite cultural and economic changes brought out by the development process [11]. Many legends of the origin of the tribe are connected to Dzongu. In Dzongu, the Lepchas have many sacred spaces like rivers, lakes, forests, individual trees, hills, rivers, caves, rocks, and even agricultural plots [23]. A few such important sacred places of Dzongu are listed below:

Tung Kyong Doh – The Sacred Lake of Tung Kyong

The lake is situated at Hee Gyathang village in Lower Dzongu. The legend attached to the lake is that Thinggockmu, a monkey God, lived in Tungprumrul. He and a priest called Lickkumzergen met at Gyathang. They learned of a Goddess called Nyu Kyongbu at the Tung Kyong Doh (The Holy Lake). They uncovered her from the earth in the lake. The Goddess was extremely flustered by this act. The priest then advised Thinggockmu to win over the Goddess and marry her. However, she challenged Thinggockmu to an exhibition of power wherein he threw a plate-shaped rock up the hill. The rock landed in Gockmukung, a place above which is now the Hee Gyathang monastery. This rock still exists, and the place is revered. When Thinggockmu asked Nyu Kyongbu to demonstrate her power, she let loose her hair and dropped lice into the lake, which later became fish called *dengnuelick* [32].



A Sacred Lake in Hee Gyathang (Tungkyoung Lake)
(Photo: Sheila Sinha, NIHE, SRC)

It is said that a particular clan of the Lepchas, who are believed to be the descendants of Hee Yong Ming Moo, the second son of Thinggockmu, still exists in the village of Gyathang. They worship and protect the lake. The worship ritual occurs on the fifteenth day of the seventh month of the Tibetan calendar. All Lepchas revere the lake and its fish. It is believed to be a place for wish fulfilment where an increase in the fish population in the lake is a sign of enhanced power for this particular clan of Hee Yong Ming Moo.

Other lakes are also considered holy and worshipped by the tribe – such as Sa Thong Deh and Ta Ung Deh of the Lingdong Gram Panchayat.

Several Lepcha clans have similar legends. The Aramputso and the Arampanchat clans, two of the most prominent Lepcha clans, revere the Rongyong River, the Runglee Kyong waterfall, and the stream in the Ting Bung village of Upper Dzongu. The protection of these rivers and streams is, therefore, the responsibility of the respective clans.

Songbing Sacred Rock: This sacred rock in Upper Dzongu is one of the important pilgrimage sites of the Lepchas. According to folklore, there was a lake below the cave around this rock. Bad incidences in the lake brought misfortunes in the nearby villages. Hence, the Boongthings of the time created a hole in the middle of the lake through their prayers to drain out the water, as a result of which, peace returned to the surrounding villages. It is also said that the cave used to be a hiding place for Lepchas during enemy attacks.



Songbing Sacred Rock at Upper Dzongu
(Photo credit: K. S. Gaira)

Biodiversity and culture conservation through Sacred Groves

The Lepchas have always associated themselves with nature and natural entities. They consider all the elements of nature, such as rivers, streams, waterfalls, hills, hillocks, lakes, shelter stones, caves, trees with massive buttresses or huge canopies, patches of forest area, animals, birds, plants, etc., to be sacred. Almost all the Lepcha villages have identified a small patch of forest land or even a single tree or the vegetative land above a big stone or lakes, within the village boundary to be sacred and the home of deities. They believe in the presence of deities who control the village people's fate. Almost all the Lepcha villages have one or more Sacred Groves (SGs).

The sacred groves are identified by the *village's muns* or the *boongthings*, the Lepcha shaman, and then reserved as sacred. The entire Dzongu is dotted by such sacred groves and specific names are also given for many such places. The stories and taboos attached to each of these places make it more mysterious and interesting. The groves may be used for performing Lepcha rituals or may not be visited by anybody. Some identified groves lie on private land, some on khasmaal and reserve forest land. The stories and the taboos related to the region or the culture of the tribe can be appreciated only if one has a close connection with the fabric of human connection with the local environment, local resources, and local biological diversity.

As per the Lepcha belief, any misconduct within the sacred place may upset the deity and cause severe consequences. Some of the common taboos and beliefs associated with the SGs are to be prohibited for being dirty and noisy and cutting of trees is not allowed within the groves. The sound of bells or other noises may be heard coming from the grove if anything terrible is likely to happen or has already happened in the village. If the deities

residing in the SGs are happy, the village will prosper, or if the deities become angry, it will follow with the spread of illness, death, bad weather, poor agricultural yield, etc.

