



RECOGNITION AND PROTECTION OF INDIAN TRADITIONAL KNOWLEDGE: ISSUES AND CHALLENGES

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ABSTRACT

This paper examines how traditional knowledge may be stolen and how IP laws have tried to protect it. The Biodiversity Act protects traditional knowledge, but there have also been instances of bio-piracy involving traditional medical knowledge and the use of plants to cure a variety of maladies. The three well-known Indian examples of neem, turmeric, and basmati rice will be used by the author to discuss the necessity to protect traditional knowledge and the concept of bio-piracy. We'll also look at potential safeguards for holy traditional knowledge and see whether there are any constitutional safeguards for it. The Biological Diversity Act of 2002 and the Forest Rights Act of 2006, among other IPR legislation, both recognize the importance of traditional knowledge (TK) and preserve it. Numerous international agreements have been implemented to protect TK. They include the Universal Declaration of Human Rights, the International Labor Organization Convention No. 168, the United Nations Declaration on the Rights of Indigenous Peoples, the Convention on Biological Diversity, and the International Covenant on Economic, Social, and Cultural Rights. Since the Convention on Biological Diversity of 1992 and TRIPS of 1995, the place of traditional knowledge in the protection of intellectual property has been the focus of contentious discussions. It is unlikely that a single solution will be able to handle the enormous range of problems and objectives connected with TK protection. Since many indigenous people depend on TK for survival, precautions should be taken to preserve it. Traditional knowledge may be protected by employing already-existing varieties of IP or by combining several distinct kinds of intellectual property while a full sui generis framework for law is being developed.

Keywords: IPR, Traditional Knowledge, biodiversity, forest, bio-piracy, etc.

[A] INTRODUCTION

TRADITIONAL KNOWLEDGE: DEFINITION

Customary learning is described by the World Intellectual Property Organization (WIPO) as "*custom based abstract, imaginative or logical works; exhibitions; developments; investigative revelations; outlines; stamps, names and images; undisclosed data; and all other convention based advancements and manifestations coming about because of scholarly action in the mechanical, exploratory, artistic, or creative fields.*"¹¹⁴

The phrase "custom based" should be understood to refer to educational frameworks, manifestations, developments, and social declarations that are usually handed down from one generation to the next, are frequently seen as relating to specific people, their domain, or traditional cultural expression¹¹⁵, and are continuously improving in light of a changing world.

Expectations of Traditional Knowledge Holders" (WIPO publication no. 768(E)).

¹¹⁵ "Traditional cultural expressions" refer to tangible and intangible forms in which TK and cultures are expressed, communicated or manifested. Examples include traditional music, performances, narratives, names and symbols, designs and architectural forms. The terms "TCEs" and "expressions of folklore" (EoF) are used as interchangeable synonyms.

¹¹⁴ See WIPO Report on Fact-finding Missions on Intellectual Property and Traditional Knowledge (1998- 1999) "Intellectual Property Needs and

Globally authorized innovation platforms that focus on local learning are crucial for a variety of neighbourhood groups. Such systems may be seen as the outcome of local groups producing wealth, to the degree that they are constructed in a flexible way. Such adaptable platforms would make it possible to modify asset flows and provide local communities a greater chance to profit from the advantages of international trade arrangements. The main recommendations from the World Intellectual Property Organisation, Intergovernmental Board on Intellectual Property and Genetic Resources, and Traditional learning are divided in addition to using accessible writing to address these issues with the goal of proposing solutions that can improve the way traditional knowledge is protected by intellectual property.

The traditional exclusive standard discusses customary knowledge (traditional knowledge) and makes a significant reference to surrounding learning. When western ideals and doctrines collide with those of non-western culture, the latter must recognise the supremacy of their western equivalents, according to experience gathered from non-western countries' presence on the frontier. In the best case scenario, pluralism—the presence of different social foundations and characteristics—persisted.

TK is a body of information about the discoveries and customs of a particular local population that has been gathered, developed, and transmitted through many generations in close proximity to nature. Traditional knowledge includes inventions with both current and prospective usefulness as well as the transfer of information from one generation of people to the next. Traditional knowledge is essential in important fields including healthcare, agricultural development, and food security.

[B] STATEMENT OF THE PROBLEM

1. Indigenous and local groups from all over the world have produced a substantial amount of traditional knowledge over many

generations. For thousands of years, the local and indigenous population, who are the guardians of traditional wisdom, has preserved the knowledge.

2. India has an incredible wealth of traditional knowledge and biodiversity, both of which are crucial to health, medicine, agriculture, and biotechnology. Traditional knowledge is continually under danger, however, as the value of IP in the worldwide economy rises.
3. Bio piracy has made the wrongful appropriation of traditional knowledge into a widespread concern. The 'creation' of novel goods that are protected under the IPR framework is typically the outcome of bio piracy. The industrialized countries engaging in these operations get IPRs on commodities made using traditional knowledge that has been improperly appropriated without providing any compensation to the indigenous society that has fostered and kept it for millennia.¹¹⁶
4. Industrialized nations have misappropriated traditional knowledge from underdeveloped nations, including India, on several occasions. Without acknowledging their origins or sharing the profits, several foreign companies obtained patents based on biological materials. Bio piracy¹¹⁷ has occurred multiple times in India. India has faced a serious danger from bio piracy in recent years. Natural products that are patented include Indian neem, Indian turmeric, Indian Basmati rice, and others. Over ninety patents on neem have been issued globally, and they include a broad range of claims, such as how to use hydrophobic neem oil to prevent fungus on plants.
5. The lack of legal protection for TK is the main cause of its exploitation. It is clear that biases are present in ensuring the

¹¹⁶ Dr. E.A.Daes, 'Defending Indigenous Peoples' Heritage,' Protecting Knowledge: Traditional Resource Rights in the New Millennium, Union of British Columbian Indian Chiefs, February 2000.

¹¹⁷ A situation where indigenous knowledge of nature, originating with indigenous people, is used by others for profit, without permission from and with little or no compensation or recognition to the indigenous people themselves.

preservation of conventional knowledge. Denying traditional knowledge protection is not justified.

[C] RESEARCH HYPOTHESIS

The study's central premise is that, notwithstanding the relationship between IPRs and traditional knowledge, the current international property law is inadequate to address challenges related to the theft of traditional knowledge. Instead, the existing IPR framework has increased the theft of traditional knowledge and related bio genetic resources by recognizing the patentability of genetically modified species.

[D] SIGNIFICANCE OF THE STUDY

India has abundant biogenetics expertise. Traditional wisdom may solve many modern problems, especially in agriculture, biotechnology, and healthcare. Traditional knowledge may provide economic benefits by providing crucial leads for practical items and procedures. Piracy occurs when outside party profit from customary knowledge. Bio piracy and patenting traditional knowledge steal indigenous peoples' creativity and ingenuity and deny them the economic opportunities they need to survive that are based on biological variety and traditional knowledge¹¹⁸. Thus, both are double theft. Patents may generate monopolies and boost indigenous groups' essentials prices. When traditional knowledge is utilized, particularly outside of its country of origin, local and traditional communities do not benefit. Stopping the worldwide practice of obtaining IP protection on traditional knowledge-based items without benefiting their original owners is essential. Respect traditional knowledge keepers. They should be encouraged to use their knowledge to grow. Indigenous tribes that pass down their traditional knowledge usually originate from economically impoverished places and lack

formal education. They also lack rights-enforcing mechanisms. Their rights are protected only by law. India currently lacks regulations to address these issues and protect traditional knowledge. India has spent years fighting foreign patents on traditional knowledge-based commodities. India annulled certain patents but not all. Protecting customary knowledge is better than patenting it and defending it in court. Traditional knowledge is crucial for economic and development, hence it must be conserved for the country and indigenous people. It's important to examine how the current IPR legislation violates local and indigenous peoples' rights to their traditional knowledge to compare and contrast these two knowledge systems. When comparing IP with traditional knowledge systems, it's important to examine protection, rights, and rights subject matter. Traditional knowledge must be protected under intellectual property laws. whether IP and conventional knowledge cannot coexist, it is necessary to investigate whether a sui generis system is possible. India, rich in biodiversity and traditional wisdom, needs a sound conservation approach.

