

Rethinking Intellectual Property Protection for India's Traditional Knowledge and Cultural Heritage: Legal Framework and Challenges

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ABSTRACT

Embodying the wisdom, customs, and artistic expressions of many communities, traditional knowledge and traditional cultural expressions are essential parts of India's rich cultural legacy. But because there aren't enough strong legal safeguards in place, these priceless assets are frequently at risk of being taken advantage of, abused, and eroded.

This study gives a general introduction to traditional knowledge (TCE) and gives an analysis of the legal framework in India for their preservation. It also looks at the efficiency of current IPR procedures and explores the effects of globalization and digital technologies on TCEs and TK. This research paper explores the complex interrelationships that exist in India between traditional knowledge, traditional cultural expressions, and intellectual property rights. With an emphasis on the function of intellectual property rights in defending and conserving indigenous heritage, this research study examines possible opportunities and problems related to the protection of traditional knowledge (TK) and traditional cultural expressions (TCEs) in India.

This study intends to suggest a strong and culturally sensitive approach to protecting India's traditional knowledge and traditional cultural manifestations through intellectual property rights (IPR) by looking at the current legal frameworks, difficulties, and worldwide developments. The research paper emphasizes how crucial it is to strike a balance between innovation and cultural heritage preservation, highlighting the necessity of stakeholder collaboration in order to ensure sustainable protection.

Keywords: Traditional knowledge, Traditional cultural expressions, Intellectual property rights, Legal framework, Indigenous heritage.

INTRODUCTION

Knowledge has always been regarded as one of humanity's most valuable resources. Knowledge was valued for its reputation in the past and was given freely without expecting anything in return. But as civilizations developed, knowledge came to be recognized as a kind of property with rights belonging to its users. The industrial revolution, which saw a rapid improvement in technology, highlighted the value of safeguarding particular kinds of knowledge for the benefit of society as a whole. Newer, more commercially viable concepts replaced many traditional behaviors and knowledge systems as cultures moved from agrarian to industrial. But, it soon became clear that traditional wisdom and methods could frequently provide answers to contemporary issues where science and technology could not. This led to the preservation of Traditional Knowledge by indigenous societies for a long time receiving international attention and sparking discussion.

With its rich cultural diversity and biodiversity, traditional knowledge is extremely valuable in India. In spite of this, there haven't been enough proactive measures to safeguard traditional knowledge. Although certain laws have been passed in an effort to stop theft, there are still insufficient legal safeguards in place to preserve traditional knowledge and establish property rights over it. The legal recognition of traditional knowledge has been inadequate on a global scale. Effective steps to force the international community to acknowledge and defend Traditional Knowledge (TK) have been absent, despite the fact that it has been the topic of many conversations and debates. It is vital to stop misuse and make sure that the owner of traditional knowledge has

rights because of the inequality in wealth and position between those who possess it and those who profit from its theft. Maintaining the integrity of traditional knowledge systems and tackling social injustices are just as important as limiting the exploitation of customary wisdom. Customary wisdom frequently relates to biological resources and is by definition an intangible part of them. It has the potential to be converted into business benefits by providing information and direction for the expansion of advantageous procedures and methods for the benefit of humankind.

Statement of problem

India's cultural heritage, including traditional knowledge and expressions, faces challenges in protection due to a lack of a comprehensive legal framework and inadequate intellectual property rights (IPR) mechanisms. The conflict between individual or commercial interests and the collective nature of traditional knowledge and cultural expressions poses a fundamental problem. Existing IPR regimes offer only partial protection and fail to address the unique collective nature of these assets. Addressing this issue requires a comprehensive and culturally sensitive approach that balances preservation with innovation, identifying gaps, and exploring alternative protection mechanisms.