The deities are pleased by regular ritual offerings. It also creates positivity among the villagers and the belief that they are protected by the deities, against all sickness, misfortune, lousy weather, crop damage, etc., To a great extent, these practices have supported region's sensitive floral and faunal components and have made the groves a biodiversity conservation sites. In Dzongu, SGs as small as a single tree to more than 0.36 ha are identified [19]. In a study taking 20 such SGs in the different villages in Dzongu, covering a total area of around 2ha., 98 species of trees are found to be conserved, showing good regeneration. Many sacred trees have a girth size of more than 6 meters. A few tree species like *Ficus benghalensis* L., *Ficus elastica* Roxb. Ex Hornem., *Schima wallichii* (DC.) Choisy, are some of the identified sacred trees. The Lepcha belief system safeguards both natural and cultural elements of the SGs without enforcing any laws and policies.



Sacred tree (*Schima wallichii* (DC.) Choisy)

(Photo credit: Prakash Chettri, SRC, NIHE)

Bamboos and canes: *conservation significance*

Conservation of local resources can be achieved not only through protection but also through their judicious and sustainable use. The more the species is known, identified and sustainably used by the community, the chances of it going locally extinct becomes less. The importance of Bamboo and canes in Lepcha life and living has been appreciated well by the Lepcha ancestors. So much that Lepchas are believed to have originated with the Bamboo and believed to be the relatives- the Lepchas being the younger brother of the Bamboo. Therefore to ensure its conservation in the future, they have rooted the Bamboos so profoundly in the culture that without bamboos the Lepcha cultural identity itself may come to stake. Many folklores, taboos, rituals, and practices are associated with bamboos and canes in Lepcha culture. All these emphasize the importance of bamboo to the tribe and its conservation among the community's people for generations to come. It has been a time-tested mode of passing information or ideas to later generations in a subtle yet profound manner.

There is a strong belief that the extinction of canes indicates the extinction of the Lepchas. This belief came from the story when once a Lepcha king had won victory over his enemy mainly because of the solid coat made up of cane, which withstood the attack by arrows and other weapons. And so is the strength of Sumuk-thyak-tuk, a Lepcha traditional hat that can withstand even a sword. Lepchas make use of bamboo and canes in every aspect of their life. It is part and parcel of the daily lives of local people and is essential in almost all the cultural rituals from birth to death. Varieties of bamboos can be seen growing in home gardens and private forests in any Lepcha villages in abundance.



Use of bamboo in showcasing the offerings for rituals
(Photo credit: S. Sinha, SRC, NIHE)

Elders often give the blessing of becoming like bamboo that proliferates, relating to the growth and success of the tribe. As the bamboo tips are always bent towards the ground, the blessing of being like a bamboo also signifies humility and politeness, even reaching the heights of growth and success. Another taboo that is common among the tribe is also related to the vigorous growth and propagative ability of the bamboo. It is denoted for fertility; hence, young unmarried or recently married members can not cut bamboo shoots. It is believed that doing so will cause infertility.

The Lepchas also have a profound knowledge of the phenology of various bamboo species. Some bamboo species takes 30- 50 years to flower and die off after flowering. Lepchas always believed that the flowering would be followed by severe famine and that the mice population would dramatically increase in the village after its flowering. Hence, to avoid famine, one ritual is performed by Lepcha shaman, muns or boongthings. Many locally available foodstuffs, especially beaten rice, roasted buckwheat, Chee (local alcoholic beverage) are placed along the footpath from higher regions (lekh) down to the riverside. During the ritual, one person acts to show the way to the entire mice and the other will act like chasing the mice from behind, away from the village area. The rituals associated with death are performed with all the villagers after the flowering of this bamboo species (documented in an interview with the villagers of Sakyong, Dzongu). The increase in mice population in village after bamboo flowering and simultaneous loss of food stocks due to mice overeating causing famine are also studied and documented in scientific literatures [33][34] .

