

Traditional Amchi Practices among Indigenous Communities in Nepal



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**Pasang Sherpa, PhD
Narendra Lama
Pasang Dolma Sherpa, PhD**

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✉ heidelp ltd@gmail.com

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Abbreviations

CAMC	Conservation Area Management Committee
CAN	Community Action Nepal
GoN	Government of Nepal
HAA	Himalayan Amchi Association
MCA	Manaslu Conservation Area
MCAP	Manaslu Conservation Area Project
NFDIN	National Foundation for Development of Indigenous Nationalities
NGO	Non-Governmental Organisation
NTFP	Non-Timber Forest Product
NTNC	National Trust for Nature Conservation
SEED	Social, Economic, Education Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
VDC	Village Development Committee
WWF	World Wide Fund

Introduction

Nepal has legally recognized 59 indigenous nationalities, referred to as Aadibasi Janajati (NFDIN, 2002). Indigenous peoples account for 35.6 percent of the total national population of 26,494,504 (Dahal, 2014). Indigenous peoples have been living in different geographical and ecological regions with a distinct culture, identity and way of life. They have a very special social, cultural, economic, and spiritual relationship with natural resources. Indigenous peoples, who are scattered across the length and breadth of the country, have their own traditional healing and medicinal practices. Traditional healing and medicinal practices remain most prevalent in the remote areas, particularly among the indigenous communities, as they are easily accessible and cheaper against a dearth of clinics and medical doctors.

Traditional medicine comprises practices based on beliefs that were in existence for hundreds and thousands of years before the advent of modern medicine (Hamilton and Radford, 2007).

Sowa Rigpa, the science of healing, is one of the oldest, living and well documented medical traditions around the world. It is popularly practised in Tibet, Mongolia, Bhutan, China, Nepal, Himalayan regions of India and few parts of the former Soviet Union. This practice originates from a mixture of traditional Chinese medicine and Ayurveda by exploring the interconnectedness of the mind, body and soul of a patient. Delusion, attachment and aversion, referred to as the three poisons in Buddhist philosophy, can have a harmful effect on one's health. Traditional medicine assumes that an imbalance of three humours (wind, bile and phlegm) has an effect on the disease pattern, too. Medicinal herbs, minerals and natural products from the Himalaya form the basis of medical products and alternative, curative treatment.

The Amchis, practitioners/healers of traditional medicine, are still popular among the mountain indigenous communities of Nepal. There are 18 indigenous groups living in the mountain regions¹ of Nepal. The Amchis have been contributing significantly to public healthcare in the remote mountains for centuries. In many mountain villages of Nepal, Amchis are the only healthcare providers. They have extensive botanical and ecological knowledge and are able to interpret symptoms and provide traditional healing treatment such as bush rubs, apart from medicines. For example, selective harvesting of underground plant parts by Amchis involves uprooting only mature and robust plants and leaving younger bulbs, rhizomes and vegetative shoots to mature until they bear seed. The Amchis have detailed practical knowledge of plant biology, diversity, distribution, use and regeneration and hence have contributed greatly to the development of a management system for medicinal plants (Ghimire et al., 1998 as cited in Bista et al., n.d).

However, the Amchi healing system is gradually losing popularity in the Himalayan region and this poses a threat to the sustainability of this practice. The younger generation is facing a difficult time sustaining this practice amidst changing social, economic, and cultural circumstances. External support for promoting Amchi practices is meager, while the government has provided no support for the conservation and promotion of Amchi tradition in Nubri and Kutang valleys, which were chosen for this study. Little research and study has been conducted on the Amchi tradition based on indigenous knowledge due to which it lacks proper documentation. A dearth of traditional institutes for the study of Amchi medicine has contributed to the decline of this practice. Likewise, the lack of government recognition of Amchi practice has further prevented the Amchis from passing on their knowledge to the younger generation, serving communities and protecting the environment on which this medicinal practice depends.

1 *Bara Gaunle, Bhutia, Byanshi, Chhairotan, Dolpo, Larke, Lhomi/Shingsawa, Lhopa, Marphali Thakali, Mugali, Siyar, Tangbe, Thakali, Mugali, Siyar, Tangbe, Thakali, Thudam, Tingaule Thakali, Topkegola, Sherpa and Walung*

Objectives

The main objective of this research is to document the existing traditional Amchi practices among indigenous communities in the mountain region of Nepal, with the ultimate goal of lobbying concerned government agencies to recognize and recommend the indigenous traditional healing practices. The specific objectives are :

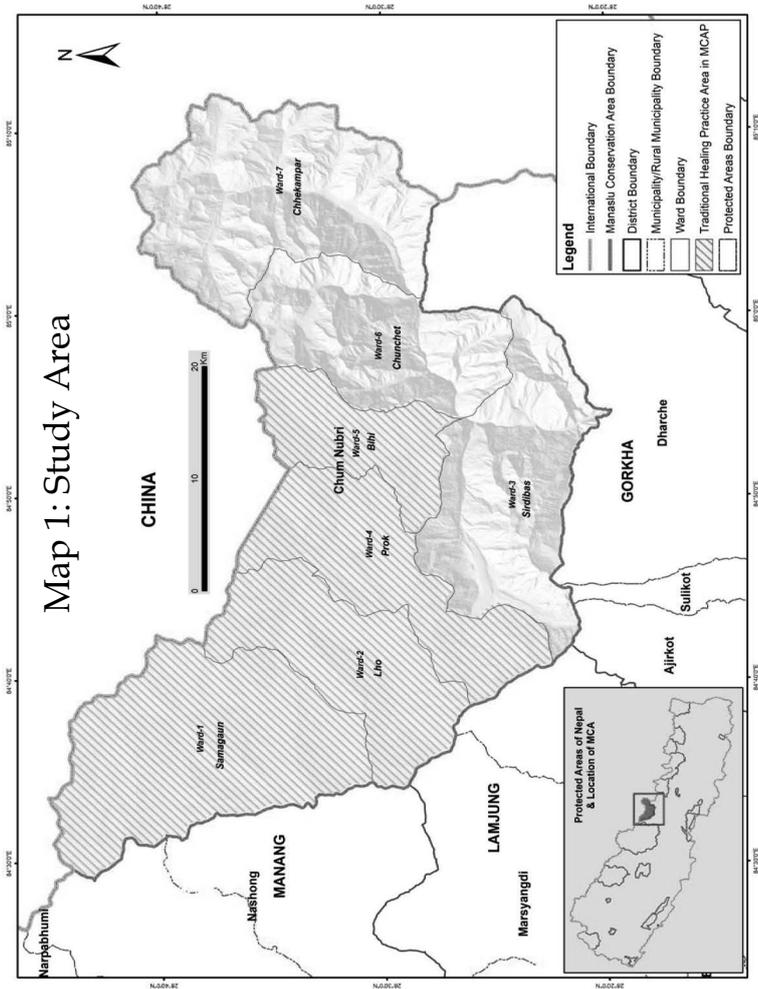
- Publication and dissemination of the research findings among the concerned government agencies and stakeholders for legal recognition of indigenous peoples' traditional knowledge and healing practices.
- Policy advocacy with concerned government agencies for the incorporation of Amchi practices in the national health policy for significant support for the promotion of the traditional healing practice.
- Recommend policy makers to incorporate the Amchi practices into national healthcare and education system of Nepal.

Research Methodology

Rationale for the Selection of the Study Area

The Nubri and Kutang valleys of Gorkha district were selected purposively as indigenous peoples make up a majority of the local population, the valleys are the ancestral homeland of mountain indigenous peoples and traditional healing practices are still popular among the local populace.

In Nubri valley, the three wards of Samagaun, Lho and Prok were chosen for the study and one ward of Bihi was chosen from the Kutang Valley (Map 1). Nubri and Kutang valley has a total Lama population of 2502. Since both valleys are far from the district headquarters, they lack road access, health and education facilities.



Research Methods and Tools

A qualitative research design was applied for the study. Qualitative information was collected through observation, key informant interviews and focus group discussions from the field. Key informants and focus group participants were selected by applying the snowball-sampling method. Amchis (traditional healing

practioners), indigenous leaders, elders, women, youth, religious leaders, political leaders and school teachers, some government health post staffs were selected as key informants and focus group participants (Annex III).

Qualitative information on occupation, settlement pattern, traditional healing practices, treatment system, diagnosis of the diseases, number of Amchi clinics, service of Amchis, service fee, perceptions of communities towards Amchis and their healing practices, support for Amchis from the government and other donors, challenges and opportunities of Amchis etc. were collected on the basis of focus group and key informant interview guidelines. Moreover, the provision of governments' legislation and policies on traditional healing practices were analyzed in a descriptive manner.

The findings of the study were presented in a one day national level validation and dissemination workshop with a total of 60 (47 male, 13 female) participants, including eight participants invited from the concerned communities of study area, Gorkha, in Kathmandu. The final report was prepared by incorporating comments and feedback of the participants of the workshop.

Traditinal Amchi Practices in the Himalayan Region of Nepal

A traditional healing practice is popular in the mountain indigenous community which is commonly known as Amchi. An Amchi is a practitioner of the 'Sowa Rigpa' medicine, which is based on the belief that a disease is caused by an imbalance of the three 'psycho-physiological energies', translated as 'wind', 'bile', and 'phlegm'. Diagnostic measures include questioning and physically examining the patient and analyzing the pulse and urine. Treatments include medicine, moxibustion, venesection (bloodletting) and medicinal baths (Donden, 1986, Dummer, 1994, Donden and Wallace, 2000 as cited in Bista et al., n.d).

