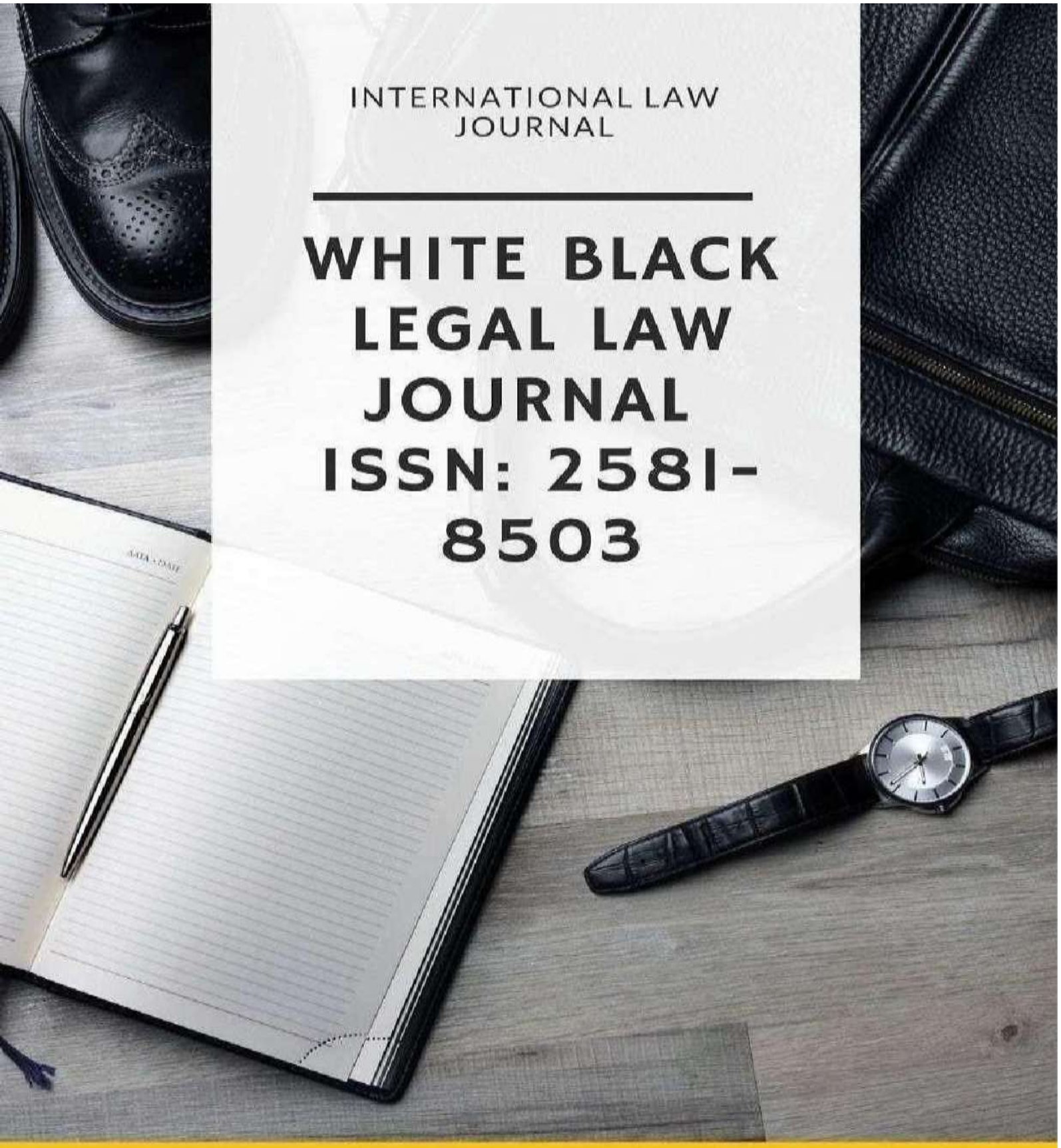

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TRADITIONAL KNOWLEDGE AND IPR: CHALLENGES IN PROTECTING INDIGENOUS INNOVATION

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Abstract

Traditional Knowledge (TK) encompasses the long-standing customs, practices, innovations, and wisdom of indigenous and local communities that have been preserved and transmitted across generations. TK is integral to the identity, culture, and survival of these communities and plays a vital role in various sectors such as agriculture, healthcare, environmental management, and cultural heritage preservation. Despite its critical importance, TK is increasingly vulnerable to exploitation and misappropriation by corporations, researchers, and commercial entities, often without proper acknowledgment, consent, or equitable benefit-sharing.

