
INTELLECTUAL PROPERTY RIGHTS OF TRIBAL COMMUNITIES: AN ANALYSIS OF GEOGRAPHICAL INDICATIONS AND PROTECTION OF PLANT VARIETIES AND FARMERS' RIGHTS ACT, 2001 WITH CASE STUDIES

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ABSTRACT

Indigenous communities around the world have long been custodians of unique cultural heritage, traditional knowledge, and intellectual property. The complex landscape of Indigenous Intellectual Property Rights (IPR) with a specific focus on tribal communities. The discourse encompasses the challenges faced by tribals in preserving and protecting their intellectual assets, the legal frameworks governing indigenous IPR, and the implications of relevant legislation such as the Geographical Indication (GI) Act and the Protection of Plant Varieties and Farmer Rights Act, 2001. Tribal communities, often marginalized and economically disadvantaged, possess a wealth of traditional knowledge passed down through generations. This knowledge spans diverse domains including agriculture, medicine, handicrafts, and cultural expressions. However, the recognition and protection of tribal IPR pose significant challenges, exacerbated by factors such as historical exploitation, lack of legal recognition, and inadequate institutional support. The GI system offers a promising avenue for safeguarding tribal intellectual property associated with products of specific geographical origins. However, the process of obtaining GI registration presents hurdles for tribal producers, including bureaucratic complexities, proof of authenticity, and equitable benefit-sharing concerns. Similarly, the PPVFR Act aims to protect the rights of farmers, including tribals, but implementation challenges persist, particularly in accessing formal intellectual property rights and ensuring fair compensation. Legal precedents has played a pivotal role in shaping the discourse on indigenous IPR protection. Landmark cases addressing issues such as misappropriation of traditional knowledge, recognition of tribal rights over natural resources, and enforcement of intellectual property rights in tribal communities provide guiding principles for future legal disputes. However, gaps remain in translating international agreements and legal principles into actionable protections at the national level. The protection of Indigenous Intellectual Property Rights is a pressing issue with far-reaching implications for tribal communities' cultural survival, economic empowerment, and self-

determination. While legislative measures and legal precedents offer avenues for progress, concerted efforts are needed to bridge the gap between legal frameworks and practical realities, ensuring that tribal communities receive the recognition, protection, and benefits they rightfully deserve.

Keywords: Indigenous intellectual property rights, Geographical indication, Protection of Plant Varieties and Farmer Rights Act, 2001

INTRODUCTION

“The Earth is mother of all people, and all people should have equal rights upon it.”

- White Elk

Intellectual property rights encompass patents, trademarks, trade secrets, geographical indications, and copyrights. These legal instruments serve as vital tools for safeguarding industrial innovation in contemporary society and advancing the preservation of biodiversity. Additionally, they facilitate the equitable distribution of benefits arising from the utilization of genetic resources among Indigenous custodians. Notably, a significant portion of patented innovations builds upon existing knowledge. The patent system, by encouraging further inventions on a national scale through the dissemination of public knowledge, fosters ongoing innovation. Furthermore, patent laws extend protection to numerous herbal products derived from traditional medicine. Phytoconstituents play a multifaceted role within the realm of intellectual property rights (IPR), particularly concerning copyrights, patents, trademarks, and registered designs for medicinal formulations. Trade secrets and trademarks emerge as the predominant forms of IP protection for herbal medicines.¹

The patenting of medicinal products and processes derived from plants, based on traditional knowledge, has become a significant point of contention within the intellectual property rights landscape. The intersection of intellectual property rights with indigenous knowledge presents numerous intricate legal challenges globally. These issues extend beyond purely legal concerns, as they touch upon the preservation of indigenous knowledge systems. Moreover, the impacts of intellectual property law on traditional knowledge systems resonate directly within communities worldwide.

