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TRADITIONAL KNOWLEDGE AND SUSTAINABLE DEVELOPMENT

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ABSTRACT

This paper looks at how IP laws have attempted to safeguard conventional knowledge and how it may be stolen. Although traditional knowledge is protected by the Biodiversity Act, there have been cases of bio-piracy involving traditional medical knowledge and the usage of plants to treat a range of illnesses. The author will explain the need to preserve traditional knowledge and the idea of bio-piracy using the three well-known Indian examples of neem, turmeric, and basmati rice.

In addition, I'll investigate whether there are any constitutional protections for sacred traditional knowledge. To preserve TK, several international agreements have been put into effect. Global issues including food security, environmental degradation, and sustainable livelihoods can be addressed by combining traditional knowledge with contemporary scientific methods. The role of traditional knowledge in intellectual property protection has been a hot topic of debate ever since the 1992 Convention on Biological Diversity and the 1995 TRIPS agreement.

A single solution is unlikely to be able to address the vast array of issues and goals related to TK protection. Since TK is essential to the existence of many indigenous people, care should be made to protect it. With a focus on its applicability to accomplishing the Sustainable Development Goals of the UN, this article examines the complementary relationship between traditional knowledge and sustainable development. While a complete sui generis legal framework is being developed, traditional knowledge can be secured by utilizing already-existing forms of intellectual property or by combining multiple different types of IP.

Keywords: IPR, Traditional Knowledge, Biodiversity, Forest, Sustainable Development, Etc

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1. INTRODUCTION

Customary learning is described by the 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.[1]

[1] "WIPO Report on Fact-finding Missions on Intellectual Property and Traditional Knowledge (1998- 1999)" "Intellectual Property Needs and Expectations of Traditional Knowledge Holders" (WIPO publication no. 768(E))."

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 expression[2], and are continuously improving in light of a changing world.

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 traditional exclusive standard discusses customary knowledge (traditional knowledge) and makes a significant reference to surrounding learning. 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.

2. STATEMENT OF THE PROBLEM

1) Traditional knowledge, encompassing indigenous and local communities' cultural practices, innovations, and wisdom, holds immense potential for fostering sustainable development. However, the integration of this knowledge into mainstream development strategies remains a significant challenge.
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 TK 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.[3]
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 piracy[4] has occurred multiple times in India. Addressing this issue requires a nuanced understanding of the interplay between traditional knowledge systems, intellectual property rights, and sustainable development goals (SDGs).
5) This research aims to critically examine the co-relation of traditional knowledge with sustainable development, the challenges associated with its protection, and the strategies needed to harmonize it with contemporary development initiatives. The study seeks to provide actionable insights into fostering a balance between respecting cultural heritage and achieving global sustainability objectives.

[2] "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."

[3] 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."

[4] "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."

3. RESEARCH HYPOTHESIS

The paper's central premise is that- "There is a positive correlation between the preservation of traditional knowledge and the success of community-led sustainable development initiatives."

4. SIGNIFICANCE OF THE STUDY

This study highlights the vital role of traditional knowledge in sustainable development, particularly in biodiversity conservation, ecosystem management, and climate adaptation. It emphasizes the need to preserve and recognize these knowledge systems, which are often marginalized in modern development frameworks. By addressing gaps in legal and institutional protection, the research seeks to prevent biopiracy and promote equitable benefit-sharing. It also explores how traditional knowledge can empower Indigenous communities economically and contribute to SDGs like climate action and reduction in poverty. The study aims to bridge the gap between traditional practices and modern scientific approaches, fostering collaboration and innovation for a more sustainable and inclusive future[5].

5. RESEARCH OBJECTIVES

1) To Identify the relevance and importance of traditional knowledge and study its co-relation with sustainable development.
2) To highlight the significance of traditional knowledge in today's scenario and look into the issues and challenges in protection.
3) To Identify Challenges in Preserving and Transmitting Traditional Knowledge.
4) To identify ways TK promotes sustainable development.

6. RESEARCH METHODOLOGY

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

7. LITERATURE REVIEW

The 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[6].

David Vivas-Eugui[7]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.

Folklore And Traditional Knowledge[8] - 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

[5] 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 patenter, and thereby the piracy deprives
[6] "Sovereignty and Legal Pluralism In Developing Nations" (2003) by H A Amankwah and J Rivers
[7] (2012)
[8] (2017)

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[9].

The safeguarding of India's traditional knowledge of biodiversity, agriculture, medicines, and cultural expressions[10], the agoya method and genetic resources are the major topics of the research.

The 2018 publication "Traditional Knowledge in India[11]" 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 GIs is a technique for safeguarding Traditional Knowledge and encouraging 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 S[12]. It helps bridge the generational divide in the society between the older and younger generations.

8. TRADITIONAL KNOWLEDGE AND SUSTAINABLE DEVELOPMENT

Traditional knowledge, often referred to as the wisdom and practices of local communities, is deeply rooted in cultural traditions and has been transmitted across generations[13]. It encompasses various domains, including agriculture, medicine, resource management, and environmental stewardship[14]. As societies strive toward sustainable development, traditional knowledge offers invaluable insights into achieving environmental balance, social equity, and economic resilience.