[E] RESEARCH OBJECTIVES

The research has the following objectives:

6. To identify the relevance and importance of traditional knowledge and study its correlation to Intellectual property.
7. To highlight significance of traditional knowledge in the Indian scenario and look into the issues and challenges in protection of Indian Traditional knowledge.
8. To analyze best legal practices existing in different jurisdiction for protecting traditional knowledge
9. To identify ways by which traditional knowledge can effectively be protected both nationally and internationally.

[F] RESEARCH METHODOLOGY

The recommended technique will mostly be doctrinal in character. The goals of the study must be explored using analytical methods. The

¹¹⁸ For Example: use of indigenous knowledge of medicinal plants for patenting by medical companies without recognizing the fact that the knowledge is not new, or invented by the patentee, and thereby the piracy deprives the indigenous community to the rights to commercial exploitation of the technology that they themselves had developed

research mainly relies on national laws, international agreements, and policy documents. In addition to international treaties, the study is based on international conventions, other legal documents, publications from the WIPO, and other sources. The relevant laws and regulations that are in effect in India and other countries must also be carefully reviewed. Using a modified version of the doctrinal research methodology, the conclusion will be reached by looking at and analyzing legal ideas and principles. In order to advise and determine if a model law suited for the preservation of traditional knowledge in India may be brought forward in India, it is also necessary to research various legislations relevant to the protection of traditional knowledge in other nations.

[G] LITERATURE REVIEW

1. Traditional Knowledge Holders' Needs and Expectations Regarding Intellectual Property¹¹⁹

This report uses information from nine fact-finding missions that WIPO carried out in 1998 and 1999 to learn more about the requirements and goals of traditional knowledge holders with relation to intellectual property. During fact-finding missions to Member States of WIPO, traditional knowledge holders—including indigenous peoples—the private sector, intergovernmental and non-governmental organizations, academic and research institutions, and other interested parties, information on the intellectual property needs and expectations of traditional knowledge holders was shared with WIPO. This information is provided in the Report¹²⁰.

2. A Reappraisal of the PNG Case¹²¹

This study examines whether the lessons learned from Papua New Guinea's mining activities may be extended to other investments in development initiatives. Such initiatives take place in a very different location and

environment than the corporate decision-making environment. The biggest problem associated with maintaining the viability and relevance of traditional land tenure in an international economic system driven by market dynamics and the principles of environment friendly development is how to do so given this awareness of the social value of traditional tenure. The owner of the traditional knowledge that supports natural resources is a topic covered by the author.

3. Report on Multilateral Environmental Agreements, Trade, and Biodiversity¹²²

A full analytical analysis of the prior responses and tactical suggestions for future involvement have also not yet been offered with regard to India's policy responses at the WIPO for the preservation of traditional knowledge.

4. David Vivas-Eugui¹²³

He analyses the several issues raised during the IGC's debates, the implications of the pertinent legal texts, and offers suggestions for processes, substantive content, and the identification of any gaps in the body of knowledge.

5. Folklore And Traditional Knowledge¹²⁴

• One of the most current studies on TK talks in the WIPO, this compilation includes views from academics, policymakers, corporate leaders, members of civil society groups, and advocates of indigenous peoples and provides the first comprehensive account of the IGC's actions. It provides a brief account of India's involvement in the IGC.

6. "Protecting Traditional Knowledge Digitally: A Case Study Of TKDL¹²⁵"

The Traditional Knowledge Digital Library (TKDL) is discussed in great detail in this article, along with its functions in the preservation, distribution, and promotion of traditional

¹¹⁹ (WIPO Report on Fact-Finding Mission)

¹²⁰ WIPO's Technical Study on Disclosure Requirements for Genetic Resources and Traditional Knowledge in Patent Systems (2004)

¹²¹ Sovereignty and Legal Pluralism In Developing Nations (2003) H A Amankwah and J Rivers

¹²² (2006)

¹²³ (2012)

¹²⁴ (2017)

¹²⁵ Dr. Mangala Anil Hirwade, Senior Lecturer, Department of Library & Information Science, RTM Nagpur University, Nagpur.

knowledge, as well as its advantages and current state. The research also attempts to examine the conventional classification of knowledge resources.

7. The safeguarding of India's traditional knowledge of biodiversity, agriculture, medicines, and cultural expressions¹²⁶

However, the agoya method and genetic resources are the major topics of the research. Traditional knowledge is guarded by groups like the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources.

8. The 2018 publication Traditional Knowledge in India¹²⁷

This study looks at traditional knowledge's numerous dimensions, including its economic importance in fields like health care, agrobiodiversity, and biodiversity in the nation of India, as well as the regulatory structures that are in place to protect it.

Geographical Indication as a Tool to Protect Traditional Knowledge by the Year 2020 Geographical Indications is a technique for safeguarding Traditional Knowledge and encourages the communities that possess it to uphold and pass it on to the following generations, according to Rajesh B.L., Anagha S. Beedu, and Varsha S¹²⁸. It helps bridge the generational divide in the society between the older and younger generations.

INDIA'S LEGISLATIVE SYSTEM

In India, the Forest Act specifically acknowledges such knowledge and provides a structure for its documentation, as well as the sort of evidence required to recognize these communities' claims to the intellectual property associated with such knowledge. Both the Biological Diversity Act of 2002¹²⁹ and the Forest Rights Act of 2006¹³⁰ contain provisions that

safeguard tribal traditional knowledge by stating, on the one hand, that local communities' knowledge of biodiversity is to be respected and protected, and, on the other, that the IP rights in such knowledge belong predominantly to the community as a whole.

By recognizing that the traditional knowledge of forest dwellers should be treated fairly to that of technological and scientific knowledge that is otherwise widely accepted in the community, the two Acts right historical wrongs committed against these people who are crucial to the very survival and sustainability of the ecosystem.

The 1970 amendments to the Indian Patents Act provide credence to this assertion. A patent may be challenged or revoked on the basis that the invention under examination has been widely recognized in the relevant fields of conventional knowledge, according to changes to Sections 25 and 64, for instance. The standards of proof expected to support these justifications in the application of these provisions are anticipated to be significantly less stringent than those needed to support the other grounds for objection or annulment, such as a lack of originality or innovative step.

Uncertainty was around how WIPO would include the Indian effort within its mission to advance and defend intellectual property rights. The Indian government supported the conference from March 22–24 for "internationalizing India's pioneering Traditional Knowledge Digital Library (TKDL) as a template for the benefit of developing countries seeking to protect their traditional knowledge," in accordance to the Indian government's press information bureau. WIPO states that the library's director is now looking for methods to use the collection to "generate new IP, within the existing IP system, like in open innovation models."