¹ Michael A. Bengwayan (May 2023), *Intellectual and Cultural Property Rights of Indigenous and Tribal Peoples in Asia* <https://minorityrights.org/app/uploads/2023/12/mrg-rep-proprihts.pdf>

WORLD INTELLECTUAL PROPERTY ORGANISATION (WIPO)

The World Intellectual Property Organization (WIPO) is a specialized agency of the United Nations responsible for promoting the protection of intellectual property rights (IPRs) worldwide. WIPO serves as a global forum for policy discussions, cooperation, and the development of international treaties and agreements related to intellectual property. Established in 1967, WIPO works to encourage innovation and creativity by providing assistance to countries in developing their intellectual property systems, offering training and capacity-building programs, and facilitating the resolution of disputes related to intellectual property. Additionally, WIPO administers various international intellectual property treaties, such as the Patent Cooperation Treaty (PCT) and the Madrid System for the International Registration of Marks, to streamline the process of obtaining and managing intellectual property rights across multiple jurisdictions.²

The World Intellectual Property Organization (WIPO) serves as a pivotal global entity dedicated to advancing and safeguarding Intellectual Property Rights (IPR). Operating as a self-funded agency within the United Nations framework, WIPO acts as a cornerstone for IP services worldwide. With a membership spanning 192 nations, WIPO is committed to fostering creative endeavors and ensuring the universal protection of intellectual property. Currently under the leadership of Director-General Francis Gurry, WIPO's headquarters is situated in Geneva, Switzerland. Its roots trace back to the establishment of the United International Bureaux for the Protection of Intellectual Property (BIRPI) in 1893, marking the beginning of its enduring mission to advocate for and oversee intellectual property matters globally.³

LITERATURE REVIEW

“Uplifting the Intellectual Property Rights of Indian Tribes,” authored by Pragnya Paramita Mohanty has designed this article describing about the rights of tribal people regarding their traditional knowledge. Tribal communities maintain a deep connection with their environment and possess invaluable traditional knowledge on medicines, crops, and food sources. However, they often lack awareness of intellectual property rights (IPR), leaving their knowledge

²Bency Baby T. & Timmakkondu Narasimman Kuppusami Suriyaprakash. (May 17 2021). *"Dispute Resolution in the United Nations Convention on the Law of the Sea: Evolutions and Trends."* <https://www.intechopen.com/chapters/78249>

³ Byjus. (n.d.). WIPO - World Intellectual Property Organization. <https://byjus.com/free-ias-prep/wipo/>

vulnerable to exploitation. This article has also emphasised on the population of tribal in India and the unique works of these tribal people. This article has helped me in gaining knowledge regarding the types of tribe in India and their rights in context of uniqueness in their work.

“Aatmanirbhar Bharat Geographical Indication (GI) Corner,” as posted on the website of tribes India. TRIFED, under the PMO's guidance, collaborates with various ministries to promote Geographical Indication (GI) products of tribal origin. Their efforts focus on mobilizing tribals into micro-enterprises, providing training, and facilitating market access. By supporting branding, packaging, and financial assistance, TRIFED aims to empower tribal artisans and promote their products in both domestic and international markets.

“Traditional Knowledge in IPR,” a blog authored by Gautam Badlani and published by Shashwat Kaushik has given a detailed understanding with regard to traditional knowledge in IPR and a clear knowledge in context of Indigenous people and legal frame work with regard to protection of the tribal rights in IPR sector. This blog has given a detailed discussion to The Protection of Plant Varieties and Farmer's Rights Act, 2001. It has discussed on the certain landmark judgements also.

“Protection of Traditional Knowledge under intellectual Property rights regime,” authored by Riya and published in E- journal of Academic Innovation and Research in Intellectual Property Assets (E-JAIRIPA) has discussed upon the preservation of traditional knowledge (TK) is crucial for conserving biodiversity and promoting sustainable development, particularly as indigenous communities have long served as custodians of the environment. India, with its rich biodiversity and historical knowledge, holds a vast repository of valuable traditional knowledge, making it a prime target for exploitation by other nations. Efforts such as the TKDL represent positive steps towards safeguarding traditional knowledge, but further enhancements to the IPR system are necessary to address ongoing challenges posed by bio-piracy.

“Geographical Indications: Protecting Intellectual Property and Cultural Heritage” as posted on faster capital website discusses about understanding of geographical indications and its importance in protecting Intellectual Property of tribal community. This website has helped me in getting knowledge with respect to Geographical indication as well as its importance in the life of tribal community. Although major part of this literature was not used in this research as it was beyond the topic.