The existing Intellectual Property Rights (IPR) framework is largely ill-equipped to protect TK due to fundamental differences in ownership, transmission, and evolution of knowledge. IPR systems, which prioritize individual inventors and fixed terms of protection, clash with the collective, oral, and evolving nature of TK. This disparity has resulted in numerous instances of biopiracy, where TK has been patented or commercially exploited without benefiting the indigenous holders.

This paper critically examines the limitations of current IPR regimes in safeguarding TK and analyzes both national and international legal frameworks designed to address these challenges. Key cases such as the Turmeric, Neem, and Hoodia disputes highlight the vulnerabilities of TK and the efforts taken to assert indigenous rights. The research adopts a doctrinal and analytical methodology, reviewing statutes, treaties, case law, and policy initiatives.

Finally, the paper proposes policy reforms including the development of sui generis protection systems tailored to TK, strengthening community rights, mandatory disclosure norms in patent law, and the establishment of binding international treaties. Protecting TK is not only a matter of legal reform but also of justice, cultural preservation, and sustainable development, ensuring that indigenous innovation is respected and fairly rewarded.

1. Introduction

Traditional Knowledge (TK) is a vital heritage passed down through generations within indigenous and local communities. It encompasses a wide array of knowledge, including medicinal practices, agricultural techniques, biodiversity management, folklore, and cultural expressions. This knowledge is not just a body of information but forms the core of the cultural identity and social cohesion of indigenous peoples. TK has evolved over centuries, refined through practical experience and embedded in the communities' unique relationship with their environment.

In recent decades, the global interest in sustainable development, biodiversity, and natural resources has intensified. The pharmaceutical, agricultural, and cosmetic industries, among others, have increasingly turned to TK as a rich source of innovative solutions and raw materials. This surge of interest has, unfortunately, led to frequent misappropriation of TK — commonly referred to as biopiracy — where companies or researchers patent or commercially exploit indigenous knowledge without consent or benefit-sharing.

The conventional Intellectual Property Rights (IPR) system, rooted primarily in Western legal traditions, is designed to protect individual creativity and inventions within a defined time frame. This system is largely incompatible with the collective, oral, and evolving nature of TK. For example, patents require novelty, inventiveness, and a clear inventor or applicant. TK, often being centuries-old and collectively developed, fails to meet these criteria. Furthermore, the temporality of patents clashes with the perpetual and evolving character of TK.

India, with its vast indigenous population and biodiversity, faces acute challenges in protecting its traditional knowledge from exploitation. However, it has also pioneered some significant legal and institutional measures, such as the Traditional Knowledge Digital Library (TKDL) and the Biological Diversity Act, to protect its TK assets. Despite these efforts, challenges

remain regarding the documentation, recognition, enforcement, and benefit-sharing of TK. Moreover, the lack of an international binding legal framework specifically dedicated to TK protection means that indigenous communities across the world are left vulnerable to biopiracy and misappropriation. The World Intellectual Property Organization (WIPO) and other international bodies have begun discussions but have yet to finalize comprehensive treaties that balance the protection of TK with modern intellectual property rights.

This research paper aims to comprehensively examine the intersection of Traditional Knowledge and Intellectual Property Rights, identifying the core challenges indigenous communities face in securing their innovations. It will critically analyze the national and international legal frameworks, assess landmark legal disputes, and propose recommendations to improve the protection of TK while promoting equitable benefit-sharing. Recognizing and protecting TK is crucial not only for upholding indigenous rights but also for fostering sustainable development and preserving global biodiversity.

2. Understanding Traditional Knowledge

Traditional Knowledge (TK) is a body of knowledge, skills, practices, and innovations developed, sustained, and passed down through generations within indigenous and local communities. This knowledge is deeply embedded in the cultural and spiritual fabric of these communities and is closely tied to their identity, livelihoods, and environment.

