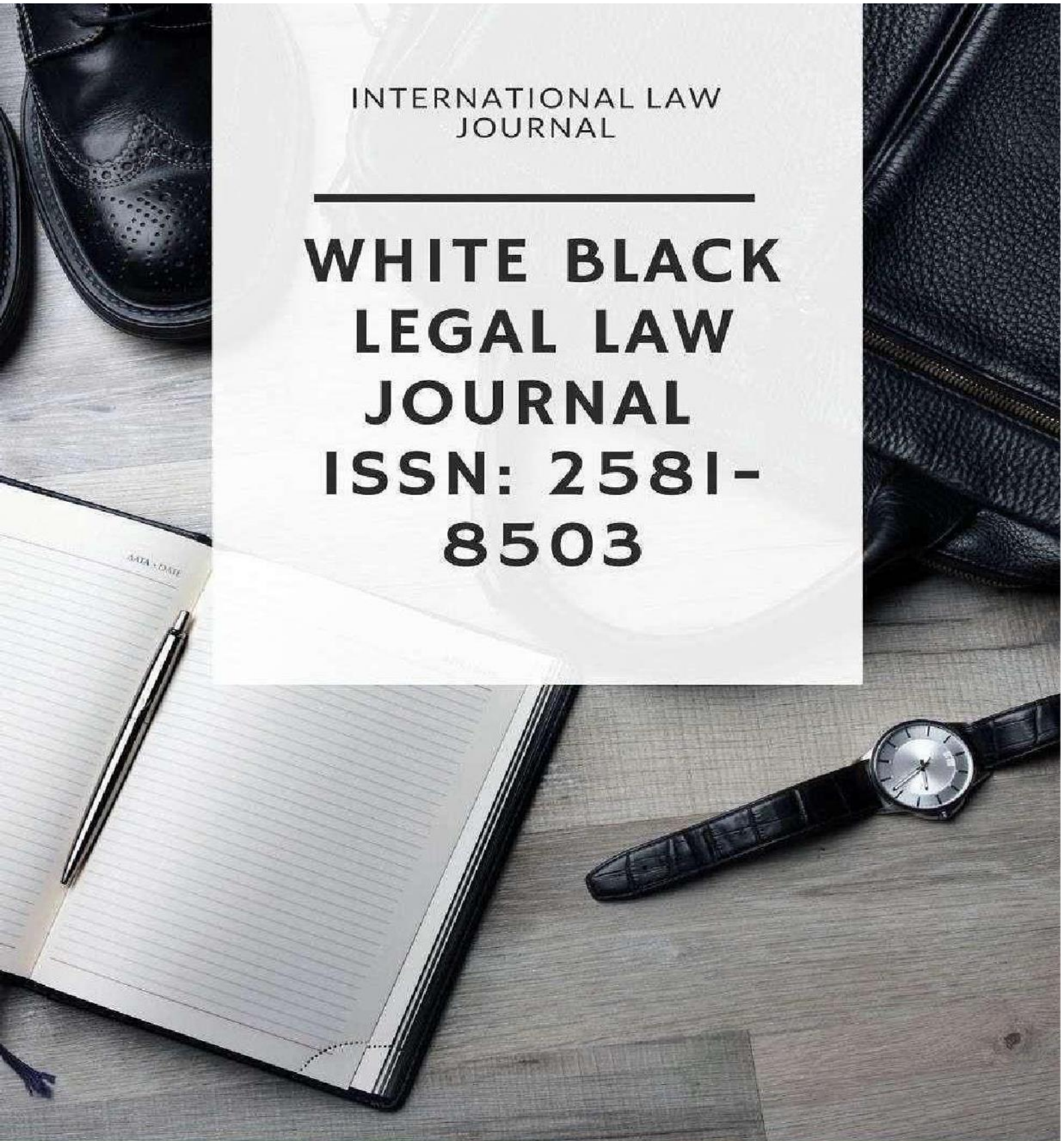




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TRADITIONAL KNOWLEDGE AND PATENT ISSUES **IN INDIA: A LEGAL ANALYSIS**

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Abstract

Traditional Knowledge (TK) is the collective knowledge, innovations, and practices developed and preserved by indigenous and local communities over generations. In India, TK plays a significant role in areas such as traditional medicine, agriculture, biodiversity, and cultural heritage. This study examines the legal issues surrounding the protection of Traditional Knowledge under the Indian patent system. It analyses the Patents Act, 1970, and the role of the Traditional Knowledge Digital Library (TKDL) in preventing the misappropriation and patenting of existing Traditional Knowledge. The study concludes that strengthening legal protection and ensuring effective implementation are essential to safeguard India's rich traditional heritage.

