
TRADITIONAL KNOWLEDGE OF LOCAL COMMUNITIES AND THEIR NEED FOR PROTECTION

Zennat Parvin, LLM, Jorhat Law College

ABSTRACT

The human mind is an extraordinary creation that is endowed with the ability to think rationally and find viable solution to problems. From discovery of fire to the very latest Internet of Things, are all astounding creations of the human mind. Our ancestors have discovered innumerable solutions to all problems, ranging from methods of farming to finding a cure to our ailments, ancient texts are replete with instances of traditions and customs which has been passed since generations and has now become a part of our lives. The practice of applying turmeric to wounds which has been cited in ancient scriptures but is still prevalent in today's times. This knowledge which has been passed on since ancient times is known as traditional knowledge. To put it in clear perspective, traditional knowledge is cumulative body of knowledge developed by people with extended histories of interaction with the natural environment. However traditional knowledge is free in the public domain without any form of regulatory framework, so big companies are exploiting these for their own benefit without giving the real TK generators their due. This paper seeks to address the problem of traditional knowledge and its need for protection. The first part deals with protection of the traditional knowledge. The next part deals with issues relating to its protection under branches of IPR. Subsequently the paper deals with reasons for protection of TK and also some landmark cases that was vital for formulating regulatory framework.

Keywords: Traditional knowledge, IPR, Customs, tradition.

INTRODUCTION

Traditional knowledge as the very word suggest is knowledge that is endemic to a particular region more particularly the age old customs, beliefs and habits that has been practiced since time immemorial. Article 8(j) of the Convention on the Biological diversity puts forth that “traditional knowledge refers to awareness, inventions and traditions of local and indigenous culture worldwide.”¹ The World Intellectual Property Organization defines TK* as “knowledge, skills, practices and know-how that are developed, sustained and passed on from generation within a community”.² The most interesting feature of traditional knowledge is that it is mostly oral and has an ancient origin. It is to be noted that knowledge is deemed as traditional not because it is ancient but because it has been created, preserved and transmitted onto further generations. To cite an e.g. of TK would be the practice of applying curcumin(haldi) to wounds, is an ancient tradition that has been mentioned in ancient Indian scriptures across several thousand years is still prevalent among various communities in India. Similarly applying neem to the face to get rid of skin ailments is also considered as TK that is passed on from ancient time’s forms part of our rich cultural heritage.

However traditional knowledge holders face various difficulties pertaining to its survival. Given the fact that since TK is mostly oral, there is no sound legal system to protect the same from getting commercialized. Apart from commercialization, we also encounter problems of Bio trade as a threat to potential generators. TK and disruption of interrelationship between TK generators and their resources due to bio trade is a pressing problem. “Bio trade refers to transfer of biological resources for real or potential benefit between countries, academic companies and individuals.”³

TK is viewed as information i.e. free in the public domain without any regard for the efforts of the indigenous communities to conserve and propagate the TK. Big companies are exploiting these for their economic benefit without giving due regard to the local communities who generated the TK.

¹ <https://www.cbd.int/traditional/> visited on 29th march, 2022.

*TK- Traditional knowledge shall be read as TK.

² [https://www.wipo.int/tk/en/tk/#:~:text=Traditional%20knowledge%20\(TK\)%20is%20knowledge,its%20cultural%20or%20spiritual%20identity](https://www.wipo.int/tk/en/tk/#:~:text=Traditional%20knowledge%20(TK)%20is%20knowledge,its%20cultural%20or%20spiritual%20identity). Visited on 29th march, 2022.

³ <https://unctad.org/topic/trade-and-environment/biotrade/principles-and-criteria> visited on 29th march, 2022.

The regime for protection of traditional knowledge –

Traditional knowledge as a subject of Intellectual Property was fashioned during the age of industrialization in the west and developed subsequently in line with the perceived needs of technologically advanced societies. However in recent years, the indigenous local communities and government mainly in developing countries have demanded equivalent protection for TK. The value of conserving information, originality and traditions of local communities is gradually more recognized worldwide. A joint initiative by WIPO* AND UNESCO* was the first attempt in 1978 under IPR* to shield traditional knowledge which led to further fortification of expressions of folklore against unlawful exploitations and other detrimental conducts in 1982. With the adoption of Convention of Biological Diversity in 1992⁴, the protection of Conventional information has added growing concentration.

