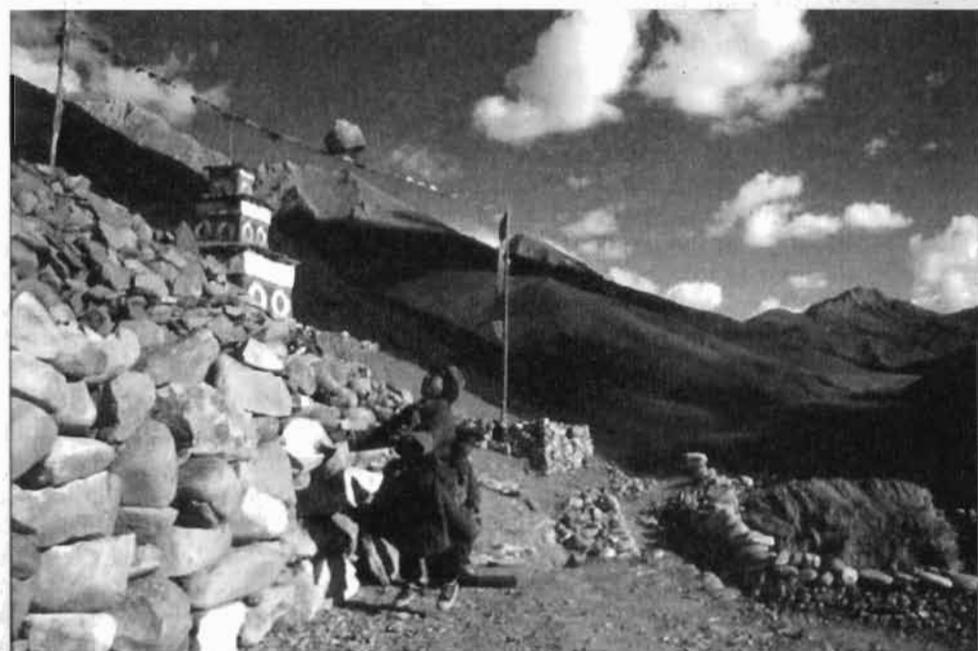


Where There is No Doctor: Building the Capacity of the Himalayan Amchi to Serve Pastoral Communities



Cover Photo: A cultural landscape (*from the presentation by Tenzing Bista*)

Where There is No Doctor: Building the Capacity of the Himalayan Amchi to Serve Pastoral Communities

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Introduction

Biomedicine (or allopathy) is characterised by the specialisation of doctors in particular areas of expertise such as paediatrics, obstetrics, surgery, or dentistry. Simply put, a paediatrician treats childhood ailments, a surgeon operates on defective body parts, and a dentist mends decayed teeth. In remote pastoral highlands of Nepal, in districts such as Dolpa, Mustang, Humla, Mugu, Gorkha, and Rasuwa, an 'amchi' (medical practitioner) is very much a doctor – a doctor of multiple skills who provides diagnoses and treatments, but who does not have a license to practice. Although amchi are not recognised by the Ministry of Health, one might find them treating patients in a variety of situations – in private clinics in bustling metropolises, as well as in nomads' tents in the remotest reaches of the Himalaya. Even so, the public perception of traditional medicine is that of an 'alternative', or a 'last resort'. An amchi is not only an alternative or a last resort for the pastoral communities in the Nepal Himalaya; he is all that they have for meeting their health care needs, including those of their livestock (Gurung 1996; Craig 1996; Shrestha et al. 1998).

Amchi are indispensable for the health of pastoral communities, and as a group of specialised knowledge holders, they are crucial to the conservation of high-altitude medicinal plant resources. Furthermore, amchi have botanical and ecological knowledge not found elsewhere (Ghimire et al. 2001). For example, selective harvesting by amchi of underground plant parts involves uprooting only mature and robust plants and leaving younger bulbs, rhizomes, and vegetative shoots to mature until they set seed. The detailed practical knowledge that amchi have about plant biology, diversity, distribution, use, and regeneration has contributed towards development of a management system for medicinal plants in Shey Phoksundo National Park, Dolpa.