A dried stem of *Cephalostachyum capitatum* Munro or Po-yong is often found in a Lepcha house, hanged either above the door or in the walls of the rooms, especially on the wall behind the bed. It is believed to have the power to sue away evil spirits, and it is also believed to save the person from dream paralysis. Poyong stem is believed to cure the person of the habit of clenching teeth in sleep. The young shoots of most of the local bamboo species are also edible. Cane shoots are considered a delicacy amongst the Lepchas and valued items during marriage or other ceremonies. Until recently, the decline in the cane population was noticed in the Hee- Gyathang region, and collectively, Lepchas from Hee- Gyathang decided not to collect it and not to use it in ceremonial feasts. In Thokru Dum, Indigenous Lepcha weave, there is a pattern known as Poo-chak, which is a pattern indicating the bamboo knots- constantly reminding the tribe about the value and conservation of this particular species of plant, among many others.



Poo- chak, pattern indicating bamboo knots
in Indigenous Lepcha weave
(Photo credit: S. Sinha, NIHE SRC)



Large cardamom-based agroforestry system
(Photo: G Chhetri, NIHE, SRC)

Sacred areas in Lingdong Gram Panchayat

Some hills within the Lingdong Gram Panchayat area are considered sacred and worshipped. Lingi Chu, Tung Deh (Lingi Chu's wife), Sandkardzong, and Rinkendzong are amongst the most sacred.

The sacred grove, Khangchendzong Tung Da, is revered and worshiped by the Lepchas. The Mayel Ney, a perennial water source, is considered sacred; its presence is rather intriguing since the other parts around Mayel Ney are dry. Besides, there is a sacred area of Rongbol within the forest of Lingdong, which is also a habitat for the jungle bee.

It is believed that the deities of these sacred places will punish if any defilement of these places takes place. The punishment may come in the form of people falling sick or a disaster striking the village. Through their belief systems, the Lepchas thus help preserve nature and prevent ecological damage to the fragile mountain ecosystem.



Zero tillage practice in Dzongu, North Sikkim
(Photo credit: U.P. Lepcha, MLAS)

Traditional agriculture practices and conservation of natural resources

Zero-tillage farming

The Lepcha tribe practices a zero-tillage or no-till farming system; this helps decrease soil erosion, especially on sloppy terrain. It also helps increase the water in the soil and retain organic matter, thereby enhancing soil fertility. Thus, this farming practice protects the soil and helps increase soil fertility and retain soil moisture.

The traditional agroforestry system

The practice of the traditional agroforestry system is common in Sikkim, Darjeeling, and Kalimpong. The agroforestry system is a traditional adaptation strategy that enhances resilience to the adverse impacts of rainfall variability, reduced water availability, soil erosion, etc. This system helps conserve multipurpose plant species, including medicinal plants and wild edibles, along with many underutilized and semi-domesticated crops. Since most of the Lepchas are cardamom growers, the practice of cardamom-based agroforestry along sloppy areas is relatively common among the tribe.

Further, the region has a significant presence of ecologically adaptive multipurpose tree species like *Albizia* spp. and *Alnus nepalensis*. Sikkim mandarin-based agroforestry is popular in the Dzongu area. The mandarin (*Citrus reticulata*) is grown along with other crops like finger millets (*Eleusine coracana*), cassava (*Manihot esculenta*), pulses, and fruit trees like guava (*Psidium guajava*), peach (*Prunus persica*) and plum (*Prunus domestica*), as well as fodder plants like broom grass (*Thysanolaena maxima*). Such an agroforestry system supports water conservation and helps in flood control; it also provides nutrients and biomass to the soil.



7. Conclusion and Recommendations

The traditional lifestyle of the Lepcha people demonstrates their empathetic and gracious nature towards the environment. It is mainly reflected in their cultivation practices, house-building techniques, social and religious practices, and belief systems. They traditionally used to respect and worship nature and possess vast knowledge about the flora and fauna in the surrounding forests. Such intimate indigenous knowledge of flora and fauna has enabled them to co-exist with their environment for generations [34]. In the past, the Lepchas were nomadic and survived on the fruits, roots, tubers, leaves, and twigs they collected; they depended on hunting and fishing. Due to the increase in population and restrictions on using forest produce, the Lepcha people started domesticating animals and reduced their hunting and collection activities in the wild. Since the mid-nineteenth century, they have practiced settled agriculture like other communities. Both old and modern practices have thus influenced today's Lepcha populations. They believed there could never be a food shortage as long as the forests existed. They were optimistic that their natural environment would continue significantly shaping their culture and society. Lepcha's indigenous belief systems have changed with the influence of religions like Buddhism and Christianity. With time, there has been a gradual distancing from their original animistic religion. Presently, the majority of the Lepcha practice a religion that is an amalgamation of Buddhism and animism. The Christian Lepcha populations have distanced themselves from their shamanistic rituals and beliefs [24].