Amchi devotes his body, speech and mind to easing the suffering caused by a disease. He searches the pastures, forests and river valleys for medicinal plants and collects the required parts – root, stem, branch, pith, bark, resin, leaf, flower and fruit – to prepare remedies in the form of powders, pills, decoctions, pastes and concentrates. Amchis also purchase plants and other medicinal ingredients from the lowlands and transport them to their villages.

Plants procured from the lowlands (the Terai and India) include *Terminalia chebula*, *Terminalia bellerica*, *Phyllanthus emblica*, *Myristica fragrans*, *Vitis cinifera*, *Cinnamomum tamala*, *Piper nigrum*, and *Piper longum*. In addition, a number of precious metals, minerals, resins and animals are used by Amchis. Serkyi chema (literally golden sand) is an important medicinal ingredient that is found in the Kailash-Manosarovar region; Amchis in Nepal have difficulty procuring this as well as other ingredients.

An Amchi is summoned to see patients in distant places at all hours of the day and night, throughout the year, regardless of the weather. He identifies the causes of illness and advises patients, in

his soothing speech, of the necessary therapy, diet, and behaviour. Finally, he views all of his patients equally, regardless of whether they are rich or poor, and uses his knowledge and experience to cure illnesses, from the minor to the major. The Amchis of Nepal receive medical treatment from their fathers or teachers. It is not unusual for the students to travel to distant villages to study with experienced teachers, from whom they learn the identification and use of medicinal plants and other substances. By accompanying the teacher or father on visits to patients, students learn about diagnostic and therapeutic techniques.

Much of the training of the Amchis is based on the 'Gyushi' (four tantras), a medical text compiled in the eighth century in Tibet incorporating ancient Indian, Persian, Greek, Chinese, Nepali, Dolpa, and Tibetan healing traditions (Rinpoche, 1973). This medical system flourished across the Himalaya, including Dolpa, Humla, Mugu, Gorkha, Sindhupalchowk, Mustang, and Rasuwa districts of Nepal, where it is practised to this day. In Lo-Manthang, Mustang, it has long been a tradition for the King to have an Amchi as his 'lamenpa' (personal physician). For example, Amchis Gyatso and Tenzing's father was the personal physician of King Jigme Palbar Bista. Similarly, in Dolpa, Lamas of various monasteries have combined medicine with their religious practices and further promoted the medical tradition. Today, Dolpa has the largest number of Amchis in Nepal, followed by Mustang and Gorkha. Despite a decline in the tradition over time due to various socio-political factors, a process of revitalization, from both within and outside, has started in Nepal (Bista et al., n.d).

The Himalayan Amchi Association (HAA) comprising more than 100 Amchis from across Nepal was formed in 1998. The organization aims to improve the standards of healthcare delivery by the Amchis, conserve medicinal plants and improve educational opportunities for and networking among the Amchis. Amchi medicine is popular in the mountainous areas of Nepal adjoining the Tibetan plateau. This medical system is popular also in the Tibetan autonomous region of China, Ladakh and the Buddhist Himalayan areas of India. In Nepal, Amchis were educated within a master-apprentice framework. A variety of factors have contributed to decreasing motivation among the younger generation to follow the tradition of their elders as Amchis. There are four small schools Sowa Rigpa in

Nepal. The Lo Kunphen school is located in the arid Mustang region bordering Tibet. The school combines academic and clinical training in Amchi medicine with a modern school curriculum. Practical experience is seen as a vital part of the training and medicinal plants are also cultivated (<https://pdfs.semanticscholar.org/488b/a023571460f983216333d63e25501ad4cc94.pdf>).

DROKPA partners with the Himalayan Amchi Association (HAA), a Kathmandu-based NGO, which draws its membership from among the 14 northern Nepali districts bordering Tibet and India. The HAA is also networking with traditional practicing doctors in Nepal, Tibet, Bhutan, Ladakh, Sikkim and Dharamsala.

The goals of HAA's program are improving the quality of medical care in remote mountain areas; improving governmental recognition and support for Amchis; cultivating and harvesting medicinal herbs in a sustainable manner; creating educational opportunities for Amchis; networking with individuals and organizations in Asia and the West interested in Tibetan medicine.

DROKPA assists the Himalayan Amchi Association in fulfilling its mission by granting support for Amchi education and training opportunities, assisting with networking, grant writing, and organizational development, as well as supporting the HAA's Kathmandu-based clinic, which opened in 2003. DROKPA is working with member Amchis to create medical curriculum, lobbying the Nepali government for support and helping to connect Amchis in Nepal with practitioners of Amchi medicine throughout the greater Himalayan and Central Asian region.

The HAA has also collected biographies, conducted interviews, and gathered clinical, economic and pharmacological information from each of the more than 100 member Amchis from Nepal. Many of the HAA member Amchis are also involved in the WWF/ UNESCO People and Plants Initiative, a conservation and development project in Dolpa district, Nepal (<http://www.drokpa.org/health.html>).

Introduction of the Study Area

The study covered Samagaun, Lho and Prok villages from Nubri valley and Bihi from Kutang valley of Gorkha district. Gorkha is situated in Gandaki Province is one of the seventy-seven districts of Nepal. The Gorkha district has two municipalities and nine rural municipalities which are divided into 94 wards (Annex I).

The Nubri and Kutang valleys lie in the Manaslu Conservation Area (MCA). MCA covers the entire Tsum Nubri Rural Municipality with seven wards in the northern part of the district. MCA lies between 28° 20' - 28° 45' latitude and 84° 29' - 85° 11' longitude.

Elevation of MCA ranges from 1,239m to 8,163m and has five climatic zones: sub-tropical, temperate, sub-alpine, alpine and nival. The MCA comprises seven wards of Gorkha district: Sirdibas, Chumchet, Chhekampar, Bihi, Prok, Lho and Samagaun. Among these, the largest ward (Former Village Development Committee) is Sirdibas (314.91 sq km) while the smallest is Bihi (120.26 sq km) (Map 2).

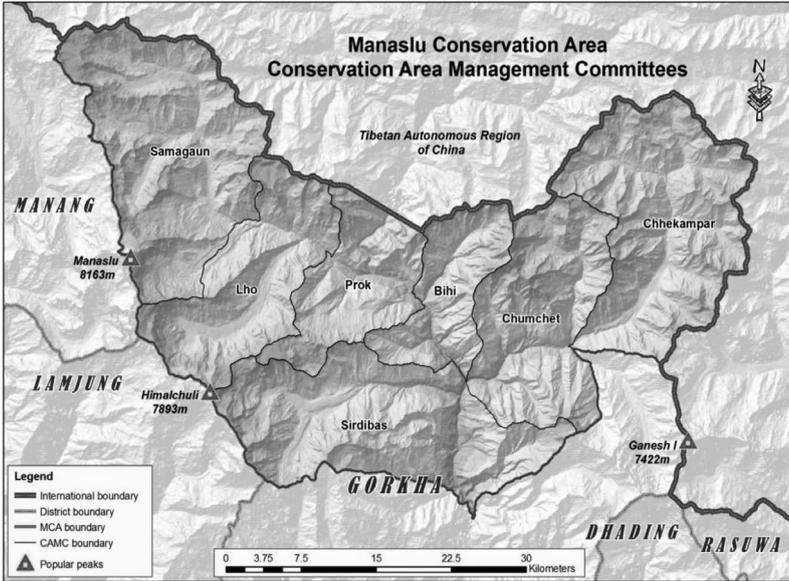
According to the National Census (2011), there are 848 households with total population of 2,502 in the study area. The average family size is three persons per household. In terms of caste/ethnicity, majority of the population are Nubripa also known as Lama and Kutangpa commonly named as Lama from Bihi region. In Namrung village of Prok ward number 4, there are seven Thakali households that migrated from Mustang district a few generations ago. There is one Kami household in Samagaun ward number 1.

According to the district profile, the literacy rate of Tsum Nubri Rural Municipality is 38.6 % with 50.1% of male and 28% female literacy rate (District Profile of Gorkha, 2074).

Agriculture and livestock farming are the main sources of income in the study area. The main crops grown are *karu* (naked

barley), buckwheat, maize, potato and wheat. Farmers also produce mustard, beans and soybeans.

Map 2 : Villages of the Study Area



Traditional Cultural Boundary of the Study Area

Nubri

Nubri, which means “the western mountains” in the Tibetan dialect, comprises a section of the Budi Gandaki valley west of Namrung. However, the village of Prok is also considered to be within the boundaries of Nubri. Linguistically the region of Nubri is separated from the Kutang valley (Childs, 1997). The people of the upper part of the valley speak a western Tibetan dialect, whereas the people of Kutang speak a unique Tibeto-Burman vernacular called “Kuikay” which seems to be a blending of Tibetan and Gurung. The dissimilarity in the dialects between Nubri and Kutang is not a recent development and was noticed by Tibetan scholars as early as the 17th century. This indicates that the settlements along the Budi Gandaki must have been established more than four hundred years ago.

The Nyingmapa lineage of Tibetan Buddhism is most prevalent in the Nubri Valley, which contains a rich assortment of religious artefacts and deep-rooted Tibetan Buddhist beliefs. The monasteries of Nubri still have a profound influence on the daily livelihood of its inhabitants and likewise, the public still regard the high Lamas with utmost respect.

Kutang

Kutang is the region along the Budi Gandaki valley between Namrung and Dyang consisting of parts of Prok and Bihi VDCs. Although culturally similar to Nubri, the Kutang valley is distinct linguistically. Even today, most people from Nubri do not understand the language of the Kutang valley inhabitants and neither do the Gurung speaking communities of Sirdibas VDC and middle Gorkha understand it.

