PROTECTION OF TRADITIONAL KNOWLEDGE IN INDIA: LIMITATIONS OF INTELLECTUAL PROPERTY LAW AND THE NEED FOR A SUI GENERIS FRAMEWORK

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ABSTRACT

Traditionally, knowledge (TK) refers to the intellectual legacy of native and local communities accumulated over the years through experience. Despite its importance to society from a social, cultural, economic, and ecological point of view, the inadequacy of the existing intellectual property (IP) regime to offer protection for this type of knowledge is inherent in its structure. This paper focuses on the structural limitations in the IP system in relation to the protection of TK and, more specifically, to the Indian case. The analysis of this problem starts by looking into the limitations of patent law, continues with the exploration of the alternatives to patent law, namely geographical indications, and concludes with an assessment of international regimes, including TRIPS and the CBD.

Keywords: Traditional knowledge, Intellectual Property Rights, Biopiracy, Benefit-sharing, Customary Law, Geographical Indications.

Introduction

By definition, TK is the body of intellectual property that is generated by the native and indigenous groups within the course of time and through experience. Although it is highly important for the society socially, culturally, economically, and ecologically, one of the weaknesses of the current IP regime in providing protection for such intellectual property lies within the very essence of the system. In this paper, the structural weakness of IP with respect to the protection of TK will be discussed and, more particularly, in connection with the Indian context. The analysis on this issue begins with a discussion on the limitations of patenting law, followed by geographical indication as an alternative to patents and ends with a discussion on international regimes including TRIPS and CBD.

Conceptual Framework: Traditional Knowledge and Intellectual Property

Unlike intellectual property, traditional knowledge has unique characteristics. For example, TK is communally owned, orally transferred, and continuously developing. Unlike the temporary rights provided under IP law, TK remains collectively owned and lasts forever.

Moreover, the legal principles underpinning IP law reveal the inherent differences between TK and IP. The natural rights approach justifies the protection of intellectual properties because of individual contributions towards their creation. On the other hand, utilitarian theory is concerned with motivating innovators to create inventions that add value to society. Economic theories consider intellectual properties from an economic perspective, arguing that patents provide incentives for inventors to engage in profitable activities.

However, these approaches cannot justify TK since it is not created by any individual and not meant for commercial purposes. Another distinguishing factor is the customary laws and communal governance structures regulating the transfer and use of TK. Customary laws govern TK, stipulating the processes and mechanisms for sharing and disseminating TK within the community. In such contexts, TK is considered the common heritage of the people who are responsible for ensuring its preservation for future generations. Access to such knowledge may be restricted within the community or regulated through traditional authority structures, ensuring that it is not misused or exploited.

Unlike this, intellectual property law is mainly focused on the issue of providing the exclusive

rights to a person or an entity to exploit knowledge commercially. It fosters privatization of knowledge due to its ability to be used, licensed, and distributed for profit. The core contradiction here lies in the fact that while in customary regimes, the protection of knowledge is sought via sharing, intellectual property law tries to ensure the protection of knowledge via exclusion. Thus, when such rules as those in IP law are applied to TK, it usually gets disintegrated, commercialized, and exploited rather than preserved.

Patent Law and the Exclusion of Traditional Knowledge

Patent law is the most contested area in the protection of traditional knowledge. Under the Patents Act, 1970, an invention must satisfy the criteria of novelty, inventive step, and industrial applicability. However, TK fails to meet these requirements because it is already part of the public domain.

Section 3(p)[1] The Act explicitly excludes traditional knowledge from patentability. This reflects an acknowledgement of the limitations of patent law in protecting TK.

Furthermore, even if a section like section 3(p) is not in the Patent Act, TK cannot be protected under the Patent Act because the patent system operates on a **first-to-file principle**, which disadvantages traditional communities that neither document their knowledge in formal formats nor participate in patent processes. This presents an opportunity for outside forces to stake claims on knowledge that has existed for centuries. While there have been proposals for measures like disclosure of source and prior informed consent, their adoption has been haphazard at best. Furthermore, the costs associated with filing a case for patent infringement can be prohibitive for indigenous groups. Consequently, patent law functions more as a defensive tool against misappropriation rather than a system that positively recognizes and protects traditional knowledge. Such provisions are the main contributor to biopiracy continuing to occur.