Following are some of the protections that are provided for TK-

1. WORLD HEALTH ORGANISATION

The very crux of WHO⁵ is set out in its constitution i.e. to achieve the highest standard of health for all its citizens, as well as economic and commercial value of traditional knowledge, esp. of the knowledge of traditional medicine and medicinal plants that have become increasingly recognized with more and more WHO member states concerned about the need to protect it and ensure that any benefit gained from its usage is spread equitably.⁶

WHO traditional medicine strategy has 4 key components-

1. Integration of traditional and alternative medications into National Health systems such as AYUSH* as in the case India.
2. Provide a detailed account of support for regulation and supervision.
3. Ensure easy access and affordability of traditional medicine together with herbal medicine.

⁴ . <https://www.un.org/en/observances/biological-diversity-day/convention#:~:text=The%20Convention%20on%20Biological%20Diversity,been%20ratified%20by%20196%20nations.> Visited on 29th march, 2022.

⁵ WHO-WORLD HEALTH ORGANISATION.

⁶ . <https://www.who.int/publications/i/item/9789241506096> visited on 29th march, 2022

*Ayush-Ayurveda Yoga Siddha Unani Homeopathy

*Wipo-World Intellectual Property Organisation

*Unesco-United Nations Educational Scientific And Cultural Organisation.

4. Ensure therapeutically sound use to traditional medicine suppliers and customers are encouraged.⁷

5. CONVENTION ON BIOLOGICAL DIVERSITY-

On June 5th, 1992, the CBD⁸ surfaced in full completion. It was the result of negotiation under the UNEP⁹ in Rio De Janerio in 1992. The CBD, governed by UNEP develops standards for the conservation of environment while ensuring continuing economic growth, stressing biodiversity conservation, sustainable use and unbiased allocation of profits of use of hereditary assets.

The significance of conventional use of genetic assets in the sustainable protection of biological diversity is also acknowledged by the CBD. It ascertains right to use biological transfer from developing countries and emphasizes that conservation and sustainable use of biodiversity should not hinder with IPR'S.¹⁰

6. WIPO

In 2000, WIPO members established an intergovernmental committee on Intellectual Property and Genetic resources, TK and Folklore and in 2009 they agreed to develop an international legal instrument that would give TK, genetic resources and folklore effective protection.

In its 26th and 27th session of negotiations in 2014, WIPO Intergovernmental Committee has developed three working drafts that has the potential to shape into international legal instruments. They are-

- (i) Consolidated document relating Intellectual Property and genetic resources.
- (ii) Draft articles for protection of traditional cultural expressions. In the recently concluded 28th session held during 7-9 July, 2014, the member countries considered the cross cutting issues pertaining to TK, traditional cultural expressions and IP.¹¹

⁷ *ibid.*

⁸ Cbd-Convention On Biological Diversity

⁹ UNEP-United Nations Environment Programme.

¹⁰ https://www.researchgate.net/publication/28805051_The_impact_of_IPR_on_biodiversity visited on 29th march, 2022.

¹¹ https://www.researchgate.net/publication/268632393_Protecting_Traditional_Knowledge_Can_Intellectual_Property_Rights_help visited on 29th march, 2022.

Among the three draft articles on TK, Article 1, states subject matter of TK protection can be codified, oral or other forms. This provision is identified with three qualifiers-

- It is collected and maintained in a collective context by the indigenous communities irrespective of whether it is widely spread or not.
- It is directly linked or distinctly associated with the cultural and/or social identity and cultural heritage of indigenous people.
- It is transmitted from generations whether consecutively or not.

To determine the eligibility criteria the traditional knowledge must have been in use for not less than 50 years.

Article 2 states the following as beneficiaries of TK-

- The indigenous people and local communities and/or nations who create, hold, maintain, use and/or develop TK.
- If a TK is not claimed by specific indigenous people or local communities despite reasonable effort to identify them, the member states may designate a national authority as custodian of benefit/beneficiaries.
- Details of national authorities established by member states should be communicated to the International Bureau of the WIPO.

