

Tribal Traditional Philosophy of Living and its Present-Day Challenges: A Study of the Lepchas of Darjeeling Himalaya

Alolika Mangal¹

Department of Geography and Resource Management
Mizoram University, Aizawl, India
Email: alolika.pinki@gmail.com

Vishwambhar Prasad Sati

Department of Geography and Resource Management
Mizoram University, Aizawl, India
Impact and Policy Research Institute, New Delhi, India
Email: sati.vp@gmail.com

Abstract

Among the native people of erstwhile Himalayan region Lepchas are inhabitants of mainly Sikkim and Darjeeling Himalaya. They are known for their distinctive Lepcha culture and are called 'children of nature'. Lepchas are maintaining their indigenous knowledge-based practices in every sphere in the form of cultural practices, sustainable livelihoods, tribal society, transferring knowledge and conservation practices. However, modernization process, global cultural influence has impacted their traditional way of living. The objective of the study is to understand the Lepcha traditional ways of living and its current challenges to follow them. The study is an attempt to highlight a comprehensive picture of various facets of Lepcha ways of living which are facing challenges in recent times. Lepchas are encountering various challenges, including displacement from their native lands, so to preserve Lepcha knowledge-based practices it is needed to protect Lepcha oneness. The study is based on comprehensive literature review following other secondary sources for understanding. Lepcha identity can be preserved through cultural revival, safeguarding wisdom, philosophy and practices of protecting nature.

1. Introduction: Lepcha origin

The Lepchas, also known as *Rongkup* or *Rongpa*, or children of God, inhabiting the Eastern Himalayas distributed over mainly Sikkim, West Bengal, Nepal and Bhutan. The word *Rong* means 'sons of snowy peaks' (Tamang 1983) which Lepchas often refer to themselves. The Lepcha has no traceable root of origin and they call themselves as Rong and locate their original home in the neighbourhood of the great Mt. Kanchandzonga (Rai et al. 2007). They are the indigenous group living in the vast tract of mountain land stretching from Ilam district of Nepal to hilly areas of India's West Bengal covering Darjeeling and Kalimpong districts, Sikkim and the Chumbi Valley of Tibet as well as the Har and Ammo Chu valley of Tibet. Whether they originated from eastward migration from Nepal to Arunachal Pradesh, Shillong or they have

¹ Corresponding author: Email: alolika.pinki@gmail.com

Tibetan, Burmese origin, is difficult to say. But the Lepchas refer their homeland as *Mayel Land* (*Land Blessed by God or Hidden land*) which according to their historical records was said to have spread over a large area of land starting from Arun, Tamor and Koshi river (now in Nepal), in the west up to the Tagong La, Thong La and Rudok river (now in Bhutan) in the East. In the north, the land included the Kanchenjunga, Gopmochi peaks and Chumbi valley (now in Tibet) and was extended up to Titiliya in the South in Bangladesh (Roy 2005). Epistemologically, the word is also close to the Bhutanese Dzongkha word 'La-chu'; La means 'hills' and chu means 'river', hence it means people living between hills and rivers (Phipon 2007).

There are various theories of Lepcha origin and migration among anthropologists, historians, sociologists. Mackean (1920) asserts that the Lepchas came with the *Jimdars*, a Rajput community who went to Nepal to settle or *Rais* of the Nepalese community or with the *Meches*, belonging to the Bodo Kachari indigenous people who settled in the foothills of the Himalayas. Waddell (1900) believes that the Lepchas, who were of Indo-Chinese origin, came to Sikkim from the east through Assam valley. After thirteen years of anthropological fieldwork in Kalimpong, Sikkim and Git, Siiger (1967) supported Mackean and Waddell's statements. (Subba 1985). Among all the indigenous tribes and other communities of Sikkim and Darjeeling Himalaya Lepchas are considered to be the most prominent and original inhabitant of this region.

The Lepchas are a small tribe of mongoloid origin who were first introduced to the world by the explorers from the unexplored world of the Kanchenjunga basin of that time. The endeavors of Sir J. D. Hooker in the 1850s with the assistance of the then Superintendent of Darjeeling, Dr. Campbell are the first written historical facts recording the Lepcha tribe. (Molommu & S.P. 2018). W. B. Jackson, an inspecting officer recommended (1852) that the hill people of Darjeeling should be brought within the pale of civilization, and compared them with the hill tribes of Bhagalpur to say that they were 'a wretched unmanageable race, living the life of wild animals.'

Awasty (1999) considered that Lepcha migration took place from Sikkim to Pedong, near Kalimpong, in the 17th and early 18th centuries under pressure from the Lamaistic form of Buddhism. The Darjeeling Himalayan region initially was under Sikkim, later under the British era it came under the West Bengal. Tamsang (2007) asserted that the Lepchas and their language must have gone to other parts of the world in the distant past and hence the Lepchas are the autochthones of Sikkim and Darjeeling (Mandal 2018). Darjeeling has a clear demarcation between the Hindu population and the other mountain tribes, which socially segregated them from each other. The Lepcha community of this territory coexist with the other indigenous people. According to the available census data (2011) of West Bengal, three types of Indigenous groups inhabit the Darjeeling Himalayan region, namely the Lepcha, the Bhutia and the Gorkha. Among them Lepchas boast unique cultural and environmental practices that encompass customs and traditions, religion and festivals, literature and music, wild resources taken for culinary preferences and dietary habits, knowledge and uses of medicinal plants, environment friendly handloom and handicrafts, agricultural wisdoms and rituals, conservation of forest through agro and social forestry.

Darjeeling Himalayan Hill region is a mountainous area on the north western side of West Bengal. It stretches between 26°27'N to 27°13'N latitude and 87°59' E to 88°53'

E longitude. This region abruptly arises from the Terai region (150 m). Darjeeling Himalaya has an elevation range of 2000-3000m and occurs as the foreland of the Kanchenjunga massif (world's third highest peak) (Sarkar & De 2017). The two main rivers of the region are the Teesta and the Great Rangeet and Mahananda, Jaldhaka also flow through this region, act as primary sources of water (Cajee 2018) which are considered as sacred and worshipped as deities by Lepchas. Sikkim is the homeland of Lepchas spreading over Darjeeling and Kalimpong district of West Bengal as well as a few pockets of Tripura. In the Census 2001, the population of Lepchas in Sikkim was 40,000; West Bengal was 33,000 and Ilam was 3000 (Lepcha 2013). As per census 2011, total Lepcha population in Sikkim is 42909 and the northern part of West Bengal is 76,871. According to Tribal Research and Cultural Institute (2024) 3,445 live in Nepal, and constitute up to 15% of the indigenous tribal population in Bhutan, residing primarily in Samtse. The descendants of Nepalese are a larger portion coexisting with Gorkhas, Bhutias and Lepchas.