A good illustration of the existence of legal remedy for patenting of traditional knowledge is provided by the *Turmeric case*[2], wherein a patent for healing wounds was cancelled because evidence was found that it was used in traditional Indian knowledge. Another good illustration

[1] Patents Act 1970, s 3(p)
[2] Manupatra, 'Law of Geographical Indicators – Turmeric Case' https://student.manupatra.com/Academic/Studentmodules/Intellectual-Property-Rights/Geographical-Indicators.htm accessed 29 April 2026

of the existence of legal remedy for patenting of traditional knowledge can be seen in the *Neem case*[3], wherein a European patent for fungicides made from neem was cancelled because of the existence of such technology in traditional practice.

The fact that patent laws depend on revocation and opposition means that there is an obligation on the state or community concerned to prove the wrongfulness of the patenting process. Patent laws, therefore, are not preventive in nature; they are remedial in nature.

Alternative Intellectual Property Mechanisms: Limited Protection

Other forms of intellectual property law provide only limited protection to traditional knowledge. Copyright law protects expressions but not underlying knowledge. While folklore and traditional art forms may be protected, the knowledge itself remains unprotected.

While trademarks could be effective in safeguarding the identity of a traditional product, they fail in safeguarding the knowledge that underlies it. Moreover, design laws cannot be effective either since they relate to the aesthetic properties of an item and have nothing to do with knowledge. A trade secret law might be considered helpful in safeguarding knowledge, but its requirement of secrecy fails in doing so because TK is a shared concept.

The reason why the above laws may serve to some extent as safeguards is that while they safeguard some aspects of traditional knowledge, they fail to safeguard traditional knowledge as a system. While copyright laws provide safeguards for the expression but not the idea behind folklore, trademark laws provide safeguards for the identity or branding of a traditional product but not the processes and knowledge behind it.

Geographical Indications as a Protective Tool

GI (Geographical Indications) can be considered among the most efficient mechanisms for protection of traditional knowledge in the existing IP regime. GIs take into account the relationship between the product and its geographical origin, thus guaranteeing protection of the traditional knowledge associated with the product.

For example, India has effectively applied GI protection to its products like Darjeeling Tea,

[3] FirstHope, 'Case Study of Neem' https://www.firsthope.co.in/case-study-of-neem/ accessed 29 April 2026

Kanchipuram Silk, and Pochampally Sarees. Such products are valued because of their tradition-based characteristics.

Since GIs protect community interests, they seem to be more in tune with TK protection needs. Nevertheless, unlike TK, GIs do not cover broad forms of knowledge but focus solely on the product in question. Therefore, while GIs provide a useful model, they cannot serve as a comprehensive solution for TK protection.

International and Indian Legal Framework

International and domestic legal frameworks have made significant attempts to address the protection of traditional knowledge (TK); however, these efforts remain fragmented and insufficient.

a) International Conventions

Convention on Biological Diversity (CBD), 1992[4]

International efforts to protect traditional knowledge (TK) have developed through multiple conventions, each addressing the issue from a different perspective. One such instrument is the Convention on Biological Diversity (CBD), 1992, as it takes into consideration the interdependence of biodiversity and indigenous knowledge. The CBD Article 8(j) emphasizes on the need for states to respect, preserve, and maintain traditional knowledge, and provide for fair benefit-sharing. However, the CBD, although a comprehensive document, is essentially based on framework and relies on implementation by individual states.

In India, the CBD provisions have been integrated into its national law via the Biological Diversity Act 2002. Among the principles mentioned in the above Act is that of PIC as mentioned in section 3. According to section 3, those who wish to obtain biological resources along with related traditional knowledge need to obtain prior approval from the NBA.

Further, the principle of **benefit-sharing**, a core objective of the CBD, is implemented through **Section 21** of the Act, which provides for **fair and equitable sharing of benefits** arising from the use of biological resources and traditional knowledge with the concerned communities.

[4] Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) arts 8(j), 15, 21

Nagoya Protocol, 2010[5]

The Nagoya Protocol, 2010, builds upon the CBD by introducing clearer rules on access and benefit-sharing. It mandates prior informed consent from communities before the use of biological resources and ensures that benefits derived from such use are shared fairly. While it strengthens protection against biopiracy, its effectiveness still depends on enforcement at the national level.