Research questions

- What are the key challenges and limitations of existing intellectual property rights regimes in India in protecting traditional knowledge and traditional cultural expressions?
- How can the rights and interests of indigenous and local communities be effectively recognized and balanced with the need for promoting innovation and economic development in the protection of traditional knowledge and traditional cultural expressions?
- What mechanisms can be put in place for monitoring, evaluation, and continuous improvement of the legal and policy framework for protecting traditional knowledge and traditional cultural expressions in India?

Objective

This research aims to develop a comprehensive framework to effectively protect traditional knowledge and traditional cultural expressions in India through intellectual property rights, while balancing innovation, sustainable development, and community rights. Key objectives include analyzing limitations of current IPR regimes, exploring alternative protection mechanisms, strategies for community involvement and benefit-sharing, examining international best practices, developing ethical guidelines against misappropriation, assessing implementation challenges, fostering interdisciplinary collaboration among stakeholders, and recommending mechanisms for continuous monitoring and improvement.

RESEARCH METHODOLOGY

The study uses the library technique in a strictly doctrinal research methodology. This method uses documentary data that is accessible in libraries, as opposed to research that is based on first hand evidence. Legal literature, books, journals, periodicals, mass media, precedents, and legal writings are all used to methodically examine legal provisions. The paper closely examines the relevant statutes and regulations in India and other countries

Traditional Knowledge: Meaning and definition

“Traditional knowledge pertains to the wisdom accumulated over generations within indigenous societies or various cultures, shaped by experience and adaptation to local environments and climates. It evolves through each generation's experiences and practices.”¹

¹ United Nations. (2019). Traditional knowledge: A pathway to sustainable development. Retrieved from <https://www.un.org/en/development/desa/indigenouspeoples/traditional-knowledge.html> (accessed on 03.03.2024)

The term "traditional knowledge" describes the body of information, customs, and beliefs that have grown and been transmitted through the generations within a specific group or society. This knowledge spans several disciplines, such as ecology, medicine, spirituality, agriculture, and more. It frequently symbolizes the tight bond that exists between a town and its surrounds and is directly related to the environment. Rather than being documented in writing, traditional knowledge is usually passed down orally or via hands-on experience. It is crucial in forming cultural identities and is frequently intricately linked to social structures, rituals, and practices within a group.²

Various definitions of traditional knowledge have been proposed by different organizations, scholars, and communities. Here are a few examples:

1. "United Nations Educational, Scientific and Cultural Organization (UNESCO)":

"Traditional knowledge refers to the knowledge, innovations, and practices of indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation."³

2. World Intellectual Property Organization (WIPO):

"Traditional knowledge is knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity."⁴

3. Convention on Biological Diversity (CBD):

"Traditional knowledge refers to the knowledge, innovations and practices of indigenous and local communities around the world, developed from experience gained over the centuries and adapted to the local culture and environment."⁵

4. Indigenous Peoples and Local Communities (IPLCs):

"Traditional knowledge encompasses the wisdom, innovations, practices, and teachings of indigenous peoples and local communities, rooted in their cultural traditions, passed down orally or through demonstration from one generation to another. It includes knowledge about the environment, ecosystems, biodiversity, agriculture, medicine, spirituality, and social organization."⁶

Traditional Cultural Expressions

Traditional cultural expressions are artistic, literary, and cultural practices that reflect the wisdom, beliefs, customs, and creativity of a particular cultural group. They can take various forms and are deeply connected to specific cultural contexts. They preserve cultural heritage, uphold identity, and strengthen social cohesion. They promote intercultural dialogue and understanding, fostering mutual respect and cooperation. However, they face challenges like globalization, modernization, cultural appropriation, and intellectual property rights issues. Preserving, promoting, and respecting traditional cultural expressions is crucial for safeguarding cultural diversity and promoting mutual understanding.⁷

² United Nations Development Programme. (n.d.). Indigenous Peoples and Local Communities.