This paper examines the role of the amchi in meeting local health care needs, as well as in furthering medicinal plant conservation in the Nepal Himalaya. It highlights the problems faced by the amchi and the ongoing initiatives to address them, both by amchi and by external agencies, and identifies areas for strengthening the capacity of the amchi. Although the terms 'capacity building' and 'participation' are increasingly being scrutinised in the critique against mainstream development (Cook and Kothari 2001), the need for strengthening the amchi profession has been articulated from within. The last decade saw in Nepal the establishment of a multi-party democracy and a mushrooming of NGOs involved with a diversity of issues. Among various marginalised groups, amchi have started to assert their identity in local, national, and international arenas. At a participatory planning workshop held by WWF in Dolpa in 1997, amchi directed the ethnobotany project towards issues related to local health

care and a revitalisation of their profession. That project has made an attempt to link health care to medicinal plant conservation and management. Partnership between the amchi and conservation and development agencies is considered a good opportunity for furthering development and conservation in Nepal.

The amchi tradition and its development in the Nepal Himalaya

An amchi is a practitioner of the 'Sowarigpa' medical system (also practiced in Ladakh, Sikkim, Tibet, and Bhutan), which recognises that disease is caused by imbalance in the three 'psycho-physiological energies', translated as 'wind', 'bile', and 'phlegm'. Diagnostic measures include questioning and physically examining the patient and analysing of the pulse and the urine. Treatments include medicine, moxibustion, venesection (bloodletting), and medicinal baths (Donden 1986, Dummer 1994, Donden and Wallace 2000).

Motivated by compassion (a key principle in Buddhism and Bon and a vehicle for obtaining enlightenment), an amchi devotes his body, speech, and mind to easing the suffering caused by disease. He searches the pastures, forests, and river valleys for medicinal plants and collects the required parts – roots, stems, branches, pith, bark, resin, leaves, flowers, and fruits – to prepare remedies in the form of powders, pills, decoctions, pastes, and concentrates. He also purchases plants and other medicinal ingredients from the lowlands and transports them back to his village, often with great financial and physical difficulty.

Plants procured from the lowlands (the Terai and India) include *Terminalia chebula*, *Terminalia bellerica*, *Phyllanthus emblica*, *Myristica fragrans*, *Vitis vinifera*, *Cinnamomum tamala*, *Piper nigrum*, and *Piper longum*. In addition, a number of precious metals, minerals, resins, and animals are used by amchi. *Serkyi chema* (literally golden sand) is an important medicinal ingredient that is found in the Kailash-Manosarovar region; amchi 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, whether they are rich or poor, and uses his knowledge and experience to cure illnesses, from the minor to the major. The amchi of Nepal receive medical training from their fathers (Amchis Gyatso and Tenzing were trained in part by their late father, Amchi Tashi Chusang) or teachers. It is not unusual for 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 amchi 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 traditions of healing (Rinpoche 1973). This medical system flourished across the Himalaya – including Dolpa, Humla, Mugu, Gorkha, Sindhupalchowk, Mustang, and Rasuwa districts of Nepal, where it is practiced 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 to King Jigme Palbar Bista. Similarly, in Dolpa, lamas of various monasteries have combined medicine with their

religious practices and have further promoted the medical tradition. Today, Dolpa has the largest number of amchi in Nepal, followed by Mustang and Gorkha. Despite a decline in the tradition over time due to various socio-political factors, a process of revitalisation, from both within and without, has started in Nepal.