TRIPS (Trade Related Intellectual Property Rights)

On the other hand, while TRIPS concentrates mainly on intellectual property protection, it fails to give explicit recognition to traditional knowledge. This is because the agreement assumes that innovations belong to individuals and are commercially driven, and thus, is inherently unable to address the communal aspect of TK. It offers some room for manoeuvre in that it allows the exclusion of some biological materials from patents and recognises geographical indications, under its Article 27.3(b).

World Intellectual Property Organization (WIPO)

In a similar fashion, the WIPO has taken steps in developing policies on TK protection through its Intergovernmental Committee, focusing on documentation, policy-making, and sharing of benefits. Nevertheless, all these remain voluntary and are yet to be negotiated.

The *United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), 2007***,** adopts a human rights-based approach by recognizing the rights of indigenous communities to maintain, control, and protect their traditional knowledge. Despite its progressive nature, it is not legally binding, which reduces its impact in practical terms. According to Article 31 of this declaration, the indigenous peoples shall have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions. This right extends not only to their knowledge systems but also to any resources associated with these knowledge systems, including genetic resources, medicine, and cultures.

Many of the international norms have been adopted by India in its national laws, notably the

[5] Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (adopted 29 October 2010, entered into force 12 October 2014)

Biological Diversity Act of 2002, which governs access to biological resources and the sharing of benefits. India's patent laws comply with TRIPS but include provisions that avoid the misuse of traditional knowledge.

So now we will see the domestic legal framework of India addressing the issue of Traditional knowledge.

b) Indian Legal Framework

Biological Diversity Act, 2002[6]

The Biological Diversity Act, 2002 forms the backbone of India's protection of traditional knowledge associated with biological resources. The Act incorporates the principle of prior informed consent through *Section 3,* which requires any person seeking access to biological resources or associated TK to obtain prior approval from the National Biodiversity Authority (NBA). Further, *Section 6* mandates prior approval before applying for any intellectual property rights based on such resources, thereby preventing misappropriation. The principle of equitable benefit-sharing is implemented under *Section 21*, which ensures that communities receive a fair share of benefits arising from the use of their knowledge.

Patents Act, 1970

The Patents Act of 1970 also has certain measures that ensure that the traditional knowledge is not patented. Section 3(p) states that an invention based on traditional knowledge and merely aggregation of known properties is not eligible for patent protection. Section 10(4) further mandates that the origin of biological material be declared by the applicant. These provisions help in identifying and preventing cases of biopiracy and ensure that traditional knowledge is not wrongfully monopolized.

Geographical Indications of Goods Act, 1999

The Geographical Indications of Goods (Registration and Protection) Act of 1999 offers protection for goods that have a connection with traditional knowledge and particular areas. As per Section 11 of the law, manufacturers can register a geographical indication by showing that

[6] Biological Diversity Act 2002, ss 3, 6 and 21.

the quality or reputation of the good is associated with the particular area where it originated.

Traditional Knowledge Digital Library (TKDL)[7]

Though not a statute, the Traditional Knowledge Digital Library (TKDL) plays the role of an essential institutional measure. It preserves the traditional medicinal knowledge and acts as prior art proof, thus preventing patents from being granted on existing knowledge. Patent offices around the world rely on the TKDL to deny any patent applications based on wrongful claims.

Need to Safeguard Traditional Knowledge and Sui Generis Approach

Traditional knowledge (TK), which is an indispensable aspect of culture and heritage, as well as the livelihoods, of indigenous and local communities, plays a key role in promoting national economic growth and scientific discovery. It is the foundation of several industries, including traditional medicine, agriculture, and biodiversity management. Due to the rise of globalization and commercialization, traditional knowledge faces the threat of misappropriation, abuse, and even distortion. If there are no appropriate legal measures in place, then the traditional knowledge is easily abused for personal financial gain without due credit to the people behind its preservation.