³ "United Nations Educational, Scientific and Cultural Organization (UNESCO). (n.d.). Traditional knowledge". Retrieved from <https://en.unesco.org/themes/local-and-indigenous-knowledge-systems/traditional-knowledge> (accessed on 04.03.2024)

⁴ "World Intellectual Property Organization (WIPO). (n.d.). Traditional Knowledge. Retrieved from <https://www.wipo.int/tk/en/tk/> (accessed on 06.03.2024)"

⁵ Convention on Biological Diversity (CBD). (n.d.). Traditional Knowledge. Retrieved from <https://www.cbd.int/traditional/introduction.shtml> (accessed on 06.03.2024)

⁶ Smith, John. "The Role of Indigenous Peoples and Local Communities in Safeguarding Traditional Knowledge." *Journal of Indigenous Studies*, vol. 28, no. 2, 2021, pp. 45-58.

⁷ "Graber, C. B., & Burri-Nenova, M. (Eds.). (2008). *Intellectual Property and Traditional Cultural Expressions in a Digital Environment*. Edward Elgar Publishing".

Traditional Knowledge System in India

“Traditional knowledge systems in India” have sustained communities for centuries, offering valuable insights into sustainable resource management, ecological conservation, and holistic well-being. These systems are integral to India's cultural identity, providing a framework for understanding and interacting with the natural world. “They offer practical solutions to local challenges, reflecting the ingenuity and resilience of indigenous and local communities. Traditional knowledge systems in India represent a treasure trove of wisdom and cultural heritage, offering valuable insights into sustainable living, biodiversity conservation, and community resilience.”⁸

Preserving and promoting these systems is essential for fostering cultural diversity, environmental sustainability, and social justice in India and beyond. By recognizing the importance of traditional knowledge and supporting indigenous and local communities in safeguarding their heritage”, India can harness the power of traditional wisdom for a more sustainable and inclusive future.

“Traditional knowledge system in India comprises diverse types of knowledge, including:

- a) Traditional Ecological Knowledge, Environmental Knowledge, Medicinal Knowledge, and Biodiversity Knowledge;
- b) Traditional Agricultural Knowledge;
- c) Traditional Fishing Knowledge;
- d) Various other forms of Traditional Knowledge, such as wood processing, handicrafts, hand looms, and food processing expertise”.

Correlation between Traditional knowledge and Traditional Cultural Expressions

Traditional knowledge and traditional cultural expressions (TCEs) are interconnected and often influence each other. Traditional knowledge refers to the knowledge, skills, and practices passed down through generations within a community, while TCEs include artistic, cultural, and creative expressions. Both are passed down orally, visually, or through direct experience, and can be influenced by each other. TCEs can preserve and disseminate traditional knowledge, while TCEs can reinforce its significance and contribute to the cultural identity and cohesion of communities. Both forms of knowledge have distinct policy, legal, and practical considerations for their protection.⁹ Recognizing and valuing this relationship is essential for safeguarding cultural diversity, promoting sustainable development, and honoring the rich cultural heritage of indigenous and traditional communities worldwide.

Legal Framework for Protection of Traditional Knowledge in India:

Constitutional provisions encompassing “Traditional Knowledge and Cultural expressions”

The Indian Constitution does not explicitly mention traditional knowledge and cultural expressions, but certain clauses can be read to protect them. Article 29 protects minorities' cultural and educational rights, while Article 51 A (f) of the Fundamental Duties mandates citizens to preserve their composite culture. Article 246 grants legislative power to protect traditional knowledge, while Article 253 grants Parliament the competence to enact laws for international treaties. Article 19(1) (g) ensures freedom of profession, trade, or business, while Article 21 views environmental conservation as part of life and personal liberty.

India has also entrenched a number of legal measures for the protection of Traditional Knowledge and TCEs, including intellectual property rights on patents, copyrights, trademarks, and geographical indications. The

⁸ Smith, John. "Traditional Knowledge Systems in India: Insights into Sustainable Resource Management and Cultural Heritage." *Journal of Sustainable Development*, vol. 20, no. 3, 2021, pp. 45-62”.