The doctor and the amchi: some noteworthy differences

Without underestimating the contributions of modern medicine to human health, or of traditional medicine to the majority of the world's population, some essential differences between a biomedical doctor and an amchi are highlighted here. In the context of lobbying for national and international recognition and support, while we emphasise that an amchi is also a doctor, we still maintain some essential differences between the two. Although the emphasis on differences is in itself superficial, it is useful to raise questions on a broader perspective as to how the two systems of medicine might learn from and enrich each other, so as to better serve the health care needs of local communities in the rapidly-changing socioeconomic and political environment of Nepal.

Theory and practice

The amchi tradition is based on Buddhist and Bonpo philosophies, which recognise that the three mental 'poisons' of desire, aggression, and delusion give rise to three psycho-physiological energies, the imbalance of which causes disease. It is the association with philosophy and religion that renders this system of medicine 'esoteric' and 'metaphysical', and thereby suspect to followers of biomedicine (Dummer 1994), which is based on natural science (Aschoff and Rosing 1997). Biomedical doctors have mostly viewed traditional medical practitioners with suspicion, although since 1978, the World Health Organization (WHO) has recognised the importance of integrating the two systems of healing (Helman 1990). Table 1 highlights these important differences.

Table 1: Aschoff and Rosing (1997) outline the following differences between biomedicine and amchi medicine

	Biomedicine	Amchi Medicine
Basis	Natural science and empirical research	Theory of science based on the school of thought of five elements, three energy systems, and Buddhist philosophy
Pathogenesis	Impaired functions and structures of different organs	Behaviour, lifestyle, nutrition; differentiation between complaints and diseases generated by ignorance, adherence, and hatred
Diagnostics	Past medical history, physical examination, chemical analyses, technical tests with the support of chemistry and physics	Subtle observation and perception; past medical history; diagnostic palpation points of organs; pulse, tongue, and urine diagnoses
Therapy	Consultation, symptomatic treatment with medication through operation, radiation, chemotherapy, physiotherapy and technical interventions, and psychotherapy	Preventive approach through advice on lifestyle and nutrition to restore imbalanced health; massage, balneotherapy, medication, and moxibustion
Pharmacology	Analyses and syntheses of chemical substances; in vitro and in vivo trials; natural scientific efficacy checks	Testing the tastes of plants and plant parts; testing animal and mineral substances; defining the cooling or warming effects of plants
Research	Random sampling and statistical evaluation; retrospective and prospective studies	Individual medicine; only empirical research; does not conform with western medicine

Transmission of knowledge and training

Biomedical doctors are trained in formal medical schools that follow strict admission policies, rigorous criteria for selection, and definite course periods of study. In theory, any able candidate – male or female, rich or poor – can become a doctor; in reality, race, class, culture, and gender may preclude equal opportunity. In Nepal, amchi are trained informally; knowledge is generally transmitted from father to son or from teacher to disciple. Training usually starts at a young age, when the student learns medical theory and identification of 'materia medica', including uses, parts used, properties, availabilities, and preparation techniques. Therefore, in the amchi hereditary tradition, training can span from childhood to adulthood. In recent years, the Dhorpatan Amchi School and the Lo Kunfen Mentseekhang and School have been established to provide formal training to young amchi, including female students.

Production of new knowledge

Biomedicine has progressed due to the immense focus on research and development in the constant quest to develop new drugs for old and new diseases. The amchi medical system, on the other hand, takes pride in the fact that it is a thousand-year-old tradition that has withstood the test of time. However, more amchi are now innovatively developing new formulas or testing old ones for efficacy. Some amchi are also researching new medicines, although this effort is mainly restricted to the medical institutes in Lhasa and Dharamsala.

Recognition and legitimacy

Biomedical doctors are regarded with high esteem in Nepal and around the world. The amchi is recognised only in his village or district, by virtue of the services that he provides and their curative effect on patients. Aside from training on plant identification and use by the Ministry of Local Development, the tradition is not officially recognised by the Ministry of Health. Similarly, traditional healers, such as 'dhami' and 'jhancri', are only used by the government health sector to promote state-sponsored health programmes, such as tuberculosis control or vaccination. In contrast, the Ayurvedic medical tradition is recognised alongside the biomedical system through the establishment of separate colleges, hospitals, and government agencies.

