#### WHERE CLASSICAL WISDOM MEETS INTELLIGENT LEARNING

# iv. The role of databases and registers in the legal protection of TKS...

iv. The role of databases and registers in the legal protection of TKS - Traditional Knowledge Digital Library (TKDL) through World Intellectual Property Organisation (WIPO)

# The Role of Databases and Registers in the Legal Protection of TKS

## Rationale for Documenting and Registering TKS

### 1. Preventing Misappropriation

- Historically, TKS or indigenous medical formulations have been patented by external entities claiming "novelty" in jurisdictions unfamiliar with such knowledge.
- Detailed digital or physical registers deter such bio-piracy by providing publicly accessible prior art, invalidating false novelty claims.

## 2. Strengthening Community Autonomy

- o Official registers can affirm community ownership or custodianship of TKS.
- Enhances bargaining power for Access and Benefit-Sharing (ABS) negotiations under frameworks like the Convention on Biological Diversity (CBD) and the Nagoya Protocol.

#### 3. Cultural Preservation

- Documenting local techniques, remedy recipes, genealogies, and rituals ensures intergenerational continuity, especially if young generations are drifting away from oral traditions.
- o Serves as a repository to revitalize or adapt TKS to contemporary contexts.

#### 4. Policy and Research Support

• Government agencies, NGOs, and researchers can reference TKS databases to identify potential leads for drug discovery or agro-innovation, while respecting prior rights and obtaining prior informed consent.

# **Key Types of Registers and Databases**

# 1. People's Biodiversity Registers (PBRs)

- Local-level documentation of community biodiversity uses, traditional ecological knowledge, species distribution, cultural significance.
- Mandated under India's Biological Diversity Act, often maintained by Biodiversity Management Committees (BMCs) at village or municipal levels.

# 2. National Databases (TKDL, National Knowledge Portals)

 Larger scale, systematically curated repositories focusing on codified or non-codified traditions, bridging local data with patent offices or legal authorities.

# 3. International Knowledge Portals

 Some countries are exploring cross-border or regional databases (e.g., African Regional Intellectual Property Organization's initiatives) to streamline TKS protection and synergy.

# Traditional Knowledge Digital Library (TKDL)

## **Genesis and Objectives**

### 1. Motivation

- Prompted by high-profile bio-piracy cases (e.g., patents on turmeric's wound-healing, neem-based fungicidal properties), the Government of India sought a robust, searchable digital repository to establish prior art.
- Acknowledges that many patent examiners abroad could not read Sanskrit, Hindi, Tamil, or other Indian languages in which classical medicinal treatises or manuscripts were written.

#### 2. Collaboration and Scope

- TKDL is jointly executed by the **Council of Scientific and Industrial Research (CSIR)** and the **Ministry of AYUSH**, with input from various scholars of Ayurveda, Unani, Siddha, Yoga, Naturopathy.
- The database systematically classifies thousands of traditional formulations from Indian medicinal texts (Charaka Samhita, Sushruta Samhita, etc.) into **multiple languages**, using a structured, patent-compatible

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format (Traditional Knowledge Resource Classification or TKRC).

## 3. Structure

- Ontology-based indexing: Mapped to the International Patent Classification (IPC) system, bridging semantic gaps between Ayurvedic terminologies and patent classification codes.
- Contains data on formulations, plants used, pathological indications, dosages, references to classical texts, ensuring easy cross-reference for examiners.

#### **Function as a Defensive Tool**

#### 1. Prior Art Evidence

- Patent examiners worldwide can access TKDL under non-disclosure agreements, verifying if claimed "novel" processes or compositions already exist in Indian traditional medical systems.
- This helps in rejecting spurious patents—thereby preventing the privatization of centuries-old knowledge.

#### 2. Curtailing Biopiracy

- With the TKDL accessible, suspicious or overlapping applications can be flagged early, saving time and resources.
- Reduces the need for expensive litigation, as examiners themselves can swiftly see prior art citations in a recognized official database.

#### 3. Global Impact

- The Indian model inspired discussions at WIPO and other forums about adopting similar defensive systems for other countries with rich TKS.
- Some developing countries are examining an "international TKS registry" approach akin to the TKDL model to protect indigenous knowledge.