Characteristics of Traditional Knowledge:

- **Collective Ownership:** Unlike modern intellectual property that often assigns ownership to a single individual or entity, TK is communally owned by the entire community or group. It is maintained and transmitted collectively over generations. This communal nature complicates protection under conventional IPR systems that focus on individual rights.
- **Oral Transmission:** TK is predominantly passed down orally — through storytelling, rituals, apprenticeship, and practice — rather than through written documents or formal records. This oral nature makes it challenging to document and prove prior existence when faced with patent claims or legal disputes.

- **Dynamic and Evolving:** TK is not static; it evolves continuously in response to environmental changes, community needs, and external influences. The knowledge adapts as communities experiment and innovate over time.
- **Context-Specific:** TK is deeply intertwined with the local environment, ecosystems, social structures, and cultural traditions. It often includes holistic knowledge of biodiversity, sustainable resource management, and spiritual values.

Types of Traditional Knowledge:

- **Medicinal Knowledge:** Indigenous healing systems based on plants, minerals, and traditional practices have been used for centuries. For example, Ayurveda in India or the use of herbal remedies in Amazonian tribes.
- **Agricultural Practices:** Traditional farming techniques such as seed preservation, crop rotation, and natural pest control are examples of TK that support biodiversity and sustainable agriculture.
- **Ecological Knowledge:** Indigenous communities possess extensive understanding of their local ecosystems, enabling them to manage natural resources sustainably and preserve biodiversity.
- **Cultural Expressions:** This includes folklore, music, dance, rituals, and craftsmanship, reflecting the community's heritage and worldview.

Importance of Traditional Knowledge:

TK holds immense value not only for indigenous communities but also for global society. Pharmaceutical companies, for instance, have derived modern medicines from traditional remedies. Agricultural innovations help promote food security and climate resilience. However, the knowledge has often been exploited without consent or compensation, leading to biopiracy and cultural erosion.

3. Overview of Intellectual Property Rights

Intellectual Property Rights (IPR) refer to legal protections granted to creators and inventors for their inventions, artistic works, trademarks, and designs. IPR incentivizes innovation and creativity by granting exclusive rights for a limited period, enabling rights holders to benefit economically from their creations.

Types of Intellectual Property Rights:

- **Patents:** Protect inventions that are novel, involve an inventive step (non-obvious), and are industrially applicable. Patents give the inventor exclusive rights to use and commercialize the invention for 20 years. However, patents require disclosure of the invention, and the invention must be new and not part of the public domain.
- **Copyrights:** Protect original works of authorship such as books, music, art, films, and software. Copyright protection arises automatically upon creation and lasts for the lifetime of the author plus 60 years (varies by jurisdiction).
- **Trademarks:** Protect signs, logos, words, or symbols that distinguish goods or services of one enterprise from another. Trademarks help consumers identify the source and ensure quality.
- **Geographical Indications (GI):** Protect products that originate from a specific place and have qualities or reputation linked to that location. Examples include Darjeeling tea or Champagne.

Limitations of IPR in Protecting Traditional Knowledge:

- **Novelty Requirement:** Most IPR laws require inventions or works to be novel and not previously known. TK, being ancient and orally transmitted, often fails this test.
- **Individual Ownership:** IPR grants rights to individuals or companies, but TK is collectively owned, making it hard to assign rights.
- **Time Limits:** Patents and copyrights are time-bound (usually 20 to 70 years), whereas TK is perpetual, passed down for centuries.
- **Documentation Requirement:** IPR systems require formal documentation or registration, whereas TK is mostly undocumented or hidden.
- **Disclosure:** Patent applications require full disclosure of the invention, but TK holders often do not want to share their knowledge openly due to cultural or spiritual reasons.

Significance of IPR:

IPR plays a crucial role in encouraging innovation by providing economic incentives and legal protection. However, the existing IPR frameworks were designed for modern inventions and creative works, making them ill-suited to accommodate the unique characteristics of traditional knowledge.

4. Interface Between Traditional Knowledge and Intellectual Property Rights

The interaction between Traditional Knowledge (TK) and Intellectual Property Rights (IPR) is complex and often problematic because these two concepts arise from fundamentally different worldviews and legal paradigms.