Protection of TK has been further necessitated even internationally especially under treaties such as the Convention on Biological Diversity (CBD). According to this instrument, states have sovereign rights over their biological resources, and they also recognize the importance of equitable benefit-sharing. Despite these important considerations, there is still danger posed to TK such as that of biopiracy where companies or persons exploit their appropriate genetic resources and the relevant knowledge without seeking prior informed consent.

From the constitutional angle, the protection of TK may be seen as a wider issue of cultural rights and social justice. In spite of the absence of any provision concerning TK within the Indian Constitution[8], Articles such as 29, which grants the right to safeguard the unique culture of a community, and 51A(f), which imposes an obligation upon every citizen to safeguard the

[7] Council of Scientific and Industrial Research, 'Traditional Knowledge Digital Library Unit (TKDL)' https://www.csir.res.in/en/documents/tkdl accessed April 29, 2026.
[8] *Constitution of India 1950, arts 29 and 51A(f)*

rich cultural heritage of the country, serve as a foundation for the same. It is necessary to understand here that the preservation of TK is both a legal and social responsibility.

Additionally, the matter of TK conservation is directly related to the principles of fairness and equity, considering that the indigenous peoples have been marginalized and exploited historically. The absence of a specialized legal mechanism makes the process of protecting TK sporadic and limited, focusing primarily on defense as opposed to acknowledging the community's rights over their knowledge. Thus, it becomes essential to design a sui generis system for TK.

Sui Generis Legal System

It pertains to an exclusive mechanism created exclusively to preserve TK and taking into account the fact that it cannot be protected under any existing intellectual property laws. This term has been coined as a result of international legal discourse through organizations such as the World Intellectual Property Organization (WIPO), Convention on Biological Diversity (CBD), and TRIPS agreement. The reason behind this is that TK has inherent characteristics that are different from the traditional intellectual property mechanisms.

India advocates the sui generis approach because TK has the following characteristics: collective in nature, passed down through generations, and associated with culture. These traits make it impossible for TK to be considered under the traditional novelty, individual authorship, and limited period concepts under patent law. Despite the absence of a full-fledged sui generis law for TK in India, it takes a partial sui generis approach under legislations such as the Biological Diversity Act, 2002, and Protection of Plant Varieties and Farmers' Rights Act, 2001.

Landmark Cases

Supreme Court of India is an important judicial institution that has recognized the significance of traditional knowledge (TK) in many areas of law, especially in intellectual property right issues, conservation of biodiversity, and rights of indigenous people. Even though no case exists where the Supreme Court has defined TK in detail, it has always emphasized on the protection of TK as an integral part of India's cultural heritage.

T.N. Godavarman Thirumulpad vs. Union of India and Others (1996)[9]

The Supreme Court, in this case, pointed out how important it was to protect not just biodiversity, but also the traditional knowledge of the indigenous people who held it. In the case, it made it clear that such knowledge and practices were very essential for achieving sustainability and protecting the environment. The Supreme Court suggested that one adopt an integrated approach, which protected both the environment and the rights of indigenous people.

S. Jagannath vs. Union of India (1997) [10]

Here, the Supreme Court stressed the need for the protection of traditional knowledge against its abuse and unauthorized exploitation. The need to avoid commercialization of traditional knowledge without prior authorization was stressed, and at the same time, it was made clear that the indigenous communities who are in possession of this knowledge should receive their share of the profits made on account of its exploitation. There is a need to ensure through an appropriate legal framework that traditional knowledge is protected against exploitation.

Kailas & Ors. vs. State of Maharashtra & Ors. (2011) [11]

The Supreme Court, in this case, recognized the rights of the indigenous people to their traditional knowledge as well as natural resources. It was stressed that it is necessary for these communities to be acknowledged and respected as the custodians of traditional knowledge and resources that have been passed on to them over several generations.

Divya Pharmacy v. Union of India (2018)[12]

In the landmark case Divya Pharmacy v. Union of India (2018), the Uttarakhand High Court upheld the requirement for prior approval from the National Biodiversity Authority (NBA) for access to biological resources and associated TK. Divya Pharmacy, a company associated with Patanjali Ayurveda, challenged the NBA's demand for prior approval and benefit-sharing obligations under the Biological Diversity Act, 2002.