The influence of other cultures and customs has changed the traditional Lepcha ways of living and their food habits and clothing. Another critical factor is outmigration from their original habitations for studies and livelihoods to cope and catch up with the modern world. It is evident among the young generation that they wear their traditional costumes during festivals and ceremonial occasions. Indeed, it is only in remote areas, and that too among Lepcha elders, that traditional costumes are seen.

The Lepchas in these remote villages still speak Rongring, and some do not even understand Nepali. However, the younger population, who have moved out of their villages for studies and jobs, have picked up other languages for survival. So, to promote the Lepcha language of Rongring, especially among youngsters, there is an urgent need to revitalize the original ethnicity of the tribe and encourage youngsters to embrace their native culture.

The Lepchas used to depend for their livelihood on ecological surroundings. However, gradual changes and modernization have pulled this tribe away from its natural world. They no longer depend upon the forests and their produce as their ancestors did, resulting in a loss of environmental knowledge and the indigenous belief systems associated with it; this loss may even be irrecoverable. It can be illustrated by considering the changes in their knowledge systems in medicine, weather forecasting, arts and crafts, and agricultural practices [2]. In the medicinal system, unlike in the past, they do not just totally depend on the traditional medicine prescribed by their local herbalists but now opt for modern medical treatment. As for forecasting the weather, they used to do it in the past by observing certain plants and animals, the movement of wind, the arrival of different birds, and by the peculiar and different sounds of birds and animals. However, such indigenous knowledge has faded with the demise of the knowledge holders and the lack of interest among the new



generation. In terms of arts and crafts, traditionally, the Lepchas were experts and used to make several artistic tools, handlooms, and handicrafts for their daily use.

Nevertheless, at present, the majority of their traditional tools for daily use have been replaced by modern ones, including utensils. Moreover, in the past, they used to wear cloths woven from nettle fibre which has now been replaced by cotton and woollen yarn. In agriculture, though they had to discontinue their indigenous slash-and-burn technique due to governmental policy, it has also been perceived that there has been a sharp decline in the number of traditional crop varieties that high-yielding hybrids have replaced. It is recorded that in Dzongu, during the 1930s, at least five varieties of dry rice and 26 varieties of wet rice were planted. However, now only a few varieties of paddy are grown, whereas dry-rice cultivation has almost disappeared from the region [2].

It has also been found that most of the Lepchas no longer live in traditional houses made of wood, bamboo, and mud and with thatched roofs. Such traditional houses – known to be resistant to earthquakes, floods, and landslides – now can only be seen in Dzongu and a few in Kalimpong. It was learned from the tribe that the unavailability of raw materials to maintain their traditional houses and the lack of skilled architects to build and renovate the same, and the easy availability of modern construction materials have led to such a situation. Thus, the modernization process has adversely influenced their traditional culture; as a result, the original Lepcha culture is deteriorating quickly. Modernization has also taken

a toll on the Dzongu Lepchas (once considered to be isolated from the rest of the world). Due to excellent global connectivity, the implementation of various government schemes, and an enhancement in their economic status, the Dzongu Lepchas are also gradually merging with the mainstream modern world. However, such changes are inevitable and have positively or negatively influenced every ethnic society. It is also a fact that no race ought to be reduced to the status of a museum relic and forced to live in isolation in harsh conditions. At the same time, there is a need to conserve and strengthen original cultures to empower them to negotiate with the forces of modernity.

