



Traditional Knowledge in the Himalayan Region

Traditional knowledge refers to the knowledge, innovations, and practices of indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation. It tends to be collectively owned and takes the form of stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local languages, and agricultural practices, including the development of plant species and animal breeds. Traditional knowledge is mainly of a practical nature, particularly in such fields as agriculture, fishing, health, horticulture, and forestry. Increasingly, traditional knowledge is being tapped as a resource by modern industry, but indigenous and local communities rarely receive an equitable share of the benefits of the use of their traditional knowledge. There is a need to protect traditional knowledge with appropriate policies and legislation and through awareness raising.

The Himalayan region is rich in biological resources and traditional knowledge. In former times, and still today, traditional knowledge and practices provided the basis for the wellbeing and livelihoods of the indigenous mountain communities, maintaining their health and replenishing the environment. In modern times, traditional knowledge and biological resources have been used by the food industry, the pharmaceutical industry, and the cosmetic industry, and there is a long history of traditional knowledge in the evolution of modern food crops. Farmers in the Himalayan region domesticated and developed carrots, mustard, gooseberries, apples, pears, apricots, oranges, lemons, and cardamom. Similarly, the use of herbal medicine dates back as far as the Indus Valley civilisation in 2600 BC; Chinese medicine and Ayurvedic medicine developed by local people are still used today. This kind of traditional knowledge is very important to modern pharmaceutical research in that it works as an initial screen and can help isolate the medically significant properties of plants and animals. Several modern drugs, including anti-cancer drugs, antibiotics, malaria drugs, and analgesics, were developed from plant and animal resources based on traditional knowledge.

Indigenous and local communities have a wealth of knowledge about the areas in which they live and their natural resources, but many do not understand their rights

over the knowledge and often, unwittingly, give their rights away. Indigenous and local communities in the Himalayan region rarely receive a fair and equitable share of benefits arising from the use of their knowledge. Increasingly, it is being realised that indigenous and local communities are entitled to this and special measures are being put in place to control, develop, and protect their scientific knowledge, technologies, and cultural practices. In the Philippines, for example, indigenous local communities are entitled to this through the requirement of 'prior informed consent'. In Peru, compensation to local communities for the use of traditional knowledge, even if it is within the public domain, is provided for by national policy. A debate has now started in the Himalayan region on how to protect traditional knowledge, especially as many countries have recently become party to the World Trade Organization's (WTO's) Trade-related Aspects of Intellectual Property Rights (TRIPS) Agreement.

International instruments

The misuse of traditional knowledge has become a matter of international concern. Recognising the value of traditional knowledge, countries in the region are playing an important role in the international discussions. The World Intellectual Property Organization (WIPO) and its Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources is moving forward with the traditional knowledge and folklore agenda. Representatives of indigenous/local communities are increasingly becoming involved in discussions in international forums on intellectual property and traditional knowledge. ILO Convention 169 concerning indigenous and tribal people also responds to some of the growing demands of indigenous people in this area. The Convention on Biological Diversity (CBD) calls not only for parties to respect, preserve, and maintain the knowledge, innovations, and practices of indigenous and local communities as defined under Article 8(j), but also for the promotion and wider application of this knowledge with the approval and involvement of the holders of the knowledge. Article 8(j) further encourages involving local communities in the equitable sharing of the benefits arising from the utilisation of such knowledge, innovations and practices while ensuring the conservation and sustainable use of biodiversity.

Article 9(1) of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) acknowledges the enormous contribution made by indigenous and local communities and farmers around the world to food and agricultural production from their traditional knowledge. The WIPO is in the process of developing a range of practical tools aimed at protecting the intellectual property (IP) interests of the holders of traditional knowledge and resources. In contrast, the TRIPS Agreement of the WTO only allows a legal entity to be granted rights to knowledge, which is

not in harmony with the CBD or the ITPGRFA and poses problems for indigenous and local communities, as it is difficult to trace an inventor for traditional knowledge found within the community domain. The issue is being debated at the Council for TRIPS meetings.