The people of Kutang are also adherents of the Nyingmapa lineage and the area boasts of numerous monasteries and religious artefacts. However, like the language, there also seems to be variances in religious practices between Nubri and Kutang. This was evidenced by the celebration of Losar, a New Year festival, a month earlier in Kutang than in Nubri and other Tibetan communities. This suggests that there is a difference in the Tibetan calendar used by the people of Kutang and the Tibetan calendar used by the rest of the Tibetan communities. Such discrepancies are shrouded in mystery in the Kutang valley, which seems to hold a unique culture that has developed over centuries in isolation, incorporating some Tibetan influence of the Gurung communities of middle Gorkha.

Common Diseases in the Study Area

Gastro-intestinal problems, cold, jaundice and Acute Respiratory Infection (ARI), arthritis are the major health problems, particularly during the winter. Apart from this, paralysis, heart diseases, tuberculosis, asthma, fever, poisoning etc. are some cases in the study area. Malnutrition among children is common in the absence of adequate food supplies and lack of awareness about nutritional values of local foods. A few cases of goitre were also found among the elderly. Personal hygiene and village sanitation is poor. However, it is improving in all the settlements, especially around the tourist area. The most common diseases in March and April is diarrhea, cold and fever, whereas gastritis and ulcer are found throughout the year.

Health Facilities in the Community

Almost every ward in the study area has a sub-health post and Amchi clinic facilities (Table 1). During the focus group discussion, the community people opined that the Amchi service was more accessible and reliable for the villagers because the Amchis were available round the clock. The sub-health post provides minor health services such as preventive, promotive and curative services. The sub-health posts lack adequate medical equipment and medicines. Health workers are also not available during the holidays and vacation. Non government organization (NGO) such as Community Action Nepal (CAN) has served for sub-health posts in all wards. Due to additional staffing and medicine support from CAN, the existing health post is serving the local patients comparatively better. The CAN also implemented preventive measures along with health and sanitation, personal hygiene awareness and training programs for the local communities.

Table 1 : Health posts and Amchi clinics in the Villages

Ward	Sub-Health Post	Amchi Clinic	No of Amchis
Bihi	1	1	1
Prok	2	1	4
Lho	2	-	
Sama	1	1	2
Total	6	3	7

Source: Fieldwork, 2018.

Amchi Services in the Community

In most of the villages, Amchi healing is still in practice in a traditional way with community support (Annex II). In Bihi, Prok and Sama villages, villagers used both Amchi and allopathic medicine based on the nature and types of diseases. In the past, Amchi medicine was only the option for treatment of diseases but now a days health posts and sub health posts also provide healthcare services in the villages. During the focus group discussions with community and Amchis, they mentioned that after the establishment of sub health posts, the scenario has been changing as villagers have started using the allopathic medicine provided by sub health posts and clinics supported by the government and NGOs. However, the traditional healing practice of Amchis is also continues alongside the ineffective treatment from the general health centres. There is no government support and facilities for the Amchis and Amchi clinics. Despite insufficient external support from the government and donors, the affordability, accessibility and culturally accepted nature of Amchi healing practices are contributing to sustainability of this traditional healing system in Nubri and Kutang valley in northern Gorkha of Nepal. During an interaction with some of the key Amchis of Kutang and Nubri valley, they clearly revealed that the significant role of Amchi in local medication can not be underestimated and that they are still held in high regard by the local communities in that region. During the focus group discussion with community members, they also acknowledged the important role of Amchis in the villages for the health services, but they expressed worry about the fact that the number of Amchis were gradually decreasing in Nubri and Kutang region due to the influence of allopathic medicine and youth migration to the cities and abroad for better education and employment. However, certain Amchis are still practicing the traditional healing system in the community. They have been

providing health services to the hundreds of patients each year in the remote settlements of Kutang and Nubri valley.

In Sama of Nubri valley, Amchi Rindhorje was the first Amchi while in Lho Amchi Ungchen was the first. The most senior Amchi in Prok is Amchi Sanga Tenjin, aged 82 years, who received teaching from Khoya Amchi of Tibet. Amchi Sanga Tenjin is a veteran Amchi and involved in treatment of the patients of Sama also. Sanga Tenjin still instructs local communities to collect local herbs by showing them picture of herbal plants and giving detailed instruction to the collectors. He still sends herbal medicine to the Kathmandu-based Kunphen Amchi medical center. Amchi Sanga Tenjin is still holds the reputation of a traditional healer in the Nubri valley. Amchi Shange Dorje Lama from Bihi, Amchi Dhorje Thakuri from Prok, Tharpa Gyalchen Thakali from Namrung, Amchi Mingmar and Gyurme Lama from Sama and Amchi Ngima Tsering in Samdo are the main Amchi practitioners in the study area.

Amchi Shange Dorje Lama receives more than 1,000 patients a year from different villages of Sama, Lho, Prok, Bihi, Sirdibas and Chumchet. He provides medicine for gastritis, fever, common cold, arthritis, jaundice, bone fracture, tapeworm, abdomen ache, as well as liver, lungs and intestine related diseases.

Amchi Dorje Thakuri has established Amchi clinic 20 years ago in the village with support from the villagers. More than 300 patients from different villages such as Chhak, Quak, Bihi, Nyak, Lho and Sama visit the clinic every year. The elderly people prefer to visit Amchi health centers in comparison to youth and children. He provides medicine for gastritis, fever, common cold, arthritis, excessive water storage in abdomen, diarrhea, tapeworm and bone fractures. In recent years, cases of tapeworm have decreased as compared to the past. Earlier, people use to consume uncooked dry meat due to which tapeworm cases were quite common.

Amchi Tharpa Gyalchen Thakali also treats gastritis, mental disorder, paralysis and unconsciousness. Around 300 patients visit him annually. The patients from the Samdo to Bihi visit him for Amchi treatment. Tharpa Gyalchen opinioned that the flow of patients for Amchi treatment was higher than services provided by government health posts despite CAN and government support for the latter. He said Amchi or traditional healing system was quite broad and effective for Himalayan communities and thus should be

promoted for providing effective and cheaper health services to all communities.

Amchi Gyurme Lama from Sama is quite young and has been operating a tourist hotel at Sama village. He has been an Amchi providing healthcare services to the people of Sama village for a long time now. A few years ago, he stopped running regular clinic assuming that it did not cover his family expenses. Still more than 1,500 patients visit him annually for treatment.

Diagnosis of Diseases

The Amchis employ mainly three types of methods for diagnosing a disease: visual diagnosis (Tawa), diagnosis by touch (Regpa) and diagnosis by questioning (Diwa). Visual diagnosis comprises two main methods of tongue examination and urine analysis. Various diseases can be diagnosed by checking the nature, color and smoothness of the tongue, face, nose, ears, throat, eyes, skin, blood, weight, blood pressure etc. Urine can be analyzed in three different stages - when it is fresh, when it cools down and when it gets cold - and by looking at its color, speed of discoloring, vapor, odor, bubbles, sediments, etc. The majority of the Amchis in the study area examined urine for the diagnosis of the diseases (Case 1).

Case 1: Diagnosis of a male pregnant through urine examination

Ngima Dorje told a very interesting story about Amchi Tashi Dorje from Samdo. An Indian patient after being tired of protracted treatment at hospital and after all attempts to treat his chronic disease failed, he finally returned home. One of his friends suggested him to seek treatment from Amchi Hishe Dhorje. The Indian patient then visited Amchi, who asked him to bring his fresh urine the next day for the diagnosis of his ailment. Accordingly, the Indian patient brought urine sample. After careful examination, Amchi Hishe Dhorje informed the Indian patient although being a male was pregnant. This surprised the Indian patient who informed about the diagnosis to his family members. When the family members were just discussing how this could happen, the housemaid said that she had filled the urine bottle with her own urine when it fell down while she was cleaning the bathroom. She said it was true that she was three months pregnant. Finally, the Indian patient sought treatment with the Amchi, who cured him of the disease. Following this incident, the reputation of Amchis spread to the Indian cities and rural areas. The flow of Indian patients to the clinic of Amchi Hishe Dhorje has been increasing ever since and he is still providing Amchi treatment at Dharmasala, India.

Diagnosis by touch (Regpa) is represented by the advanced technique of pulse examination followed by touching the body for temperature and smoothness, etc. Pulse is the most important and major diagnostic tool in *Sowa-Rigpa*, which is explained under thirteen general topics like preparatory conduct, proper time for examination, place, pressure of physician's finger, technique, constitutional pulse, astonishing pulse, general and specific pulse, death pulse. Questioning (Diwa) is another mode of diagnosing a patient; history of case, present condition, personal and family history of past and present disease of the patient, menstrual and obstetrics history, socio-economic history and changes in body (Gurmet, 2003 & Gurung, 2019).

The Amchis identify a close link between the elements of nature and the human body such that earth (sa), water (chhu), fire (me) and wind (lung) form our flesh, blood, body heat and breath. The element of space (namkha) enables the development of all of the above.

Passion, anger and ignorance are believed to be the primordial causes for disrupting the balance of the three psycho-physiological conditions or 'humours' (nyepa sum) translated as 'wind' (lung), 'bile' (tripa) and 'phlegm' (beken) resulting in a disease. Each of these humors is classified into five types. Wind is classified as life-sustaining (sogzin), ascending (gengyu), pervading (khyabje), equalizing (menyam) and downwards-voiding (thursel). Bile is classified as digestive (zhuje), colour-transforming (dogsel), accomplishing (dubje), sight-giving (thongje), complexion-transforming (danggyur). Phlegm is classified as supporting (tenje), decomposing (nyakje), experiencing (nyongje), satisfying (tsimje) and connecting (jorje) (Burang, 1983., Men-Tsee-Khang, 1995., Donden, 1986., Clark, 1995., Donden and Wallace 2000 as cited in Lama et al., 2001). Thus wind, bile and phlegm have subtler aspects than their common and literal meanings. Diseases may be caused by a single humoral imbalance (kyangpe ne), dual humoral imbalances (denpe ne) or multiple humoral imbalances (dupe ne).