“Important provisions regarding the Protection of Plant Varieties and Farmer’s Rights Act, 2001” authored by Sarthak Gupta, has given a detailed discussions with regard to the important provisions of the PPV&FR Act, 2001. The enactment of "The Protection of Plant Varieties and Farmers’ Rights (PPV&FR) Act, 2001" in India establishes a sui generis framework to safeguard farmers' contributions to plant genetic resources. By recognizing and protecting farmers' rights in conserving and sharing plant diversity, the Act promotes innovation in plant breeding while ensuring farmers' interests. This legislation represents a crucial step towards harmonizing the interests of farmers and plant breeders, fostering agricultural innovation and sustainable development in India. This article has helped me in understanding the importance of this act in the life of tribal people and how it protects there unique discovery.

RESEARCH GAP

Research on the intellectual property rights (IPR) of tribals, particularly in the context of the Geographical Indication (GI) and Protection of Plant Varieties and Farmer Rights Act, 2001, presents several potential research gaps that warrant further investigation. Some research gap areas include:

1. **Impact Assessment:** Limited empirical research exists on the actual impact of IPR regulations and laws on tribal communities. More studies are needed to assess how effectively these laws protect tribal knowledge, cultural heritage, and economic interests.
2. **Access to Justice:** Research on the accessibility of legal recourse and justice for tribal communities in cases of IPR infringement is limited. Exploring barriers to accessing legal remedies and potential avenues for improvement is crucial.
3. **Community Participation:** There is a need for research that examines the extent of tribal community participation in decision-making processes related to IPR protection. Understanding the level of involvement and empowerment of tribal communities can inform more inclusive policy development.

RESEARCH OBJECTIVE

1. To assess the awareness and understanding of Geographical Indication (GI) and Protection of Plant Varieties and Farmer Rights Act, 2001, among tribal communities.

2. To identify the implementation challenges faced by tribal communities in accessing and benefiting from IPR protection under the relevant legislation.
3. To evaluate the effectiveness of existing mechanisms for protecting traditional knowledge held by tribal communities under GI and Plant Varieties Act.
4. To analyze the level of participation and empowerment of tribal communities in decision-making processes related to IPR protection and its impact on their socio-economic development.
5. To conduct a comprehensive analysis of legal cases involving IPR issues affecting tribal communities, identifying patterns, trends, and areas requiring legal clarification or reform.

TRIBAL COMMUNITY AND IPR

India stands among the world's twelve megadiverse countries, celebrated for its abundant and varied biological heritage. With over 91,200 animal species and 45,500 plant species documented across its ten bio-geographic regions, India is renowned as a hub of biodiversity. The country boasts a wealth of crop diversity, harboring numerous wild varieties of related crops and serving as one of the twelve primary centers of plant production, thus showcasing its agricultural biodiversity. This exceptional biodiversity endows India with a rich reservoir of traditional knowledge, which forms the bedrock of its cultural heritage. Indigenous and local communities, predominantly residing in the most biodiverse regions, have traditionally lived in harmony with their natural surroundings, viewing it not only as a habitat but as an integral aspect of their cultural identity. These communities possess invaluable traditional wisdom concerning conservation and sustainable utilization of natural resources. However, this wealth of traditional knowledge has often been vulnerable to exploitation and misappropriation.

Tribal communities maintain a deep-seated bond with the environment, nature, and natural resources, living in close-knit societies rooted in their cultural beliefs. Despite constitutional provisions granting them various rights, tribes often find themselves marginalized in the rapidly evolving society due to limited understanding of its norms and regulations. These communities possess extensive ancestral knowledge spanning raw medicines, crops, and traditional foods, particularly excelling in indigenous knowledge-based products and medicinal

properties of local flora. However, they struggle to safeguard their intellectual rights amidst unfamiliar legal frameworks. In India, a rich tapestry of tribal communities contributes an integral part of the nation's cultural fabric. These tribes maintain a profound connection with their environment, customs, and religious beliefs. Although dispersed across various regions, many tribes are concentrated in the union territories of India. Living amidst modest circumstances, tribal communities often exhibit lower literacy rates compared to their counterparts in urban areas. Rooted in their distinct rituals, customs, and cultural practices, tribes stand apart from the more developed segments of Indian society. Despite their invaluable contributions to art, crafts, music, dance, and other traditions, tribal communities often find themselves marginalized, leading to the gradual erosion of their cultural heritage. In the 21st century, there is an urgent need for concerted efforts to uplift tribes in areas such as education, economics, and social welfare to ensure the preservation and revitalization of their unique way of life.⁴