Introduction

Intellectual Property refers to any original creation of the human intellect, including artistic, literary, technical, or scientific works.¹ Intellectual Property Rights are the legal rights granted to an inventor or creator to protect their invention or creation for a specified period. These rights provide the creator or their assignee with exclusive control to fully utilize and benefit from their creation during that time.

It is well established that Intellectual Property plays a crucial role in the modern economy.² It is widely recognized that the intellectual effort involved in innovation must be given due importance to benefit the public. The stakes for technology developers have become very high, making it essential to protect their expertise from unauthorized use—at least for a limited period—to allow recovery of research, development, and other associated costs, as well as to generate sufficient income for ongoing investment in innovation. Intellectual Property Rights serve as a powerful tool to safeguard the investments of time, money, and effort made by inventors and creators by granting them exclusive rights to use their inventions or creations for

a specified period. In this way, Intellectual Property Rights contribute to a country's economic development by promoting healthy competition, encouraging industrial progress, and fostering financial growth.³

Meaning of Traditional Knowledge

The term Traditional Knowledge refers to the knowledge held by indigenous peoples in various societies, expressed in multiple forms. This includes, but is not limited to, art, dance, music, medicines, cultural expressions, biodiversity, knowledge and conservation of plant varieties, handicrafts, designs, and literature. It also encompasses information on the use of biological and other substances for medical treatment and agriculture, as well as production processes, rituals, and other practices. Traditional Knowledge is a broad concept that covers many aspects of human creativity.⁴ Traditional Knowledge encompasses the knowledge, innovations, and practices of indigenous and local communities that reflect traditional lifestyles and are essential for the conservation and sustainable use of biological diversity.⁵ It includes tradition-based literary, artistic, or scientific works, performances, inventions, scientific discoveries, designs, marks, names, symbols, undisclosed information, and all other tradition-based innovations and creations arising from intellectual activity in industrial, scientific, literary, or artistic fields.⁶

Traditional knowledge is the accumulated wisdom that people in a particular community have developed over many years through experience and adaptation to their local culture and environment. This knowledge is continuously maintained, strengthened, and evolved. It encompasses all explicit and implicit knowledge and practices used in managing the social, economic, and ecological aspects of life.⁷

Generally, the term is used to cover a wide range of indigenous issues, including communities' medicinal knowledge, folklore, and various teachings. Traditional Knowledge is also often used interchangeably with indigenous knowledge, which is described as an integrated system connecting social behavior, human health, and botanical observations. It is a body of knowledge developed by a community over generations of living close to nature. This knowledge includes systems of classification, empirical observations about the local environment, and self-regulatory practices that govern resource use.⁸

Legal Protection of Traditional Knowledge: Patent Issues and Challenges

Traditional Knowledge (TK) is a living body of knowledge that is developed, sustained, and passed on from generation to generation within a community, often forming a phase of its cultural or religious identity. Traditional knowledge per se, which is the understanding that has ancient roots and is regularly casual and oral, is not protected by means of traditional mental property safety systems.⁹ This situation has brought about many developing countries to advance their personal, particular, and different structures for protecting usual knowledge. India has performed a very widespread position in the documentation of typical knowledge, thereby bringing the safety of traditional information to the center stage of the International Intellectual Property System. Provision of Traditional Knowledge Digital Library (TKDL) access agreements with several worldwide patent office's via the Indian government has led to many patent applications concerning India's standard understanding having either been cancelled or withdrawn or claims having been amended in numerous worldwide patent offices.¹⁰

The preservation of rights of the communities and protection of their fundamental right is the main reason behind the protection of traditional knowledge across the globe. There is a major role of traditional knowledge in the field of research and development, but traditional knowledge has been and continues to be an aspect in the commercialization of herbal products.¹¹ This becomes a part of some diploma dictated by the market, and it should also be recognized as a fact that the market will no longer divulge the true commercial worth of traditional knowledge.

The goods associated with the traditional knowledge become of very high commercial and economic value. For this reason, businesspersons also take initiative to protect the rights associated with the indigenous people of that traditional knowledge, as it is providing them benefits economically as well as commercially. The protection of traditional knowledge is necessary to be protected by the people who are carrying out benefits out of it.¹²

Traditional knowledge has constantly been an effortlessly reachable treasure and hence has been prone to misappropriation. The traditional knowledge, particularly, associated with the remedy of a range of ailments has supplied leads for the improvement of biologically active molecules by means of the countries prosperous in science. In other words, traditional knowledge is being exploited for bioprospecting.¹³ Also, traditional knowledge is frequently misappropriated due to the fact it is simply assumed that, due to the fact it is in the public domain, communities have given up all claims over it. Traditional knowledge consists of both the

codified and documented as properly as a non-codified fact, which is basically not documented; however, it can also be orally transmitted.