WIPO and India's Council of Scientific and Industrial Research (CSIR) collaborated to conduct the event. Whenever it comes to

¹²⁶ 2015; The editors are Ris, Fakim AG, and Srinivas K Ravi.

¹²⁷ A Legislative Analysis Rubina Lavania

¹²⁸ (Institute of Legal Studies, Bangalore)

¹²⁹ Date of commencement 1 October 2003 and 1 July 2004; (Act No. 18 of 2003)

¹³⁰ Date of commencement 31 December 2007 (Act No. 2 of 2007)

representing the Indian government before WIPO, the CSIR has a questionable track record.

In order to comply with the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), India updated its patent rules in 2005, opening up a sizable new market for WIPO activities. India has made an attempt to better understand the potential financial benefits of patenting given that it is the leading producer of generic medications globally and has access to a plethora of traditional knowledge. Indian patent laws have been contested in court by Western firms in an effort to undermine clauses that give India the authority to reject patent applications.

Participants from 35 nations travelled to Delhi for the summit, according to a WIPO news release, to learn from India's experience with TK protection. A legislative framework to safeguard traditional knowledge has been discussed for many years among WIPO member nations in the Intergovernmental Committee on Genetic Resources, Traditional Knowledge, and Folklore (IGC).

IMPORTANT CONVENTIONS RELATING TO INTERNATIONAL TK

The 2010 Nagoya Protocol and the CBD establish TK protection and acknowledgement on a global scale. In line with Article 8(j) of the CBD, Parties are obligated to safeguard and preserve indigenous people's know-how and encourage the use of TK more widely based on an equitable and fair distribution of benefits. According to the procedural standards for access to genetic resources outlined in Article 15, including those based on prior informed consent and conditions that are mutually agreed upon, Article 16 recognizes traditional knowledge (TK) as a "key technology" to efficient practices of conservation and sustainable use of biodiversity. The Nagoya Protocol broadens the access and benefit-sharing provisions of the CBD.

The flora and wildlife of the globe are increasingly conscious of the need of

conserving the traditions, knowledge, and creativity of the native and local population. In the near future, it is crucial to make sure that those who have accumulated advantages that have been conventionally acquired advantage of them and quicken their socioeconomic development. A joint effort by WIPO and the United Nations Educational, Scientific, and Cultural Organization in 1978 led to the 1982 Protection of Folklore's Expressions from Illicit Exploitation and Other Prejudicial Actions Act, which was the first attempt to protect traditional knowledge (TK) under the IP regime¹³¹.

Protection of traditional knowledge has been thoroughly investigated. These essentially demonstrate that there are issues with TK protection-related measures.

Additionally, a number of publications on WIPO talks about the protection of TK are openly accessible. Additionally, there is a substantial corpus of literature on. Several of these projects focus on the potential for cooperation about traditional medicines in the Indian Ocean area. Regarding the laws that control traditional medicine in China and India, Chaturvedi and others. Availability and sharing benefits under the Biological Diversity Act of 2002, Dhar et al. (2014) In his 2007 essay "IPRs and Access and Benefit Sharing," S. Chaturvedi In their 2007 article, "Community Rights and the IPR Regime," Ragavan and Mayer Dhar, et al. (2001) on the Biological Diversity Act's access and benefit-sharing provisions and Dhar, et al. (2001) on the regime of intellectual property rights for biodiversity conservation. K.P.S. Chauhan and S. Chaturvedi (2001). The 2016 book Traditional Medicine in BRICS and Policy Briefs by James et al. on Traditional Knowledge Digital Library (TKDL) and James and Pathak on Traditional Chinese Medicine are only a few examples of other RIS publications.

A thorough examination of TK protection in India still has to be conducted, taking into

¹³¹ <https://www.wipo.int/edocs/lexdocs/laws/en/unesco/unesco001en.pdf>

consideration all key governmental, judicial, and civil society initiatives. The research that is now available has not examined India's efforts to protect TK in relation to the relevant international regimes that are currently in existence in-depth.

[G] CHAPTERISATION

The study is divided into the following seven parts excluding the present introduction:

CHAPTER 1

INDIA'S NEED FOR "SUI GENERIS" LEGISLATION

The objectives, processes, impacts, and ramifications of protecting TK, as well as the implications on the intended beneficiaries, are some of the significant policy questions it raises. These problems are very difficult because there are so many different ways that the subject of discussion defines itself, the reasons why it needs to be protected, and the methods it uses to accomplish its goals. All relevant TK-related issues, particularly those that are moral, environmental, and practical, must be addressed. However, there are a few technical concerns that have not yet been addressed, such as the subject of common ownership and the methods for right enforcement.

The belief that TK has significantly increased industrial profitability has withstood the test of time. Naturally, this concept has been included into a large portion of the international law governing benefit sharing and access to genetic resources. TK should be kept in place for both pragmatic and human rights reasons, but India's political posture during the last two decades has to be thoroughly evaluated. The assertions made by this strategy have been refuted by legal standards. The first is the CBD's Nagoya Protocol, which promotes access and benefit-sharing. The second is based on intellectual property (IP) law and consists of:

i) adjustments made to prevent the exploitation of genetic resources and traditional knowledge (TK), including improved prior art searches for patents, a limitation on the spectrum of the

subject matter assertions in patent law to biological, biochemical, and genetic issues, and the demand that patent applicants disclose the source of TK and genetic resources used in an invention;

ii) the implementation of special TK protection measures.

We must relinquish some political territory in order to offer LICs the opportunity to set the terms for participation, since TK cannot thrive as long as choices affecting LICs are still made by elites with metropolitan education. Territorial rights and the right to self-determination are upheld by the 2007 UNDRIP, and these rights must be a key component of all plans, actions, laws, and regulations.

The majority of local groups' identities are inextricably linked to their traditional knowledge (TK). It is fundamental to the social as well as physical atmosphere of a society, hence it must be protected at all costs. The rights of those who are the true guardians of TK may be violated by attempts to exploit it for industrial or commercial advantage. In light of these dangers, strategies must be developed in accordance with the priorities of TK holders to protect and nurture TK for sustainable development. For developing nations in particular, it is crucial to preserve, safeguard, and promote local communities' inventions and practices that are founded on traditional knowledge. Their deep understanding of traditional knowledge (TK) and biodiversity is vital for health care, food protection, community, religion, identity, commerce, and development. Under spite of this, this priceless treasure is under danger in many areas of the globe.

There are worries that this information will be used unfairly and held by other parties without the holders' express written authorization and that very little, if any, of the benefits will be shared with the society in which it grows and exists. Due to these problems, TK is now at the top of the world agenda, sparking a heated

debate about how to preserve, protect, advance, and sustainably use TK. Traditional knowledge (TK) has to be protected against unauthorized use by other parties, and one of the most effective ways to do this is by recording and digitizing information relevant to TK in the form of a TKDL (Traditional Knowledge Digital Library). In the area, India is a pioneer.

A logical definition of the intended aims and the suitability of the method utilized to accomplish those goals should serve as the foundation for developing any system for the safeguarding of TK. IPRs may be one of the strategies used, but it is important to comprehend their consequences and limitations. The preservation and development of the application of such knowledge need to coexist peacefully. The degree to which the many suggestions offered for the preservation of TK embody the goals and cultural principles of the LICs they are meant to assist shouldn't be a question.

There is a chance that concepts and methods given to these groups won't be suitable for them or won't work to address the problems they are meant to. The environmental and cultural settings of these LICs must be preserved and improved in order to ensure the long-term care and utilisation of TK, but such demands shouldn't come before other requirements.