Article 3 states the criteria or scope of protection into three parts-

- Closely held TK that is sacred, secret or otherwise known within indigenous people or local communities.
- Publicly available TK which is neither widely known, sacred nor secret.
- Publicly known TK which is widely known and available in the public domain.¹²

Issues relating to protection of traditional knowledge

As already stated TK is vulnerable to issues of bio piracy. Given the absence of a regulatory framework for its protection, TK is at risk of being commercially exploited without giving due credit to the real generators of TK. It is therefore pertinent that countries should take appropriate steps to protect TK in the form of comprehensive legislation which would give the

¹² *ibid*

TK generators due regard to their TK which they have preserved since immemorial times. Some countries have provided protection under their IPR laws. In case of India, does not have an exact sui generis statute to protect such TK and folklore but it is in the process of constructing the same.

Two types of protection are provided under the Intellectual Property¹³

- (i) Defensive protection- That aims to stops people outside the community from acquiring IPR over traditional knowledge. India for e.g. has compiled a searchable database of traditional medicine that can be used as evidence of prior art by patent examiners when assessing patent applications. This followed a well-known case where the US Patent and Trademark office granted a patent that was later revoked for the use of turmeric to treat wounds, a property well known to traditional communities in India and documented in Sanskrit texts. Defensive strategies might also be used to protect sacred cultural manifestations such as sacred symbols or words from being registered as trademark.
- (ii) Positive protection- This aims at granting of rights that empower communities to promote their traditional knowledge, control its uses and benefits from its commercial exploitation. Some uses of TK can be protected through the existing IP system and a number of countries have also developed specific legislations. However any specific protection afforded under a national law may not hold for other countries, one reason why many indigenous communities as well as governments are pressing for an international regime.
- (iii) Patents- Indian patents do not permit protection of TK under sec 3(p) of the Indian Patents Act, 1970¹⁴. An invention which in effect is TK or which is an aggregation or duplication of traditionally known properties is not an invention and cannot be patented. The Patents Act 1970 includes provisions requiring TK to be disclosed and is the origin of invention in question.¹⁵
- (iv) Traditional Knowledge Resource Classification (TKRC) - is an advanced TKDL classification system. The Indian traditional medicine system was organized and graded by TKRC into approximately 25000 sub-groups of Ayurveda, yoga, unani and siddha. TKRC has permitted inclusion of approximately 200 sub-groups under

¹³ https://www.wipo.int/pressroom/en/briefs/tk_ip.html visited on 29th march, 2022.

¹⁴ <https://ipindia.gov.in/writereaddata/Portal/ev/sections/ps3.html> visited on 29th march, 2022.

¹⁵ <https://ipindia.gov.in/writereaddata/Portal/ev/sections/ps3.html> visited on 29th march, 2022.

A61 K 36/00. TK has provided a powerful tool in defending illegitimate rights over existing TK information and exclusive IP rights over these TK.¹⁶

- (v) Copyright- Copyright may be used for protection of TK holder's artistic belonging to the indigenous and migrant people, against illegal development and abuse. This may include literary work such as stories, legends, myths, customs etc.

Copyrights may be used to shield TK holder's artistic manifestations in particular artists belonging to indigenous and migrant cultures from unauthorized reproduction and abuse of these manifestations.¹⁷

- (vi) Trade secrets- Under Article 39 of the TRIPS* Agreement confidential knowledge is an IPR subject-matter. Trade secret is probably the best form of security for traditional knowledge. The incentives provided by the secrecy regime for production the distribution and uses of TK must be made public within sectors and communities concerned. The TK holders can also retain the right to determine whether to reveal the information or not.¹⁸
- (vii) Geographical indications- TK is jointly held by people, and GI is the most suitable form for safeguarding Traditional knowledge. A community in an exact locality is waded by the Geographical Indications of Products (Regulations and protection) Act. GI security is valid for 10 years, but it can be extended any number of times in order to safeguard GI for an infinite period of time. The method of manufacturing products are evolving with time in order to give a better quality to the product. GI can be used to shield therapeutic products as well.¹⁹
- (viii) The Protection of Plant Varieties and Farmer's Rights Act, 2001- This Act came into effect from September 2001. This is the *sui generis* law drafted to comply with requirements of the TRIPS agreement of WTO. The criteria under plant varieties which are entitled for safeguarding are novel variety, current variety, chiefly derived variety and cultivator's variety. Farmers and tribal groups use conventional farming methods to cultivate and preserve different traditional range crops. The idea