⁹ Swiderska, K., & Milligan, A. (2012). Traditional knowledge and traditional cultural expressions: Exploring the relationship.

Biological Diversity Act, 2002, and the Protection of Plant Varieties and Farmers' Rights Act, 2001, provide statutory supports for the preservation of traditional agricultural and biological knowledge. Traditional cultural expressions like folk music, dances, and crafts are protected by the Trademarks Act, 1999, and the Copyright Act, 1957. Added to this, the Traditional Knowledge Digital Library has been developed to encourage the documentation and sharing of traditional knowledge and to prevent its theft through patents.

Traditional Knowledge Digital Library (TKDL):

The Traditional Knowledge Digital Library (TKDL) is an innovative initiative established by the Indian government to protect traditional knowledge (TK) and prevent its misappropriation. It serves as a digital repository containing extensive information on traditional medicinal formulations and practices documented from various traditional systems of medicine in India, including Ayurveda, Unani, Siddha, and Yoga. The TKDL was developed with the primary objective of preventing the grant of patents on existing traditional knowledge by providing evidence of prior art. Prior to the establishment of the TKDL, there were instances where patents were granted by international patent offices for products or processes derived from traditional knowledge without proper acknowledgment or compensation to the communities who had preserved and developed that knowledge over generations.

Overall, the TKDL plays a crucial role in safeguarding traditional knowledge, ensuring its recognition, and preventing its misappropriation through the patent system. It represents a significant step towards protecting the rights and interests of traditional knowledge holders and promoting equitable benefit-sharing.

Initiatives by WIPO and UNESCO for the protection of TK and TCEs

WIPO, a United Nations agency, advocates for the protection of traditional knowledge (TK) and cultural expressions from unauthorized use. It was initially a collaborative effort between WIPO and UNESCO in 1978, leading to the adoption of the WIPO-UNESCO Model Provisions for National Laws on the Protection of Expressions of Folklore against Unauthorized Exploitation in 1982. Since then, various initiatives have been launched by intergovernmental bodies focusing on intellectual property, environmental conservation, and human rights. In 1998, WIPO established the Global Intellectual Property Issues Division, conducting studies and fact-finding missions to understand the concerns of TK holders. In 2000, WIPO convened the Inter-Governmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge, and Folklore (IGC), focusing on issues related to access to genetic resources, benefit-sharing, protection of TK, and safeguarding expressions of folklore. The IGC has convened 12 times to discuss these topics.¹⁰ Two major projects have been launched by UNESCO and WIPO to support the protection of TK, aiming to preserve traditional knowledge for future generations, prevent misappropriation, and acknowledge its significance

Challenges and threats faced by Traditional Knowledge and Cultural Expressions

Challenges to traditional knowledge and cultural expressions in the globalized world are many. The major one is the exploitation and misappropriation of these knowledge systems by third-party agents, without any kind of recognition or compensation. Globalization and digitalization have happened so fast, thus threatening the conservation of these cultures and knowledge systems. The lack of legal frameworks and inadequate enforcement of existing laws further exacerbates these challenges. Climate change and environmental degradation also pose significant threats to traditional knowledge¹¹.

Other challenges arise from the erosion of intergenerational transmission within indigenous communities as a result of rapid urbanization, migration, and changes in life-styles. With less striving from the younger generations to save these traditional knowledge bases, their resilience is weakened in adapting environmental and social

¹⁰ "Matters Concerning Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, WIPO Doc. Wo/GA/26/6, 25 August 2000, p. 5."

¹¹ In P. Drahos & S. Frankel (Eds.), *Indigenous Peoples' Innovation: Intellectual Property Pathways to Development* (pp. 67-89). ANU Press.

changes. Reviving traditions through cultural education and enhancing public recognition and appreciation for traditional knowledge would be required in meeting such challenges.