The study argues how the broader aspects of Lepcha society, customs and traditions, literature act as pillars of Lepcha identity; how they are resilience to cultural mixing, threats, migration of other communities. The study aims to highlight the indigenous Lepcha people's eco-centric knowledge inhabiting Darjeeling Himalaya, and the Lepcha identity based on their indigenous knowledge. The study underlines the truth that these people are thriving as one of the oldest cultural and social groups.

2. Methodology

The study examines how the Lepcha's unique traditional practices and philosophy of life contribute to sustaining livelihoods, fostering resilience in the face of a constantly changing natural environment, and preserving cultural identity in the Himalayan region. The study seeks to assess and synthesize existing narratives and descriptive studies, while maintaining an analytical approach to the pre-existing scholarship on the Lepcha community of the Darjeeling Himalaya.

As the study is multidimensional, covering a wide range of subject areas such as anthropology, geography, history, and botany, a review of existing literature is essential to arrive at well-grounded conclusions and to address contemporary challenges. Accordingly, secondary data have been drawn from published research articles and government reports, from the works done by G. B. Pant National Institute of Himalayan Environment (NIHE), Tribal Research and Cultural Institute, West Bengal Tribal Development Board, Backward Classes Welfare Development Board, Govt. of West Bengal, Census of India(2011), District Census Handbook of Darjeeling and Kalimpong, books, dissertation and thesis on Lepchas of Sikkim and Darjeeling Himalaya and Ilam district of Nepal.

3. Agglomeration

Collecting information from Frontier (2017), Census of India (2011), West Bengal Tribal Development Department, Local Conservation Articles, District Official Reports (2011) as well as local conversation, a number of Lepcha villages have been identified in Darjeeling Himalayan region. Each village has its own significance in maintaining nature-based philosophy of living which is important to maintain

sustainability in this part of Himalayan region. In this region there are Lepcha villages like Kaffer, Lower Bong Busty, Nassey, Sindebong, Algarah which are mostly preserving their traditional knowledge for healing and uses of medicinal plants.

LEPCHA AGGLOMERATED PLACES IN DARJEELING HIMALAYA

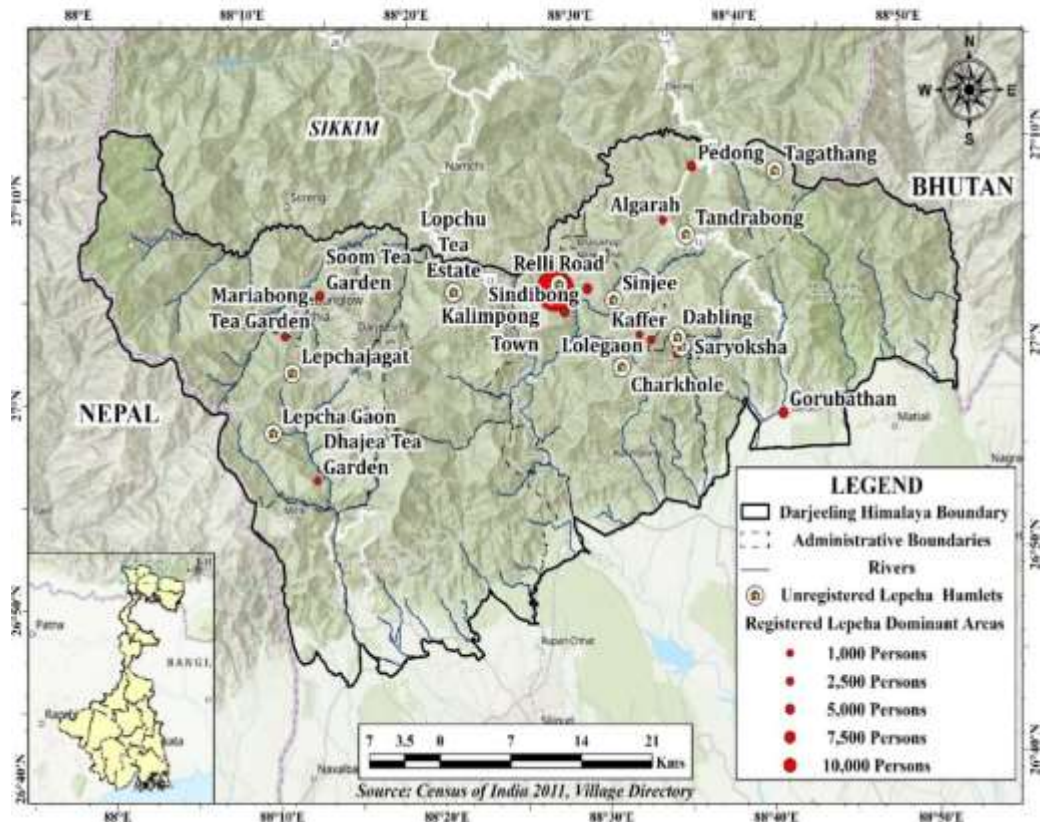


Fig. 1. Major Lepcha Agglomerated Places in Darjeeling Himalaya

Simultaneously, there are Lepcha villages which are preserving Lepcha cultural sites and religious sites like Lingsey, Lingseykha, Tandrabong, Bong Basti (Old Khasmal), Kalimpong Town (Big Dhara), Pokhriabong Lepcha Monastery. Along with these there are Lepcha villages which are undergoing changes and adopting new ways to sustain in the form of eco-tourism and forest hamlets like Rishyap, Loleygaon (Lolegaon), Dabbling, Saryoksha, Pemling. As British plantation economy had impacted Lepcha community so there are villages who remained as tea gardens or estates like Soom, Mariabong (Marybong) and Dhajea Tea Garden, Lopchu Tea Estate. These villages are examples of Lepcha cultural and societal identity as well as shifting Lepcha traditional ways of living. However, there are several Lepcha hamlets which are officially not registered, still they exist in the outskirts of main towns in Darjeeling Himalaya region. of this region.

We have a brief understanding of Lepcha agglomeration in this area certain villages which have significant Lepcha practices are taken into consideration to understand its spatiality and distinctiveness. (see Table 1).