In all, Amchis recognize a total of 404 diseases directly caused by past and present actions related to diet, behavior, seasonal change and evil spirits leading to an imbalance of the three humors. An individual's body is naturally dominant in one or two of the humors, which also affects one's susceptibility to specific diseases during specific seasons. Diseases are categorized as 'hot' and 'cold.' Bile disorders are categorized as 'hot' and wind and phlegm disorders as 'cold.' The Amchis also recognize ten bodily constituents (flesh, blood, nutriment, fat, bone, bone marrow, regenerative substances, urine, excrement and sweat), which may affect the balance of the humors and cause disease.

The most important diagnosis is to identify whether the nature of a disease is 'hot' (tsa) or 'cold' (dang) because the Amchis may do more harm than good if they cannot differentiate between the two (Lama et al., 2001).

Methods of Treatment

The methods of Amchi treatment includes four major areas: (1) diet, (2) behaviour, (3) medicine and (4) accessory/external therapies. In each of these areas, right administration is very important. Minor ailments can be treated with proper regulation of diet and behaviour alone. A patient who is in a medium condition can be treated with medicine like decoction, powder, pills, purgatives, emetics etc. And in advanced stages, a disease can be cured by application of accessory/ external therapies like moxabustion, venesection, fomentation, massage, surgery, etc. Buddhist rituals and mantras also play a very important role in the treatment of diseases. Moreover, it is known that the role of a physician is very important in the treatment of a patient. Therefore, special emphasis is given to this aspect in Amchi medicine (Gurmet, 2003).

In the study area, the Amchis have been using different methods for treatment. The method of treatment is based on the nature and types of diseases (Case 2)

Case 2: Methods of Amchi treatment

Amchi Shange Dorje Lama from Bihi ward number 5 uses fire for treatment along with plants and animal parts as medicine. The most common disease in the community is gastritis, jaundice and also tuberculosis. Except tuberculosis, he has treated bone fracture, poisoning, gastritis, wound, skin diseases and others. He collects medicine from India and Tibet and also from some parts of Nubri valley. Generally, he procures eight to nine kilograms of medicine. Tantric (Jarfuk) method is also used to treat ulcer along with medicine which takes a bit longer for treatment. While collecting local medicine from the pastures and forests, one should start in an auspicious day. There is no specific charge for treating patients. It depends on patient's willingness to pay. Sometimes he receives NRs. 15,000 to 20,000. The average payment for treatment he receives is NRs.500. Some patients also pay him in kind. On how long it took for a disease to be cured, he said for chronic diseases such as abdominal diseases, digestive problems it could take 10 to 15 days' treatment. If the treatment course is longer than the patients pay anything from NRs 15,000 to 20,000. Most of the Amchi medicines are in the form of powder and sometimes also in the form of liquid. In recent years, cases of paralysis have increased. Extraction of blood from the affected part of the body is most common method for treatment of paralysis.

Similarly, Amchi Dorje Thakuri from Prok village ward number 4, also uses fire for the treatment of bone fracture, joint disorder, sprain, jaw dislocation, hand fracture, toothache etc. He also treats minor eye ailments, irregularity in menstruation, post pregnant disorder (Chhering) for easy delivery, common cold, diarrhea, fever. Cases of diarrhea are high in April and May while common cold is quite common in October- November. The locally made herbal medicine Senguwa is used for the treatment of diarrhea, while Jyugmen is useful for arthritis. The Amchis generally take a month for treatment of arthritis while it takes 7-10 days for the treatment of common cold etc. Local herbs found in the Prok area are Chiraito, Pangchi, Rhekon, Nirmashi, Panchaule etc. Two years ago, he also handled delivery cases and used local method for over-bleeding. For tuberculosis, he normally refers patients for treatment in Kathmandu while he has been successfully treating paralysis at an early stage. According to him,, it is difficult to get wildlife parts, basically musk pod (Lahr chi) rhino horn (Giwang) and gall bladder of bear (Dhomdi) and it takes long time to collect herbs and process it to make medicine.

Likewise, Amchi Tharpa Gyalchen Thakali from Namrung basically treats gastritis, mental disorder, physical handicap, paralysis and unconsciousness. Now he has a good stock of medicinal herbs. He collects medicinal clay from the Mount Kailash region of Tibet Autonomous region of China. The medicinal clay is very useful for Amchi treatment as can be used for a longer time. He has also collected some medicinal clay from India.

Support for the Promotion and Conservation of Amchi Medicinal Practices

As per the Constitution of Nepal 2015, every citizen shall have the right to free basic health services from the state, no one shall be deprived of emergency health services and every citizen shall have equal access to health services. However, due to the geographical remoteness and lack of legal recognition of indigenous peoples' traditional healing practices, the mountain indigenous communities have been marginalized from the *mainstream development and government support*. At the initiative of community leaders, individuals, organizations, NGOs and INGOs have been providing nominal support for Amchi training and establishment of clinics. Amchi Shange Dorje received 50-day Amchi training and Rs 12,000 as remuneration only for a year from an individual donor Pemba Chhiring Sherpa. However, he received only Rs 10,000 support from the Bihi village development committee. He opined that establishing Amchi school, herbal farming and conservation of medicinal herbs are necessary to preserve the Amchi healing tradition.

Amchi Dhorje Thakuri received a month-long training on traditional healing practices from Himalayan Amchi Association. The Nepal Social, Economic, Education Development (SEED) provided NRs.10,000 per month to the Amchis of Prok, Lho and Sama as remuneration. The Nepal SEED is also supporting Amchi at Tsum valley, especially at Chumchet and Chekampar. Nepal SEEDS builds Amchis health posts by partnering with villagers who donate labor, logistics and land. Nepal SEEDS supports five clinics strategically located throughout Nubri and Tsum to maximize coverage of Amchi healing practice. All are staffed by local Amchis, men and women skilled in Sowa Rigpa, who continue their training with

the assistance of Nepal SEEDS. In 1998, Nepal SEEDS-sponsored Amchi clinic was built for the 3,500 residents of Nubri Valley. Built on land donated by the Prok village monastery, the clinic is staffed by Amchi Dorje Thakuri and his assistant Ngawang. Nepal SEEDS also supports Amchi clinics in Sama and Namlha villages, Nubri.

In the case of Prok, the Amchi clinic building was constructed by the local community with support from Prok VDC. Furthermore, the SEED organization is providing Rs 300,000 per year for the procurement of medicine and since last year the same organization is providing NRs.60,000 annually for the procurement of herbal medicine. The Amchi building is constructed on the land of Palri monastery hence NRs.2,000 should be paid annually as a rent to the monastery. The distribution of medicine is free while the center will receive NRs 10 from each patient as service fee. Other Amchis have not received any support from the government of Nepal.

The Himalayan Amchi Association (HAA) is also working actively for the preservation, promotion and development of traditional Amchi medicine in Nepal and networking with and mutually supporting Amchis throughout the greater Himalayan and Central Asian region. Amchis' mission as medical practitioners is to serve people altruistically and help promote health through the balance of humanity and nature, as well as mind, body and spirit. As such, the HAA aims to provide local communities in Nepal reliable health care, safeguard Amchi knowledge, improve educational opportunities for Amchis, and contribute to the conservation of medicinal plants and the fragile Himalayan ecosystems on which the Amchi medicine depends.

Uses of Plants by Amchis in Nubri & Kutang Valley

The Amchis use different types of plants and herbs to prepare herbal medicine. They prescribe medicinal herbs to cure diseases and activate self-healing forces. External therapies include bloodletting, moxibustion, compresses, oil massage and herbal baths.

During the focus group discussion and personal interview with Amchis, they said that approximately 48 different non timber forest products (NTFP) species are used for treating different ailments. Among them, 35 NTFP species are locally available and harvested by them while the other 13 species are bought from different parts

of Nepal and Tibet. Altogether 36 different diseases were cured by them, the common diseases being body ache, stomachache, cold and cough, rheumatism and arthritis (joint pain).

Plant parts used for treating diseases are root (12 NTFP species), whole plant (9), seeds, fruit and flower (5), leaf (4), aerial part (3), stem and bulb (2) and bark and heartwood (1).

Among the plants, *Carum carvi*, *Picrorhiza scrophulariiflora* and *Gentianopsis paludosa* each cures four different diseases. Likewise, *Ephedra gerardiana*, *Cremanthodium sp.*, *Hippophae salicifolia*, *Lepisorus waltonii*, *Mirabilis himalaica*, *Nardostachys jatamansi* and *Tinospora cordifolia* are used to cure three different diseases (Table 2).