Fundamental Differences:

- **Ownership and Authorship:**
  IPR systems are premised on individual ownership or corporate entities, with clear authorship or inventorship. Conversely, TK is collectively created, owned, and preserved by communities across generations. It resists individualistic claims because it is part of a collective cultural heritage.
- **Temporal Nature:**
  IPR protections are time-limited (for instance, patents last 20 years). TK is timeless, continually evolving but fundamentally rooted in ancient knowledge passed orally through generations without expiry.
- **Documentation and Disclosure:**
  IPR requires formal documentation and public disclosure (e.g., patent specifications). TK is often unwritten and transmitted orally or through practice, which complicates proving prior art or establishing rights in conventional systems.
- **Purpose and Use:**
  IPR seeks economic incentives and commercialization. TK is embedded in cultural, spiritual, and ecological contexts, serving community welfare rather than commercial profit.

Examples of Conflicts:

1. **Biopiracy:**
   This term refers to the unauthorized and uncompensated use of TK or biological resources by commercial entities. Several high-profile cases illustrate this:

- *Turmeric (Curcuma longa):*
  The University of Mississippi patented the use of turmeric for wound healing in 1995. India challenged this, showing turmeric's use in ancient Ayurvedic texts, leading to revocation.
- *Neem (Azadirachta indica):*
  Patents on neem-based pesticides were granted in Europe, but India successfully contested these patents, proving traditional use.
- *Basmati Rice:*

Attempts to patent varieties of basmati rice by foreign companies were challenged by India, as basmati is a traditional Indian variety.

Consequences of Mismatch:

- Indigenous communities lose control over their heritage knowledge.
- Communities are deprived of potential benefits arising from commercialization.
- Cultural erosion and loss of trust in modern legal systems.
- Perpetuation of economic and knowledge inequities.

Emerging Responses:

To address these challenges, some countries and international bodies have begun developing specialized mechanisms, such as:

- **Traditional Knowledge Digital Library (TKDL):** India's TKDL documents traditional medicinal knowledge to prevent wrongful patent claims.
- **Sui Generis Systems:** Custom legal regimes designed specifically to protect TK according to its unique characteristics.
- **Disclosure Requirements:** Patent offices now often require applicants to disclose the source of genetic resources and associated TK.

  Despite these efforts, many challenges remain in harmonizing TK protection with existing IPR frameworks globally.

5. Legal Frameworks: National and International

The protection of Traditional Knowledge (TK) involves a complex interplay of national laws and international agreements. Given TK's communal and cross-border nature, no single legal instrument fully addresses its protection, necessitating multi-level approaches.

A. National Legal Frameworks

India is a leader in incorporating TK protection into domestic law, reflecting its rich indigenous heritage.

- **Biological Diversity Act, 2002:**

  This act regulates access to biological resources and associated TK. It establishes the National Biodiversity Authority to oversee benefit-sharing with local communities when their resources or knowledge are used commercially.
- **Protection of Plant Varieties and Farmers' Rights Act, 2001:**

This legislation recognizes farmers' rights to save, use, and exchange seeds, protecting indigenous agricultural knowledge.

- **Geographical Indications of Goods (Registration and Protection) Act, 1999:**
  Protects products linked to specific regions, such as Darjeeling tea or Kashmiri saffron, recognizing the community-based heritage.
- **Forest Rights Act, 2006:**
  Gives forest-dwelling communities rights over forest resources and their traditional knowledge, recognizing their role as custodians.
- **Traditional Knowledge Digital Library (TKDL):**
  A unique initiative by the Government of India to document Ayurvedic and other traditional medicinal knowledge in multiple languages, accessible to patent examiners globally to prevent biopiracy.

  Other countries have adopted similar frameworks or are in the process of formulating sui generis legislation to safeguard TK.

  B. International Legal Frameworks
- **Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement:**
  Administered by the World Trade Organization (WTO), TRIPS sets minimum standards for IPR protection but does not specifically address TK. It does require disclosure of the origin of biological resources in patent applications in some countries.
- **Convention on Biological Diversity (CBD), 1992:**
  Recognizes the importance of TK in biodiversity conservation. It promotes equitable benefit-sharing and calls for prior informed consent from indigenous communities before accessing their resources.
- **Nagoya Protocol (2010):**
  A supplementary agreement to the CBD, it provides detailed procedures for access and benefit-sharing related to genetic resources and associated TK.
- **WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC):**
  Working towards developing international legal instruments to protect TK and associated rights.
- **United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), 2007:**
  Affirms indigenous peoples' rights to maintain, control, and protect their TK.