Place	Lepcha significance
Kaffer (Khasmal)	Ethnomedicinal village, Lepcha-dominated
Lower Bong Busty	Traditional Lepcha healers
Nassey	Lepcha ethnomedicinal practices
Sindebong	Traditional Lepcha presence
Algarah	Known for Lepcha herbal healers
Lingsey, Lingseykha, Tandrabong	Cultural resilience sites, traditional Lepcha communities
Charkhole	Small Lepcha hamlet with eco-tourism potential
Tunglabong & Lungsel (Gorubathan)	Historical Lepcha settlements featured in the Lepcha Trails project
Pedong (Kashyone)	Site of Damsang Fort, last Lepcha king's stronghold
Rishyap	Lepcha homesteads and nature-based settlement
Loleygaon (Lolegaon)	Forest village with Lepcha cottages and eco-heritage
Bong Basti (Old Khasmal)	Location of Lepcha Bong Gumpa Monastery
Kalimpong Town (Big Dhara)	Home of the Lepcha Museum (Sonam Tshering Lepcha's collection)
Lepchajagat (Lepcha Jagat)	Historic Lepcha hamlet, forest village, named after the Lepchas
Pokhriabong Lepcha Monastery	Nyingma Buddhist monastery rooted in Lepcha Munism
Soom Tea Garden	Name derived from Lepcha word for "triangle"; plantation with Lepcha origin
Dhajea Tea Garden	"Place of flags" in Lepcha language; reflects spiritual practices
Lopchu Tea Estate	Named using Lepcha language, culturally influenced tea estate
Mariabong (Marybong) Tea Garden	Name derived from Lepcha term "Mary's place"
Relli Road / Relli River	Lepcha river valley area; scenic spot with local Lepcha and Sherpa villages
Dabbling	Dabbling is part of traditional Lepcha-inhabited hills near Kalimpong
Saryoksha	Likely Lepcha-derived toponym ("Sung-taray-ksha" forest land)
Pemling	Lepcha hamlet: name from Lepcha "Pyong-Ling" bamboo; community of Lepcha families, has eco-tourism & homestays

Table 1. Lepcha villages of Darjeeling Himalaya which follow nature-based philosophy of living. Sources: Information is gathered from Frontier (2017), Census of India (2011), West Bengal Tribal Development Department, Local Conservation Articles, District Official Reports (2011).

4. Socio-cultural aspects

a. Societal aspect: Egalitarian society and importance of 'Sheezoom'

In the hilly tracts of Darjeeling Himalaya, there is a close relationship between Lepchas and Idyllic Mount Kanchenjunga. As Singh and Chakraborty (2014) explained, Lepchas, in the high altitude, have developed an intrinsic relationship with nature, and they live in perfect harmony with it. They regard Mt. Kangchenjunga as their guardian deity. Among the hill settlements Lepchas are influenced by modernity a minority compared to neighbouring Hindus living in villages and hamlets. Their society followed the rule of sharing and equality, a structure that (Ghosh et.al, 2018) defined as primitive communism. Traditional Lepcha society is based on clans with each clan having one guardian or leader and these clans are the backbone and controlling authority of the community. The kinship comes from blood lineage and is often determined by the collective decisions of the elders. About the clan structure of the Lepchas, Morris (1938) writes, 'The Lepcha tribe is composed of a number of clans, called pu-tso. No one can say how many clans there are, for this grouping seems to be a purely local one. In the Kalimpong only the names of over forty different clans were recorded, but in Lingtem, Sikkim there were but fourteen'. It is found that each clan name invariably ends in 'moo'. It is also seen that each of these clan names has an equivalent and exact name of some village or locality in Sikkim, Darjeeling and Nepal region even today. This means that the Lepchas have acquired clan names from the locality or village from which they originally came. (Lepcha & Aden 2016).

The Lepcha marriage system is polyandry as it is considered that a woman can have multiple husbands by marrying the brothers of her husband from the same family. This is to maintain property within the family and to prevent fragmentation of land. As women have the right to marry multiple times and their brothers not only share a wife but also economic equality and responsibilities are also shared. In this way the egalitarian nature of a society is maintained regardless of family structure. The ancient marriage ceremony of the Lepchas are performed by the *Bongthing* (Lepcha priest). The bride and the bridegroom are told to be seated on a high pedestal which represents two mountain peaks of the Himalayas. The Bongthing performs the marriage rituals by chanting religious prayers (Subba 2008). The Lepcha society upholds equal rights for men and women in accordance to inherit property rights or even performing duties as religious preachers. Thus, they maintain essence of egalitarian Lepcha society.

The Lepchas maintain a strong social organization named as *Sheezoom* which functions as traditional institutions. These Sheezooms are formed in three levels. The village level known as the Kyong, the Kyongs named as Thoom and Thooms form a Poom at district level (Lepcha et al. 2021). These are similar to the Panchayati system but the authoritative power has reduced. These Sheezooms also play important roles in preservation of bio-cultural values and are often considered as institutions for educating local youths for maintaining traditional tribal knowledge. As a part of recognition Lepcha Tribal Board was formed by the Govt. of West Bengal in 2013 with certain autonomy for the benefit of Lepcha people especially remote areas of the outskirts of mountain towns.

b. Cultural aspect: Significance of Lepcha ceremonies and festivals

As Lepchas are nature worshippers, their ceremonies and festivals are closely associated with nature. Following the harmonious relationship with the environment all ceremonies and festivals are more than rituals which represent Lepcha identity playing a crucial role in preserving their unique culture. Lepcha folk music, dances, and storytelling practices are major forms of celebrating ceremonies and festivals. However, these ceremonies and festivals are losing their significance due to immigrant Nepali festivals and some local festivals to promote tourism in this region.

The celebration of *Mik Zik -Ding Rum Faat* in February indicates the coming of dry summer spell. The foothills of Himalayas require timely rainfall, insolation and other favorable climatic conditions so they worship the rain God in this manner (Lepcha 2017). In Lepcha words mik means granary of nature, zik-ding means sprouting of vegetation, rum means God, Faat means offering. So, Mik Zik -Ding Rum Faat offers prayers for greenery and opulent production of crops.

The festival of *Nam Soong* or *nambroong* is one of the most significant festivals of Lepchas as it symbolizes triumphing over evil bringing harmony on *mayel lyang* (Fig.1.) Among the many mung demons supposedly *Lasso-Mung-Pano* is the evil one and victory over him marks the beginning of the New Year. It is observed between the last week of December and first week of January each year as per the Lepcha calendar it is called *kurnyit lavo*. On this occasion *lasso* is sung to welcome the change (Utsav 2022).

Tendong Lho Rum Faat is celebrated with great splendor in Sikkim as well as in Darjeeling Hills in the month of August. This festival is part of a Sikkimese celebration first and then Lepcha association of Kalimpong. At this auspicious time the Lepchas pray to *Itbu- Debu- Rum -Daor* who is considered as creator and destroyer at the same time. Like all other festivals Traditional *Chi* is served with all seasonal fruits and crops and celebrated with Lepcha dance performed by *boonthings* and *muns*. (Chhetri et al. 2023).

Chu Lho Rum faat is a festival to celebrate mountain deity *Khangchendzonga* whom Lepchas considered as the guardian and protector. In Rongring language *Chu* stands for white capped mountain peak. Chu Lho Rum faat is observed to show gratitude to the Himalaya.