TRIBAL COMMUNITY IN INDIA

Scheduled Tribes (ST), as defined by Article 366(25)⁵ of the Indian Constitution, encompass tribes or tribal communities identified as Scheduled Tribes under Article 342⁶ of the Constitution. In India, these communities are commonly referred to as "Adivasi." With over 600 distinct tribal groups across the country, their distribution varies, with significant settlements found in states like Mizoram (94.4%), Lakshadweep (94%), Meghalaya (86.1%), and Nagaland (86.5%). Other states with notable tribal populations include Madhya Pradesh, Orissa, Maharashtra, Rajasthan, Chhattisgarh, Assam, and West Bengal. Collectively, Scheduled Tribes account for 8.6% of India's total population.

According to the 2011 census, the population of Scheduled Tribals (ST) in India stands at 21.1% of the state population, with approximately 15.31 million individuals out of 72.62 million. This constitutes about 154 lakhs of the total population of 677 million in India, approximately 22.75% of the total tribal population. In specific regions like the northeast, where Scheduled Castes form 15% and Scheduled Tribes constitute 23%, the combined figure totals 38% of the state population. Notably, around 84,326,240 tribals in India, accounting for

⁴ Amikus Qriae. (n.d.). *Uplifting the Intellectual Property Rights of Indian Tribes*, the Amikus qriae <https://theamikusqriae.com/uplifting-the-intellectual-property-rights-of-indian-tribes/>

⁵ The Constitution of India. Art. 366 (25).

⁶ The Constitution of India. Art. 342.

roughly 12%, reside in the northeast region. Across various states in India, the distribution of tribal populations varies: Madhya Pradesh: 14.7%, Maharashtra: 10.10%, Orissa: 9.2%, Gujarat: 8.6%, Jharkhand: 8.3%, Chhattisgarh: 7.5%. Notably, there is no Scheduled Tribe population in three states (Delhi NCR, Punjab, and Haryana) and two Union Territories (Puducherry and Chandigarh) as no Scheduled Tribe has been officially notified in these regions. Scheduled Tribes across India contribute significantly to the cultural richness of the nation, with expertise in crafts, songs, poetry, and various artistic endeavors, providing them with a distinctive identity within society.⁷

UNIQUE WORKS OF INDIAN TRIBES

Indian tribes possess rich artistic traditions, showcasing remarkable aesthetic prowess in various forms of art and craft. Each tribal group, spanning different states, exhibits distinctiveness and uniqueness in their creative expressions. Among the renowned art forms are the Warli folk paintings of Maharashtra, Bhil art, Gond art, Kalamari art, and Rajasthan Phad art, each reflecting the cultural heritage and traditions of the respective tribes.

Tribal communities are renowned for their craftsmanship in jewelry and clothing, employing a diverse range of materials such as flowers, leaves, shells, bones, and metals like iron, gold, silver, and copper. These materials are skillfully transformed into exquisite ornaments, including traditional earrings (Kaan), gold chokers (Chik), Hunsuli, Dokra, and coin jewelry, showcasing the intricate craftsmanship and cultural significance.

In terms of attire, tribes exhibit a rich tapestry of clothing traditions, with each community presenting its unique style and designs. For instance, tribal clothing in Odisha differs from that of Jammu-Kashmir. Some notable garments include Mundum Neriyathum, Pawl Kut, Dumdyam, Dhara, and Pano Bhaju, each reflecting the cultural identity and heritage of the respective tribal groups. Through their artistry and craftsmanship, Indian tribes contribute significantly to the cultural diversity and richness of the nation.⁸

⁷Amikus Qriac. (n.d.). *Uplifting the Intellectual Property Rights of Indian Tribes*, the Amikus qriac <https://theamikusqriac.com/uplifting-the-intellectual-property-rights-of-indian-tribes/#:~:text=Tribal%20individuals%20have%20a%20right,financial%20rewards%20for%20their%20works>.