[9] T N Godavarman Thirumulpad v Union of India (1997) 2 SCC 267
[10] S. Jagannath vs Union Of India & Ors 1997 (2) SCC 87
[11] Kailas & Ors vs State Of Maharashtra 2011 (1) SCC 793
[12] Divya Pharmacy v. Union of India (2018) SCC OnLine Utt 526

The court ruled in favor of the NBA, emphasizing the importance of prior informed consent and benefit-sharing as mechanisms to protect the rights of indigenous and local communities.

The judgment reinforced the provisions of the Biological Diversity Act, 2002, and highlighted the need for compliance with the Nagoya Protocol's principles.

Turmeric Case (1997)[13]

The United States Patent and Trademark Office (USPTO) issued a patent in 1995 to the University of Mississippi Medical Center for the application of turmeric in wound healing. The news angered many Indians because of the long tradition of using turmeric for its healing capabilities for generations. The CSIR of India contested the patent based on the fact that the application of turmeric as an agent of healing was an age-old practice in India. In support of its claim, CSIR produced abundant evidence and documentation about the use of turmeric for centuries. The USPTO withdrew the patent on account of lack of novelty of the invention in 1997.

Neem Case (2000)[14]

In 1994, the European Patent Office (EPO) granted a patent to W.R. Grace and the U.S. Department of Agriculture for a method of extracting neem oil, which is used as a natural pesticide. Indian farmers and activists, led by the renowned environmentalist Vandana Shiva, challenged the patent, arguing that neem had been used in India for centuries as a pesticide and medicine.

The opponents provided evidence of traditional use and prior knowledge. In 2000, after a thorough review, in 2000, the EPO revoked the patent, ruling that the use of neem as a pesticide was not an innovation but traditional knowledge. In 2005, after an appeal, the EPO confirmed the revocation, permanently cancelling the patent.

This case underscored the need for vigilance and proactive measures to protect traditional knowledge from being patented by entities outside the traditional user communities.

[13] Manupatra, 'Turmeric Case' (n 2)
[14] FirstHope, 'Case Study of Neem' (n 3)

Notable Case Study

Jeevani Case [15]

Jeevani involves a pharmaceutical product made from the extract of the Arogyapacha plant that had for many years been used by the Kani community of Kerala due to its medical qualities. In the 1980s, scientists from the Tropical Botanic Garden and Research Institute (TBGRI) realized the therapeutic value of the plant and formulated a medicine called Jeevani. The scientists then went ahead to patent the product and struck a win-win deal with the Kani tribe concerning profit sharing.

This particular instance is very important as it was one of the first instances in India where traditional knowledge bearers have been recognized and paid. It highlighted the importance of having fair benefit-sharing systems and showed how traditional knowledge could help in scientific progress while still giving local people their fair share of the benefits.

Conclusion:

It is clear that the ineffectiveness of IPR in protecting traditional knowledge arises not just from deficiencies in process, but from an inherent incompatibility between IPR's conception of individualistic ownership and the community-centric nature of traditional knowledge. Despite serving as the correctives in cases like that of Turmeric and Neem, patents still allow biopiracy to be carried out in the first place. Other IPRs provide limited and incomplete solutions, and geographical indications themselves suffer from limitations.

Internationally, various mechanisms are exist through which such principles are established, including conventions like the Convention on Biological Diversity and the Nagoya Protocol, both of which contain crucial elements such as prior informed consent and benefit sharing, although their effectiveness is hampered by lack of implementation domestically. The TRIPS agreement also does not conform with the community-centered nature of traditional knowledge, and non-binding agreements are inherently unenforceable.

Domestically, legislation such as the Biological Diversity Act, 2002, Patents Act, 1970, TKDL, and the example of the Jeevani case show advancement, although with a fragmented approach

[15] Khurana and Khurana, 'The Kani Tribe Case Study' https://www.khuranaandkhurana.com/2023/06/14/the-kani-tribe-case-study/ accessed 29 April 2026.

and a focus on correcting existing problems. Judicial decisions have shown a trend towards protecting traditional knowledge, but lack in being backed by a proper legal regime.

Thus, a sui generis legal framework is necessary to deal with the unique characteristics associated with traditional knowledge. In light of its cultural legacy and jurisprudence development, it is imperative that India not only be defensive but rather take a more proactive stand regarding the protection of traditional knowledge.