Kar Gnok Lok is a traditional Lepcha celebration popularly known as *Dance of Swans* performed by young boys and girls to mark the sojourn of a group of migratory swans and the human journey from the mountains to the plains in the month of February March from cold to warm plain in October November. This movement leads Lepchas in harvesting crops (Jha 2015).

Festivals and associated music, dances are an integral part of Lepcha traditional culture based on Lepcha literatures depicting a life cycle of birth, marriage and death where mountain landscapes play the ultimate divine place to play all the roles. These festivals are part of Lepcha cultural identity. All rituals are a way of showing gratitude towards nature. The Darjeeling Himalaya has a mixed population of indigenous people as well as migrants like Nepalis and Tibetans. Henceforth mixing of traditions and predominance of Nepali and Tibetan festivals and rituals are suppressing Lepcha nature-centric festivals.



Fig.2. Lepcha festivities: a) Nam Soong b) Tendong Lho Rum Faat

Source: <https://www.india-tours.com/fairs-and-festivals/namsoong-festival-sikkim-india.html>
<https://www.india-tours.com/fairs-and-festivals/tendong-lho-rum-faat.html>

c. Role of Language in shaping Lepcha culture and its present-day challenges

The Language of Lepchas often termed as *Rong/Rongring* is considered to have originated from the Tibeto-Burman language family. It has its own indigenous script, with distinctive visuals as well syllabic structure. From generations, stories, folk tales, poems, songs based on seasons, nature passed through orally to the younger generation but later on it has turned into literature form, properly documented and is considered as heritage. Though it is supposedly ancient but it's very comprehensive, it is able to describe a flow and power of speech where nomenclature extends to describe all forms of natural entity. According to Graham (1897), the Lepcha language is far anterior to Greek, and perhaps not less old than Sanskrit (Gorer 1938 & Mandal 2018). This highly developed script is believed to be invented by *Thekong Mensalong*, a legendary figure at the beginning of the 17th century. People also believed *Itbu Moo*, mother-nature herself, has given this name. Some scholars believed that Chador Namgyal, the 3rd venerated ruler of Sikkim, was the inventor of this script (Pradhan, 2012). Tamsang (2007) noted that '...the Lepcha language is most copious, abounding in synonyms, antonyms, and homonyms and it possesses words to express every slightest meaning...' From the work of various scholars of Kalimpong and writers namely K.P. Tamsang, Lyangsong Tamsang, Sonam Tshering Tamsang, P.T. Simick, and Arthur Foning, the importance, presence and documentation of Lepcha living is done using Lepcha

Language (Bentley, 2008). On specific occasions, local newspapers published various Lepcha stories written in Lepcha language collected from various Lepcha villages of Darjeeling Himalaya from priests, local people, and villagers. Pradhan (2012) in her work mentioned some Lepcha songs, music, folk tales, dramas, like *Teesta Rangeet* (a dance drama written by noted Lepcha scholar K.P. Tamsang in 1960's), and *Nalmit* (1970), which were written and enacted, centered around the Lepcha language, literature and culture. Apart from the English translation, *Rong Sung Gyaom -A collection of Lepcha folk tales*, some other books are also translated in different languages. Lepchas are the oldest indigenous people of Darjeeling Himalayas and their cultural identity reflects through their language. But in recent times the fact that UNESCO designated Rongring as 'endangered' among India's endangered languages which need to be preserved for safeguarding linguistic heritage. In the Kanchandzonga landscape the survival of Rongring or Lepcha language is a linguistic artefact and an affirmation of cultural identity and historical continuity of the Lepcha community (Arsiwala 2024).

As per 2011 census Lepcha population in Darjeeling Himalaya is 33962 citing them as a demographic minority of this region showing depletion of their animistic practices and diminishing number of Lepcha language speakers. They formed compact settlements in villages like Takdah, Darjeeling Subdivision, Mane Gumba, Bong Basti, Tashiding, Tanek, Ngnassey villages in Kalimpong subdivisions where the villagers mostly speak Lepcha language irrespective of that their conversations are done in Nepali language (Pradhan 2012). Aden (2020) said Lepchas of this region use Nepali to converse when others don't know the language. She explained the reason for speaking Nepali is due to their majority in Darjeeling hills considering it a link language. Being the caretaker of the family as mothers are mostly from non-Lepcha communities the children are not acquiring Lepcha language as their mother tongue however fathers are also reluctant to transfer generational Lepcha knowledge to them. This way it has become a major threat to the existence of Lepcha language. The need of learning Lepcha language in cosmopolitan society of Darjeeling Himalaya is diminishing due to the effect of modernization in the form adopting English language for education and influence of other communities' culture predominance of Nepali language as medium of communication.

The Darjeeling Himalaya region has a variety of ethnic population. When Britishers introduce plantation economy like tea cultivation they needed labours to develop different agricultural system and migrated Nepalese have become major workers for tea plantation. In this way Nepalese formed major settlement in Darjeeling -Kalimpong districts and now they have the highest number of population (Mukherjee 1980). The Nepali language spoken in this region has various dialects spoken by different castes and tribal communities. Ghose (2009) stated *KhasKura* or *Gorkhali* become the new linguistic form developed through tea gardens due to social mixing, while Basu (1988) said that Gorkha ethnicity emerged as major population of this region and regionalization of Gorkha community gave birth to different Gorkha cultures which are well accepted in this region. Sarkar (2018) argues that the colonial policy of Gorkha recruitment and plantation economy in Darjeeling Hills started to displace Lepcha who are the original inhabitants of Darjeeling Himalaya. The name itself comes from *Dorje* has a Lepcha origin. Col. Wadel writes, 'the oldest names are found to be of Lepcha

origin...' I.B. Rai in translation in *Gorkhas Imagined: Indra Bahadur Rai in Translation* (Sarkar 2014). Though Lepcha language was the official language of Darjeeling Himalaya till 1911. However, the predominance of other communities has marginalized the community as well as language and inability to transfer Lepcha traits in the form of language is one of the major reasons of losing its importance in recent days.

d. *Cultural mixing, resilience and adaptation of the Lepcha people in the context of migration and globalization*

Shraddha Nair, a writer and traveller wrote about Lepcha culture of Eastern Himalaya that 'When I travelled through West Bengal and Sikkim earlier this year...by a stroke of sheer luck, I was introduced to Alyen Foning, a shaman of Lepcha origin, but she is also a practicing artist and researcher. Foning's creative practice peeks through the looking glass at her own heritage, one which is slowly vanishing as the people of the Lepcha tribe disperse and dissolve into urban networks.' (Four Generations of Lepchas Credit: Foning's Family Archive Source: Shraddha Nair, Brown History, Dec, 8, 2022) (Fig.2.). From her travel documentation it is known that today Lepcha people are mainly concentrated in a few pockets of Darjeeling Himalaya.