Economics

While the cost involved in the training of a biomedical doctor is high, an amchi in Dolpa or Mustang is not traditionally required to pay any training fee. Although the financial investment in acquiring biomedical training is relatively high, a medical student can expect to retrieve the cost of the training after starting to practice. In the case of the amchi, not only does he not receive a consultation fee, but he also must use his own limited means to provide medicine for his patients. The practice of serving all patients regardless of their social status and ability to pay is influenced by the Buddhist and Bonpo philosophy of benefiting all human beings.

Nature of patients

Based upon past beliefs and history, preferences of patients vary in terms of medical treatment, even in the presence of options. In Kathmandu, for example, patients who consult an amchi are increasingly resorting to the use of diagnostic technology (such as ultra-sonograms, x-rays, and CT-scans) prior to taking the amchi medicine prescribed. In general, it seems that patients seek biomedicine for emergencies; such

as ruptured appendixes, fractures, and heart attacks; and consult 'non-orthodox practitioners', such as an amchi, for chronic ailments that biomedicine "currently finds difficult to cure" (Sharma 1992).

Institutional framework

Across the world, the profession of the biomedical doctor is embedded in the institutional framework of the state-sponsored health care system. Biomedical doctors form an international network based on their common objectives, learning, and experience. They are backed both by their governments and by industry, as can be seen from the interdependence between doctors and pharmaceutical companies. Most amchi in Nepal are located in remote villages of the Himalaya and lack access to a larger official network that enjoys the support of government and industry. These amchi are striving towards achieving recognition and support from the government through the development of a professional association.

Challenges faced by the amchi in Nepal

People living in mountainous areas of Nepal eke out livelihoods in the harsh environment by engaging in subsistence farming, animal husbandry, and seasonal trade. In addition to meeting livelihood needs, a key challenge faced by the amchi in the practice of medicine is the lack of recognition and support of their profession by the government. Another major challenge is financial difficulties in purchasing medical ingredients, since amchi are not financially compensated for their services. Due to livelihood constraints, amchi are often unable to complete the necessary training, and thus a gap arises between medical theory and practice, affecting the efficacy of treatment.

The growing trade in medicinal plants of the Nepal Himalaya puts pressure on several species and decreases the availability for medicine of key species, such as 'honglen' (*Neopicrorhiza scrophulariiflora*). There is also a problem of insufficient training, resulting in incorrect diagnoses and poor medicine quality. With limited means to purchase medical texts for the training of new amchi, there is increasing concern about the formal transmission of knowledge to younger generations amidst alternative means of livelihoods. Many amchi in Nepal have no access to formal training, even with the recent establishment of schools in the remote districts of Baglung and Mustang.

Initiatives by and for Himalayan amchi

Although the planning for an association started in the early 1990s, due to policy complications and other factors, it was only in 1998 that the Himalayan Amchi Association (HAA) was officially registered as a non-government organisation (NGO) in Nepal. Based in Kathmandu, the HAA enables the exchange of knowledge and experience among amchi from across Nepal and provides a forum for lobbying for recognition and support by the government. The HAA is developing a strategy for promoting the amchi tradition; focal points are providing formal training on topics related to medical theory, diagnosis, and treatment; improving the quality of medicine produced by amchi; and exchanging information among Sowaigpa practitioners throughout the Himalayas. The First National Conference of Amchi was held in January, 2001, with financial support from the Japan Foundation's Asia Center and WWF-Nepal People and Plants programme; 85 participants attended. Of these, 25 amchi were

selected for in-depth training on the Chimagyu text. The amchi were also provided with medical texts and medicinal plants from the lowlands. The Second National Conference of Amchi was held in January 2002 with financial support from the Japan Foundation's Asia Center, WWF-Nepal People and Plants programme, and Drokpa. A second group of 32 amchi received in-depth training on the Chimagyu. The Third National Conference of Amchi was conducted in December 2002.