Our investigation revealed that the Lepchas' invaluable original art and culture are likely to disappear in the wave of modernization if urgent measures are not taken to protect and preserve this unique cultural heritage which is purely nature-based. Against modern mechanized systems, such nature-oriented systems of any ethnic society must be promoted and propagated due to their positive influence and impact on sustainable development, especially impacts of climate change are intensively felt. Therefore, steps must be taken by the government and other stakeholders to safeguard and promote the Lepchas' traditional culture, customs, and arts and crafts. However, the Government of Sikkim has already developed a cottage industry since 1957 for the development and marketing of the traditional arts and crafts of the ethnic communities of the state, including Lepcha handlooms and handicrafts, for popularizing the art and culture of the ethnic groups. Likewise, the Government of West Bengal has provided constitutional safeguards to them by forming development boards for different communities, including the Lepchas of Darjeeling and Kalimpong districts. With the formation of the Lepcha Development Board in 2013, there has been a revival of Lepcha culture and tradition. This board has been formed for the overall development of the community; preservation of their language, literature, culture, and knowledge; and to provide support for improving their livelihood through agriculture, horticulture, pisciculture, tourism, and cottage industry. The onus for the flourishing of their culture lies on the Lepchas themselves [2]. At the same time, the intervention of governmental and non-governmental organizations is essential too; they can help the community to continue with their eco-friendly and sustainable traditional practices by providing financial support, imparting training, and devising capacity-building programmes. It is essential for underprivileged Lepcha youths who can take up their traditional arts and crafts to earn a decent livelihood. What is also important is the preservation of the precious indigenous knowledge system of this tribe. In a nutshell, a combined and concerted effort from all stakeholders is the call of the hour to protect the rich cultural legacy of the Lepchas.

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List of plant species used in making traditional Lepcha handicrafts

1. *Dendrocalamus sikkimensis* Gamble ex Oliv; Local name : Padyang (L); Bhalu baans (N)

Used in making :

- ❖ *Puthyut* (L); *Dungro* (N): Used for drinking local beer (Millet beer etc.)
- ❖ *Po Dham* (L); *Dhiri* (N): Used for carrying and storing water
- ❖ *Vom Tungbo* (L); *Noon ko Dungro* (N): Used for storing salt
- ❖ *Nyen Tungbo* (L); *Dhunayri* (N): Used for storing milk

2. *Bambusa nutans* Wall. ex Munro; Local name : Wahlo (L); Mali baans (N)

Used in making :

- ❖ *Tuleung* (L); *Nanglo* (N): Commonly used for separating dirt, husk from rice. Also used for drying grains, seeds, vegetables etc.
- ❖ *Tuloo* (L); *Mandro* (N): Used for preparing Chi, drying grains, seeds etc.
- ❖ *Tungzyang* (L); *Doko* (N): Used for carrying goods and storing purposes.
- ❖ *Chaw Chok* (L); *Chalni* (N): Used for straining tea
- ❖ *Vohor* (L); *Bhakari* (N): Used for storing grains and seeds etc.
- ❖ *Tuk* (L); *Ghoom* (N): Used as rain coat during rainy season while working in agriculture field.
- ❖ *Phintok* (L); *Fungloo* (N): Mostly used during large cardamom cultivation season and for storing Chi.
- ❖ *Tukshor* (L); *Khongi* (N): Used for catching fish

3. *Dendrocalamus hamiltonii* Nees & Arn. ex Munro; Local name: Po pulee (L); Choya baans (N)

Used in making :

- ❖ Lepcha hat: (*Sumok-thyak-tuk*) was mostly worn by the Lepcha chieftains and Priests (*Mun/Boongthing*) and high class officials. Another hat (*Papri*) was worn by the common people in early days while going for hunting and field work.
- ❖ *Tuleung* (L); *Nanglo* (N): Commonly used for separating dirt, husk from cereals & pulses. Also used for drying grains, seeds, vegetables etc.
- ❖ *Tuloo* (L); *Mandro* (N): Used for preparing Chi, drying grains, seeds, etc.
- ❖ *Shor* (L); *Chappani* (N): Used for extracting Chi .
- ❖ *Tungzyang* (L); *Doko* (N): Used for carrying goods and storing purposes.
- ❖ *Vohor* (L); *Bhakari* (N): Used for storing grains and seeds.
- ❖ *Tuk* (L); *Ghoom* (N): Used as rain coat during rainy season while working in agriculture field.
- ❖ *Pelung* (L); *Tiffin /Khaja dabba* (N): Used for carrying food
- ❖ *Phintok* (L); *Fungloo* (N): Mostly used during cardamom cultivation season and for storing Chi
- ❖ *Tongdong* (L); *Ladder-Sidi* (N): Mostly used during wild bee hunting.
- ❖ *Chipli* (L); *Straw-Pipsing* (N): Used for taking millet beer etc.
- ❖ *Tukshor* (L); *Khongi* (N): Used for catching fish
- ❖ *Puthyut* (L); *Dungro* (N): Used for drinking local beer (Millet beer etc)