Fig.2. Four Generations of Lepchas Credit: Foning's Family Archive
Source: Shraddha Nair, Brown History, December 8, 2022

In the Kalimpong region, Lepchas hold some administrative positions and they protected Lepcha land from Bhutanese reclaim in the 19th century, though they suffered violation. The Britishers have control over all communities in Darjeeling region and converted the Lepchas to Christianity. Kalimpong was already a part of silk route and migration accelerated the process of cultural mixing and to secure economic stability Lepcha people left their own identical practices and adopted the newly introduced practices.

Irrespective of its resilience Lepcha people face numerous challenges due to globalization, urbanization modernization as mainstream cultures impose certain threat to them and economic instability driving them towards adapting modern cultural

practices. Certain factors are broadly responsible for cultural mixing and their adaptation to globalization process. Among them important factors for changing Lepcha cultural practices are discussed below.

5. A brief history of Kanchandzonga: Foreign interventions and changing Lepcha identity

When the Tibetans first arrived in the 13th century (Wangchuk & Zulca 2007), a blood treaty between *Thikoong Tek* and *Khye Bhumsa* was entered into at *Ka-We-Long-Chaok*, north Sikkim. It marked and sealed a friendship between the indigenous Lepchas and the immigrant Tibetans. Tamsang opines that it was the beginning of the end of the indigenous Lepchas of Mayel Lyang (Tamsang 2008 & Aden 2020). The signing of the treaty tends to bring supremacy of the Tibetans over the Lepchas and a long Tibetan rule started in Sikkim region until *Phunsto Namgyal* was dethroned in 1642 and the Lepchas became insignificant in their own land.

Bhutanese people and their culture remained a common thread between Lepchas of Sikkim and Kalimpong and attacked both the territory unless Lepcha ruler *Pano Gayboo Achyok* at his Dalim fort in Kalimpong defeated them the Bhutanese managed to take over it again in 1710 (Mandal 2018). With the intervention of the Dalai Lama, Bhutan left Sikkim, but *Damsang Lyang*, Kalimpong was under them. The Nepalese invasion to this region gave rise to Gorkha population as it has originated from it and also Gorkha language is adopted by the majority population reflecting as cultural identity of this region. Charmed by the country, Captain Lloyd and his companion selected Darjeeling for a sanatorium (Mainwaring 1876). Lloyd was instructed that preliminary discussion and proposal should be made to the Sikkim ruler for the cession of the hill of Darjeeling on the first favourable opportunity. As a mark of friendship, the Darjeeling district was given over to the British by the Namgyal or the King of Sikkim in 1835. As the relation between Britishers and Bhutan was never good and in 1864 British annexed Darjeeling from Bhutan taking over the administrative power. The sudden change in political front changed the status of the Lepchas of Darjeeling and Kalimpong area and impacted heavily on their cultural, and their syncretism identity (Aden 2020).

6. British plantation economy

Dr. Campbell who was appointed as Superintendent of Darjeeling in 1840 observed that 'Lepchas are the most interesting people and I believe the undoubted origins of the mountain forests surrounding Darjeeling'. As Lepchas are hunters and gatherers, they practice shifting cultivation and as compared to the Nepalese, they are economically poorer. In Lepcha language, slash-burn cultivation is termed as *Sadeum* (cutting of jungle) *suk* (burning up) or *Sadeum*. The Jhum cultivation process is the only medium of their cultivation. From childhood, the Lepcha children were familiar with the forest ecology because they had spent most of their time cattle in grazing in the forests. They have collected the edible fruits and roots for medicinal purposes. The Lepchas collected yeast from the forests and used it in millet fermentation (Ghosal 1990). With the Indian Forest Act (1927) when Darjeeling region was declared as reserved forests Lepchas lost their close proximity to nature which was an integral part of their living. Lepchas

were forced to move out of the forest territory due to prohibiting shifting cultivation, which is their main way of livelihood. They were further challenged in their own region due to rapidly increasing tea cultivation, railway expansion, and continuous influx of population, especially the Nepalese. After 1850, the number of tea gardens and their areas increased rapidly in Darjeeling hills. In 1866, there were 39 tea gardens with 10,000 acres in the Darjeeling district, but in 1874, the number of gardens had increased to 113 with 18,888 acres areas under cultivation (O'Malley 1985). Construction of new roads, expansion of Darjeeling Railways for transportation of labour and tea, has shown a demographic shift in this region. The British government played an important role in cross border migration of Nepalese for tea plantation. During the initial stage of British occupation in Darjeeling, the Lepchas were two-thirds of the total population, but in 1941, the number decreased to 4.6 percent because they were displaced from their lands for tea cultivation and changes in traditional livelihood. On the other hand, the numbers of Nepali and Bhutia increased by 90 percent and 5.4 percent, respectively (Alam 2025). The presence of Bhutias and Gorkha Nepalese forced the Lepchas to move to the south and Kalimpong became their new abode.

7. Influence of Buddhism and Christianity

The spread of Buddhism among the Lepcha began systematically during the seventeenth century in their attempt to consolidate power under the new Tibetan leaders. The Lepcha script is also commonly recognized as a creation to serve royal authority. The reign of the third Chogyal of Sikkim, Chakdor Namgyal is credited with the creation of the Lepcha alphabet, which was likely motivated to serve the Buddhist monks who hoped to teach Lepcha Buddhism in their own language (Plaisier 2005). Lepchas followed burial rites instead of funerals. However, after sacrificing animals in accordance with traditional Lepcha shamanism, animals were said to come out of the Chogyal's corpse, prompting the Lepcha to then cremate the body as mandated by Buddhism: a moment that 'symbolized victory of the Buddhist tradition over Lepcha ways of life' (Lepcha 2013). It is noted that adaptation of Lamaism was made by the Lepchas by integrating Tibetan beliefs into the existing Lepcha framework. The Lepcha religion is a mixture of the pre-Buddhist Bon faith and Buddhism that was brought from Tibet. The Lepchas never completely identified with Tibetan Lamaism for multiple reasons. Buddhist scriptures are written in the Tibetan language which is also influenced from Lepcha scripts, and the Lepchas have their own script and secondly Buddhism is considered as Tibetan faith not Lepcha beliefs (Gowloog 2013). Interestingly, the coming of Buddhism forced the Lepcha to reconsider their traditional religion; the only word akin to religion in Lepcha is *sang-gyo*, a shortening of the term for Buddhism (Ibid).

Introduction to Christianity added another complication to Lepcha language struggle. Lepchas formed a minority in Darjeeling Himalaya as well as Sikkim. But their pre-Buddhist Bon faith shapes their cultural identity. Lepchas of Darjeeling Kalimpong region has experienced popularization of Christianity with the European cultural invasion through British interference.