Issues concerning the protection, recognition, and profitability of traditional knowledge related to biological sources are very complex. The modalities for defending traditional knowledge are nonetheless rising and evolving. The nature of entitlements and share in advantages is additionally a gray area. Even at the global level, readability has not yet emerged, and nations are grappling to comprehend the issue.¹⁴

With regard to the safety of knowledge, innovation, and practices related to biological resources, these do not appear to fall in the traditional legal system of intellectual property right protection. These traditional varieties of intellectual property rights are insufficient to defend indigenous knowledge actually due to the fact they are based totally on the safety of person and property rights, whereas traditional knowledge is massive and collective.¹⁵

Legal Challenges to Indian Patent Regime

Traditional knowledge consists of records on the use of biological and other substances for scientific remedy and agriculture, manufacturing processes, designs, literature, music, rituals, and other methods and arts. This vast set consists of facts of a useful and an aesthetic character that are processes and products that can be used in agriculture or industry as well as intangibles of cultural value. Traditional knowledge is not static, as it evolves and generates new facts as an end result of improvements or adaptation to altering circumstances.¹⁶

Several proposals have been made in the modern intellectual property rights system to defend ordinary knowledge. Such proposals are no longer sufficiently clear on the safety problem due to the variety of traditional knowledge itself. Therefore, before thinking about how traditional knowledge can also be protected, the necessary question is to outline a shape of want for the safety of traditional knowledge, which can also encompass a number of motives, inclusive of equity considerations, conservation concerns, maintenance of traditional practices and culture, prevention of appropriation by unauthorized parties of factors of traditional knowledge, and promotion of its use and its significance in development.¹⁷

Few professionals opine to guard traditional knowledge underneath the patent regime;

however, the standards of novelty and inventive step will not be surpassed in the case of traditional knowledge. The trade secret technique to defend traditional knowledge will also fail due to the unavailability of trade secret-associated law in India. In such instances it is clear that the modern intellectual property system is not properly geared up to shield traditional knowledge. However, certain steps are taken by India in furtherance of defending traditional knowledge.

Apart from the international patentability necessities for inventions to have novelty, inventive step, and industrial applicability, the Indian Patent Act has precise provisions that make the patentability of an invention pertaining to subject matter covered under Section 3 of The Patents Act, 1970:

1. Derivatives of a pharmaceutical drug
2. Patentability of stem cells
3. Diagnostic methods and kits
4. Isolated DNA sequences
5. Computer-related innovations, non-patentable concerns, matters, etc.

As a result, these inventions face a greater threshold of examination and scrutiny. Though suggestions in relation to the patentability of software, biotech inventions, and pharmaceutical inventions have been issued through the Indian Patent Office, the realistic challenges outlined above proceed to be confronted through patent holders.

Biopiracy as a Legal Challenge

Biopiracy is a violation of the rights of traditional communities over their biological sources and associated knowledge. The implications of biopiracy are financial as well as ethical. Obtaining intellectual property rights, typically patents or plant breeders' rights, to achieve monopoly management over biological resources, associated traditional knowledge, or industrial merchandise primarily based on these assets or knowledge, barring the consent of or any benefits going to the authentic holders of the knowledge.¹⁸ The original holders of biological resources and associated traditional knowledge do not get any share in the benefits made from commercializing the merchandise primarily based on their knowledge. They additionally do not get any focus for nurturing and creating the knowledge in the first place.

Once an intellectual property right is obtained through the bio pirate, the authentic holders of a biological resource or associated traditional knowledge are barred from making any industrial use of the intellectual property right-protected knowledge or resource. This could lead to a scenario where a community is not allowed to promote an indigenous product that is protected with the aid of an intellectual property right. The intellectual property right holder dictates the terms of use of the intellectual property right-protected knowledge, which should suggest that traditional communities, who are the authentic holders, should lose access to or management over their knowledge.¹⁹

Biopiracy is a phenomenon that has currently commenced getting global attention. There is no reliable definition concerning the concept. The term is particularly new, and it was being used for the first time in the early 1990s, and it is intently associated with the term "bioprospecting," which is additionally being used in the same period.²⁰

Traditional Ecological Knowledge Case – Tekai v. State of Kerala (AIR 1988 SC 1800)

The Supreme Court of India acknowledged the importance of tribal and indigenous communities' traditional relationship with forests and natural resources. The Court held that developmental policies must consider customary rights and traditional usage patterns of local communities. It emphasized that tribal knowledge systems form part of India's cultural and ecological heritage and should not be destroyed in the name of modernization. This case reflects judicial recognition of the value of traditional ecological knowledge in sustainable development.