4. *Cephalostachyum capitatum* Munro; Local name: Payong (L); Gope baans (N)

Used in making :

- ❖ *Tuleung* (L); *Nanglo* (N): Commonly used for separating dirt, husk from cereals & pulses. Also used for drying grains, seeds, vegetables etc.
- ❖ *Tuloo* (L); *Mandro* (N): Used for preparing Chi, drying grains, seeds, etc.
- ❖ *Tungzyang* (L); *Doko* (N): Used for carrying goods and storing purposes.
- ❖ *Chaw Chok* (L); *Chalni* (N): Used for straining tea
- ❖ *Vohor* (L); *Bhakari* (N): Used for storing grains and seeds etc.
- ❖ *Tuk* (L); *Ghoom* (N): Used as rain coat during rainy season while working in agriculture field.
- ❖ *Phintok* (L); *Fungloo* (N): Mostly used during cardamom cultivation season and for storing Chi
- ❖ *Tukshor* (L); *Khongi* (N): Used for catching fish

5. *Phyllostachys manii* Gamble; Local name : *Payong* (L); *Kata baans* (N)

Used in making :

- ❖ *Tuleung* (L); *Nanglo* (N): Commonly used for separating dirt, husk from cereals & pulses. Also used for drying grains, seeds, vegetables etc.
- ❖ *Shor* (L); *Chappani* (N): Used for extracting Chi
- ❖ *Tungzyang* (L); *Doko* (N): Used for carrying goods and storing purposes.
- ❖ *Thakpo* (L); *Rope-Dori* (N): Used with Tungdyong, Tangzyang etc. to carry goods
- ❖ *Tongdong* (L); *Ladder-Sidi* (N): Mostly used during wild bee hunting
- ❖ *Rulop* (L); *Shield-Dhaal* (N): Used during times of war to protect from arrows.
- ❖ *Tuphu* (L); *Pyang* (N): Used for measuring grains and seeds.

6. *Dendrocalamus hamiltonii* var. *edulis* Munro; Local name : *Rugvi* (L); *Gulio tama baans* (N)

Used in making :

- ❖ *Tuleung* (L); *Nanglo* (N): Commonly used for separating dirt, husk from Rice. It can also be used for drying grains, seeds, vegetables etc.
- ❖ *Shor* (L); *Chappani* (N): Used for extracting Chi
- ❖ *Tungzyang* (L); *Doko* (N): Used for carrying goods and storing purposes.
- ❖ *Thakpo* (L); *Rope-Dori* (N): Used with Tungdyong, Tangzyang etc. to carry goods.
- ❖ *Tongdong* (L); *Ladder-Sidi* (N): Mostly used during wild bee hunting.
- ❖ *Rulop* (L); *Shield-Dhaal* (N): Used during times of war to protect from arrows.
- ❖ *Tuphu* (L); *Pyang* (N): Used for measuring grains and seeds.

7. *Girardinia diversifolia* (Link) Friis; Local name : *Kuzoo* (L); *Bhangre Sisnu* (N)

Used in making :

Used for weaving Lepcha traditional dress and bags

*(L:Lepcha; N:Nepali)