Indian authorities seem to be torn between the need to take into account a significant rural sector and high-tech aspirations in industries like biotechnology. In India, the transition from conventional to industrial farming is still a sensitive topic. Indian farmers have accumulated a large debt load. According to press estimates, 95% of cotton farmers are battling with high debt, and an unusually high number of them have taken their own lives recently. Additionally, commercial farming has benefitted from a number of new regulations and changes that India had to pass as a result of entering the TRIPS Agreement of the WTO. The Indian government has also taken steps to join the UPOV Convention, but there has been

opposition to these efforts, thus the situation is still unclear.

The next section of our analysis deals with both current laws and proposed legislation. In light of various plant species and associated traditional knowledge, these regulations have altered. There are specific references to modifications made to the Indian Patents Act, the Protection of Plant Varieties and Farmers' Rights Act, the Biological Diversity Act, the 2004-introduced Seeds Bill, and the most recent Protection, Conservation and Effective Management of Traditional Knowledge Relating to Biological Diversity Rules, 2009.

1. THE INDIAN PATENT ACT

The 1970 Patents Act (S. 3(h)) excluded agricultural and horticultural technologies from patent protection. "For the medical, surgical, curative, prophylactic, or other treatment of human beings or any procedure for a similar treatment of animals or plants to render them free from sickness or to raise their economic value or that of their products" were also prohibited under S. 3. (i). Indian courts limited "manner of manufacture" to intangible, non-living substances. *Diminaco AG v. Controller of Patents*¹³² (2002) rejected this interpretation. For innovations involving substances intended for use as food, medicine, or drugs, as well as chemically produced substances, only process patent protection was available¹³³.

With India's WTO membership, an ordinance and 1999 Patents Act revisions established postal application and exclusive marketing rights. 91 The 2002 Indian Patents Act was significantly revised. S. Science added "any living entity or non-living object occurring in nature" to 3(c). The statement excludes human separation and purification of life or non-living material. Despite its severe wording, the ban provision would allow biotechnology process patents, according to commentators. cl. 3(j) replaced section 3(mention)'s plant exclusion

¹³² Managing Intell. Prop., October 2006: Supplement — Asia-Pacific IP Focus 2006, available at pg. 89.

¹³³ Section 5 of the Patents Act, 1970

provision. It encompasses "plants and animals in whole or any part thereof other than microorganisms but including seeds, varieties, and species, and essentially biological processes for production or transmission of plants and animals."

Under S. Section 64(p) states, "the whole specification does not reveal or incorrectly specifies the source or geographical origin of biological material employed for the invention." S. 25(j) outlines objections. Under Ss. Under 94 S.C. 25(k) and 64(q), any innovation "so far as claimed in any claim of the complete specification" is "that the invention was anticipated having regard to the knowledge, whether oral or otherwise, available within any local or indigenous community in India or elsewhere." "An innovation whose primary or intended application or commercial exploitation would be detrimental to public order or morals or which causes substantial injury to human, animal, or plant life or health or to the environment," says Section 3(b). "Method(s) of adulteration of food" is covered by the Indian Patent Office.

2005's second amendment deleted Section 5 of the Patents Act, 1970. Section 5's limitation on material product patents was replaced by a process patent ban in March 2005¹³⁴. To fulfil the January 1, 2005 TRIPS compliance requirement, this was done. "The mere exploration of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance, the mere discovery of any new property or new use of a known substance, or the mere use of a known process, machine, or apparatus except such known process results in a new product or employs at least one new reactant," as stated in Section 3(d) of the amended Patents Act, is still up for debate. Section 5's legality and TRIPS

compatibility were challenged after the "second medical uses" debate.

The Mashelkar Committee's report examined 3(d) to determine if (a) restricting pharmaceutical patents to new chemical entities or novel entities requiring one or more inventive steps and (b) excluding microorganisms from patenting would be TRIPS-compatible. The Committee determined in its report that such a patent restriction would violate TRIPS since it would ban patenting an entire class of incremental developments. Excluding germs from patenting violates TRIPS.

2. THE PROTECTION OF PLANT VARIETIES AND FARMER'S RIGHTS ACT

India's answer to TRIPS Art. 27.3(b) is the 2001 PPVFA. Analysts have highlighted that the Act primarily follows the 1978 UPOV paradigm, but it also incorporates 1991 UPOV features such the capacity to register significantly derived varieties. However, the Act goes above and beyond to balance industrial breeders and traditional small-scale and subsistence farmers. The Act preamble lists conflicting goals. It "recognizes and protects the liberties of farmers in respect of their contribution made at any time to conserving, enhancing, and making plant genetic resources available for the development of new plant varieties," on the one hand, and sees the protection of plant breeders' rights as essential "for increased agricultural advancement" and "to stimulate investment for research and development" and "encourage" farmers to breed new plants.

Farmer rights are under Chapter VI of the Act. The intriguing PPVFA allows the registration of "farmers' varieties" as well as new and greatly evolved varieties, going beyond recognizing earlier efforts. It also registered "extant varieties." S. 2 describes them. In S. PPVFA Section 2(1) defines a "farmers' variety" as "a variety that has traditionally been farmed and evolved by the farmers in their fields; or (ii) is a wild relative or land race of a variety about which the farmers hold the common knowledge." 2(j) defines

¹³⁴ Proposed Exclusions to India's Patent Law in Light of India's Obligations Under the TRIPS Agreement and Options for India, 8 Chi.-Kent J. Intell. Prop. 41, 42 (2008); Emma Barraclough, India patent reform under attack, *Managing Intell. Prop.*, February 2005; Donald G. McNeil, Jr., India alters law on drug patents, *N.Y. Times*, 24-3-2005, available at 97

"extant variety" as a S. notice variety. Section 5 of the Seeds Act exempts farmers' varieties, well-known varieties, and common domain types. This term again mentions farmers' rights. "Extant varieties" are recognized varieties that existed before the Act. S. PPVFRA 14(b) and (c) allows "any peasant or group of farmers or community of farmers claiming to be the breeder of the variety" to register existing and farmers' varieties (d)¹³⁵.

Existing varieties must meet "those criteria of uniqueness, uniformity, and stability as shall be prescribed under rules enacted by the Authority," while new varieties must meet novelty, distinctiveness, uniformity, and stability [S. 15(1)]. The Act says "a farmer who has bred or produced a novel variety shall be entitled to registration and other safeguards in such a way as a breeder of a variety." Farmers' varieties, however, are subsets of recognised varieties and must fulfil DUS standards. Opponents say farmers' registration options may be restricted. Early statistical evidence supports this concern.

Unlike intellectual property rights, the law does not grant peasants royalties to sue other private parties. Or S. The Central Government created the National Gene Fund under PPVFRA section 39(1)(iii), and farmers "shall be eligible in the prescribed way for recognition and reward from the National Gene Fund." Benefit-sharing payments, annual government fees, compensation claims, local and international group donations, and other sources fund the National Gene Finance. PPVFRA 45(1)(a)-(d). The Act mandates benefit sharing agreements to be negotiated via the Protection of Plant Variety and Farmers' Rights Authority (henceforth "Authority").

PPVFRA Chapter II guides the Authority. The principal government agency for plant diversity and registration is this. S. 3(5) defines the PPVFRA. The Plant Varieties Protection and Farmers' Rights Board was founded in late 2005, marking the organization's expansion. Plant

variety and farmer rights protection laws were issued in December 2006. In 2007, the Authority released the Plant Variety Journal of India and DUS testing standards. Twelve harvests included the original instructions. The website lists 31 crop species for registration¹³⁶.