# **TKDL and Collaboration with WIPO**

### WIPO's Role in TKS Protection

## 1. Global Policy Platform

- WIPO has been a leading intergovernmental organization shaping norms and best practices on intellectual property, including issues of traditional knowledge and cultural expressions.
- WIPO's Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore addresses policy gaps, aiming to develop international legal instruments that safeguard TKS.

### 2. WIPO TK Documentation Toolkit

- Provides guidelines for documenting TKS in a culturally respectful manner, avoiding unwanted disclosure of sacred or secret knowledge.
- Emphasizes balanced approaches that do not inadvertently convert TKS into the "public domain" if communities do not desire that path.

## The TKDL-WIPO Relationship

# 1. Access Agreements

- WIPO facilitated cooperation between India's TKDL authorities and various patent offices (Europe, US, Canada, Australia, Japan).
- The arrangement ensures that patent examiners can perform "prior art searches" on TKDL's corpus, respecting confidentiality protocols.

### 2. Promoting Best Practices for Defensive IP

- WIPO recognizes TKDL as a model defensive database, frequently cited as an exemplary mechanism in global discussions.
- Encourages other countries to develop analogous digitized repositories (with the necessary language/ classification bridging).

## 3. Limitations and Next Steps

- The WIPO framework is non-binding. Nations have sovereignty over how deeply they integrate TKS into IP or intangible heritage legislation.
- o Future expansions or upgrades to TKDL might incorporate subnational or lesser-known tribal knowledge,

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bridging the gap between local oral traditions and formal patent documentation systems.

# **Broader Implications for TKS Protection**

# **Enhanced IP Examination Processes**

#### 1. Reduced Wrongful Patents

- By systematically analyzing TKS sources, patent offices reduce the grant of dubious patents, addressing concerns of indigenous groups about exploitation or appropriation.
- Encourages genuine innovation rather than repackaging of existing knowledge.

## 2. Stronger Defensive Mechanisms

- Combined with **Traditional Knowledge Resource Classification (TKRC)** or other specialized taxonomies, ensures examiners can swiftly identify relevant prior art.
- Minimizes language barriers, bridging classical texts to patent jargon.

# **Empowering Indigenous and Local Communities**

### 1. Validation of Knowledge

- o Formal indexing in a high-profile library affirms the scientific and cultural significance of local remedies.
- Could foster recognition, leading to interest in **benefit-sharing** if commercial R&D uses those documented formulas or references them in part.

## 2. Concerns over Consent and Confidentiality

- Some communities worry about overexposure, if previously secret or sacred knowledge gets documented in centralized databases accessible by non-local parties.
- Necessitates robust stakeholder consultations, clarity on what aspects remain restricted.

## Contribution to National Economy and Healthcare

## 1. Promoting Ayurveda, Siddha, Unani

- Government initiatives to brand Indian systems of medicine globally can highlight the authenticity guaranteed by a well-documented TKS knowledge base.
- o Potential for expanding exports of AYUSH products, standardized herbal medicines, or medical tourism.

### 2. R&D Catalysis

- Researchers (pharmaceutical, nutraceutical, biotech) can systematically search TKS leads, accelerating the discovery of novel drug candidates or clinically validated products.
- Possibly spurring patentable incremental innovations around formulation improvements or synergy analyses.

# Conclusion

**Databases and registers** (like the **Traditional Knowledge Digital Library, TKDL**) have become critical tools for **defensive** intellectual property strategies, **bio-piracy** prevention, and **cultural preservation**. By compiling codified or partially codified knowledge (from Ayurveda, Unani, Siddha, Yoga) in a structured, patent-searchable format, India has **raised global awareness** of TKS and secured a formidable mechanism to **invalidate wrongful patents** claiming novelty on age-old remedies.

This success exemplifies how synergy between **national authorities** (e.g., the Indian Patent Office, National Biodiversity Authority) and **international IP frameworks** (particularly WIPO) can effectively safeguard intangible cultural assets. Beyond legal defenses, the TKDL fosters **community recognition**, catalyzes **biomedical R&D**, and ensures that the **shared heritage of TKS** remains accessible and protected against misappropriation. As global interest in traditional medicine and biodiversity-based innovations grows, the TKDL model stands as a template for other nations seeking to preserve and honor their intangible cultural heritage.

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