These NTFPs are used for treatment by four different modes of medication. 38 different species were used in powder form, 9 different species in decoction and 2 species each is applied externally and immersed in water (Paste)

Table 2 : Traditional Healing Practice using NTFPs in study area

SN	Botanical Name	Local Name	Parts Used	Mode of Application / Dose	Treatment
1	<i>Abies spectabilis</i>	Talis Patra	Leaf	1 tsp Decoction / 3 times a day	Asthma
2	<i>Aconitum naviculare</i>	Mongar (T)	Root	2-4 gm powder with lukewarm water / Once a day	Antidote and Fever
3	<i>Adiantum pedatum</i>	Reral (T)	Root	3-5 gm powder with lukewarm water / Once a day	Antidote
4	<i>Agremonia pilosa</i>	Dhumbu Thakchye (T)	Whole Plant	3-5 gm powder with lukewarm water / Once a day	Haemorrhage
5	<i>Allium cepa</i>	Pyaz	Bulb	1 tsp powder fried in Ghee / 2 times a day	Whooping Cough

6	<i>Allium sativum</i>	Lasun	Bulb	4-5 pcs with lukewarm water / Bed time	Rheumatism
7	<i>Allium sativum</i>	Lasun	Bulb	1 tsp powder fried in Ghee / 2 times a day	Whooping Cough
8	<i>Asparagus filicinus</i>	Ban Kurilo, Nhersingh (T)	Root	1 tsp decoction / 2 times a day	Acidity
9	<i>Carum carvi</i>	Ghonyodh Du (T)	Seed	1-2 gm powder with lukewarm water / Once a day	Appetizer, Eye Tonic, Gastric and Heart Problem
10	<i>Cassia fistula</i>	Raj Brikshya	Seed	1 tsp powder with lukewarm water / Bed time	Constipation
11	<i>Cassia tora</i>	Chakramandi	Seed	1 tsp powder with lukewarm water / 3 times a day	Rheumatism
12	<i>Chrysanthemum tatsienense</i>	Serjum Mettok (T)	Flower	3-5 gm powder with lukewarm water / Once a day	Bodyache & Fracture
13	<i>Crenanthodium sp.</i>	Ngoga (T)	Whole Plant	3-5 gm powder with lukewarm water / Once a day	Appetizer, Fever & Headache
14	<i>Dracocephalum tanguticum</i>	Tango (T)	Aerial parts	2-5 gm powder with lukewarm water / Once a day	Liver tonic & Stomachache
15	<i>Ephedra gerardiana</i>	Somlata, Chhedum (T)	Aerial parts	1 tsp decoction / 3 times a day	Asthma
16	<i>Ephedra gerardiana</i>	Somlata, Chhedum (T)	Aerial parts	2-3 gm powder with lukewarm water / once a day	Ease menstruation & Haemorrhage
17	<i>Gentiana urnula</i>	Gangachhung (T)	Root	3-5 gm powder with lukewarm water / Once a day	Cough, Diarrhoea & Ulcer

18	<i>Gentiana vetichiorum</i>	Pangyan Mettak (T)	Whole Plant	2-4 gm powder with lukewarm water / Once a day	Fever & Throat trouble
19	<i>Gentianopsis paludosa</i>	Chyaktik (T)	Whole Plant	3-5 gm powder with lukewarm water / Once a day	Appetizer, Fever, Hypertension & Nausea
20	<i>Glycyrrhiza glabra</i>	Jethi Madhu	Root	1 tsp Decoction / 3 times a day	Acidity
21	<i>Glycyrrhiza glabra</i>	Jethi Madhu	Root	3 tsp Decoction / 6 hrs duration	Whooping Cough
22	<i>Heterospermum caurigerum</i>	Serki Metok (T)		3-5 gm powder with lukewarm water / Once a day	Gall bladder trouble
23	<i>Hippophae salicifolia</i>	Tarbu (T)	Fruit	2-5 gm powder with lukewarm water / Once a day	Cough and Cold, Gastric and Eases Menstruation
24	<i>Holarrhena pubescens</i>	Indrajau	Bark	1 tsp powder / 3 times a day	Stomach problem
25	<i>Incarvillea younghusbandii</i>	Ukchhyomarmo (T)	Whole Plant	2-4 gm powder with lukewarm water / Once a day	Constipation and Ear Pain
26	<i>Juniper sp.</i>	Dhup	Leaf	1/2 tsp decoction / 2 times a day	Gout
27	<i>Juniper sp.</i>	Dhup	Leaf oil	Apply externally / 2 times a day	Rheumatism
28	<i>Juniper sp.</i>	Dhup	Seed	1 tsp powder / 2 times a day	Rheumatism
29	<i>Justicia adhatoda</i>	Asuro	Leaf	1 tsp Decoction / 3 times a day	Asthma
30	<i>Lepisorus waltonii</i>	Dakpyo (T)	Root	3-5 gm powder with lukewarm water / Once a day	Kidney and Lungs problem & Sore Throat
31	<i>Malva verticillata</i>	Chamdu (T)	Fruit	2-5 gm powder with lukewarm water / Once a day	Kidney problem

32	<i>Meconopsis sp.</i>	Utpal Ngompo (T)	Flower	2-5 gm powder with lukewarm water / Once a day	Liver tonic
33	<i>Miribilis himalaica</i>	Bhatru (T)	Root	3-5 gm powder with lukewarm water / Once a day	Joint Pain, Kidney and Stomach problem
34	<i>Nardostachys grandiflora</i>	Pampyoi (T)	Root	3-5 gm powder with lukewarm water / Once a day	Antidote, Cough and cold & Hypertension
35	<i>Onosma hookeri</i>	Demok (T)	Whole Plant	3-5 gm powder with lukewarm water / Once a day	Cough and Hypertension
36	<i>Pedicularis oliveriana</i>	Lugrumukpo (T)	Flower	3-5 gm powder with lukewarm water / Once a day	Antidote, Ulcer & Diarrhoea
37	<i>Picrorhiza scrophulariiflora</i>	Houglan (T)	Root	3-5 gm powder with lukewarm water / Once a day	Cough, Dysentery & Hypertension
38	<i>Picrorhiza scrophulariiflora</i>	Kutki	Root	1 tsp Decoction / 3 times a day	Fever
39	<i>Plantago depressa</i>	Tharam (T)	Whole Plant	3-5 gm powder with lukewarm water / Once a day	Diarrhoea & Kidney Problem
40	<i>Podophyllum emodi</i>	Holmose (T)	Fruit	2-5 gm powder with lukewarm water / Once a day	Ease menstruation & Uterus tonic
41	<i>Polygonum sphaerostachyum</i>	Pangram (T)	Aerial parts	3-5 gm powder with lukewarm water / Morning	Diarrhoea
42	<i>Pterocarpus marsupium</i>	Bijaysal	Heart wood	1 glass water consumed after wood immersed overnight / Morning	Diabetes

Traditional Amchi Practices among Indigenous Communities in Nepal.

43	<i>Rheum australe</i>	Padamchal	Root	1 tsp powder with lukewarm water / Once in Bed time	Constipation
44	<i>Rubus idaeopsis</i>	Kantakari	Stem	3-5 gm powder with lukewarm water / Once a day	Cold and Cough & Fever
45	<i>Saxiraga pasumensis</i>	Sumdik (T)	Whole Plant	2-4 gm powder with lukewarm water / Once a day	Fever
46	<i>Schisandra sphaerandra</i>	Dhatik (T)	Fruit	2-5 gm powder with lukewarm water / Once a day	Cold and Cough & Diarrhoea
47	<i>Senecio scandens</i>	Serpo Gudyu (T)	Flower, Root	4-6 gm paste / Apply externally	Cure wounds
48	<i>Senecio scandens</i>	Serpo Gudyu (T)	Flower, Root	4-6 gm power with lukewarm water / once regularly	Eye infection
49	<i>Spiranthes sinensis</i>	Wanglag (T)	Root	3-5 gm powder with lukewarm water / Once a day	Lungs Tonic
50	<i>Swertia chirayita</i>	Tikta	Whole Plant	1/2 glass water consumed after plant immersed overnight / 2 times a day	Diabetes
51	<i>Swertia chirayita</i>	Tikta	Whole Plant	1 tsp Decoction / 3 times a day	Fever
52	<i>Terminalia chebula</i>	Harro	Fruit	1 tsp powder with lukewarm water / Bed time	Constipation
53	<i>Tinospora cordifolia</i>	Gurjo	Stem	1 tsp Decoction / 3 times a day	Acidity, Fever and Diabetes
54	<i>Trigonella foenum-graecum</i>	Methi	Seed	1 tsp powder / 2 times a day	Diabetes

Source: Field Survey, 2019

Community Perception Towards Amchi Medicine and other Health Services

Indigenous leaders, local political leaders, social workers, elders, youths and women from the local community have their own perceptions towards the Amchis and other health services.

During the key informants' interview, Sonam Gyalchen Lama, Chairperson of the ward & Conservation Area Management Committee (CAMC) for ward number 5, Bihi, mentioning Shange Dorje, said Amchi treatment was an effective traditional healing system though the village also had regular allopathic health post, which received additional support from Community Action Nepal. Two staff nurses from CAN and two Auxiliary Health Workers appointed by the government are running the Bihi health post. Amchis mainly provide treatment for gastritis, headache, diarrhea, bone fracture etc. The health post building is poorly equipped and lacks sufficient medicine and medical equipment, furniture etc. The locals pay little attention to personal hygiene as they lack health awareness. They visit the health post only when female members of their family face delivery complications, otherwise they prefer delivery at home. The locals visit traditional healers if they do not get effective treatment at the health post. Earlier, most patients used to visit traditional healers instead of visiting the health post. Most of the elderly people prefer to visit traditional healer rather than the modern health post. However, traditional treatment is less effective in cases of ulcer, lung diseases while it is effective in different types of poisoning. Local herbs collection is free for Amchis, however, the collectors are required to pay tax in Tibet. Nagjhyam, Chiraito (Tikta) Akarsennga, Rhokchennginga (mixture of two to three plant parts is used for blood purification) are some of the local herbal medicines available in the Bihi region. The village has three Amchis who are still studying in Serang monastery.