The Lo Kunfen Mentseekhang and School in Lo-Manthang, Mustang, was started in 1999 to provide formal education to young amchi. This initiative is important in that it provides an opportunity for girls to pursue medical study; 21 students from Mustang and Dolpa are currently enrolled. A museum and herbarium are also being developed for the training of the students. Furthermore, research is being conducted on the availability of medicinal plants in the area, identification of plants for cultivation, and a search for new medicines through experimentation with the tastes and properties of medicinal plants. A new medical production unit was started in 2001 and ensures the consistently high quality of the medicine produced.

The Gangchen Menkhang is a traditional health care centre established in 2000 in Shey Phoksundo National Park, Dolpa, by the amchi of the village development committee of Phoksundo, with the support of the World Wide Fund for Nature (WWF) and the People and Plants Initiative (PPI). An NGO has also been registered at the district level to manage the health centre, which provides health care services to the communities inside the park and monitors the use of medicinal plants in the area. The health centre works closely with the Taprizia School and provides health care services to the students, as well as training them in plant identification and use. As part of the applied ethnobotany project, WWF and the PPI project have focused on promoting the amchi tradition by organising amchi trainings, supporting exchange of knowledge among amchi through study tours and workshops, providing medical texts, and organising primary health care trainings.

Similarly, the Dolpa Ribo Lama Amchi Association is a district-level NGO established in Dolpa following the first Amchi workshop in Dolpa in June 1998, which was attended by over 50 amchi (Figure 1). This NGO has built a traditional health care centre with financial support from WWF.

Tengboche Monastery and the Sacred Land Eco-Centre in Solukhumbu are involved in promoting the amchi tradition through operating a traditional health care centre in Namche, documenting medicinal plant resources in Solukhumbu, and managing a medicinal plant nursery near Tengboche.

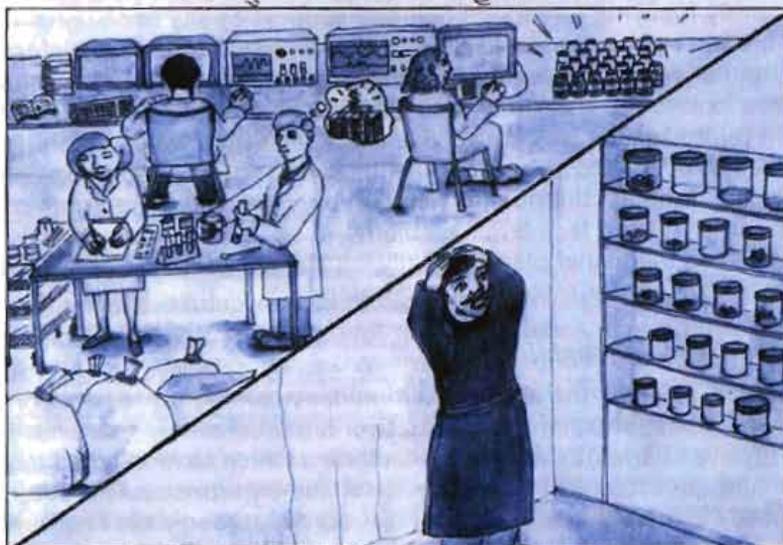
The Remote Area Development Committee of the Ministry of Local Development, in collaboration with the technical expertise of the Department of Ayurveda of the Ministry of Health, has been training amchi in identification and sustainable use of medicinal plants. For the past ten years, groups of amchi from various districts have been assembling in Kathmandu each winter and receiving training from more experienced amchi and Ayurvedic practitioners.

NOMAD is an NGO working with the amchi of Ladakh, India. It is involved in training amchi in issues related to intellectual property, access, and benefit sharing (Figure 2).