List of plant species used in making “Chi” (local wine) in Dzongu, North Sikkim

Sl. No.	Scientific name	English name	Local name (L- Lepcha; N- Nepali)	Habit	Family	Part used
1.	<i>Amomum subulatum</i> Roxb.	Large cardamom	Lenzee (L) Bara alaichi (N)	Herb	Zingiberaceae	Seeds
2.	<i>Ananas comosus</i> (L.) Merr.	Pine apple	Kaong Chyey (L); Bhui katar (N)	Herb	Bromeliaceae	Fruit
3.	<i>Angiopteris indica</i> Desv.	Fern	Tukpow (L); Gaikhure (N)	Herb	Marattiaceae	Tuber
4.	<i>Canna indica</i> L.	African Arrowroot, Indian Shot	Kafearbuk (L); Phultarul (N)	Herb	Cannaceae	Tuber
5.	<i>Cinnamomum verum</i> J.Presl	True Cinnamon	Sungsyorfiya (L); Sinkawli (N)	Tree	Lauraceae	Stem bark
6.	<i>Eleusine coracana</i> (L.) Gaertn.	Finger millet	Mong (L); Kodo (N)	Herb	Poaceae	Grains
7.	<i>Eriolobus indica</i> Schn.	Indian crab apple	Leepotchoyr (L); Mehel (N)	Tree	Rosaceae	Fruit
8.	<i>Ficus auriculata</i> Lour.	Wild fig	Kondong paoth (L); Nebara (N)	Tree	Moraceae	Inflorescence
9.	<i>Manihot esculenta</i> Crantz	Cassava	Tunglubuk (L); Simal tarul (N)	Shrub	Euphorbiaceae	Root
10.	<i>Musa paradisiaca</i> L.	Banana	Kundung (L); Kera (N)	Herb	Musaceae	Fruit
11.	<i>Oryza sativa</i> L.	Rice	Zoh (L); Dhan (N)	Herb	Poaceae	Grains
12.	<i>Passiflora edulis</i> Sims	Passion fruit	Kundom paot (L); Garendal (N)	Climber	Passifloraceae	Fruit

13.	<i>Prunus persica</i> (L.) Batsch	Peach	Takpow paot (L); Jhusey aaru (N)	Tree	Rosaceae	Fruit
14.	<i>Psidium guajava</i> L.	Guava	Sun raam kung (L); Ambak (N)	Tree	Myrtaceae	Fruit
15.	<i>Pyrus communis</i> L.	Common pear	Lee paoth (L); Naspati (N)	Tree	Rosaceae	Fruit
16.	<i>Rhaphidophora glauca</i> (Wall.) Schott	-	Tingcling (L); Kanchirna (N)	Climber	Araceae	Young shoots and stem
17.	<i>Saccharum officinarum</i> L.	Sugarcane	Pa aam (L); Ukhu (N)	Herb	Poaceae	Stem
18.	<i>Tetradium fraxinifolium</i> (Hook.) T.G.Hartley	-	Kanu/Kunu (L); Khanakpa (N)	Tree	Rutaceae	Fruit
19.	<i>Triticum aestivum</i> L.	Wheat	Kukyo (L); Gaun (N)	Herb	Poaceae	Grains
20.	<i>Zingiber officinale</i> Roscoe	Ginger	Heng (L); Aduwa (N)	Herb	Zingiberaceae	Rhizome
21.	<i>Actinidia callosa</i> Lindl.	Wild kiwi	Theki phal (N)	Fruit	Actinidiaceae	Climber
22.	<i>Prunus domestica</i> L.	Plum	Arucha (N)	Tree	Rosaceae	Fruit

About the Institute



Govind Ballabh Pant National Institute of Himalayan Environment 'NIHE' was established at Kosi-Katarmal, Almora Uttarakhand in 1988 as an autonomous Institute of the Ministry of Environment, Forests and Climate Change (MoEF&CC), Govt. of India. The Institute is identified as a focal agency to advance scientific knowledge, evolve integrated management strategies, demonstrate their efficacy for conservation of natural resources and ensure environmentally sound development in the entire Indian Himalayan Region. Apart from undertaking Research and Development and/or demonstration on its own, the institute has established linkage between national and international organisations committed to environment and development linked issues in mountainous regions. All the activities of the Institute are essentially multidisciplinary in nature based on a conscious efforts to interlink natural and social sciences to promote sustainable development. GBPNIHE functions in a decentralized manner with its HQs at Kosi-Katarmal, Almora, Uttarakhand and six Regional Centres, namely – Ladhak Regional Centre (Leh), Garhwal Regional Centre (Srinagar-Garhwal), Himachal Pradesh Regional Centre (Mohal, Kullu), Sikkim Regional Centre (Pangthang, Gangtok), North-East Regional Centre (Itanagar) and Mountain Division (MoEF&CC, New Delhi).

About the Sikkim Regional Centre



Sikkim Regional Centre, established in 1989, has been taking up Research & Development activities in Eastern Himalayan States, with particular focus in Sikkim and hilly region of West Bengal (Darjeeling and Kalimpong districts). Center's activities are focussed on the issues relevant to the Sikkim Himalaya with due consideration of geo-environmental conditions, ecosystem approach, community participation, socio-economics, sustainable development and capacity building. Significant activities tie-up with governmental agencies, non-governmental agencies for State and people of Sikkim Himalaya.

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