Amchi Shange Dorje is mainly engaged in farming and traditional healing is only his part-time job. He further highlighted the works of Amchi Shange Dhorje. Rinchen Dorje suddenly had a paralytic attack and was immediately rushed to Kathmandu for treatment. However, when he could not be cured he returned to Bihi and sought treatment from Shange Dorje. Shange helped Rinchen recover from paralysis.

Shange Dhorje Lama of Prok, former ward chairperson, opined that Amchi was more accessible, cheaper and available at any time when patients needed immediate medical care. This he said was one of the reasons why Amchis were so useful for the locals, especially the poor. Shange recounted an unforgettable incident in Prok. A local patient Tenjing Dhorje Lama (32 years old) fell seriously ill four years ago and was immediately rushed to Norvic Hospital in Kathmandu for treatment. There he received treatment for more than a month but could not recover. Finally, he returned home and started to get treatment from Amchi Sanga Tanchen at Prok. Within a month he recovered fully and has now been living normal life.

Similarly, Chhyokyal Lama, chairperson of CAMC of Lho highlighted the importance of Amchi medicine. He said the Amchis were more accessible for all classes of people, regardless of their economic condition. Still the elderly people have great faith in Amchi treatment. He recounted an accident involving his own son. Four years ago, his son fell from a cliff and fractured his pelvic bone. Although he wanted to airlift his son to Kathmandu this was something he couldn't afford. So he decided to visit Amchi Sanga tanchen for his son's treatment. After a month-long treatment course, his son fully recovered. The Amchi provided regular oral medicine along with application of herbal paste in the affected area. Lama paid only NRs.5,000 to the Amchi for the treatment of his son. It is to be noted that the chopper had demanded Rs 45,000 to airlift his son to Kathmandu and his treatment there would have incurred more expenses.

Likewise, during focus group discussions among the community people, Ngima Dhorje and Kunsang Tsering from Samdo village ward number 1, Sama of Tsum Nubri Rural Municipality said Amchi diagnosis was quite reliable and effective. Four methods of

diagnosis are used in the Amchi healing practices. These are 1. Stool and urine test

(Chhyurta) 2. Pulse checking (Chha) 3. Fire (Meh) and 4. Blood (Thha). Principally there are four kinds of Amchi medicine 1. Herbal medicine (Chah men) 2. Stone & clay (Do mehn) 3. Medicine from flesh (Shya mehn) 4. Medicine from jewels (Rihnchen Mehn). Amchi Ngima tesring is the only traditional healer at Samdo. One of the most popular Amchi at Samdo is Amchi Hishe Dhorje. But now Hishe Dhorje is staying at Dharmasala India. Amchi Hishe Dhorje has become quite popular among Indian communities due to his reliable diagnosis and effective treatment.

Training and Knowledge Transfer

Traditional Amchi healing practices were more popular in the past and the elders have passed on their knowledge to their offspring via oral tradition. Amchis were trained informally in the past. Training usually started at a young age when students learnt medical theory and identification of 'materia medica', including uses, parts used, their properties and preparation techniques. Therefore, in the Amchi hereditary tradition, training could span from childhood to adulthood (Bista et al., n.d). Traditionally, the Amchis were trained under the traditional educational system either under private guru-shisya tradition or under gyud-pa (lineage) system in families in which the knowledge was generally transferred from father to son through generations. It takes several years to become a skilful Amchi and requires hard theoretical and practical trainings. After finishing his/her training, the trainee Amchi has to take an examination in front of the entire community in the presence of a few expert Amchis in a ceremony to confer the designation of Amchi on him/her.

In the study area, majority of the Amchis were initially trained from their parents, relatives, village Amchis and later they got training from Kathmandu with financial support of individual sponsors and organizations. Amchi Shange Dorje of Bihi had migrated from Shyo. His ancestor Amchi Yudok was the first Amchi from the Shyo village. From the same lineage Amchi Shange Dorje became the second Amchi in Shyo. He has been a practicing Amchi since he was 22 years old. He was trained for three years after which he started

his Amchi practice. Amchi Angpa from the Shyo ward number 2 of Lho was his main teacher. He received further 50-day training from the Amchi Pemba Tsering of Kathmandu with the consultation of Dukpa Rimpoche, the senior Lama from Chekampar. He also received four-day training on treatment of diarrhea from the older Amchi from Rana village, Bihi.

Similarly, Amchi Dhorje Thakuri of Prok village received Amchi teaching from Dawa Lopsang Temba who came to Lho from Thak khola of Mustang. Once Amchi Dhorje returned from Lho, he stayed with Amchi Angchuk from whom he learnt how to collect different local herbs and make different medicine by mixing musk pod with gall bladder of bear. He still makes powdered medicine. He further received a month's training on traditional healing practices from Himalayan Amchi Association.

Likewise, Amchi Tharpa Gyalchen was initially an office assistant for the government-run sub health post in Namrung, Prok. Although there are posts for two nurses and two Auxiliary Health Assistants at the sub health post, he is the only staff available all the time for local patients. At the health post he got an opportunity to learn about allopathic medicines. He also learnt how to examine patients with minor ailments and prescribe them medicine. He also administers saline water to patients himself. As he works at the sub health post, he has also been showing keen interest in Amchi practices for the last six years, especially after his father's untimely death from paralysis and at the same time his wife's death from high blood pressure. Amchi treatment is more effective in cases of both these diseases. Realizing this he started learning Amchi medicinal practices from a veteran Amchi. He also collected different local herbs and clay from the Tibet. Now he has been devoting at least two hours a day to study a book he has found on Amchi treatment.

More recently, knowledge about Amchi treatment is also being transferred through formally recognized educational and training institutions.

Challenges, Opportunities and Recommendations for Continuation of Amchi Practices

The Amchis have been contributing greatly to public healthcare in the remote mountain indigenous communities for centuries. In the mountain region of Nepal, Amchis are the sole healthcare providers. However, despite the great advantages of Amchi medicine, this practice is under threat in Nepal and other parts of the Himalayas. The younger generation is having a difficult time sustaining this practice amidst changing social, economic, and cultural circumstances. The lack of government recognition of Amchi practice has further prevented Amchis from transferring their knowledge, serving communities and protecting the environment on which this medicinal practice depends. Despite the valuable contribution of Amchis in the mountain indigenous communities, they have been facing several challenges.

Challenges

Lack of legal recognition by the government

In China, Amchis have been given national acceptance and their profession is institutionalised. Practitioners receive allopathic and western medical training as well. Despite their invaluable services, the government of Nepal has not given legal recognition to the Amchis. Most of the Amchis feel that it is risky for them to provide treatment in certain complicated cases as they are not legally allowed to provide treatment to patients. However, they continue to provide treatment to patients as a moral responsibility and due to request from community members when no other form of treatment is available.

Migration and youth's attraction towards western medicine

In recent years, the number of Amchis in Nubri and Kutang valley

has been gradually decreasing. This is due to a shift towards a cash-based economy associated with the migration of youths from the village to the cities for better education, employment and convenient life.

Increasing scarcity of raw materials required for the Amchis medicine

Most of the Amchis in the study area said the availability of local herbs was decreasing, which probably could be a result of climate change. Earlier, these herbs were easily available in the village, nearby forest and surrounding areas. Now these herbs have become scarce. It has become difficult and expensive to procure these herbs and often Amchis are required to import these herbs from other countries.

Restriction in the use of animal parts to produce medicine

Earlier, wildlife parts such as musk pod, gall bladder of the Himalayan black bear, rhino horn were used to produce high quality medicine. However, these are endangered species and the government has placed a ban on poaching of endangered wild animals.

Local manufacturing of Amchis medicine is labor intensive and difficult

The traditional way of collecting herbs and producing, mixing and processing is quite labor intensive and difficult. It is really difficult to find skilled collectors as most of the youths have migrated to the cities.

No external support for Amchi medication

Amchi healing system is based on knowledge passed on from one generation to the other, especially by elders of a family to the younger members. The government had taken no initiative to promote and protect this tradition. Moreover, neither the government nor other organizations have provided any support for the promotion of this traditional healing practice. Lack of formal education and institution

No formal institute has been established for imparting Amchi knowledge. Lo Kunphen medical school of Amchi in Lomanthang

Upper Mustang is the only school so far which produces Amchis. Currently, 30 students are enrolled in the school. The school does not receive any regular support from the government. It is being operated through support from individual donors, tourists and international visitors.

Overharvesting of medicinal plants

Naturally grown medicinal and aromatic plants are used for Amchi treatment. In the high mountain regions like Nubri and Kutang valley of MCA region, these NTFPs are dwindling. Overexploitation of medicinal plants by traders is causing less regeneration and overharvesting may lead to dwindling supply of NTFPs in the forests and pastures.

No uniformity in the quality of medicines

Most of the individual Amchis produce medicine themselves. So the quality of medicine varies depending on the knowledge of individual Amchis. This creates complexity in the standardization of the quality of medicines.

Takes time to cure diseases

Herbal medicine takes time to cure diseases although it does not have any side effects. The same mixture of medicine can cure different ailments but it takes time to cure a disease as compared to allopathic medicines.

Scope and Opportunities

The need to use traditional medicine may arise due to lack of access to modern medicine, but it may also be the result of genuine demand, as demonstrated by the fact that even in industrialized countries roughly half the population also resorts to non-modern forms of medicine. There are various reasons for this:

Availability and affordability

Amchi practitioners are available at any time in the villages. In the remote mountain villages, traditional Amchi medicine is the only form of affordable healthcare for the poorest sections of community, mainly for economic and geographical reasons.