Figure 1: Participants of the First Dolpo Amchi Workshop in Dho Tarap, Dolpa, June 1998

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 རྫོང་འབྲུལ་གྱི་ལམ་ནས་བཏང་སྤོང་བྱེད་སྤོང་།



**End of free access to raw materials for local amchis and
 undeserved profits for foreign companies.**

ཕྱི་ཁག་ཁ་ཅིག་གིས་རིན་ཐང་ཆེ་བའི་ཕྱོ་སྒྲུབ་གྱི་འཕྲོལ་ཁང་ས་ཀྱན་
 རྫོང་འབྲུལ་གྱི་ལམ་ནས་བཏང་སྤོང་བྱེད་སྤོང་།

Supported by NCHADS 898, France
 Research & Action for Evolved Health Systems

Figure 2: NOMAD Poster highlighting problems faced by amchis

The Mentseekhang in Dharamsala, India, provides formal training courses for amchi. It is also involved in the development of amchi medicine. Interesting for the amchi in Nepal is the production and marketing of several new products, such as incense, herbal tea, cream, and massage oils. It also operates a network of clinics throughout India that provide traditional medical treatment.

In the eastern Himalayas, the National Institute of Traditional Medicine (NITM) is supported by the Royal Government of Bhutan to provide traditional medical services. The Bhutan Ministry of Health supports both traditional medicine and biomedicine, enabling patients to make their own choices regarding treatment, even in the remotest districts.

The Government of China also promotes an integrated system of health care. The Tibet College of Medicine in Lhasa, for example, provides formal training to amchi who go on to serve in government clinics after graduation. The Mentseekhang provides traditional medicine training.

Organisations such as WWF, Japan Foundation, Drokpa (an NGO based in the USA), NOMAD, American Himalayan Foundation (AHF), International Centre for Integrated Mountain Development (ICIMOD), and Earth Island, to name a few, are also actively promoting cultural traditions of the Himalayas that are relevant to the people themselves and that are conducive to sustainable development. The general motivation of these organisations is to focus on groups who have been marginalised by development interventions and on areas that are ecologically significant.

Envisioning the future

Government recognition and support

Amchi are actively lobbying for recognition and support by the Ministry of Health in Nepal. They are interested in establishing a medical school where formal training can be provided, and at which the degrees awarded will be recognised by the government. The amchi also look to the government for recognition for other reasons. They want to be authorised to provide health care services in their respective communities, since government health posts and sub-health posts have not been effective in delivering health care in the remotest districts of Nepal. Also, as a legitimate group of medical professionals, amchi would face fewer problems when accessing medicinal ingredients, such as medicinal plants. Finally, amchi see government support and recognition as important for research and development of their tradition.

Ecological and financial sustainability

Across the border in China, the amchi tradition has achieved remarkable progress in terms of opportunities for training and practice. Simultaneously, there has been a tremendous growth of traditional medical factories, which have affected the quality of the medicine and the ecological sustainability of the enterprises. The Government of China is currently enforcing quality control of traditional medicine, which will affect many factories. The amchi of Nepal have a unique opportunity to learn from this experience. The production and sale of medicine is a potential source of income for amchi and could mitigate the financial problems associated with their practices. At the same time, it is important for amchi to be wary when the production of medicine is driven solely by profit motive. In this case, not only is the quality of medicines likely to be compromised, but also the relationship between the amchi and the patient, as outlined in the Gyushi, may be lost.

Safety and efficacy

In order to be recognised by the government, amchi medicine will have to meet the requirements for safety and efficacy. While biomedical drugs are required to follow a series of quality control measures, this is not applicable to the medicine produced by amchi. In general, amchi in Dolpa and Mustang prepare medicine in small amounts so that potency is not affected. However, with increased production of medicine by amchi practising in clinics in Kathmandu, the quality of the medicine may be affected if certain measures are not followed.