  While these frameworks contribute towards protecting TK, no binding international treaty specifically governs TK, leading to fragmented and inconsistent protections.

6. Challenges in Protecting Indigenous Innovation

Despite growing recognition of Traditional Knowledge (TK) and its value, significant challenges persist in effectively protecting indigenous innovation. These challenges stem from legal, practical, cultural, and economic factors:

1. Incompatibility with Conventional IPR Systems

- **Novelty and Inventorship Requirements:**
  IPR regimes, especially patents, demand that inventions be new, non-obvious, and attributable to a specific inventor or inventor group. TK, being ancient, communal, and evolving, rarely meets these criteria, leading to systematic exclusion from patent protection.
- **Time-Limited Protection vs. Perpetuity:**
  IPR rights are granted for a limited period (e.g., 20 years for patents), but TK represents knowledge passed down perpetually. The expiry of protection under IPR laws risks allowing free exploitation of TK after the term ends, which is unjust from the perspective of indigenous communities.
- **Documentation and Disclosure Barriers:**
  TK is often orally transmitted and context-dependent. Its lack of formal documentation makes it difficult to establish prior art in patent applications or copyrights. This leads to problems like wrongful patent grants on existing TK (biopiracy).

2. Biopiracy and Misappropriation

- Corporations, research institutions, and individuals have frequently appropriated TK without consent or compensation—a practice termed *biopiracy*.
- This leads to exploitation without sharing benefits with the rightful knowledge holders.
- Lack of awareness and legal resources among indigenous communities exacerbates this issue.

3. Documentation and Preservation Issues

- TK is vulnerable to loss due to modernization, globalization, and generational shifts.
- Many indigenous communities lack resources to document their knowledge systematically.
- Absence of formal records impedes legal recognition and protection.

4. Lack of Sui Generis Protection

- Most countries rely on adapting existing IPR laws, which are insufficient.

- There is a pressing need for *sui generis* (unique, custom) systems tailored to the nature of TK.
- Sui generis systems can recognize collective ownership, perpetual protection, and cultural sensitivities.

5. Enforcement Difficulties

- Even where legal protections exist, indigenous communities often lack the capacity, knowledge, or funds to enforce their rights.
- Geographical remoteness and socio-economic marginalization further hinder enforcement.
- *6. Complexities in Benefit-Sharing*
- Determining rightful beneficiaries within heterogeneous communities is challenging.
- Benefit-sharing mechanisms must be transparent, equitable, and culturally appropriate.
- Ensuring prior informed consent and participation of indigenous communities is essential but difficult in practice.

7. International Fragmentation and Lack of Binding Treaties

- The absence of an international legally binding instrument specifically for TK protection leads to inconsistent protection across jurisdictions.
- Developing countries face hurdles in asserting TK rights within global trade and intellectual property regimes.
- Conflicts arise between national sovereignty, international law, and indigenous rights.
- *8. Cultural Sensitivity and Ethical Considerations*
- TK is often inseparable from spiritual and cultural identity.
- Commercial exploitation risks commodifying sacred knowledge, offending indigenous worldviews.
- Respecting cultural integrity while enabling protection is a delicate balance.

Implications of These Challenges

The combination of these challenges results in:

- Continued marginalization of indigenous communities.
- Loss of TK through exploitation and cultural erosion.
- Economic disadvantage by depriving rightful holders of benefits.
- Global inequities in knowledge ownership and usage.

7. Relevant Case Laws

The interaction between Traditional Knowledge and Intellectual Property Rights has given rise to notable legal battles that highlight both the vulnerabilities of TK and the efforts to protect it. These cases exemplify the issues of biopiracy, misappropriation, and the limitations of current legal frameworks.

7.1 The Turmeric Case (India vs. University of Mississippi, 1995)

- **Background:**

  The University of Mississippi Medical Center was granted a U.S. patent for the use of turmeric in wound healing. Turmeric had been used in Indian traditional medicine for centuries to treat wounds and infections.