Familiarity and cultural acceptability

Practitioners of traditional medicine share their patients' culture as well as the same view of health and illness and the same general conception of the human organism as it relates to the broader environment. They therefore "speak the same language" as the general public and use the same frame of reference for health.

Effective treatment for specific disorders

In many countries, traditional medicine such as Amchi medicine is the preferred treatment for mental disorders. More importantly, the Amchi treatment is more effective in cases of gastritis, liver problem, jaundice, paralysis, poisoning, heart diseases, blood pressure etc. At the same time, Amchi medicine has no side effect on the health of patients.

Abundant availability of medicinal and aromatic plants

The Nubri and Kutang valley is rich in various medicinal and aromatic plants. Herbs such as yarchagumba (*Cardiarycep synensis*), Panchaule, Nirmashi etc are found in the high mountain region of Nubri. Approximately 48 different NTFP species used by Amchis for treating different ailments were recorded in this region.

Potential sites for herbal farming

The area is quite feasible for herbal farming. This naturally would act to reduce over exploitation of the natural environment as herbal farming would increase the availability of Amchi medicine to meet the local demand.

Amchi healing practices can be harnessed as a major component of ecotourism

Amchi healing practices is based on Buddhism and indigenous knowledge can be promoted as one of the major components of eco-tourism. More importantly it can be developed as an important product of nature. Culture-based tourism can attract many visitors, scholars, researchers from abroad and Amchi healing practices can be promoted as nature-based healing tourism in this remote mountainous region. It could be a unique product for tourism if it is properly documented and promoted.

Recommendations

It has become clear that Amchis living and practicing in the greater Himalayan region, including Nepal, must take effective and timely steps to revitalize the traditional mountain indigenous medical system. By doing this, we will also help safeguard the health, wellbeing, and cultural traditions of our remote mountain communities. If we do not protect and support our own traditional knowledge and practices, it will soon be rendered obsolete.

Legal recognition

The government of Nepal needs to recognize Amchi healing practices as well as Amchi training schools as medical institutions so that Amchis may freely provide their services as healthcare providers in the remote mountain districts.

Institutionalization of Amchi education

The government of Nepal should give high priority to establishment of Amchi medical education center in the form of school and college to train more local Amchis in future. So far, there is only one Amchi medical school in Lomanthang of Nepal.

Identify potential areas for herbal farming

Considering the scarcity of medicinal plants support should be provided for herbal farming in this area for maximizing the availability of herbal plants for the Amchis.

Sustainable NTFP harvesting policy

The Manaslu Conservation Area Project should promulgate Sustainable NTFP harvesting policy and implement it for effective conservation of NTFPs in the MCA region of Gorkha

Support for basic infrastructure and medical tools for Amchi clinic

To promote Amchi practice, arrangement of basic infrastructure like building, furniture, medical tools and manufacturing machine for Amchi medicine should be made in each village of Nubri and Kutang valley.

Capacity building

Regular training, workshop, exposure visit should be conducted for existing Amchis for exchange of knowledge and information and to enhance their capacities.

Make arrangement for regular remuneration for Amchis from the government

Regular remuneration should be provided by government of Nepal for the operation of Amchi clinic and it should be recognized as government-supported health post and should establish Amchi department under ministry of health and sanitation of Nepal government

Use of wildlife parts

Since high value Amchi medicine is made using some wildlife parts such as musk pod, gall bladder of the Himalayan black bear and rhino horn, it should be controlled and Amchis should be encouraged to use plant alternatives.

Policy and regulation

The government should formulate a policy favorable for Amchi healing practices basically for better access to production, collection and transportation of herbal medicines.

Research and documentation

Amchi traditional healing practices are tradition based on indigenous knowledge. The indigenous peoples have a very rich knowledge of traditional healing and herbal medicinal practices. However, too little research and documentation has been done in this field in Nepal. Therefore, more focus should be laid on in-depth study, research and documentation for preservation and promotion of Amchis healing practices in remote mountain region of Nepal.

Conclusion

The Amchis have been contributing significantly to public healthcare in the remote mountains of Nepal. Amchi tradition has been the most reliable means of ensuring good health of indigenous communities for generations. In many parts of Nepal, Amchis are the sole healthcare providers. However, due to rising influence of the western medicines and migration of youth to urban area, this tradition is under threat in Nepal and other parts of the Himalayan region. The younger generation is having a difficult time sustaining this practice amidst changing social, economic, and cultural circumstances. In the mountain region of Nepal, Amchi medical practitioners still keep an in-depth knowledge of medicinal plants. Medicinal plants still play a pivotal role in the primary healthcare of the local people in the Nubri and Kutang valley of Gorkha. Due to the geographical remoteness, lack of doctors at the health post and a strong cultural belief in the power of herbal medicines, Amchi tradition is still popular in Gorkha. Although such healthcare practices have been in place for centuries in Gorkha, they are at the risk of being lost primarily due to socio-economic changes in the region as the youths are continue to migrate to foreign countries for employment and education. The continued practice of training younger members of the family as an Amchi apprentice is necessary for the survival of this medical tradition.

The government should give recognition to traditional Amchi medicine, regulate its practice and allocate resources without discrimination.

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Annexes

Annex I: Description of the Study Area

Gorkha District

Gorkha district, a historical place, is situated in Gandaki Province and is one of the seventy-seven districts of Nepal. It is linked historically with the creation of the modern Nepal and the legendary Gurkha soldiers.

It is located at an altitude of 228 to 8163 meters from the sea level and its area is 3610 sq. km. It is famous for tourism destination. According to the new provincial structure, Gorkha district has two municipalities and nine rural municipalities, which are divided into 94 wards.

According to the National Census 2011, there are 9,929 households with a total population of 38,244 in the district. Gorkha Municipality and Siranchok Rural Municipality are to east of the Palungtar municipality whereas Tanahu district is to the west, Lamjung district and Siranchok are to the north and Gorkha Municipality and Tanahu district are to the south.

Manaslu Conservation Area (MCA)

The Nubri and Kutang valleys are located in the Manaslu Conservation Area. MCA lies in Gorkha district in the Western Development Region of Nepal. MCA covers the entire Tsum Nubri Rural Municipality with seven wards in the northern part of the district. MCA lies between 28° 20' - 28° 45' latitude and 84° 29' - 85° 11' longitude. All wards (former VDCs) except Sirdibas, border Tibet Autonomous Region of China to the north.

Physical features

Elevation of MCA ranges from 1,239m to 8,163m. Major peaks

include Manaslu (8,163m), the 8th highest peak in the world, Himalchuli (7,893m) and Shringi (7,187m). Important high passes include Larke La (5,205m) and Gya La (5,375m). Major rivers in MCA are Budhi Gandaki and Syar Khola, while Kalchuvan Lake (Kal Tal) and Birendra Lake are important lakes in the area.

Climate

The MCA has five climatic zones: sub-tropical, temperate, sub-alpine, alpine and nival. The sub-tropical zone lies between 1,000m and 2,000m with average summer and winter temperatures between 31 and 34°C, and 8 and 13°C, respectively. The temperate zone occurs in the higher hills above 2,000m and below 3,000m. In this zone, average summer temperatures range from 22 to 25°C while winter temperatures range from 2 to 6°C. Frost and snowfall is common during winter (January and February). The sub-alpine zone lies between 3,000m and 4,000m with snowfall occurring for about four to six months (December to May). In this zone, winter is very cold and annual summer temperatures average between 6 and 10°C. The alpine zone, between 4,000m and 5,000m, is mostly open meadows. The nival zone occurs at elevations above 4,500m (DNPWC, 2010).

Precipitation is in the form of summer monsoon rain usually lasting from June to September. Average annual rainfall is around 1,900mm. A significant portion of MCA is surrounded by high mountains, thus protecting it from the southern monsoon clouds and creating partial rain-shadow areas. However, because monsoon clouds reach the end of the Budi Gandaki and Syar Khola valleys, the valley floor is wet in comparison to corresponding slopes and side valleys.

Population

There are 56 major villages in MCA. Samagaon ward no.1 has only two villages, while Sirdibas ward no.3 has 17 villages. Major factors responsible for this type of settlement pattern are availability of arable land, climatic condition, road/trail accessibility and population density. Settlement patterns determine the delivery of public services both now as well as in the future. Most houses in MCA are constructed with stones and wooden roofs. However, Samdo village and some villages in Chhekampar ward no.7 have stone roofing. The choice is governed by access to these materials.

In total, there are 1,949 households in MCA. Sirdibas ward has the highest (572) and Prok ward number 4 has the lowest (187) number of households. Total population in MCA is 6,923 comprising of 3,665 females and 3,258 males (Census 2011). The average family size is 3.55 persons per household. The population changes in table 4 shows the number of households in MCA has increased up to 113, while the population has decreased by 646 compared to the previous census. This is attributed to migration of youth for jobs to Kathmandu and Pokhara and even to foreign countries such as Malaysia, Qatar and India.

Households and population

VDCs	Total HHs	Total Population	Male	Female	Average Family size/hhs	Change in population	Change in HHs	Male	Female
Sirdibas	572	2510	1171	1339	4.39	157	88	-35	192
Bihi	208	612	288	324	2.94	-223	14	-128	-95
Prok	187	575	273	302	3.07	-112	-34	-38	-74
Lho	256	711	320	391	2.78	-130	30	-91	-39
Samagaon	197	604	281	323	3.07	-46	10	-28	-18
Chumchet	266	928	434	494	3.49	-79	4	-64	-15
Chhekampar	263	983	491	492	3.74	-213	1	-57	-156
Total	1949	6923	3258	3665	3.55	-646	113	-441	-205

Source: CBS, 2012

Ethnicity

The major ethnic group in all wards, except Sirdibas, is Bhotia (also known as Lama). Gurung and Karki are the major ethnic groups in Sirdibas ward with three households of Ghales. In Namrung village of Prok ward no.4, there are seven Thakali households who migrated from Mustang district a few generations ago. There is one Kami household in Samagaon ward no.1.