⁸ Amikus Qriac. (n.d.). *Uplifting the Intellectual Property Rights of Indian Tribes*, the Amikus qriac <https://theamikusqriac.com/uplifting-the-intellectual-property-rights-of-indian-tribes/#:~:text=Tribal%20individuals%20have%20a%20right,financial%20rewards%20for%20their%20works>.

RECOGNITION AND PROTECTION OF TRADITIONAL KNOWLEDGE

Traditional knowledge forms an essential component of the cultural identity of indigenous communities worldwide. Integral to achieving sustainable development is the preservation of the intricate information structures inherent in traditional knowledge systems. Furthermore, safeguarding the social and physical environments in which traditional knowledge thrives holds paramount importance. Efforts to exploit traditional expertise for commercial or industrial gains can lead to the rightful custodians being deprived of their heritage. Hence, there is a pressing need to devise strategies for the conservation and upkeep of traditional knowledge, ensuring that sustainable development aligns with the interests and aspirations of traditional knowledge holders.

Traditional knowledge (TK), herein referred to as TK, is recognized as communal property shared by entire communities, embodying the concept of *res communis*, ownership by society as a whole. TK evolves through the collective contributions of numerous individuals across generations and becomes deeply intertwined with the fabric of traditional life, inseparable from the experiences of indigenous peoples. This collective right to TK is vested in the community that has cultivated and nurtured this knowledge over time, encompassing a diverse array of practices, teachings, and wisdom transmitted from one generation to the next within indigenous societies. It is essential to acknowledge that while certain aspects of TK may reside in the public domain, other facets may be safeguarded by specific communities as sacred or confidential. Consequently, ongoing discourse and deliberations persist regarding the extent and parameters of TK's scope.⁹

Article 8(j) of the Convention on Biological Diversity defines traditional knowledge as the accumulated wisdom, innovations, and customs of local and indigenous cultures worldwide. This knowledge, honed through centuries of experience and tailored to local customs and environments, is predominantly passed down orally from one generation to the next. It manifests collectively in various forms, including stories, songs, folklore, proverbs, cultural values, beliefs, customs, community norms, indigenous languages, and agricultural practices, encompassing the cultivation of plant species and breeding of animals. Often referred to as an oral tradition, traditional knowledge has been transmitted through teaching, song, dance, art,

⁹ Ipleaders, (n.d.). *IPR vis-à-vis Traditional Knowledge*. Ipleaders Blog <https://blog.ipleaders.in/ipr-vis-vis-traditional-knowledge/>

and performance over millennia. It primarily serves practical purposes, particularly in sectors such as agriculture, fisheries, safety, gardening, forestry, and overall environmental stewardship.

CRITERIA FOR QUALIFYING FOR TRADITIONAL KNOWLEDGE

The core tenets of Traditional Knowledge (TK) encompass several key elements:

- a) Innovation: TK involves the creation or discovery of new practices or processes to address specific needs or challenges within a community.
- b) Transmission through generations: These innovative practices or methods are passed down orally or through cultural customs from one generation to the next, ensuring their continuity and preservation over time.
- c) Cultural and communal ownership: TK is often closely tied to the values, beliefs, and traditions of a particular group or community, and its usage is typically restricted to members within that community.

A quintessential example of Traditional Knowledge is illustrated by the case of the neem tree in India. This ancient tree has been documented in Indian texts dating back over 2000 years, showcasing its extensive applications across various domains. From agriculture to human and veterinary medicine, toiletries, cosmetics, and even insect and pest repellent, the neem tree's versatility underscores the rich tapestry of knowledge passed down through generations within indigenous communities.¹⁰

IPR PROTECTION OF TRADITIONAL KNOWLEDGE

In developing and underdeveloped nations, there is a pressing need for robust security measures to safeguard traditional knowledge. This entails recognizing the rights of the original holders of traditional knowledge and preventing unauthorized appropriation by third parties. Given the globalized nature of contemporary trends, effective protection and nurturing of traditional knowledge necessitate extensive international collaboration and cooperation. Any protective framework must account for the diverse societal, national, regional, and international

¹⁰ Riya (December 2020), *Protection of Traditional Knowledge Under Intellectual Property Rights Regime*, <https://cnlu.ac.in/wp-content/uploads/2022/08/10-Riya.pdf>

dimensions involved. Moreover, strategies for safeguarding traditional knowledge should prioritize the perspectives and interests of the original knowledge holders. These protective mechanisms must address the economic aspects of protection while also ensuring that they are affordable, comprehensible, and readily accessible to traditional knowledge holders.