The Authority's website reports that farmers' deviations have gotten less attention than others. The 2006 Preservation of Plant Varieties and Farmers' Rights Regulations created the Extant Variety Recommendation Committee (EVRC) to anticipate this. 2008-2009 registered 40 crop varieties from nine crop kinds. Annual Report¹³⁷, 108 S. (2009). (1) The PPVFRA states that many "extant varieties" announced under the Seeds Act of 1966, when seed production was still viewed as a public sector task, are essentially public. The Central Government or State Government, if notification occurs for a State, owns the right to a registered variety "unless a breeder or his successor shows his claim." Applicants' 353 patent applications since 18 farmer's variety submissions are being considered.

After hearing from the parties and considering the extent and type of use of the claimant's genetic material in the variety's research and development, commercial utility, and market demand, the Authority determines benefit sharing.

In addition to benefit-sharing claims made by individual or group breeders of traditional types under "rights of communities" in any Indian hamlet or small community may make this claim. The Authority decides whether to compensate and how much. Commentators have criticized the legislation's benefit sharing and compensation procedures for causing confusion and conflict. The Authority-dependent system lacks property rights. While benefits and contributions are shared, the current technique may require breeders to pay

¹³⁵ Section 16 of the Protection of Plant varieties and Farmer Rights Act, 2001.

¹³⁶ The Authority of Plant Varieties and Farmers' Rights Authority, India — Registration Open For, 107

¹³⁷ 2008-2009

multiple times for using old knowledge. Thus, "it can be safely inferred that the provisions to safeguard the traditional knowledge of farmers will not be of use to the benefit of these groups," and "the Parliament has been unwilling to acknowledge that ownership of TK rests with the community and to create legislation from that perspective."

The PPVFRA's section 39(1)(iv) allows traditional farmers to use conserved seed, trade, distribute, and sell it, and share benefits and payment. The 1991 UPOV model prohibits farmers from selling branded protected seed.

Farmers may make a compensation claim against industrial breeders under S. 39(2) of the PPVFRA if a commercial variety's performance continues to fall short of the breeder's stated aims. The Authority will decide after hearing the parties again. Commercial breeders' applications must acknowledge traditional breeders' efforts. If not, the application will be denied¹³⁸.

3. THE BIOLOGICAL DIVERSITY ACT

India's 2002 Biological Diversity Act implements CBD requirements. The Act's prologue emphasizes governments' sovereignty over biological resources and promotes genetic resource preservation, sustainable use, and equitable benefit sharing. Another set of State entities will issue licenses, make regulations, and oversee the Act's implementation. These include the NBA, many State Biodiversity Boards (SBB), and local Biodiversity Management Committees (BMC) made up of panchayats and municipalities. The NBA is mostly inter-ministerial, although it includes several non-official members from the scientific community, business leaders, environmentalists, innovators, and knowledge carriers (S. 8)¹³⁹. One NBA subcommittee may study agro-biodiversity, the biological diversity of agricultural plants and their wild cousins¹⁴⁰. The NBA's main responsibility is authorizing acts connected to

Sections 3, 4, and 6 of the Act, which include the transfer of research results, access to biological resources, and intellectual property rights. NBA regulations include these subjects. Per S. It advises the Central and State Governments and fiercely opposes Article 18(3) and (4) IP rights on Indian biological resources or relevant knowledge outside India.

Inter-departmental State Biodiversity Boards have sustainability and biodiversity experts. Local biodiversity management committees conserve ecosystems, land races, folk variants, domesticated stock and breeds, and biological variety information. These committees assist biodiversity documentation. They may charge for biological resources collected within their jurisdictions, but other governing bodies must consult them before making decisions¹⁴¹.

The 2004 biological diversity regulations updated the Act. Local activists and organizations favoring decentralized decision-making and administration were dismayed by the Regulations' strengthening of the Authority's hegemony over accessibility, information distribution, and intellectual property rights. R. Section 14 allows the Authority to enter into an access contract with an applicant "after discussion with the concerned local bodies" and impose restrictions, conditions, such as the amount of financial and other incidental benefits, or revoke an approval in certain circumstances.

They were only authorized to gather data for the "People's Biodiversity Registers" and assist the Authority and State Biodiversity Boards during approval. Local activists wanted regional Biodiversity Management Committees to do more. In 2007, panchayats and community people sent 3000 motions to the Prime Minister protesting the Biodiversity Management Committees' decreased responsibility.

The Act defines access to biological resources and associated information for resident Indian nationals, foreigners, foreign corporations or

¹³⁸ (S. 40, PPVFRA)

¹³⁹ [Section 18(2)]

¹⁴⁰ [S. 13(1)]

¹⁴¹ Section 41

organizations with foreign ownership or management, foreign citizens, and Indian non-residents. The National Biodiversity Authority must approve India's biological resources from these later groups for research, commercialization, bio-survey, or other uses¹⁴². Transferring research findings to foreigners or foreign residents is also prohibited without the NBA's consent, except for academic purposes and specific cooperative research projects mentioned in Central Government regulations¹⁴³. In the meanwhile, collaboration standards have been revealed¹⁴⁴.

The NBA's approval is also needed to acquire intellectual property rights in or outside India if the invention is based on research or knowledge of an Indian biological resource. Since patents must be authorized before being sealed, this is less practicable, but it is still possible when the patent authority grants it. The Plant Types Act exempts plant types from further applications. The provision lets the NBA charge benefit-sharing fees, royalties, or other payments.

According to S. 21(1), the NBA mostly follows the terms and conditions that applicants, participating local organizations, and benefit claimants agreed to. The Biological Diversity Rules. The BDA and Rules give the Authority the power to impose additional, stringent requirements, such as granting joint intellectual property rights to the NBA or benefit claimants, despite the fact that this suggests a wide acknowledgment of explicitly negotiated conditions. Section 20 states that "the quantum of advantages is to be mutually decided upon between the individuals applying for such approval and the Authority in consultation with local bodies¹⁴⁵."

Evidently Sections 20(1) and (3) require each benefit-sharing formula to be determined

¹⁴² (S. 3)

¹⁴³ (S. 4 and 5)

¹⁴⁴ Concerns over the effects of the Act on biodiversity research, see also K.D. Prathapan et al., *Biological Diversity Act, 2002: Shadow of permit-raj over research*, 91 *Current Sci.* 1006 (2006), ">115

¹⁴⁵ [Section 21(3) of the BDA, Rule 20(8) of the Biological Diversity Regulations]

separately and publicized in the Official Gazette. If the payout or share of benefits is cash, the NBA may provide these funds to anybody who can identify the resource or competence. If not possible, benefits must go to the National Biodiversity Fund¹⁴⁶.

S. 7 treats Indian people and businesses differently. Indian individuals and businesses must notify the State Biodiversity Board before collecting biological resources for trade, bio-survey, or bio-use. Local communities, biodiversity producers, and traditional medicine practitioners are exempt from this restriction. SBBs approve commercial or bio-survey/bio-utilization petitions from Indian individuals for the State Governments¹⁴⁷.

If an activity harms biodiversity conservation, sustainable usage, or benefit sharing, the SBB may ban or limit it. Thus, whereas most permanent Indian residents' economic activities are allowed unless specifically prohibited, foreigners' are generally illegal. Sections 19(2) and 20(1) require Indians to secure intellectual property rights for resources or knowledge or transfer such information beyond India.