Missionaries played an active role in conversion of Lepchas and the British administration prioritized English and the Christianity, changed primordial identity,

and introduced them to modern ways of living. This reconfiguration of the holy land concept appears as a direct reaction to changes in the Lepcha way of life. *Máyel lyáng* has appropriated much *beyul* (hidden land) terminology over time, with a similar concept of an 'outer' and 'internal' hidden land (Scheid, 2014). The Lepcha Association is approaching Lepcha villages to get support for saving their religious identity from Lepcha consciousness. While twenty years long divide of Buddhist Lepchas and Christian Lepchas are dissolving, several practices are followed within the Lepcha community by *Muns*, female priests and *Bongthings*, male priests in contemporary Lepcha world (Gowloog 2013).

8. Impact of Globalization

Globalization is not simply about the rise of global culture that all people of the world supposedly share, but it is also about how people are responding to this possibility of a global cultural flow and how they are increasingly forming local cultural traditions and identities as a response to general global trends (Berger 1998). The concept of deterritorialization refer to losing local identity leading to forming macro region which Darjeeling region has experienced due to mixed population. Whereas in Darjeeling Himalaya in the sacred Meyal lyang mountains, rivers, forests(grooves) are considered as sacred which form micro regions and also affected by globalization and in as similar notion deterritorialization. Lepchas are often called as *Mutanchi Rongkup* children of mother nature. Modernization globalization in the name of development has challenged Lepcha identity along with environmental disruption considered as a violation to sacred land. Lepchas way of traditional living has changed over the due course. Lepchas in the guise of folklore have developed an elaborate understanding of the nature, causes of disasters and have identified accurate and precise indicators to assist in predicting disasters, as well as ways and means of mitigating their effects (Jha & Jha 2011). Lepcha folk literatures, folklores all have mentioned how the bio-resources such as trees, flowers, small plants are part of their daily lives. The traditional clothes of the Lepchas are woven in exquisite colour combinations derived from natural flower. Bamboos hold a significant position defining Lepcha identity from hats to ceremonial items. But with the immigration of Bhutias, Nepali Gorkhas, Tibetans and beginning of trade relations between Lepchas and other communities the importance of nature-based practices and traditional living have significantly dropped. From social and cultural changes to dominance of Nepali language and continuous threat to traditional crafts and practices rise question of traditions of Lepchas? Realizing the importance of the Lepcha community in the Himalayan ecosystem Chhetri et al. (2024) said that there is an urgent need to improve the sustainable management, development and conservation of the indigenous Lepcha community and their traditional livelihood and bio-cultural interactions.

9. Conservation of Lepcha indigenous knowledge for a sustainable eco-centric society

From the ancient past Indian ethnically diversified communities have a symbiotic relationship with their natural environment. Present day studies show these traditional systems are aligned with modern ecological principles, fostering ecosystems to thrive

in balance while maintaining human wellbeing. Traditional uses of bio resources, agricultural practices, eco-friendly approach to economic activities, worshipping natural entities as deities, spiritual taboos all have been instrumental in safeguarding nature and eco-centric zones (Bhuvaneshwari & Balakrishnan 2022). Many cultural practices and traditional ways of living inherently tied deep rooted connections between local communities and their natural and cultural environment. Traditional ecological knowledge represents a vast body of understanding that has been accumulated by indigenous and local communities over generations (Kothari & Ananthanarayanan 2015). Lepcha people have similar ways of treating nature with utmost gratitude. Being nature worshippers, all aspects of their living are related to nature and offering prayers to natural bodies. Different forms of prayers, folklores, and celebrations are marked to worship mountains, lakes, forests, agricultural land, and sacred groves even to ward off natural disasters. All the Lepcha villages have grooves identified by *muns* and *bongthings* with private land or reserved forests.

Lepchas are bamboo cultivators and preservers and the trees are found abundantly in their terrain. In Lepcha society bamboo plants are associated with their life from birth to death. There are specialized craftsmen engaged in bamboo crafts. It is identified as men's work and used to construct houses, making utensils, musical instruments, serving traditional drink *chi*, agricultural practices, fishing gears extensively during festivals and rituals. Bamboo baskets are significant in ceremonies where guardian deity is worshipped (Bain 2021). Bamboo is directly related to growth and prosperity of Lepchas as per tribal belief system. Lepchas also possess a strong belief that extinction of the canes indicates extinction of the Lepchas. The popular Lepcha hat *Sumuk-thyak-tuk* is considered as armor which can withstand a sword. (Chhetri et al. 2023). The bamboo also defines Lepcha cultural identity as well as their living. As Lepcha identity is associated with bamboo uses as part of their cultural practices, it is conserved through their judicial and sustainable usage. But in recent times modernization has impacted traditional craftsmanship as they are losing their intricate techniques and designs Ministry of Tribal Affairs, Govt. of India (2025) through various schemes and other institutions supporting and promoting Lepcha cane and bamboo crafts. Sometimes traditional knowledge is not transferred to the younger generation leading towards loss of tribal craftsmanship. Lepcha handloom weaving has a variety of different woven fabrics from dresses, bags, mats to clothes.

Lepchas land subsistence economy is mostly derived from agroforestry and animal husbandry. It is important to note that both the sexes participate in agricultural activity (Das & Banerjee 1962). Today agriculture and forest remain the main livelihood practice of the Lepchas as hunting and gathering practice is no longer in existence. Conservation of agro-biodiversity in Lepcha villages is developed by adopting different land races. Those land races are *Tak-Mat-Jo*, *Chob-Yo-Jo*, *Jo-Kyop*. They usually practice a consumption-oriented farming system which is mostly associated with fulfilling food demand instead of selling surplus production (Thapa & Allay 2021). Lepchas livelihood is sustainable as it is completely dependent on mother nature from cultivating plants to wild edibles, millet drinks, fishing and hunting instruments made with bamboo, gum yielding techniques, to extraction of dyes, fodder to fiber, timber to building construction, worshipping all-natural entities to ethno-medicine, all are found in Lepcha household surroundings (Jana & Chauhan 2000; Pradhan 2021).

One of the major reasons that Lepchas still made their traditional fermented millet drink *Chi* in a traditional way of cultivating finger millet because of their deep-rooted cultural significance associated with this *Chi* which they want to preserve. When people gather together in their leisure time this drink is enjoyed with a traditional way of knowledge sharing, networking for mutual support. It's a Lepcha contribution to secure their social status and preserve sustainable agricultural practices (Lepcha et al 2021).