The intersection of traditional knowledge and sustainable development is particularly significant in areas such as biodiversity conservation, climate adaptation, and natural resource management[15]. For instance, indigenous agricultural practices often promote soil fertility and crop diversity, while traditional medicinal knowledge contributes to the discovery of new pharmaceuticals. However, the marginalization of traditional knowledge in contemporary policy frameworks, coupled with threats like biopiracy and cultural erosion, poses significant challenges[16].

Efforts to safeguard and integrate traditional knowledge require robust legal protections, such as IPRs and benefit-sharing mechanisms, to ensure its equitable utilization. Bridging the gap between traditional practices and modern scientific approaches can also enhance innovation and foster sustainable solutions to global challenges. Recognizing the value of traditional knowledge not only protects cultural heritage but also aligns with the broader objectives of the United Nations SDGs[17].

9. INDIA'S LEGISLATIVE FRAMEWORK

1) THE 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. Dimminaco AG v. Controller of Patents[18] (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 available[19].

[9] Dr. Mangala Anil Hirwade, Senior Lecturer, Department of Library & Information Science, RTM Nagpur University, Nagpur.
[10] 2015; The editors are Ris, Fakim AG, and Srinivas K Ravi.
[11] A Legislative Analysis Rubina Lavania
[12] (Institute of Legal Studies, Bangalore)
[13] Brush, S. B. (1996). Indigenous Knowledge and Development. Current Anthropology, 37(1), 15-41.
[14] United Nations. (2015). "Transforming Our World: The 2030 Agenda for Sustainable Development."
[15] WIPO. (2020). "Traditional Knowledge- World Intellectual Property Organization". Retrieved from https://www.wipo.int
[16] Berkes, F. (2012). Sacred Ecology. Routledge.
[17] Posey, D. A., & Dutfield, G. (1996). "Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities". IDRC.
[18] Managing Intell. Prop., October 2006: Supplement — Asia-Pacific IP Focus 2006, available at pg. 89.
[19] Section 5 of the Patents Act, 1970

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 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 2005[20]. 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.

2) THE PROTECTION OF PLANT VARIETIES AND FARMER'S RIGHTS AC

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 PPVFRA 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. PPVFRA 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 22 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.

common knowledge." 2(j) defines "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)[21].

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

[20] 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.

[21] Section 16 of the Protection of Plant varieties and Farmer Rights Act, 2001.

must fulfil DUS standards. Opponents say farmers' registration options may be restricted. Early statistical evidence supports this concern[22].

Annual Report[23], 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.

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 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 denied[24].

3) THE BIOLOGICAL DIVERSITY ACT

India's 2002 Biological Diversity Act implements CBD requirements[25]. 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. 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)[26]. One NBA subcommittee may study agro-biodiversity, the biological diversity of agricultural plants and their wild cousins[27]. 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 decisions[28].

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”.

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.

The National Biodiversity Authority must approve India's biological resources from these later groups for research, commercialization, bio-survey, or other uses[29]. Transferring research findings to foreigners or foreign residents is also

[22] “The Authority of Plant Varieties and Farmers' Rights Authority”, India — Registration Open For, 107
[23] 2008-2009
[24] (S. 40, PPVFRA)
[25] The Biological Diversity Act, 2002
[26] [Section 18(2)]
[27] [S. 13(1)]
[28] Section 41
[29] (S. 3)

prohibited without the NBA's consent, except for academic purposes and specific cooperative research projects mentioned in Central Government regulations[30]. In the meanwhile, collaboration standards have been revealed[31].

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. 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 bodies[32].

Evidently Sections 20(1) and (3) require each benefit-sharing formula to be determined 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 Fund[33].

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 Governments[34].

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.

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, 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 biassed 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. 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.

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

[30] (S. 4 and 5)

[31] 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).">

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

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

[34] (Section 23).

compared favorably to the ten-year wait for the Indian government to object to neem and turmeric patents[35]. 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 control[36]. The legislation intends to do this by 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 information39[37].

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 options[38].

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.

Some introductions are acceptable. The Regulations broadly define "traditional 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. 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

10. IPR AND TRADITIONAL MEDICINE: A PATHWAY TO SUSTAINABLE DEVELOPMENT

1) THE 'JEEVANI' AND 'KANI' TRIBES

[35] Traditional Knowledge, Traditional_Knowledge.html> (last visited 18-7-2023).">131.
[36] Biotechnology in Agriculture (1-4-2005), 134
[37] "The Bill and the 1966 Seeds Act, see M.R. Madhavan & Kaushiki Sanyal, Legislative Brief: The Seeds Bill, 2004 (2006)", available at 135
[38] Trouble, Hindu, 8-3-2005, 138.

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.