- **Challenge:**

  The Council of Scientific and Industrial Research (CSIR), India, filed a legal challenge against the patent, arguing that the medicinal properties of turmeric were already known and documented in ancient Sanskrit texts.

- **Outcome:**

  The patent was revoked after the U.S. Patent and Trademark Office (USPTO) accepted the evidence presented by India proving prior art.

- **Significance:**

  This case was a landmark in exposing how traditional knowledge, when not documented in accessible patent databases, can be wrongfully patented by others. It underscored the need for better documentation (like India's Traditional Knowledge Digital Library - TKDL) to prevent such biopiracy.

7.2 The Neem Case (India vs. W.R. Grace, European Patent Office, 2000)

- **Background:**

  W.R. Grace & Co. was granted a European patent for a process involving neem-based pesticides. Neem has been used in Indian agriculture for centuries for its insecticidal properties.

- **Challenge:**

  The Indian government and several NGOs opposed the patent on the grounds that the use of neem was already part of traditional knowledge and therefore lacked novelty.

- **Outcome:**

  The European Patent Office revoked the patent after a detailed examination and opposition proceedings.

- **Significance:**

  This case emphasized the international dimension of TK protection and the need for global cooperation. It also demonstrated that existing patent systems can be challenged effectively when sufficient prior art is presented.

7.3 The Basmati Rice Case (India vs. RiceTec, USA, 1997-2001)

- **Background:**

  RiceTec, a U.S.-based company, attempted to patent a variety of Basmati rice, a premium aromatic rice traditionally grown in India and Pakistan.

- **Challenge:**

  India objected, claiming that Basmati rice was a traditional product and that RiceTec's patent claims were overly broad and unjustified.

- **Outcome:**

  Several claims in RiceTec's patent were revoked, and efforts were made to protect the geographical indication (GI) status of Basmati rice under Indian and international law.

- **Significance:**

  This case highlighted the intersection of IPR with geographical indications and the protection of indigenous agricultural knowledge. It also showcased the importance of protecting TK linked with specific locations and cultures.

7.4 The Hoodia Case (South Africa and the San People, Early 2000s)

- **Background:**

  The South African Council for Scientific and Industrial Research (CSIR) patented the appetite suppressant properties of Hoodia cactus, a plant used by the San indigenous people for centuries during long hunting trips to suppress hunger.

- **Challenge:**

  The San people were not initially consulted or compensated for the use of their traditional knowledge.

- **Outcome:**

  Following negotiations, a benefit-sharing agreement was reached between the San community and CSIR, providing royalties and recognition.

- **Significance:**

  This was one of the first cases where benefit-sharing agreements acknowledged

indigenous knowledge holders' rights. It set a precedent for ethical use of TK and equitable compensation.

Summary of Case Law Implications

- These cases demonstrate the **risks of biopiracy** and the **need for prior art databases** like the TKDL to prevent wrongful patents.
- They underline the **importance of international cooperation** to challenge misappropriation.
- The cases reveal gaps in the current IPR framework in recognizing collective and ancient knowledge.
- The Hoodia case introduces the **concept of benefit-sharing agreements** as a way to respect indigenous contributions.
- They also emphasize the role of **geographical indications** in protecting TK connected to specific regions.

8. Conclusion and Suggestions

Traditional Knowledge (TK) is an invaluable part of the cultural, intellectual, and ecological heritage of indigenous and local communities. It offers immense contributions to agriculture, medicine, biodiversity conservation, and sustainable living. However, in the globalized world of innovation and commercial exploitation, TK remains highly vulnerable to misappropriation, primarily because the existing Intellectual Property Rights (IPR) frameworks are ill-equipped to protect it.

The core challenge lies in the mismatch between TK and conventional IPR systems. TK is typically communal, orally transmitted, and evolving—whereas IPRs are designed for individual, time-bound, and documented inventions. This incongruity allows corporations and research institutions to obtain patents over traditional knowledge without proper disclosure, consent, or compensation to the knowledge holders, leading to cases of biopiracy and injustice. While India has made considerable strides with laws like the Biological Diversity Act, the Protection of Plant Varieties and Farmers' Rights Act, and initiatives like the Traditional Knowledge Digital Library (TKDL), the enforcement of these rights remains inconsistent. Globally, instruments like the Convention on Biological Diversity (CBD), the Nagoya

Protocol, and ongoing WIPO negotiations reflect progress, but a binding, universal treaty on TK protection is still lacking.