10. Conclusion

Lepchas have a strong sense of sharing resources and communal living which make them self-reliant society. Their collective community-based decision-making process include conservation of natural resources, bio resources, promoting regenerating agricultural practices, safeguarding the Himalayan landscape, their religious practices, ancient scripts, medicinal uses of plants are sustainable in manner. However, their cultural practices, folk arts crafts, bamboo cane based economic activities are centered around nature. However, the changes in the Lepcha community over the past centuries have been threatened by newly introduced religious beliefs and values, globalization and changing modern educational systems which are causing a loss of access to traditional local culture. The influx of population from Nepal in British era to support plantation economy and dominance of Nepali culture in the form of language, inter community marriage, losing a sense of belonging have aerated a fear of vanishing their cultural identity (Bentley 2008). Lepchas followed animism and a traditional form of Buddhism but supremacy of Lamaism and Tibetan Buddhism along with modern Christian way of learning has changed Lepcha culture. Denis Lepcha (2014) in his work stated such a situation as cultural subalternism that Lepcha culture has lost its significance in comparison to the majority culture. The government of West Bengal has also formed the Lepcha Development Board in 2013 for the development of livelihoods of the Lepchas and also for the preservation, protection of Lepcha culture, tradition, language, arts and crafts. This way safeguarding Lepcha practices can protect Lepcha people and their cultural heritage which is in evidently their identity. With the joint efforts from government and non-government organizations, a sustainable development approach has also taken place. Through capacity building programs, skill enhancement training programs efforts are being made to save Lepcha identity. The situation can also be improved through cross-cultural learning, preserving ancestral craftsmanship incorporating a Lepcha sustainable way of living in the education system can be impactful for the Kanchandzonga landscape of Darjeeling Himalaya. Indigenous Lepcha knowledge which is nature based is essential to protect the fragile Himalayan region as extreme weather conditions are hitting rapidly. Moreover, sustainable livelihood practices, adopting Lepcha traditional ways of living will not only preserve Lepcha cultural identity but will also help to develop the region's economy and overall upliftment of the community.

References

- Aden, R.E. 2020. 'Ethnicity and Identity: A Study of the Lepchas of Darjeeling Hills', *Published as Masters Dissertation*, Dept. of Political Science, Sikkim University.
- Alam, S. 2025. 'The British Forest Policy and its impact on indigenous Lepcha community in Darjeeling Hills (1835-1947)', *Journal of Historical Studies and Research*, 5(1) 197-204.

- Arsiwala, Z. 2024. 'Lepcha Community of Sikkim: Cultural heritage and conservation efforts', *Ancient History, Historified*.in Last updated July 29, 2025, downloaded on August 5, 2025.
- Awasty, I. 1999. 'Between Sikkim and Bhutan (The Lepchas and Bhutias of Pedong)', BR Publishing Corporation, Delhi, 63-75.
- Bain, K.W. 2021. 'Traditional Wisdom and Practices Involved in Bamboo Based Crafts of the Lepcha Community of North Sikkim - A Case Study from Dzongu Reserve Area Heritage', *Journal of Multidisciplinary Studies in Archaeology*, 9, 608-630.
- Basu, N. 1988. 'The garden Labour movement and entry of the communist: A Comparative study of Darjeeling and Dooars garden in Bengal 1937-1947', *Calcutta Historical Journal*, Ed. (2) Binoy Bhusan Choudhury (1) 112.
- Bentley, J. 2008. 'Vanishing Lepcha: Change and cultural revival in a mountain community of Sikkim', *Bulletin of Tibetology*, 43 (1-2), 59-79.
- Berger, P., T, Luckmann. 1966. 'The Social Construction of Reality', *New York: Doubleday Anchor Books*.
- Bhuvaneshwari, K., Balakrishnan, V. 2022. 'Role of sacred groves in conserving biodiversity in India: A case study from the Western Ghats', *Environmental Conservation Journal*; 26(3):245-258.
- Cajee, L. 2018. 'Physical aspects of Darjeeling Himalaya: Understanding from a Geographical perspective', *IOSR Journal of Humanities and social Science (IOSR-JHSS)* 23(3) 66-79. DOI: 10.9790/0837- 2303016679.
- Campbell, A. 1840. 'Notes on the Lepchas of Sikkim with vocabulary of their language', *Journal of the Asiatic Society of Bengal*, IX (1), 349-393.
- 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, 24.
- Chhetri, G.; Pandey, A.; Gaira, S.K.; Joshi, R. 2025. 'Traditional knowledge, ethnic foods, and their conservation by indigenous Lepcha community of Darjeeling and Sikkim Himalaya', *Sustainable Management and Conservation of Environmental Resources in India*, Apple Academic Press, Inc. Co-published with CRC Press (Taylor & Francis).
- Das, A.K., Banerjee, S, K. 1962. 'The Lepchas of Darjeeling district: Special series', *Cultural Research Institute*, 2, 43-55, *Calcutta*.
- Foning, A.R. 1987. 'Lepcha my vanishing tribe', *European Bulletin of Himalayan Research*, 14-22.
- Ghosal, S. 1990. 'Lepchas of Darjeeling and Sikkim: A study in Cultural Ecology and Social Change', *Unpublished Ph.D. Thesis*, University of North Bengal, 65-66.
- Ghose, A. 2009. 'Gorkhaland redux', *Economic and political weekly*, (11) June-6-12, Mumbai.
- Ghosh, R. A., Mukherjee, S. & Behara, B. 2018. 'The Socio-Cultural Belief of the Lepchas of Pedong, West Bengal, India', *International Journal of Social Science and Humanities Research*. 6(4), 1405-1407.
- Gorer, G. 1938. 'Himalayan Village: An Account of the Lepchas of Sikkim', Ed.2, Basic Books, Inc., Publishers, New York, 123-140.
- Government of India. Ministry of Tribal Affairs. 2022. 'Namsoong Festival', Utsav, India, the land of festival. <http://www.sikkimtourism.gov.in>
- Government of India. 2025. Ministry of Tribal Affairs. 'Preserving Bamboo and Cane Crafts, Indigenous Traditional Knowledge Custodian, Lepcha Bongthing', Gangtok.
- Gowloog, R. R. 2013. 'Identity Formation among the Lepchas of West Bengal and Sikkim', *Studies of Tribes and Tribals* 11(1), 19-23.doi: 10.1080/0972639X.2013.11886660.
- Graham, J. A. 1897. 'On the Threshold of Three Closed Lands: The Guild Outpost on the Eastern Himalayas'. Edinburgh: R. & R. Clark, limited, 1-166.
- Hooker J. D. 1855. *Himalayan Journals*, London: Ward, Lock & Co.