¹⁶

[http://www.tkdil.res.in/tkdil/langdefault/common/TKRC.asp?GL=Eng#:~:text=Therefore%2C%20a%20modern%20classification%20based,Knowledge%20Resource%20Classification%20\(TKRC\).](http://www.tkdil.res.in/tkdil/langdefault/common/TKRC.asp?GL=Eng#:~:text=Therefore%2C%20a%20modern%20classification%20based,Knowledge%20Resource%20Classification%20(TKRC).) Visited on 29th march, 2022.

¹⁷ <https://copyright.gov.in/documents/copyrightrules1957.pdf> visited on 29th march, 2022.

¹⁸ https://www.wto.org/english/docs_e/legal_e/27-trips_04d_e.htm#:~:text=Article%2039,in%20accordance%20with%20paragraph%203. VISITED ON 29TH MARCH, 2022.

¹⁹ <http://www.cnlu.ac.in/2021/CIRF/10%20Riya.pdf> visited on 29th march, 2022.

of efficient profit sharing agreement between the supplier and recipient of plant genetic resources outlines the fundamental component of the Act. A plant breeder's right (PBR) on a new variety can be attained by the plant breeder if it fulfills the decisive factors of distinct, stable, uniform and novel.²⁰

Reasons for protection of traditional knowledge

There are valid justifications as to why traditional knowledge should be protected. The crucial factors being the rights of indigenous communities to retain, maintain and regulate their cultural heritage. Some of the decisive factors for the need for protection of traditional knowledge are as stated under-

Equity- Traditional knowledge produces interest that is not accurately acknowledged and paid for. For instance, traditional farmers have nurtured, maintained and used plants and animals alike, they improved the value of plant genetic resources by continuously selecting the best varieties adapted to them. It is only after that, the seed companies collect varieties and benefit from them while the farmers are left out. The scientists may benefit from these inventions while the efforts of conventional farmers are ignored who are the real generators.

Conservation of Biodiversity- Innovations of knowledge and traditions for indigenous peoples and local societies are a demonstration of their cultures. Therefore, the preservation of human culture includes maintaining the link between people and natural existence like plants and animals. So, TK protection will help conserve the environment and encourage sustainable agriculture and food security.²¹

Preservation of traditional practices- TK security will provide a basis for the preservation of conventional lifestyle practices and awareness. Preserving TK helps to protect people's self-identification and can guarantee the continued life of indigenous and traditional people. This role certainly goes beyond the scope of protection of IPR's provided for in TRIPS or any other multilateral instruments. Protecting TK by appropriate types of IPR's will increase the profile of information and make it more desirable and worthy of preservation.²²

Prevention of Bio piracy- A large no of patents on genetic resources and expertise acquired from Africa and other developing countries have been issued. One example of this issue is the

²⁰ Ibid.

²¹ <https://blog.ipleaders.in/ipr-vis-vis-traditional-knowledge/> visited on 29th march, 2022.

²² ibid

use of patent no 5, 401, and 5041 which was granted for the healing properties of turmeric acid in wounds. The invention has been used for centuries in India before the USA licensed the patent. The CSIR²³ successfully applied for its repeal.

Landmark judgments

Basmati rice case- In this case, Rice Tec In, USA was granted a US patent no 5663484 entitled “Basmati Rice Lines Grains” in 1997. New rice lines produced by crossing semi-dwarf varieties from India and Pakistan, with 22 Traditional basmati varieties. The patent application included 20 arguments covering not only novel lines of rice grown from rice germplasm but also different varieties based on traditional farmers-bred varieties. In addition Rice Tec also grabbed the name “basmati” and thus assumed exclusive control of new varieties based on traditional rice varieties nurtured by farmer’s generations. The specific characteristics such as fragrant aroma, long and slender grain, and distinct taste of basmati are attributable to the geographical area i.e. larger Punjab area between India and Pakistan.