Land use Pattern

As per the topographic maps of the Government of Nepal (1996), land use categories in MCA include agriculture land, forest, shrub land, grassland, river/river bed, snow/glacier, lake/pond, barren land, rocks, and cutting/cliffs (Map 3). Area coverage under each land use category is presented in table.

Land use pattern in the different villages

Landuse	Sama	Lho	Prok	Bihi	Chumchet	Chhekampar	Sirdibas	Total
Agriculture	1.03	1.54	4.38	4.23	5.57	4.37	8.89	29.99
Forest	4.54	16.20	35.25	42.50	38.68	8.14	75.66	220.98
Shrubland	0.77	0.00	2.69	8.39	18.94	3.08	12.65	46.52
Grassland	54.61	46.89	40.41	26.25	47.52	82.41	95.52	393.62
River/Riverbed	9.27	2.71	0.74	0.54	1.36	3.05	2.51	20.18
Snow/Glacier	60.76	19.12	0.00	3.80	3.92	16.11	9.45	113.18
Lake/Pond	0.28	0.02	0.24	0.00	0.06	0.00	0.18	0.79
Barren Land	201.83	119.44	60.47	33.49	110.73	199.40	106.04	831.40
Cutting/Cliffs	0.00	0.34	0.13	1.05	0.83	0.00	4.01	6.36
Total	333.09	206.26	144.31	120.26	227.61	316.56	314.91	1663.00

Source: Topographic maps of the Government of Nepal, 1996

Health, education and other facilities

Almost every ward in MCA has a sub-health post. However, the sub-health posts lack adequate medical equipment and medicines. NGOs such as Community Action Nepal (CAN) have been providing support to sub-health posts in all wards. Due to additional staffing and medicine support from CAN, the existing health post has been able to provide better services to local patients. CAN also implemented preventive measures along with health and sanitation, personal hygiene awareness and training programs for the local communities.

Health, education and communication services in study area

SN.	Ward	Education		Health		Telephone	Postal Service
		Primary School	Monastic School	Sub-Health Post	Amchi Services		
1	Bihi	4	1	1	1	1	1
2	Prok	4		2	1	2	1
3	Lho	3	1	2		1	1
4	Sama	2		1	1	2	1
	Total	13	2	6	3	6	4

Literacy

In MCA, a majority of the population (68%) above six years of age is illiterate and only 32% of the population is literate (i.e. able to read and write) (Socio-economic Survey 2007/08). Of the total literate population, 21% are male and 11% female. Lho ward has highest literacy rate while Chumchet has the lowest (Figure 1). However, the district profile of Gorkha shows that the literacy rate of Tsum nubri Rural Municipality is 38.6 %. In Tsum nubri Rural Municipality, literacy rate for male is 50.1% and female is 28%. (District profile of Gorkha 2074 based on new local body)

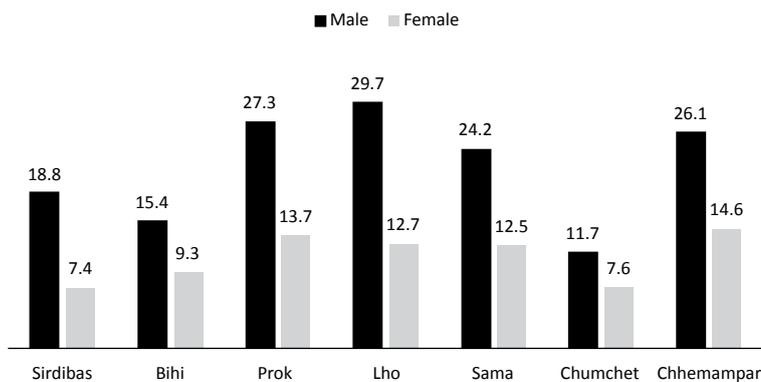


Figure 1. Wardwise literacy rates in the study area.

Livelihoods

Agriculture

Agriculture is the main occupation of the residents of MCA. The main crops grown are *Karu* (naked barley), buckwheat, maize, potato and wheat. Farmers also produce mustard, beans and soybeans. Wheat cultivation is limited in the area. Farmers from Chumchet produce *chino* (jiji in local language), amaranthus and millet in the lowlands. Samagaon farmers have a single cropping pattern with the agricultural season from Chaitra (March-April) to Ashwin (September-October). Villagers from other wards produce two crops of *Karu* a year: from Magh-Asadh (November-June) and Shrawan-Kartik (April-October) as the second variety of *karu* matures in 80 days. However, if villagers plant maize or potato, they are

able to produce only one crop a year. There are two varieties of maize which are planted in alternative years. Some households also have kitchen gardens and produce vegetables for their own consumption.

There is more agricultural land in Prok, Sirdibas and Chhekampar in comparison to other wards in MCA. Food sufficiency in the area is between 3-6 months. Some Gumbas in the area also have agricultural land. Households having none or insufficient agricultural land can utilise these lands on a 50/50 share basis. The Gumbas provide only the land, while all other costs are borne by the households.

The government has established an agricultural service centre at Philim to provide agricultural services to farmers. However, villagers from all wards reported that agricultural services were not available at the centre. The service centre remains closed most of the time.

Trade

Trade is a seasonal activity for people living in the project area. It does not have significant impact on the overall economic activity of local residents. However, trade is an important activity for residents of Lho, Samagaon and Chhekampar ward compared to the residents of other wards. Trade can be categorised into two types: trade with Tibet during summer and trade with other parts of the country during winter. Local people mostly buy wool, *jimbu*, yaks and other consumable goods from Tibet. Wool and *jimbu* is sold in Kathmandu, while ready-made garments from Kathmandu are sold in Tibet. Local people claim that there is not much profit in this type of business and that it is only sufficient to meet travel expenses during the winter and to buy basic household commodities. However, selling yaks in Manang is comparatively profitable to the people of Samagaon.

An important trading activity is the sale of medicinal plants in Gorkha, Trishuli and Kathmandu at the time of seasonal migration during winter. Trade of medicinal plants is not at a commercial scale, but it provides cash needed for buying household goods. The 2007 survey indicated that 54% of the households in MCA are involved in

MAPs collection for sustaining their livelihoods. *Cordyceps sinensis*, *Fritillaria cirrhosa*, *Delphinium denudatum*, *Nardostachys grandiflora*, *Neopicrorhiza scrophulariflorai* and *Swertia chirayita* are the major species that were collected for income generation. In 2008 alone, 6,385.84 kg of MAPs were illegally exported from MCA (Upadhyay 2008).

Seasonal migration

Most of the able members from all wards, except from Sirdibas, temporarily migrate during the winter season from Magh (November-December) to Chaitra (March-April). The people usually migrate to Kathmandu, Pokhara and Lamjung. Some of these people are engaged in petty trades such as buying ready-made clothes in Kathmandu and selling them in the village. During this period, they buy food from Arughat and transport it to their villages.

Annex II List of Amchis in each village

1	Shange Dhorje Lama	Partly working as Amchi	Bihi Ward No. 5
2	Dhorje Thakuri	Amchi having clinic supported by SEEDS	Prok Ward No. 4
3	Shanga Tanchen Lama	Senior Amchi staying in the monastery	Prok Ward No. 4
4	Tharpa Gyalchen Thakali	Amchi & staff of Namrung Sub Health Post	Prok Ward No. 4
5	Kungsang Lama	Senior Amchi at a clinic in Bouddha, Kathmandu	Prok Ward No. 4
5	Ghyurme Lama	Amchi previously supported by SEEDS	Sama Ward No.1
6	Amchi Tashi Dhorje	Amchi	Samdo, Sama Ward No.1

Annex III: List of key informants

S.N.	Name	Position	Village name / ward
1	Shange Dhorje Lama	Amchi	Bihi Ward No. 5
2	Sonam Gyalchen Lama	CAMC/Ward chairperson	Bihi Ward No. 5
3	Dhorje Thakuri	Amchi	Prok Ward No. 4
4	Jyabyang	Local politician, NC	Prok Ward No.4
5	Shange Dhorje Lama	Ex-ward chairperson	Prok Ward No.4
6	Ngimadiki Lama	Chairperson of the local women group	Prok Ward No.4
7	Kunsang Dhorje Lama	Chairperson , CAMC	Prok Ward No.4
8	Tsering Lama	Ex-VDC chairperson	Prok Ward No.4
9	Temba Thakuri	Ex-CAMC chairperson	Prok Ward No.4
10	Ngima Lama	Chief of Mountain Child School	Prok Ward No.4
11	Dawa Lama	CAMC secretary	Prok Ward No.4
12	Lhakpa Dindu Thakali	Chairman Hogam Geriatric Centre	Prok Ward No.4
13	Tharpa Gyalchen Thakali	Amchi and Sub Health Post	Prok Ward No.4
14	Chhyokyal Lama	CAMC Chairperson	Lho Ward No.2
15	Pema Rhitar Lama	Ward Chairperson	Lho Ward No.2
16	Bir Bahdur Lama	Ward Chairperson	Sama Ward No.1
17	Mingmar C hiring Lama	Chairperson, TMSc	Sama Ward No.1
18	Ghyurme Lama	Amchi	Sama Ward No.1
19	Ngima Dhorje Lama	Ward Member	Sama Ward No.1, Samdo
20	Kunsang Dhorje Lama	Hotel owner	Sama Ward No.1, Samdo