The objective of the CBD is to regulate access to genetic resources and associated traditional knowledge through national legal systems. The process of addressing the issue of traditional knowledge at the international level has been slow, as has the development of an international access and benefit sharing (ABS) regime. During the Conference of Parties in Curitiba, Brazil, (COP 8) the Open-ended Ad Hoc Working Group on Article 8(j) recommended that protection of traditional knowledge, innovations, and practices with regard to genetic resources be included in an international ABS regime, with input from indigenous and local communities with regard to their experiences of effective protection. The Working Group also discussed sui generis systems of protection. It recommended that parties to the CBD be urged to adopt national and local models for such protection, with the full and effective participation of indigenous and local communities and prior informed consent. The Working Group also presented the findings of the WIPO on the relationship between the TRIPS Agreement and the Convention on Biological Diversity. Further, the 9th COP held in Bonn, Germany, urged parties, governments and international organisations to support and assist indigenous and local communities to retain control and ownership of their traditional knowledge, innovations, and practices including through (a) the repatriation of traditional knowledge, innovations, and practices in databases as appropriate; and (b) supporting capacity-building and the development of necessary infrastructure and resources; with the aim of ensuring that (c) documentation of traditional knowledge, innovations, and practices is subject to the prior informed consent of indigenous and local communities; and (d) indigenous and local communities can make informed decisions regarding the documentation of their traditional knowledge, innovations, and practices.

Examples of traditional knowledge

- The quinine tree (*Cinchona officinalis*), until recently the only antidote to malaria, was known by the Andean people.
- The hoodia cactus is used by Kung Bushman in Africa to stave off hunger.
- Turmeric (*Curcuma domestica*) is used on the Indian subcontinent to heal wounds.
- The Kani people in South India use argyapaachya to suppress fatigue and reduce stress.

Concern over traditional knowledge

Traditional knowledge is being exploited at an alarming rate by the modern herbal medicine, pharmaceutical, food, perfume, and cosmetics industries. Indigenous and local people are increasingly becoming victims of piracy (illicit bioprospecting). The concern is that patents are being granted for non-original inventions that are directly or indirectly based on traditional knowledge and therefore do not meet the fundamental requirements for patentability. The wound healing properties of turmeric and the pesticidal properties of neem were both patented in two of the most notorious patent cases (the Turmeric Patent and Neem Patent) in which the legal patent system failed to recognise, or search for, prior rights over such 'inventions'. These patents were based on the biological resources and associated traditional knowledge and practices of indigenous communities in the Indian subcontinent and the Amazon, which were obtained without respect for indigenous peoples' rights over their resources, intellectual efforts, and developments. The holders of traditional knowledge need to establish their rights over such knowledge to ensure that they reap the benefits of their cultural discoveries and products and receive compensation for their investment in generating, holding, and promoting this knowledge for the conservation and sustainable use of biodiversity.

Unfortunately, modern intellectual property rights (IPR) law is based on the notion of individual property ownership, which is an alien concept to many indigenous and local communities in the Himalayan region. Such laws favour corporate agencies and individual creators of innovations/products. Traditional knowledge is dynamic and is usually the combined effort of many community members and evolves over time; hence, it is not easy to identify the creator. Global IPR regimes as well as national IPR laws need to be amended to ensure the protection of traditional knowledge holders and to recognise and reward indigenous and local communities for their intellect and creativity. This would encourage further invention and maintain biodiversity in situ.

ABS programmes in the Eastern Himalayas

Access and benefit sharing (ABS) from genetic resources is a major emerging issue in the eastern Himalayan region. The International Centre for Integrated Mountain Development (ICIMOD) has been engaged in facilitating the ABS process with financial support from GTZ (German Technical Cooperation). Despite official support for the implementation of the CBD by governments, civil society, and communities, the ground reality is very different. Awareness about traditional knowledge has not received enough attention. The belief of people in the region is that freely sharing

traditional knowledge benefits the wider community. Changing this deep-rooted, non-economic welfare motive to a notion of protecting knowledge is a daunting task. This process of change was initiated when the CBD was ratified by the Himalayan countries.