This business was thus misleading the public against different and inferior goods, and thus adversely affected India and Pakistan’s export market. Under pressure from NGO’s, the Indian government filed an application for re-examination in the year 2000 on the ground that the rice lines in question lacked inventiveness and innovation. In the year, 2001, in response to the request, the US Patent Office only allowed 5 claims out of 20, and the title of the invention was also changed from “basmati rice lines and grains” to “rice lines bas 867, RT1117, RT1121.”²⁴

Neem case- In this case controversy was raised regarding granting of patent to a company that kept the active ingredients in the neem plant in the safe storage of azadirachtin and its use for its pesticide properties. Traditional medicine systems of India such as Ayurveda and Unani, recognize neem tree antiviral and antibacterial properties since immemorial times that was known to cure specifically skin ailments.

In the patent application, the applicant acknowledged how the pesticide uses of neem were established and pointed out that it is difficult to store azadirachtin for a longer time. The granted US patent covered a restricted invention by which the applicant was only given the exclusive right to use azadirachtin in the unique storage solution mentioned in the patent. The patent grant was followed by an outcry and questioned by re-examination and post-grant opposition

²³ Council Of Scientific And Industrial Research.

²⁴ <https://blog.ipleaders.in/ipr-vis-vis-traditional-knowledge/> visited on 30th march, 2022.

proceedings before, respectively, the US Patent Trademark Office and the European Patent Office. While the USPTO did not succeed, the European Patent Office ruled in favor of the opposition stating the issued patent, lacking innovation and imaginative move.²⁵

The turmeric case- Turmeric is a tropical herb grown in East India, and the powdered product made from the rhizomes of its flowers has several popular uses. Turmeric powder, which has a distinctive deep yellow color and bitter taste, is used as a dye, a cooking ingredient, and a litmus in a chemical test, and has medicinal uses as well. In the mid 1990's, this product became the subject of a patent dispute with important ramifications for international trade law. A US patent on turmeric was awarded to the University of Mississippi Medical Center in 1995, specifically for the "use of turmeric in wound healing". This patent also granted them the exclusive right to sell and distribute turmeric. Two years later a complaint was filed by Indian Council of Scientific and Industrial Research, which challenged the novelty of the University's "discovery", and the US Patent office investigated the validity of this patent. In India, where turmeric has been used medicinally for thousands of years, concerns grew about the economically and socially damaging impact of this legal "bio piracy." In 1997, the patent was revoked. But for two years the patent on turmeric had stood, although the process was non-novel and had in fact been traditionally practiced in India for thousands of years, as was eventually proven by Sanskrit writings that documented turmeric's extensive and varied use throughout India' history.²⁶

Suggestions

Traditional knowledge has played and is still playing an effective role in vital areas of life including food security, development of agriculture and medical treatment to name a few. TK happens to be a main component for the daily life of millions of people in developing countries. Traditional medicine for instance serves a useful purpose in catering the health needs of a vast majority of people who do not have access to modern medicine. Similarly, the various traditional farming methods forms an essential component in the field of TK. Therefore it is pertinent that efforts should be taken to ensure effective protection of TK.

Several proposals have been made in the current IPR system, to protect traditional knowledge. Such proposals are not sufficiently clear on the protection front especially because of the

²⁵ Ibid.

²⁶ <https://www.studymode.com/essays/Ted-Case-Studies-Turmeric-Mfm-63319150.html> visited on 30th march, 2022.

diversity issue. A simple step should be to develop national and international regulatory framework relating to TK. It is important to conserve and improve political and legal field and conciliation to design and accomplish constructive and protective arrangement to safeguard conventional information.²⁷

Conclusion

Traditional knowledge forms an important backbone to a country's rich cultural heritage that has been passed on since preceding generations. It is a huge source of value to the indigenous people or community who has preserved it since several thousands of years. It is a living body of knowledge that has developed, sustained and passed on from generation to generation within a community, often forming part of its cultural and spiritual identity. Therefore recognizing traditional forms of creativity and innovation as protectable intellectual property would be a historic shift in international law enabling indigenous communities as well as local governments to have a say over the use of their traditional knowledge.

²⁷ <http://www.cnlu.ac.in/2021/CIRF/10%20Riya.pdf> visited on 30th march, 2022.