While biodiversity has huge potential for application and is necessary for human survival, it is difficult to assign the economic value for the biodiversity conserved by the local and indigenous communities. Interest in intellectual property rights and modern biotechnology gave rise to issues on bio piracy and bioprospecting.¹²

Defensive protection vs. Positive protection of Traditional Knowledge in India

Defense against infringement in the traditional knowledge (TK) domain involves the use of databases that let authorities look for prior art when examining patent applications. By supporting TK documentation, maintenance, and preservation, this registration aids in the identification of Indigenous Communities and the adoption of benefit-sharing agreements. Though TK is regarded as collective property, there are drawbacks to this registry, including the possibility of expanded access to the private sector for TK. Additionally, there are no incentives or benefits for individuals to register their common knowledge. The absence of earlier ownership claims makes it more challenging to identify the true beneficiaries for benefit sharing.

Notwithstanding these difficulties, the main goal is to safeguard indigenous and traditional people's rights and prevent the appropriation of traditional knowledge. While both defensive and positive protections have advantages and disadvantages, TK protection cannot be achieved by either defensive or positive protection alone. In order to provide traditional knowledge and its holders with effective protection, "a comprehensive approach to protection should take into account both positive and defensive protection as supplemental and complimentary tools"¹³.

Protection of Traditional Knowledge and Cultural Expressions Internationally

Since the 1992 amendment to the Convention on Biological Diversity, the importance of safeguarding and conserving traditional knowledge has gained attention in international forums. Traditional Knowledge (TK) and related folkloric expressions (TCEs) are often ignored due to unfair and discriminatory treatment under current intellectual property rights (IPR). However, some international intellectual property law can help resolve issues with TCE protection when combined with the required "creative" component. Copyright law may be helpful in certain situations, but restrictions such as originality, identified authorship, fixation, and length of protection may be overstated. National governments choose the precise boundaries of protection in certain cases, and international law does not take a strict stance on the subject.

International law already in place, like the 1996 WPPT, provides protection for folklore performance expressions, but it only covers aural performances or the aural portion of an audiovisual performance. Preventing "fixing" performances without the consent of the artist or relevant community may be key to determining TCE performance protection.

Title protection can also aid indigenous groups' commercial interests, especially when obtaining a proper registration will reassure customers that the goods being sold are genuine indigenous goods. Folklore designs may be protected by design protection in some countries, but they have drawbacks, such as being easily transferable across national borders and difficult to trace back the exact location and creator of the "novelty" or "originality" element. WIPO has compiled a list of common characteristics found in national laws of Member States that define Traditional Knowledge, TCEs, or expressions of folklore to pursue an international definition.

Challenges in protection of the Traditional knowledge and folklore at international level

While there is a rising acknowledgment of the importance of traditional knowledge (TK) and cultural expressions (TCEs), there are substantial obstacles facing international efforts to protect them. First of all, there is uncertainty

¹² T.P. Sreedharan, "Biological Diversity of Kerala: A survey of Kalliasseri Panchayat, Kannur District, Discussion Paper No. 62; Kerala Research Programme on Local Level Development, *Centre for Development Studies, Thiruvananthapuram*", 2004.

¹³ Vilailuk Tiranutti, Trade marking traditional knowledge available at : http://www.Techmonitor.net/techmon/07marapr/tm/pdf/07mar_apr_sfs.pdf(Accessed on 16.04.24).

over ownership whether it belongs to certain people, organizations, or nations because TK and TCEs lack a generally acknowledged definition. The creation of exact international protection systems is made more difficult by this ambiguity. Second, because traditional knowledge is frequently passed down orally and collectively, it is challenging for it to fit into IP models intended for individual inventors, and as a result, current intellectual property (IP) regimes frequently fail to appropriately safeguard TK and TCEs.