The Act provides federal, state, and local biodiversity funding for community benefits, claimant management, and historic site upkeep. However, some of the earnings might be used for expenses and socioeconomic development. Section 40 allows the Central Government to exclude any issue from the Act after consultation with the Authority, including biological resources that are sold as commodities. Infringements of the Act's requirements on SBB notice, information transfer, intellectual property rights, and access carry fines.

Local activists share academic concerns regarding the Indian Biodiversity Act. First, knowledge owners have limits on these regional interests, whereas Indians, especially businesses, have far more freedom. 116 Second,

¹⁴⁶ [Sections 27, 32, and 44 of the BDA, and Rule 20(9) of the Biological Diversity Regulations]

¹⁴⁷ (Section 23).

India needs access to both and other resources. 40% of food crop accessions are in CGIAR collections. Finally, the NBA lacks extraterritorial authority to check applications outside India. It couldn't dispute patents in various countries. Fourth, like the NBA's connection with SBBs and BMCs, the NBA's discretionary benefit-sharing decisions and applicants' and knowledge holders' agreements are ambiguous. Finally, local communities are dependent on government funding and may not get benefits. Sixth, benefit sharing must be altered, and international firms may not accept S. 21, BDA's shared IP ownership. Seventh, the law ignores shared property and supports centralised property rights.

Eighth, despite attempts to avoid it, agrobiodiversity and benefit-sharing plant kinds and choices intersect. One expert concluded, "In fact, the Act lacks to set up sufficient mechanisms for safeguarding biological resources and is significantly biased against the interests of tribal and local people who are the custodians of related knowledge." Indian communities and enterprises face lax restrictions that "even seem to encourage commercial exploitation of resources rather than offering incentive to the protection of biological resources."

After the BDA was enacted in February 2003, expert panels and procedural processes were created in 2005. NBA applications and standard agreements for access to biological resources and/or associated knowledge for third-party transfer, research/bio-survey and bio-exploitation, and commercial exploitation are available on its website. The NBA website shows that between January 2006 and August 2008, the organisation granted 24 access requests, 9 requests to transfer research results, 276 requests to transfer intellectual property rights, 16 requests to transfer to third parties, and 40 requests for joint research projects. 5, BDA. NBA and the applicants have agreements for thirteen access, eight research result transfer,

thirty-three intellectual property rights transfer, and fourteen third-party transfer applications.

The Indian government is also building biodiversity registries and digital libraries to prevent foreign copyrighting of traditional knowledge. The Biodiversity Management Committees' People's Biodiversity Registers and the Traditional Knowledge Digital (TKDL) now concentrate on traditional medicine and medicinal plants. For three years, the TKDL has helped European Patent Office patent examiners locate earlier art in English, Spanish, German, French, and Japanese. According to speculations, the patenting of a melon extract formulation—a typical Indian medicinal method—for leucoderma has been halted by previous art based on the TKDL. The three-week turnaround was compared favorably to the ten-year wait for the Indian government to object to neem and turmeric patents¹⁴⁸. Other impoverished nations are reportedly asking India for help establishing databases like this.

4. THE SEEDS BILL

The Indian government replaced the 1966 Seeds Act with a new Seeds Bill in 2004. Since then, there have been several conversations about it. On the website of the Department of Agriculture and Cooperation are government statements explaining the justification for the new legislation. One of the more crucial factors is the creation of an environment that fosters the expansion of the seed industry, increases seed exports, and promotes the importation of useful germplasm. It also fosters the use of cutting-edge sciences to varietal development and increases investment in R&D. The proposal's current final justification specifically mentions transgenic varieties. The Government observes that GM seeds frequently fail to be reported under the earlier Act. Due to the high cost of seeds and the occasional exploitation of farmers, testing has to be improved and under control¹⁴⁹. The legislation intends to do this by

¹⁴⁸ Traditional Knowledge, Traditional_Knowledge.html> (last visited 18-7-2023).">131.

¹⁴⁹ Biotechnology in Agriculture (1-4-2005), 134

including commercial groups and private seed testing facilities on the list of institutions that are permitted to conduct agronomic trials and testing in addition to public institutes and universities.

Unlike the existing law, which only requires the registration of notified kinds, the Seeds Bill would require the registration of all seeds that were being sold. A National Registry of Seeds shall be kept up to date by a Registration Sub-Committee, Central and State Seed Committees, and the Law itself. Transgenic variants are covered, as well as fines and prison terms for violating the Act's regulations and providing false information¹⁵⁰.

The bill's opponents claim that small-scale and traditional farmers in particular should be worried since it outlaws bartering, which is a common practice among traditional farmers for swapping seeds, in addition to the selling, keeping for sale, proposing to sell, importing, or exporting of seed. It is suggested that this may potentially further restrict the seed exchange options¹⁵¹.

Concerns about possible inconsistencies and weakening of the Bill's standards have also been raised about the sections on Farmers' Rights Act and the Preservation of Plant Varieties. The Seed Bill protects the farmer's right to "save, use, exchange, share, or sell his farm seeds and planting material," but it also stipulates that "he shall not distribute such seed or planting material under a brand name or which does not conform to the minimum limit of germination, physical purity, or genetic purity prescribed." Although it refers prospective claimants to the Consumer Protection Act of 1986, the Bill deals with compensating farmers if commercial seeds do not perform as promised. This option is more complicated than comparable compensation provisions in the PPVFR, where the authority for the preservation of plant varieties and farmers' rights evaluates

the situation and awards the compensation. The second option would seem to be much better given that farmers in rural locations don't have easy access to consumer protection agencies in cities.

The Seeds Bill, 2004's legal inconsistencies and farmer-unfriendly features must thus be corrected before Parliament approves it, according to commentators in the Indian media. Since it is anticipated that the Government would provide a report from the House standing committee on agriculture on the Seeds Bill in the next session, the subject may soon return to Parliament.

5. THE PROTECTION, CONSERVATION AND EFFECTIVE MANAGEMENT OF TRADITIONAL KNOWLEDGE RELATING TO BIODIVERSITY RULES, 2009

In early 2010, the NBA invited public feedback on many proposed amendments, including the Preservation, Conservation, and Effective Management of Traditional Knowledge Related to Biological Diversity Regulations. Traditions apply. The delegated law for traditional knowledge preservation under the Biological Diversity Act of 2002 has fascinated commentators¹⁴⁴. Given the broad terms, this may be illegal. The Traditional Knowledge Act exceeds and frequently conflicts with the Biological Diversity Act.¹⁵² The NBA asked the public about the Traditional Knowledge Rules. These responses were included alongside those related to ongoing discussions about a universal access and benefit-sharing system and changes to the Biological Diversity Act of 2002 and Biological Diversity Rules of 2004. It is uncertain how these various laws and regulations will connect to each other and what shape the Traditional Knowledge Rules will take since the parent legislation may change.

Some introductions are acceptable. The Regulations broadly define "traditional

¹⁵⁰ The Bill and the 1966 Seeds Act, see M.R. Madhavan & Kaushiki Sanyal, Legislative Brief: The Seeds Bill, 2004 (2006), available at 135

¹⁵¹ Trouble, Hindu, 8-3-2005, 138.

¹⁵² "The Protection, Conservation and Effective Management of Traditional Knowledge relating to Biological Diversity Rules, 2009" (15-2-2010), of-protection.html (last visited 17-7-2023)." >145

knowledge," which includes traditional cultural manifestations. It's fascinating. "Traditional knowledge" includes "cultural expressions, products, and practices such as weaving patterns, colors, dyes, pottery, painting, poetry, folklore, dance, and music" and "properties, uses, and characteristics of plant and animal genetic resources; agriculture and healthcare practices, food preservation and processing techniques, and devices developed from traditional materials."