Some amchi do not use the correct amounts of medical ingredients, thereby affecting the efficacy of the medicine. It is extremely important that amchi are trained to follow specific guidelines in preparing medicines. This includes following necessary post-harvesting techniques, such as cleaning, drying, and storing of medicinal plants. It is also crucial to prescribe medicine in the correct dosage to maximise efficacy and minimise side effects. Also, amchi must ensure that the medicine they provide to patients is labelled correctly, and if patients cannot read, that dosage and timing are explained accurately.

There is a growing awareness of the use of toxic materials, such as mercury, in certain medical formulas, and this causes negative publicity for amchi medicine. Although amchi follow a process of detoxification when using substances like aconites (*Aconitum* spp.), it is important to be aware of ongoing international research on amchi medicine.

Substitutes for rare and endangered species

In cases of rare and endangered species – including species which are becoming rare due to increasing trade – the use of substitutes offers an important option for amchi to consider. Many substitutes are already in use in Dolpa and Mustang. At the Second National Conference of Amchi held in Kathmandu in January, 2002, potential substitutes were identified for species that are becoming rare or are otherwise problematic from a conservation perspective. Amchi must come to a consensus about substitutes that can be safely and efficiently used through sharing of knowledge and expertise.

Sustainable use of medicinal plants

Although traditional knowledge is not a panacea for modern environmental problems (Ellen et. al. 2000), there is still much for modern science to learn from amchi knowledge. The empirical knowledge that amchi have about the ecology, distribution, biology, and harvesting of medicinal plants is a valuable base upon which to develop guidelines for sustainable use. For example, based on knowledge of amchi of the morphology and regeneration patterns of 'pangpoe' (*Nardostachys grandiflora*) and 'honglen' (*Picrorhiza scrophulariiflora*), botanists and resource managers are developing guidelines for sustainable use of these high-altitude medicinal plants in Dolpa.

Cultivation of rare and threatened species of medicinal plants

Due to the increasing global trade in medicinal plants and the commercialisation of traditional medicine, there is growing concern about the availability of medicinal plants for local health care needs. Although amchi living in urban areas are becoming increasingly removed from the issue of depletion of medicinal plants, those living in mountain areas are very concerned. Many are cultivating species that are naturally

rare, that have become rare, or that are not available in their districts. In Dolpa, for example, amchi are cultivating 'ruta' (*Saussurea lappa*), a species that was traditionally brought from the neighbouring district of Mustang.

Training, research, and development

Younger-generation amchi must be aware of the wider issues that confront their communities. It is no longer enough for amchi to focus only on providing health care; today, they are confronted with the problems of decreasing medicinal resources, and also must grapple with the wider issue of biodiversity conservation. To develop this tradition in the modern context, substitutes for certain problematic ingredients (rare and endangered species) must be explored. Technological advancements and improved transportation and communication bring new problems related to appropriation of knowledge and resources, even in the remotest villages. In Ladakh, amchi are learning about issues related to the appropriation of traditional knowledge and resources by external agencies, such as pharmaceutical companies.

While adhering to their medical tradition, it is important for amchi to understand and learn from certain aspects of biomedicine. In the same vein, amchi can also provide an opportunity for biomedical practitioners to improve their knowledge and practices. Some amchi are interested in incorporating certain aspects of biomedicine, such as vaccinations, while others are more interested in maintaining a pure tradition. These are issues that amchi must collectively discuss in order to further their tradition.

Conclusions

This paper has attempted to highlight the role of amchi and the constraints they face in their ancient profession of delivering health care to communities in remote mountainous districts of Nepal that would otherwise have little or no access to formal health care services. Their vast knowledge of the pastoral environment, the resources therein, and the health problems that they encounter and treat situate the amchi of the Nepal Himalaya in a unique but challenging position to further mountain development and conservation. While a trend towards 'formalisation' of this system of medicine is increasingly visible across the Himalaya, especially in Nepal in the effort to achieve 'legitimation', there is the danger of losing the localised knowledge and practices that amchi have developed, adapted, and perfected over time. In this regard as well, the amchi must proceed very carefully to promote this tradition of healing.

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