Intellectual property rights

Intellectual property rights (IPR) are the legal rights given to a person over his/her creative endeavours and usually give the creator exclusive rights over the use of his/her creation or discovery for a certain period of time. IPR may include a patent, copyright, trademark, and trade secret.

In Nepal, activities are being supported to address the issues surrounding the use of traditional knowledge by raising awareness and incorporating the concerns of local communities into national legislation, in cooperation with the Nepal Forum for Environmental Journalist (NEFEJ), Himalayan Grassroots Women's Natural Resources Management Association (HIMAWANTI), Center for Law and Justice (CLJ), and the Government of Nepal. In Bhutan, in collaboration with the Ministry of Agriculture and National Biodiversity Center, awareness is being raised among local communities about traditional knowledge, and local communities' concerns about traditional knowledge are being included in the national draft Biodiversity Rules. In North East India, awareness raising and capacity building is being conducted in collaboration with the Ashoka Trust for Ecology and the Environment (ATREE), Nagaland Empowerment of People through Economic Development (NEPED), Mizoram University, Kanchendzonga Conservation Committee (KCC), North Eastern Community Resources Management Project (NECORMP), and the Society for Better Environment (SBE). These organisations are also engaged in awareness raising and documentation of traditional knowledge. In Bangladesh, support is being provided by IUCN to the people of the Chittagong Hill Tracts on all aspects of ABS including traditional knowledge, capacity building, and awareness raising.

Looking ahead

ICIMOD's ABS programme is actively engaged in local, national, and regional debate on traditional knowledge through workshops, meetings with state biodiversity boards and management committees, national biodiversity authorities, and other organisations. These activities will be further strengthened. ICIMOD also intends to participate in international debate on ABS through the meetings of the CBD Working Groups on the implementation of Article 8(j). At the regional level, the following activities will be important.

- Facilitating the establishment of ownership of traditional knowledge associated with genetic resources by the holders of such knowledge. If rights are not clear, there is no legal certainty and access cannot be facilitated.
- Review of ambiguities in the legislation on traditional knowledge and consideration of implementation issues.
- ICIMOD's regional member countries need to re-examine the legal loopholes in international law on intellectual property rights to strengthen the rights of marginalised, indigenous, and local communities in the protection of traditional knowledge. This requires meetings, workshops, and discussions with biodiversity authorities and leading civil society groups at the regional level to bring about a cohesive regional message at the international level concerning traditional knowledge.
- As the region shares many common genetic resources and much traditional knowledge, it is important to develop a common understanding about use and benefit sharing mechanisms applicable to all the member countries. This requires the development of a regional ABS framework or strategy incorporating the important issue of traditional knowledge.
- The involvement and engagement of local, indigenous, and marginalised people in the ABS process, including traditional knowledge, is very important. Their effective participation in consultations at the national level will ensure the advancement and implementation of Article 8(j) of the CBD. This requires capacity building.
- Where documentation of traditional knowledge has commenced, monitoring the effectiveness is important. This requires case studies at different project sites.
- Where customary legal arrangements are practised by indigenous, local, and marginalised communities for the protection of traditional knowledge, these need to be closely examined, and those in favour of protecting traditional knowledge should be legitimised by statutory law.

- In Himalayan countries, there is an urgent need to promulgate and enforce ABS laws designed to protect the traditional knowledge of marginalised and local communities. This is particularly urgent in Afghanistan, Bangladesh, Myanmar, Nepal, and Pakistan.

Further reading

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SAWTEE's recent policy brief, which documents cases of ABS, provides useful further reading. www.sawtee.org/pdf/Research%20Brief_

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