Tradition is correctly not restricted to ethnic groupings, as families participate. Given that "misuse of traditional knowledge" is "access to and/or use of traditional knowledge by persons not belonging to the traditional community" without a permit or license, it raises the question of how and who determines membership in a group or community. The Traditional Knowledge Rules allow direct communication between a "accessor"—a user—and a traditional community and direct payment of benefits to the latter.

When traditional knowledge is public, not held by any one group, or owned by communities across more than three states, the national and state governments have the last word. Despite the Rules' growing community role, this is true. The NBA may decide whether a traditional community is learning from another for self-sufficiency or profit. Benefits need Traditional Knowledge Register enrollment. However, users must wait until local governments and federal and state organisations complete often complicated and long processes before gaining access. In states without state biodiversity boards or management committees, these processes may take a year. The evaluation includes a resource management plan and a committee report on challenging problems such resource sustainability, social and environmental impacts, and data value.

CHAPTER 2

IPR AND TRADITIONAL MEDICINE

A. THE NEEM CASE

W.R. Grace's patent award was a momentous occasion for India and questioned the patent system's rigidity. The business patented a pesticidal formulation including azadirachtin, the active chemical in neem plants, in the US and EU¹⁵³¹⁵⁴. The applicant acknowledged that neem's pesticidal properties make it difficult to store azadirachtin without it. The applicant was only allowed to employ azadirachtin in the storage method detailed in the application, and the US patent only covered a portion of their invention.

The EPO and USPTO opposed the invention's award via re-examination and post-grant opposition processes, respectively, due to its controversy. The European Patent Office upheld the judgement because the issued patent lacked inventive step and originality¹⁵⁵.

B. THE 'JEEVANI' AND 'KANI' TRIBES

Local innovation benefit-sharing model experiments are starting. India exemplifies. *Trichopus zeylanicus* (Arogyapaacha), a plant from South-Western India, was used to make a medication. Kerala's Tropical Botanic Garden and Research Institute (TBGRI) uncovered the herb, which boosts immunity and vitality. Scientists extracted, examined, and mixed the element into "JEEVANI," the source of life. A respected Kerala-based Ayurvedic medicinal company makes the tonic.

C. TURMERIC PATENT

Indian immigrants Suman K. Das and Hari Har P. Cohly received US Patent 5,40,504 for treating wounds using turmeric on March 28, 1995. US-based University of Mississippi Medical Centre

¹⁵³ Menon Ramesh, 'Traditional Knowledge receives a boost from the government' (2007).

¹⁵⁴ 'Cases of Misappropriation Of Traditional Knowledge' (Shodhganga.com) accessed 18 July 2023.

¹⁵⁵ Mangala Hirwade, 'Protecting Traditional Knowledge Digitally: A Case Study of TKDL' (2010)

received the patent¹⁵⁶. This patent discovers that a high dose of turmeric topically and orally speeds wound healing. Patents must fulfil inventiveness, non-obviousness, and usefulness requirements. The patent is invalid if the published art addresses the allegations. CSIR found 32 references, some of which were over a century old and published in Sanskrit, Urdu, and Hindi, proving that India widely acknowledged this invention before submitting this patent¹⁵⁷. On October 28, 1996, CSIR requested the USPTO reexamine the patent. The examiner dismissed all claims again on November 20, 1997, citing their predictability and obviousness. On April 21, 1998, the re-examination certificate was issued, ending the process.

CHAPTER 3

PROTECTION AND PROMOTION OF TRADITIONAL KNOWLEDGE

A. RE-EXAMINATION OF US PATENT ON BASMATI

Rice Tec Inc. sought the UK Trademark Registry register "TEXMATI." The APFEA rejected it. The US Patent Office issued Rice Tec the "484 patent" on September 2, 1997, which Rice Tec used to register the mark. Patent validity was challenged this way. 20 claims included a particular rice plant, different rice lines, plants, and grains, seed deposit claims, and a method for breeding and reproducing rice plants¹⁵⁸.

To address this issue, the Indian government created a task force under the ministry of industrial development secretary to investigate reexamination of the US patent. The Task Force then organized a technical committee comprising largely ICAR and CSIR professionals to thoroughly review the patent specification and gather supporting documents to seek the US patent's reexamination. IARI Bulletin data opposed 15 Claims. Finally, on April 28, 2000, this invention was requested for re-examination. Rice Tec's choice to relinquish 15 allegations

immediately after submitting the reexamination request averted any Basmati grain shipping violations to the US. Even the danger to export insensitive rice grains from India was prevented by submitting all the other complete claims.

B. RULINGS RELEVANT TO YOGA

In 2002, the applicant filed a supplementary registration with the Copyright Office to rectify his copyright interest in the asana sequence book. The applicant claimed rights to the book and its 26 asanas in the supplementary registration.

Open Source Yoga Unity petitioned the US District Court for the Northern District of California for a declarative declaration that the applicant could not have exclusive rights to the book's asanas. According to its website, this non-profit society ensures yoga's continuous development. The Court, which dismissed the 2005 suit, said the sequence may be protected as a compilation.

After receiving a request for the Copyright Office's opinion, the organisation issued its Policy Statement in June 2012, concluding that yoga asana sequences are not compilations of musical, literary, or other copyright-protected works. No choreography.

In December 2012, the US District Court for the Central District of California decided another Bikram Yoga case using the Policy Statement. Two Buffalo, New York yoga teachers who had finished the applicant's certification curriculum and been authorised by his group to teach yoga fundamentals were in disagreement. Evolution Yoga LLC, their educational organisation, opened several yoga studios. After ruling that yoga asanas cannot be copyrighted, Evolution Yoga LLC was given summary judgement. The applicant sued Evolution Yoga LLC for copyright infringement.

C. TRADITIONAL KNOWLEDGE DIGITAL LIBRARY

After these lawsuits, the Indian government created the Traditional Knowledge Digital Library (TKDL) and included traditional

¹⁵⁶ Anuradha, R.V, 'Biopiracy and Traditional Knowledge' The Hindu (20 May 2001)

¹⁵⁷ Saipriya Balasubramanian, 'Traditional Knowledge And Patent Issues: An Overview Of Turmeric, Basmati, Neem Cases' (Singhassociates.in, 2017)

¹⁵⁸ Uzma Jamil, 'Biopiracy: The Patenting of Basmati by Ricetec' (1998)

knowledge to the International Patent Clarification System. In its TRADITIONAL KNOWLEDGE DL initiative, India digitizes and documents public domain knowledge to arrange, distribute, and retrieve it¹⁵⁹. Authorities compare patent applications to publicly available prior art. Knowledge documentation will allow them to identify public domain ideas and determine whether they qualify for patents, preventing traditional knowledge theft¹⁶⁰.

CHAPTER 4

CASES OF MISAPPROPRIATION

Indigenous Peoples' identities are shaped by their traditional knowledge and traditional cultural expressions, which may even reflect their worldview. In addition to being a part of a single integrated tradition, they are often passed down from one generation to the next within the same community.

They are often infringed because they lack qualities that make them difficult to adequately protect within the present intellectual property legal framework. In other words, they have been aimed for appropriation by other parties who have obtained IP rights over TCEs and TK without the owners' prior knowledge and without paying them fairly for the use of such rights.