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Indian Legal Mechanism with Reference to Patent and Traditional

Knowledge

Biodiversity and related traditional knowledge are two capital assets of India. The want for the safety of India's traditional knowledge stems from its duties to the indigenous and local communities, the traditional knowledge holders whose rights are at stake, and additionally, the want for legal compliance with international regimes and rising norms.²¹ India's response has covered so much ground, each with protecting and effective protection. For the purpose of securing traditional knowledge, the Traditional Knowledge Digital Library was introduced in the year 2008 as an effort towards the protection of traditional knowledge as well as traditional cultural expressions.²²

India is a country that has a number of pieces of legislation on intellectual property rights protection. The acts that are part of Indian legislation are as follows:

1. The Copyright Act, 1957
2. The Patents Act, 1970 (amended in 2005)
3. The Trademarks Act, 1999
4. The Geographical Indications of Goods (Registration and Protection) Act, 1999
5. The Designs Act, 2000
6. The Protection of Plant Varieties and Farmer's Right Act, 2001
7. The Biological Diversity Act, 2002

India possesses prosperous traditional knowledge, which is usually being passed down by means of phrase of mouth from one era to another. Most sections of this traditional knowledge are not accessible to common people, as they are provided only in some historical literature. There is additionally a danger of misuse of such knowledge through acquiring patents on non-original innovations, which is a splendid loss to the country.

Protection of Traditional Knowledge in India

Protecting and advertising traditional knowledge is a merger of a variety of thoughts, like human rights, conservation of resources, sustainable development, intellectual property rights, and advantage-sharing mechanisms. This work appears at traditional knowledge via the vision of the intellectual property ecosystem.²³

India is biologically divergent, and the traditional knowledge possessed concerning a range of

resources, specifically the medicinal system, makes it a richer country. If it is understood, then again, the possession of such knowledge has to be both protected and promoted. India has passed through many struggles in making an attempt to protect her traditional knowledge. These resulted from patents granted to corporations for knowledge that is India's legacy.²⁴

There are two ways of protection of traditional knowledge under intellectual property rights, which are

1. DEFENSIVE PROTECTION:

This protection aims at barring the people from outside the community from exercising rights over traditional knowledge by acquiring it as intellectual property. This technique may also be used for protecting different religious symbols from being used as a trademark or trade name.

2. POSITIVE PROTECTION:

Under this type of protection, the people of the community who are acquiring the traditional knowledge have been provided with certain rights to promote and advertise their traditional knowledge. Along with this, the right of commercial exploitation of that traditional knowledge is also given to the people of the community.²⁵

However, the international legal system has not surfaced with an instrument for the particular safety of such traditional or indigenous knowledge, and even though some countrywide legal guidelines do accord protection, this may additionally not preserve enough for different nations.²⁶

Agriculture and Traditional Knowledge

Traditional knowledge transforms biodiversity into bioresources. Biodiversity and related traditional knowledge are an imperative power of today's growing nations, specifically in the areas of agriculture and horticulture. It holds exceptional prospects all over the world that are progressively being sensitized to traditional knowledge. Indigenous males and females over generations have bred races of numerous foods, money plants, and horticultural vegetation out of wild plants of the forests referred to as landraces or local or indigenous types, and these are the fundamental foundations of contemporary plant breeding and world food security.²⁷

India clearly acknowledges the reason behind the enactment of the Plant Varieties and Farmers' Rights Act 2001 (PPVFR) as its commitment under TRIPS. The PPVFR Act, 2001, the first

law of its type in the world that concurrently acknowledges and rewards the contribution of breeders and farmers to the improvement of new crop varieties. The Indian regulation goes similarly to grant protection of traditional knowledge or farmers' rights to share advantages from the commercialization of their crop varieties via grant of patent or advantageous sui generis intellectual property rights. The implementation of this act is vested with two countrywide apex bodies; one is administrative and the other is jurisprudential. The administrative apex body is the Protection of Plant Varieties and Farmers' Rights Authority.