2) TURMERIC PATENT

On March 28, 1995, Indian immigrants Suman K. Das and Hari Har P. Cohly were granted a US Patent 5,40,504 for their use of turmeric to cure wounds. The patent was awarded to the University of Mississippi Medical Centre in the United States41[39]. This patent finds that applying and consuming large amounts of turmeric accelerates the healing of wounds. The conditions of innovation, non-obviousness, and usefulness must all be met by patents. If the claims are addressed in the published art, the patent is void. Before filing for this patent, India extensively recognised this idea, as evidenced by the 32 references CSIR found—some of which were written in Sanskrit, Urdu, and Hindi and some of which were more than a century old[40]. CSIR asked the USPTO to re-examine the patent on October 28, 1996. On November 20, 1997, the examiner rejected all allegations once more, stating that they were predictable and evident. The procedure came to an end on April 21, 1998, when the re-examination certificate was issued.

3) 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 EU[41][42]. The applicant acknowledged that neem's pesticidal properties make it difficult to store azadirachtin without it. 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 originality[43].

11. SAFEGUARDING AND PROMOTING TRADITIONAL KNOWLEDGE: A CORNERSTONE FOR SUSTAINABLE DEVELOPMENT

1) 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 plants[44].

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.

2) RULINGS RELAVENT 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.

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.

[39] Anuradha, R.V, 'Biopiracy and Traditional Knowledge' The Hindu (20 May 2001)
[40] Saipriya Balasubramanian, 'Traditional Knowledge And Patent Issues: An Overview Of Turmeric, Basmati, Neem Cases' (Singhassociates.in, 2017)
[41] Menon Ramesh, 'Traditional Knowledge receives a boost from the government' (2007).
[42] 'Cases of Misappropriation Of Traditional Knowledge' (Shodhganga.com) accessed 18 July 2023.
[43] Mangala Hirwade, 'Protecting Traditional Knowledge Digitally: A Case Study of TKDL' (2010)
[44] Uzma Jamil, 'Biopiracy: The Patenting of Basmati by Ricetec' (1998)

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, 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. Evolation Yoga LLC, their educational organisation, opened several yoga studios. After ruling that yoga asanas cannot be copyrighted, Evolation Yoga LLC was given summary judgement. The applicant sued Evolation Yoga LLC for copyright infringement.

3) TRADITIONAL KNOWLEDGE DIGITAL LIBRARY

After these lawsuits, the Indian government created the Traditional Knowledge Digital Library and included traditional 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 it[45]. 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 TK theft[46].

12. TRADITIONAL KNOWLEDGE AND SUSTAINABLE DEVELOPMENT 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. CSIR also enhances the Traditional Knowledge database.

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.

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[47] 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 Strategy[48], 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.

13. CONCLUSION

It is important to highlight that the IP community has accepted the role that robust local TK documentation, like India's TKDL, plays in defensive protection within the current IP system. The WIPO has proposed the following tactics as a worldwide approach to stop biopiracy and traditional knowledge theft. Innovations based on or made using genetic tools may be susceptible to patentability or plant breeders' rights, regardless of whether they are based on accepted scientific theories.

[45] 'Traditional Knowledge In Indian Scenario' (Shodhganga.com, 2019) accessed 19 July 2023.
[46] Suchi Rai, 'Traditional Knowledge And Scope For Patent Protection - Intellectual Property - India' (Mondaq.com, 2018) accessed 19 July 2023.
[47] (UNCTAD)
[48] 2002–2005

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.

14. SUGGESTIONS

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.

CONFLICT OF INTERESTS

None.

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None.

REFERENCES

Traditional Knowledge Systems in India by Amit Jha.
Intellectual Property by Elizabeth Verkey and Jithin Saji Isaac.
Traditional Knowledge and Intellectual Property Rights by Sunil Asopa, Kshetrapal Singh.
Protecting Traditional Knowledge: The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore.
'The TRIPS Agreement as an Alliance for Knowledge Production' (2003) Journal of World Intellectual Property.
'Patenting and Ownership of Genes and Life Forms' (2000) 3(4) Journal of World Intellectual Property.
'Agricultural Biotechnology and the Privatization of Genetic Information' (2000) Journal of World Intellectual Property.
Anthony Allott, Essays in African Law, London: Butterworths, 1960.
European Intellectual Property Journal.
WIPO Report on Fact Finding Missions on Intellectual Property and Traditional Knowledge (1998-1999), Geneva: WIPO.
TRIPS and Traditional Knowledge : Local Communities, Local Knowledge and Global Intellectual Property Frameworks by Olufunmilayo B. Awera.

Striking a Balance between Intellectual Property Protection of Traditional Knowledge, Cultural Preservation and Access to Knowledge by Pamela Andanda.
Cannibalising Epistemes: Will Modern Law Protect Traditional Cultural Expression? by Gunther Teubner/ Andreas Fischer-Lescano.
Traditional values and Modern Challenges in Property Law by H. A. Amankwah.
Indian Patent Act, 1970
Indian Patent (Amendment) Act, 1999
Geographical Indication Act, 1999
The Protection of Plant Variety and Farmers Right Act, 2001 (PPVFR Act)
Biological Diversities Act, 2002
Forest Rights Act, 2006