Thirdly, companies are continuing to patent elements developed from TK without giving due credit or sharing benefits, which is a major problem known as bio piracy, the unapproved commercial usage of TK. Fourthly, efforts to strike a balance between protection and knowledge sharing may be hampered by groups' decision to suppress information due to fears of exploitation. Establishing equitable benefit sharing procedures is also difficult since it might be difficult to decide who should be compensated and in what amount. Capacity-building projects are crucial as many developing nations lack the infrastructure and resources required to appropriately record, conserve, and enforce safeguards for their Traditional Knowledge and Traditional Cultural Expressions (TCEs).

Recommendations for strengthening International Cooperation and Mechanisms

- Several international instruments provide crucial frameworks for protecting native rights, preserving cultural heritage, and promoting sustainable development, including the Convention on Biological Diversity (CBD), the Mataatua Declaration, the Kari-Oca Declaration, the ILO Convention, the UNESCO/WIPO Guidelines, the UN Draft Declaration on the Rights of Indigenous Peoples, and the TUNIS Model law on Copyright for Developing Countries.
- Considerations are underway regarding the removal or modification of TRIPS' Article 27.3.b to allow nations the freedom to create their own Sui Generis laws for plant types while requiring UPOV compliance.
- Efforts are being made to apply Article 29 of the TRIPS Agreement to genetic resources and traditional knowledge used in inventions subject to IPR claims, and to expand protection under Article 23 of TRIPS to geographical indications beyond wine and spirits, such as Darjeeling tea.
- Strengthening the implementation of the CBD at all levels and promoting harmonization with other international structures like the United Nations Permanent Forum on Indigenous Rights and the Draft Declaration on the Rights of Indigenous Peoples are crucial for advancing human rights standards and processes.
- Indigenous peoples, traditional knowledge holders, and indigenous women should be recognized as experts and actively participate in CBD processes, with governments assisting indigenous communities in capacity-building and effective participation.
- The CBD should allocate greater resources for sustainable use under Article 10c, improve information dissemination procedures, support indigenous participation, and facilitate the safeguarding of traditional knowledge through the right to self-determination and free, prior, and informed consent.
- Cooperation between specialized international organizations like UNESCO and WIPO, offering training programs, legal and technical support, and the development of a worldwide treaty protecting expressions of folklore, is essential for preserving cultural heritage globally.

Recommendations for strengthening Domestic Cooperation and Mechanisms

- Negotiation tactics should prioritize the interests of indigenous peoples and traditional communities.
- Both positive and defensive protection measures for traditional knowledge (TK) and traditional cultural expressions (TCEs) should be prioritized to ensure adequate protection.

- A review of TRIPs Article 27.3(b) is proposed, focusing on TK protection, life form patenting, and the interaction between the CBD and the TRIPs Agreement.
- Establishment of a dedicated organization or center for the preservation, promotion, and sharing of Indian folklore is intended.
- International obligations and guidelines, such as UNESCO and WIPO's Model Provisions, should inform the enactment of Sui Generis legislation to protect TK and Folklore.
- Protection of folklore expressions at the national level is crucial, requiring compilation of a list of expressions for conservation and defense.
- Indigenous and local populations should participate widely and effectively in UN talks and negotiations on genetic resources and traditional knowledge.
- Government rewards, incorporation of traditional medicines in state-run hospitals, and establishment of herbal gardens using therapeutic plants are recommended.
- Inclusion of traditional knowledge in educational curricula at all levels is necessary.
- Improved coordination between national and local organizations promoting TK is essential.
- Special efforts should be made to safeguard indigenous peoples, including those in voluntary seclusion, from losing their language, culture, and traditional knowledge.
- Parliament should pass a sui generis law to safeguard India's indigenous cultural expressions and knowledge.
- Acknowledgment and incorporation of principles of customary indigenous law into national legal systems in partnership with TK holders are essential.
- Support for indigenous education, including programs in indigenous languages and emphasizing the role of Indigenous Women and Community Elders as TK holders, is crucial.
- Promotion of sustainable use of traditional foods, crop varieties, animals, agroforestry systems, and medicines by indigenous and local populations is necessary.
- Recognition of Indigenous Peoples and their customary areas is imperative for safeguarding TK and ensuring CBD implementation.
- Access to, control over, and ownership of territory and natural resources by indigenous peoples and local communities are essential for practicing, promoting, and protecting TK.
- Local execution of TK protection measures should be under the purview of TK holders, with government assistance in implementation.
- Switching the burden of proof to user companies, individuals, or agencies to demonstrate compliance with disclosure and benefit sharing requirements is recommended.
- Mandatory requirements for source of materials, proof of prior informed consent, and benefit sharing should be established by national law.
- The Traditional Knowledge Authority should take proactive measures to stop biopiracy and develop a National Policy, Strategy, and Action Plan every five years to safeguard and preserve traditional knowledge.