The Indian Act provides for equitable sharing of benefits earned from a new variety. Claims for benefit share are made when the breeder discloses the use of particular varieties conserved by way of farmers of an area, which may also substantiate undisclosed use of particular farmers' varieties by way of the breeder. Farmers are given a chance to put up claims for benefit share when their variety is used as parents within 6 months from the date of advertisement inviting such claims with the aid of the authority. On examination of such claims with the aid of the Authority, candidates eligible for benefit sharing and the quantum of benefit to be shared are decided.

Patent and Traditional Knowledge

Indian patent laws do not allow the protection of traditional knowledge under section 3 (p) of the Indian Patent Act, 1970. An invention that in effect is traditional knowledge or that is an aggregation or duplication of recognized features of historically acknowledged elements or aspects are not an invention and can't be patented.²⁸

However, if there is a significant enhancement in the current traditional knowledge that permits the invention to fulfill the standards under the Indian intellectual property law, intellectual property protection can be sought. The key difficulty in defending traditional knowledge is prior information of the innovation, as a lot of traditional knowledge is already in the public domain, being passed on orally or via documentation through generations. This makes most traditional knowledge ineligible for intellectual property protection, as the majority of facts are already part of prior art, and consequently, there is very little in terms of novelty that can be mounted for patent protection.²⁹

International Instruments to Traditional Knowledge and Patent

Looking at the records and improvement of intellectual property laws and norms at the global level, one notes that they draw from current national laws. The global dimension offers the framework inside which safety can be prolonged beyond national borders and gives for global cooperation. Traditional knowledge is being considered as a literary and artistic work under the copyright. That's why we need to consider the provision of Berne convention to understand that actually what kind of protection is being provided for work done under traditional knowledge.³⁰

The Universal Declaration of Human Rights (UDHR) establishes the right to the protection of moral interests and substances deriving from any scientific, literary or artistic production. The Universal Declaration of Human Rights is not a binding document, however it is a foundational record for the United Nations and for the two 1966 Covenants, the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights.

Although the Universal Declaration of Human Rights does not directly talks about intellectual property rights, but it acknowledges the moral and material interests of authors and inventors and the right of the public to experience the arts and to share in scientific advancement and its benefits.³¹

The convention is a land mark in global law on surroundings due to the fact that for the first time it identified that the conservation of biological diversity is a frequent issue of humankind and is an essential section of the improvement process. It covers all ecosystems, species, and genetic resources. It links typical conservation efforts to the monetary aim of the usage of biological resources sustainably. It sets concepts for the honest and equitable sharing of the advantages springing up from the use of genetic resources, especially those destined for industrial use. It additionally covers the unexpectedly increasing area of biotechnology, addressing technology improvement and transfer, benefit-sharing and bio-safety. Since the Convention is legally binding, nations that become a part of it are obliged to enforce its provisions.³²

Traditional Knowledge (TK) represents the collective wisdom, innovations, and cultural heritage of indigenous and local communities, accumulated and transmitted over generations. Despite its immense social, cultural, scientific, and economic value, the existing intellectual

property regime provides only limited protection to Traditional Knowledge because it does not easily satisfy the conventional requirements of patentability, such as novelty and inventive step. Consequently, Traditional Knowledge remains vulnerable to misappropriation and biopiracy.

India has taken significant steps to address these challenges through legislative and institutional measures. The **Patents Act, 1970**, particularly Section 3(p), prevents the patenting of inventions based on Traditional Knowledge, while the **Traditional Knowledge Digital Library (TKDL)** serves as an important defensive mechanism by documenting traditional medicinal knowledge and making it accessible to patent examiners worldwide. The TKDL has played a crucial role in preventing the wrongful grant of patents and protecting India's traditional heritage from unauthorized commercial exploitation.

However, legal protection alone is not sufficient. Effective preservation of Traditional Knowledge requires comprehensive documentation, equitable benefit-sharing, prior informed consent of knowledge holders, community participation, and stronger enforcement mechanisms. There is also a need for a comprehensive **sui generis** legal framework that recognizes the collective ownership of indigenous communities and safeguards their rights beyond the limitations of conventional intellectual property laws.

At the international level, greater cooperation is essential to establish uniform minimum standards for the recognition and protection of Traditional Knowledge while respecting national interests and cultural diversity. Public awareness, institutional capacity-building and active participation of indigenous communities are equally important for ensuring effective implementation. Therefore, the protection of Traditional Knowledge should not be viewed merely as an intellectual property issue but as a means of preserving cultural heritage, promoting sustainable development, preventing biopiracy, and ensuring that the benefits arising from its utilization are shared fairly with the communities that have nurtured and preserved it for generations.

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