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A Comparative Study of Legal Framewoks for the Protection of Traditional Knoweldge: India and China

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ABSTRACT

Indigenous and local communities' cultural, scientific, and ecological understanding is embodied in Traditional Knowledge (TK). Protecting traditional knowledge has become a global legal concern due to growing commercialization and incidents of biopiracy. The legal systems in China and India for the preservation of traditional knowledge are compared i. It highlights the advantages, disadvantages, and upcoming difficulties of statute provisions, institutional procedures, and international commitments. According to the study, China takes a more integrated approach based on intellectual property and regulations, whereas India uses databases and biodiversity laws to adopt a defensive preservation paradigm.

INTRODUCTION

Traditional Knowledge (TK) can be defined as a collective collection of knowledge, practice and innovation that has been generated by indigenous and local people throughout generations. It is highly rooted in cultural practices and it is strongly linked to biodiversity, health care systems (e.g. Ayurveda and Traditional Chinese Medicine), agriculture and environmental protection. In contrast to the modern scientific knowledge, TK is generally passed orally and held collectively, so it is hardly possible to adapt it to traditional intellectual property (IP) frameworks.

The growing commercialization of both biological resource and traditional ways of doing things has resulted in many cases of biopiracy, whereby corporations or individuals patent knowledge that has been in existence in communities over centuries. This has brought about serious issues of equity and justice as well as preserving culture.

India and China are highly endowed with their own system of traditional knowledge, and have evolved their own legal and institutional mechanisms to deal with these issues. Whereas India has predominantly the defensive protection model that focuses on stopping misappropriation, China has been pursuing an integrated strategy of combining intellectual property rights and regulating mechanisms. This paper is an attempt at a comparative evaluation of these structures in order to determine their effectiveness, gaps, and propose possible reforms.

Concept of Traditional Knowledge and Need for Protection

Traditional knowledge possesses certain unique characteristics that distinguish it from modern intellectual property:

It is collectively owned by communities rather than individuals

It is transmitted orally across generations

It evolves dynamically rather than remaining static

It often lacks formal documentation

The growing commercialization of biological resources and customary activities has brought about several examples of biopiracy when companies or people patent knowledge that has been known in societies over centuries. This has cast a grave concern on equity, justice and preservation of culture.

Both India and China, which are rich in traditional knowledge systems, have established unique legal and institutional frameworks to tackle these problems. Whereas India has mostly followed the line of defensive protection model which seeks to prevent misappropriation, China has followed a more complementary approach which involves application of intellectual property rights and regulation. This paper is an attempt at a comparative evaluation of these structures in order to determine their effectiveness, gaps, and propose possible reforms.

LEGAL FRAMEWORK IN INDIA

Patent Law and Traditional Knowledge

In India, the protection against misappropriation of traditional knowledge has been implemented in its patent system. The Patents Act, 1970, in Section 3(p), expressly declares such a type of invention unpatentable, which, in fact, is traditional knowledge, or is an aggregation or duplication of known properties of traditionally known components.

This is an important provision in eliminating the possibility of patenting the already known knowledge in the public sphere like the case of turmeric and neem where India could fight abroad and win against false patents.

BIOLOGICAL DIVERSITY ACT, 2002

The Biological Diversity Act, 2002 is a key legislation governing access to biological resources and associated traditional knowledge. It establishes a three-tier institutional framework:

- National Biodiversity Authority (NBA)
- State Biodiversity Boards
- Biodiversity Management Committees

The Act guarantees Access and Benefit Sharing (ABS) whereby the use of biological resources must be approved beforehand and equitable benefits sharing with the local communities. It is a sign of how India takes the ideas of the Convention on Biological Diversity seriously.

TRADITIONAL KNOWLEGHE LIBRARY

India has made a serious contribution to the global protection of TK, and the Traditional Knowledge Digital Library (TKDL) is one of it. It is a database which captures traditional medicinal knowledge in various international languages and formats which can be accessed by patent examiners all over the world. Through supplying evidence of prior art,

TKDL has been able to avert the issuance of a number of mistaken patents in regards to Indian traditional medicine. It is a defensive defense mechanism that is designed to protect knowledge as opposed to conferring exclusive rights.