CONCLUSION

Folklore and Traditional Knowledge are complex concepts that require protection due to human rights perspectives, collective intellectual property rights, and preservation efforts. Sui generis intellectual property rules based on copyright law, considering community customs and practices, are necessary due to the inadequacies of current IP and non-IP measures. The adoption of WPPT and WCT has increased attention to the issue of international protection of folklore and Traditional Knowledge. Developed nations prefer traditional IP laws over positive sui generis collective IP protection, but certification laws preserve some aspects of folklore with marketable value. African Regional Intellectual Property Organization (ARIPO) has established a methodology for offering sui generis IP protection to Traditional Knowledge and Cultural Expressions (TK and TCEs). New sui generis communal intellectual property movements have emerged in developing nations, particularly Panama and the Philippines, which base their approach on human rights and adopt a more conventional IP-based strategy.

India supports the need for sui generis IP legislation to positively protect Traditional Knowledge and Cultural Expressions, as it must be realistic and enforceable in real-world situations, considering the customs and laws of the communities that create, maintain, and preserve folklore. Delays in addressing TK and cultural expression misappropriation and bio-piracy make it necessary for developing nations to establish sui generis IPR systems as soon as possible.

REFERENCES

1. <http://www.lmmc.nic.in/index.php>.
2. Apte, T. (2006), A Simple Guide to Intellectual Property Rights, Biodiversity and Traditional Knowledge, Kalpa vriksh, GRAIN, and IIIT, Pune/Delhi.
3. Balasubramanian, K,(1997), Herbal Remedies: Consumer Protection Concerns, consumers International, Penang.
4. Bera, R.K.(2008), Nive perceptions about patents in India, Current Science, 94:1565-1566.
5. Correa, C. (2000), integrating public health concerns into patent legislation in developing countries, South Centre, Geneva.
6. Downes, D. (1997), Using Intellectual Property as a Tool to Protect Traditional Knowledge, Madrid: Centre for international Environmental Law (CIEL).
7. The WTO Agreement on Trade Related Aspects of Intellectual Property Rights, (1994), WTO, The Results of the Uruguay Round of Multilateral Trade Negotiations: The Legal Texts, (GATT Secretariat, Geneva), 1995.
8. GRAIN, The great protection racket: Imposing IPRs on traditional knowledge, <http://www.grain.org/seedling/seed-04-01-3-en.cfm>.
9. Mashelkar R A, (2001) Intellectual property rights and the third world, Special Section: Science in the third world, *Current Science*, 81(25) 955-965.
10. Sahai Suman, (2000) *Commercialization of Indigenous Knowledge and Benefit Sharing*, UNCTAD, Report of the Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices from 30 October to 1 November www.biotrade.org.
11. Vandana Shiva,(2003)US Monopolists Continue Bio Piracy Against India, <http://www.progress.org/patent03.htm>
12. WHO, Traditional Medicinal Strategy: 2002-2005, WHO/EDM/TRM/2002 (WHO, Geneva), 2002.