Suggestions

To bridge the gap between TK and IPR and to ensure justice for indigenous communities, the following steps are recommended:

1. Develop a Comprehensive Sui Generis Legal Framework

- A unique legal system should be created specifically to address the characteristics of TK, rather than trying to fit it into existing IPR molds.
- This framework should legally recognize communal ownership, perpetual protection, and cultural context.
- It should include penalties for misappropriation and mechanisms for benefit-sharing.

2. Strengthen and Legally Recognize Traditional Knowledge Databases

- Expanding initiatives like India's TKDL globally can help patent examiners verify prior art and reject illegitimate patent claims.
- These databases must be legally admissible as evidence in IPR disputes.
- Communities should be involved in documenting their knowledge to ensure accuracy and consent.

3. Introduce Mandatory Disclosure of Origin in Patent Applications

- International patent laws should require applicants to disclose the source of genetic resources and associated TK.
- Proof of prior informed consent (PIC) and access and benefit-sharing (ABS) agreements should be mandatory to ensure ethical research.

4. Recognize and Empower Indigenous and Local Communities

- Provide indigenous groups with legal rights to their TK and representation in decision-making processes.
- Support community-led documentation, preservation, and protection of their knowledge systems.
- Ensure free, prior, and informed consent (FPIC) before any commercial or research exploitation of TK.

5. Encourage International Treaty under WIPO or UN

- Push for a binding multilateral treaty under WIPO or the United Nations to protect TK globally.

- The treaty should include definitions, enforcement mechanisms, dispute resolution methods, and model national laws.

6. Build Legal and Institutional Capacity

- Train legal professionals, government officials, and indigenous community members in TK-related rights and protections.
- Create dedicated institutions or cells within IPR offices to deal specifically with TK issues.

7. Promote Education and Public Awareness

- Integrate TK and indigenous rights into educational curricula at all levels.
- Launch public awareness campaigns to sensitize people about the importance of preserving TK and respecting indigenous contributions.

8. Facilitate Fair Benefit-Sharing Mechanisms

- Establish transparent mechanisms to ensure that communities are compensated when their TK is used commercially.
- These mechanisms should be simple, accessible, and monitored by independent authorities to avoid exploitation.

9. Strengthen National Implementation of International Protocols

- Ensure that domestic laws align with the Nagoya Protocol, CBD, and UNDRIP obligations.
- Encourage regional cooperation among developing countries facing similar TK protection challenges.

10. Foster Ethical Scientific Collaboration

- Promote research partnerships that respect indigenous rights, acknowledge contributions, and ensure co-ownership of findings.
- Encourage ethical bioprospecting that benefits both researchers and knowledge holders.

Final Thought

Protecting Traditional Knowledge is not merely a legal obligation—it is a moral responsibility to respect the rights, identities, and contributions of the world's indigenous peoples. As globalization accelerates and the demand for natural and cultural resources intensifies, the legal system must evolve to ensure that indigenous innovations are preserved, honored, and fairly compensated.

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10. Annexures

Annexure A: Sample Entry from Traditional Knowledge Digital Library (TKDL)

- Title: Use of Turmeric for Wound Healing
- Description: Traditional medicinal texts like Ayurveda and Unani describe turmeric (Curcuma longa) as an anti-inflammatory and healing agent for cuts and wounds.
- Source: TKDL Database, Ministry of AYUSH, Government of India

Annexure B: Excerpts from Biological Diversity Act, 2002

- Section 3: Access to Biological Resources

- Section 6: Application for Intellectual Property Rights
- Section 21: Determination of Equitable Benefit Sharing

Annexure C: Timeline of Key Cases (Turmeric, Neem, Hoodia)

- 1995: US patent granted for turmeric's healing properties
- 1997: Indian challenge leads to patent revocation
- 2000: European patent on neem pesticide revoked
- 2003: San people enter benefit-sharing agreement in Hoodia case

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