OTHER RELEVENT LAWS

India also protects aspects of traditional knowledge through related legislations:

- **Geographical Indications of Goods (Registration and Protection) Act, 1999** – protects products linked to specific regions (e.g., Darjeeling tea)
- **Protection of Plant Varieties and Farmers' Rights Act, 2001** – recognizes farmers' contributions to plant breeding and biodiversity

India Major Characteristics of the approach.
Defensive protection that focuses on deterring misappropriation.
A high dependency on documentation (TKDL).
Pay attention to the conservation of biodiversity and sharing benefits. Lack of appreciation of positive ownership right over communities.

LEGAL FRAMEWORK IN CHINA

PATENT LAW AND GENETIC RESOURCES

There are clauses in the Patent Law (amended in 2008) of China on genetic resources. It also mandates applicants to reveal the source of genetic resources applied in inventions and makes sure that the genetic resources are not unlawfully acquired and utilized. This disclosure requirement is one of the measures aimed at discouraging the unauthorized use of traditional knowledge and biological materials.

BIODIVERSITY AND SECTORAL REGULATIONS

China has adopted various regulations to control access to biological and genetic resources. These include administrative measures governing traditional medicine, agriculture, and environmental protection.

Although benefit-sharing mechanisms exist, they are less centralized and structured compared to India's framework.

INTELLECTUAL PROPERTY BASED PROTRCTION

In contrast to India, China tries to incorporate the traditional knowledge into the extant intellectual property systems: Traditional knowledge-based innovation patents. Traditional cultural expression protection by copyright. Confidential traditional practices protection as trade secrets. This is a positive protection strategy, where traditional knowledge will be commercialized and economically used.

POLICY AND INSTITUTIONAL FRAMEWORK

China's approach is characterized by:

- Strong state control and regulation
- Strategic use of traditional knowledge for economic development
- Promotion of Traditional Chinese Medicine (TCM) globally
- Alignment with international IP standards

KEY FEATURES OF CHIN'S APPROACH

- Integration of TK into modern IP frameworks
- Emphasis on commercialization and innovation
- Mandatory disclosure requirements in patent applications
- State-centric governance model

Comparative Analysis: India vs China

Aspect	**India**	**China**
Approach	Defensive protection	Integrated IP-based protection
Patent Law	Excludes TK (Sec 3(p))	Allows patents with disclosure requirement
Database System	Strong TKDL system	Limited centralized database
Benefit Sharing	Well-structured under Biodiversity Act	Present but less formalized
Community Rights	Limited recognition	State-dominated approach
Focus	Prevention of biopiracy	Commercialization and innovation

Strengths and Weaknesses

India Strengths:

Prevention of wrongful patents using TKDL.
Well-established biodiversity conservation legislation.
Defensive protection model recognition in the international sphere.

Weaknesses:

Lack of a detailed sui generis system.
Inadequate economic gains to knowledge possessors.
Lax law enforcement at the grassroots level.

China Strengths:

Intellectual property system
Incorporation of TK. Promotion of innovation and commercialization.
Strong institutional support

Weaknesses:

Poor appreciation of community ownership.
Risk of over-commercialization
Challenge in aligning the practices of the traditional with the IP standards.

Role of International Law

Both India and China are influenced by international legal instruments, including:

- **TRIPS Agreement** – sets minimum standards for IP protection
- **Convention on Biological Diversity (CBD)** – emphasizes conservation and benefit-sharing
- **WIPO Initiatives** – focus on developing global frameworks for TK protection

The **2024 WIPO Treaty on Genetic Resources and Traditional Knowledge** represents a significant step toward requiring disclosure of origin in patent applications and addressing misappropriation at a global level.

Challenges in Traditional Knowledge Protection

Despite existing frameworks, several challenges persist:

- Absence of a uniform international legal regime
- Conflict between individual IP rights and collective community rights
- Difficulty in documenting orally transmitted knowledge
- Risk of exploitation through commercialization
- Limited awareness among indigenous communities

Suggestions and Recommendations

create a sui generis law regime on traditional knowledge.
Enhance community involvement and property rights.
Enhance the enforcement systems in the local levels.
Encourage cross-border collaboration and coordination.
Integrate defensive (India) and positive (China) strategies.
Increase the use of digital documentation and make sure it is used ethically.

CONCLUSION

India and China are two different, but complementary models of protecting traditional knowledge. The defensive strategy of India is effective in stopping biopiracy but does not have economic empowerment mechanisms. Conversely, the integrated approach of China encourages commercialization but creates doubts about the rights of the community and overexploitation. A more comprehensive approach to the issue can be the amalgamation of preventative approaches of India and the innovation-driven strategies of China. Since the world is increasingly interested in traditional knowledge, creating a fair and sustainable legal regime is a pressing need.

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