TCEs and TK are key components of the cultures and traditions of Indigenous Peoples; thus, these people should have the right to prohibit or authorise the use of the knowledge that they have created. The use by those who are not a part of the community has the potential to constitute a violation of the cultural legacy of the Indigenous Communities. Therefore, it is essential to incorporate into the legal framework of intellectual property, figures and mechanisms that truly allow safeguarding to traditional cultural expressions (TCEs) and traditional knowledge (TK), preventing

individuals from outside the community from acquiring intellectual property rights over them, and providing Indigenous Peoples with the necessary means to promote their traditional knowledge, control its use, and reap financial rewards from the commercial exploitation of their traditional knowledge.

Since 2009, the World Intellectual Property Organisation (WIPO) has been working via its Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge, and Folklore in an effort to effectively safeguard traditional cultural expressions (TCEs) as well as traditional knowledge (TK). These people are also protected by a few international accords that recognise the right of indigenous peoples to watch over and regulate the use of their cultural legacy. This heritage includes the traditional ways of their ancestors. Unfortunately, traditional cultural expressions and traditional knowledge are not fully, effectively, or promptly protected by any particular legal structure or instrument at the international level.

CHAPTER 5

ADEQUACY OF IP PROTECTION TO TRADITIONAL KNOWLEDGE IN INDIA

Unlike other IPR categories, India does not safeguard traditional knowledge. Other IP laws restrict traditional knowledge. Patents Act of 1970 Sections 25 and 64 are examples. These clauses allow conventional wisdom-based patent application withdrawal.

The 1957 Copyright Act, like its predecessor, does not safeguard traditional culture, literature, the arts, or folklore. Section 31A protects unpublished Indian works. Copyright protection is transitory and has requirements. This IP's knowledge protection is now useless.

India has lately taken a proactive approach to acquiring traditional knowledge and protecting its vast traditional knowledge base abroad. CSIR, USPTO, EPO, and others provide accessibility to Indian Traditional Knowledge.

¹⁵⁹ 'Traditional Knowledge In Indian Scenario' (Shodhganga.com, 2019) accessed 19 July 2023.

¹⁶⁰ Suchi Rai, 'Traditional Knowledge And Scope For Patent Protection - Intellectual Property - India' (Mondaq.com, 2018) accessed 19 July 2023.

CSIR also enhances the Traditional Knowledge database. The existing IPR framework cannot preserve traditional knowledge for three reasons.

Traditional knowledge is community-owned, unlike the current system, which privatises ownership for individual or corporate ownership. Second, traditional knowledge is passed down from generation to generation, but this protection expires. It defines invention as creative and valuable to industry, unlike traditional innovation, which is gradual, informal, and happens over time. Thus, traditional knowledge requires Sui Generis protection.

Today, the acronym for intellectual property rights is unnecessary. Scientific leaders are addressing intellectual property rights and how important it is to protect economically viable scientific breakthroughs in a complicated patent system. Since it fails to provide traditional knowledge holders and formal sector innovators equal chance, the international intellectual property rights system is questionable.

Traditional knowledge and folklore pose major ethical, legal, social, and political challenges. Knowledge is not limited to clearly defined or specified collections. However, vesting ownership or usage rights in such information may irreversibly harm intergenerational fairness. Resource availability and consumption would be impacted.

Liberalisation and globalisation have changed science and its application in India. In the West, copyrighting and protecting every technical innovation, no matter how little, has become ludicrous. Under the guise of protecting intellectual property, American and multinational firms have fenced off large parts of research. Given the exponential growth of scientific knowledge, the rising demand for new IP protection and access to IP-related information, the rising power of the new knowledge economy over the old "brick and

mortar" economy, and the complexity of the links between IP and traditional knowledge, community knowledge, and living things, setting the new IP agenda for the 21st century will be difficult. Trade Related Aspects of Intellectual Property Rights (TRIPS) and the Convention on Biodiversity (CBD) called for new economic rights and obligations to supplement the WIPO IPR system in trade and business. Traditional knowledge issues, previously pursued only in the context of cultural rights or heritage issues at the UN, UNESCO, and WIPO, are now seen as relevant for economic rights, for which the United Nations Conference on Trade and Development¹⁶¹ and more recently the World Trade Organisation have been mandated, and development rights, for which UNCTAD was founded. Traditional medicine, according to the WHO's Traditional Medicine Strategy¹⁶², supports public health objectives. Traditional knowledge is treasured because it is oral, vital for life and livelihood, and has varying economic value, not because it is old.

CHAPTER 6

HUMAN RIGHTS PROTECTION OF TRADITIONAL KNOWLEDGE

Two intellectual property concepts preserve traditional knowledge. Protecting traditional knowledge from use or IP claims is the first step. Several cultures have created traditional knowledge databases to verify their knowledge is prior art and deter bio-piracy.

Databases make conventional knowledge public, even if they prohibit people from claiming rights to it. This is problematic since many civilizations want to retain such old knowledge. Traditional or customary laws governing the use of traditional knowledge may vary from their country's or the world's intellectual property rights framework. Disclosure breaks these norms. "Positive protection" legalizes customary knowledge. This

¹⁶¹ (UNCTAD)

¹⁶² 2002–2005

is done using existing laws or by passing new sui generis legislation.

Some argue that granting these groups perpetual rights may violate the US Constitution. They also oppose utilitarianly to legalizing traditional knowledge. Traditional knowledge, such as medicinal treatments, may benefit others while retaining some exclusive rights.

Other concerns include resource and advantage distribution. Local and indigenous groups say they seldom use development incentives. Spirituality and culture impact their information utilization. If this information is misused, it may violate their cultural and communal norms.

Several constitutional articles and statutory laws protect these ideas, and the UN is slowly acknowledging them as distinct human rights. Similar to how local and indigenous people have claimed that public assertions about their knowledge without their consent were an appropriation of their identity and history and a violation of their fundamental, inalienable, and collective human rights.

CHAPTER 7

CONCLUSIONS AND SUGGESTIONS

The importance of strong local TK documentation, such as India's TKDL, playing a role in defensive protection inside the present IP system has been recognized by the IP community, it is crucial to note. The following strategies have been suggested by the World Intellectual Property Organization (WIPO) as a global strategy to combat bio-piracy and the theft of traditional knowledge. Regardless of whether they are founded on established scientific theories, innovations based on or created with the use of genetic tools may be subject to plant breeders' rights or patentability.

WIPO's other objectives include protecting genetic resources and preventing patents on genetic resources and related conventional knowledge that don't fulfil existing originality and inventiveness requirements. This policy also

considers rejecting patent applications that don't meet the CBD's requirements for prior informed consent, mutually agreed conditions, equitable and fair benefit distribution, and origin disclosure. Second, WIPO requires patent applications to contain informed consent, a benefit-sharing scheme, and genetic capital origins.

The following actions in this industry might be done in the future:

- A thorough national-level development plan that prioritizes the preservation of traditional knowledge and takes into account crucial issues like the right to own land and the need to respect and protect the way of life of LICs.
- Being informed of the many conditions necessary for the preservation and promotion of traditional knowledge in a variety of sectors, including TM and plant genetic resources.
- Overseeing the rights of farmers on a national level.
- In the short term, getting closer to putting in place a misappropriation regime.
- Ensuring that LIC representatives are extensively and effectively engaged in the creation and implementation of any protection plan for traditional knowledge.
- Quickening the process of determining the possible function, reach, and character of safeguarding measures for traditional knowledge.

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