- Jackson, W. B. 1854. 'Report on Darjeeling', *Selection from the Records of the Bengal Government No. XVII*, 27.
- Jana, S. K. & Chauhan, A. S. 2000. 'Ethnobiological studies on Lepchas of Dzongu, North Sikkim, India', *Annals of Forestry*, 8(1), 131–144.
- Jha, V. & Jha, A. 2011. 'Traditional knowledge on disaster management: A preliminary study of the Lepcha community of Sikkim, India', *Indian Journal of Traditional Knowledge*, 10 (1), 173-182.
- Jha, A. 2015. 'Folklore, art and crafts of the Lepcha of Sikkim and Darjeeling', *Sai Om Journal of Arts & Education, A Peer Reviewed International Journal*, 2(3).
- Kothari, A. & Ananthanarayanan, K. 2015. 'The role of indigenous peoples in biodiversity conservation: Learning from India', *Biodiversity and Conservation*, 24(10):2523–2541.
- Lepcha, C.K. 2013. 'Religion, culture and Identity: A comparative study of the Lepchas of Dzongu, Kalimpong, Ilam', *PhD Dissertation, Department of Anthropology, Shillong*.
- Lepcha, C. K. 2013. 'The Downfall of Lepcha Language and Its Road to Revival', In *Alternative Voices: (re)searching Language, Culture, Identity*, eds. by S. Imtiaz. Hasnain, 323-35. Newcastle upon Tyne: Cambridge Scholars Publ.
- Lepcha, D. 2014. 'Is Lepcha really a vanishing tribe?', *Aachuley – A Bilingual Journal illustrating the Lepcha way of life*.
- Lepcha, P. A., Aden, P. L.A. 2016. 'Lepcha Marriage: An Overview', *International Journal of Research*.
- Lepcha, S. 2017. 'Lepchas the Animist: Nature worshipper', *The Criterion: An International Journal in English*, 8(4), 243-244.
- Lepcha, E.T. et al. 2021. 'Safeguarding Lepcha and Limbu cultural values and worldviews for conservation and sustainable development in the Eastern Himalayas, India', *Case study for the project 'Indigenous biocultural heritage for sustainable development'*. Published by International Institute for Environment and Development (IIED).
- Mackean. 1920. 'Sikkim, Ency. of Religion and Ethics', 11, ed. By J. Hastings, 511.
- Mandal, N.G. 2018. 'An Essay on the Lepcha Community: The Autochthones of Sikkim and Darjeeling', *International Research Journal of Human Resources and Social Sciences*, 5(2), 50-56.
- Mainwaring, G.B. 1876. 'A Grammar of the (Rong) Lepcha Language as it exists in the Darjeeling and Sikkim Hills', Calcutta: Baptist Mission Press, xxvii, 34-87.
- Molommu, S. P. 2018. 'The theories of origin of Lepchas: an indigenous tribe of the Kanchenjunga Basin', *International Journal of Research in Social Sciences*, 8 (2).
- Morris, John. 1938. 'Living with Lepchas', London: William Heinemann Ltd.
- Mukherjee, A. 1980. *West Bengal District gazetteers, Darjeeling*, Government of West Bengal.
- Nair, S. 2022. 'The slow disintegration of Lepchas indigenous settlers of Sikkim', *Brown History*.
- O'Malley, L.S.S. 1985. (reprinted). *Bengal District Gazetteer: Darjeeling*, New Delhi, Logos Press, 44-46.
- Phipon, A. 2007. 'Socio-economic transition of the Lepcha in post-colonial Darjeeling district with special reference to Kalimpong', *Social and Political Tensions in North Bengal Since 1947*.
- Plaisier, H. 2005. 'A Brief Introduction to Lepcha Orthography and Literature', *Bulletin of Tibetology* 41(1), 16.
- Pradhan, A. 2012. 'Language Movement in the Darjeeling Himalayas: Special Reference to the Lepcha Language', *Language in India: Strength for today and bright hope for tomorrow*, 12 (3).

- Pradhan, D.K, Lepcha, N., Thapa, K.K. 2021. 'Checklist of Lepcha clans and their extinct clans shuzamyongpucho and chunglempucho', *Trend in Biogeography: Eastern Himalaya and North Bengal*, Rupali Publication, Kolkata.
- Rai, S.K., Bhujel, R. B., Das, A.P. 2007. 'Ethnobotanical studies in Darjeeling Himalaya in relation to birth, marriage and death', *In Advances in Ethnobotany*, 51 – 59.
- Registrar General & Census Commissioner, India.2011. Primary Census Abstract, Census of India.
- Roy, D. C. 2005. 'Dynamics of social formation among the Lepchas', Akansha Publishing House. New Delhi.
- Sarkar, A.K. 2014. 'Global Identity and Separate Statehood Movement', Global Journals Latex Journal Kaleidoscope.US. Noted from Prem Poddar afterlife of *the original Gorkhaness* (or Indian Nepaleseness) & I.B. Rai in translation in *Gorkhas Imagined: Indra Bahadur Rai in Translation* –Mukti Prakashan, Kalimpong p-11.
- Sarkar, A.K. 2018. 'Ethno- Linguistic Movements in Darjeeling', South Asian Studies, Abhijit Publications, 3-7.
- Sarkar, S. & De, S.K. 2017. 'Geomorphological Field Guide Book on Darjeeling Himalayas', *Indian Institute of Geomorphologists*, Allahabad.
- Scheid, C. S. 2014. 'Hidden Land and Changing Landscape: Narratives about Mount Khangchendzonga Among the Lepcha and the Lhopo', *Journal of the Irish Society for the Academic Study of Religions* 1(1), 66-89.
- Siiger, H. 1967. 'The Lepchas: Culture and Religion of a Himalayan People', Part-I, The National Museum of Denmark 11(1), 27-58.
- Singh, P. K., Chakraborty, S. 2014. 'Munism- a traditional face of Lepcha religion. A study on preservation of cultural heritage', *Asian Mirror- Intern. J. Res.*, 1(1).
- Subba, B. T. 1985. 'The Lepchas: From legends to the present day', *Religion and Society*, 32(2).
- Subba, J.R. 2008. 'History, Culture and Customs of Sikkim', New Delhi: Gyan Publishing House.
- Tamsang, L. 2008. 'Lepcha folklore and folksongs', Sahitya Academy, Kolkata,
- Tamsang, K. P. 1983. 'The unknown and untold reality about the Lepchas', Luen Sun Offset Printing Co., Hong Kong.
- Tamsang, K.P. 2007. 'The Unknown and Untold Reality about the Lepchas', Kalimpong.
- Thapa, K.K., Allay, S. 2021. 'Lepcha agriculture on Primitive agro-system perspective', *Science of Eastern Himalaya Journal*, 1(1), 77-82.
- Waddell. L.A. 1900. 'Among the Himalayas', Philadelphia: Westminster Archibald Constable and Co. J. B Lippincott Company Ed. (2), Motley Press, 18, Eldon St., E.C.
- Wangchuk, P., Zulca, M. 2007. 'Kanchandzonga Sacred Summit. Gangtok: Little Kingdom'.