In the current intellectual property rights (IPR) regime, traditional knowledge can be safeguarded through two primary approaches: ***Positive Protection and Defensive Protection***. These methods, while distinct, are not mutually exclusive, and their boundaries are not rigidly defined. Hence, employing both strategies effectively is crucial for preserving traditional knowledge.

Defensive protection: It entails safeguarding traditional knowledge against unauthorized acquisition of intellectual property rights by third parties. This involves:

1. Mandating the disclosure of the origin of genetic resources and associated traditional knowledge in patent applications.
2. Establishing a database containing detailed information on traditional knowledge in a scientifically and technically accessible format, accessible to patent examiners. This database aids in assessing the novelty of the invention under consideration.

Positive protection: It encompasses traditional knowledge holders directly acquiring intellectual property rights through patents or other forms of protection. States have adopted diverse approaches in this regard. Some rely on existing intellectual property (IP) measures as a means to safeguard traditional knowledge, while others recognize the unique nature of traditional knowledge and advocate for a sui generis system designed to complement existing IP frameworks. This sui generis approach is tailored to preserve traditional knowledge effectively. Additionally, some states have adapted or expanded new IP mechanisms specifically tailored to safeguard traditional knowledge.

LEGAL FRAMEWORK

PATENT

Under Section 3(p)¹¹ of the Indian Patent Act, 1970, Indian patent laws do not allow for the

¹¹ Section 3(p). The Patent Act, 1970.

protection of traditional knowledge. Any invention that essentially constitutes traditional knowledge or merely aggregates or duplicates known properties of traditionally known components cannot be considered as a patentable invention. For instance, a patent application for a process aimed at enhancing Chyawanprash, which involves cutting, roasting, and mixing dry fruits before adding them to the Chyawanprash, would not be eligible for patent protection under this provision. This is because the invention is derived from traditional knowledge, rendering it ineligible for patenting under the Act.

If there is a substantial alteration in the existing traditional knowledge (TK) that enables the innovation to meet the requirements of Indian intellectual property (IP) law, then pursuing IP protection becomes feasible. Indian law includes provisions to safeguard traditional knowledge appropriately. Given that traditional knowledge is inherently in the public domain, any patent application related to TK does not meet the criteria of an invention as defined by Section 2(1)(j)¹² of the Patents Act, 1970. This section specifies that an invention must be a new product or method involving an inventive step and capable of industrial application. Additionally, according to Section 3(e)¹³ of the Patents Act, substances obtained through mere admixture, resulting only in the aggregation of component properties, or processes producing such substances, are not considered inventions and hence are not patentable.

Patent applications based on TK that violate legal provisions may be rejected under Section 15¹⁴ or challenged in pre-grant opposition under clauses (d), (f), and (k) of section 25(1)¹⁵. Granted patents may be revoked in opposition under clauses (d), (f), and (k) of section 25(2)¹⁶ of the Patents Act, 1970. The Patent Act 1970 mandates disclosure of TK as the source and origin of the invention in question. Section 10(4)(ii)(D)¹⁷ of the Act requires the specification to disclose the source and geographical origin of all biological materials utilized in the invention.

Various aspects of TK may be protected through the patent scheme. Technical issues identified in the prior art with novel and innovative global steps can be secured through patent applications. For example, trademarks containing contemporary subject matter may be covered

¹² Section 2(1)(j) The Patent Act, 1970.

¹³ Section 3(e). The Patent Act, 1970.

¹⁴ Section 15. The Patent Act, 1970.

¹⁵ Section 25 (1). The Patent Act, 1970.

¹⁶ Section 25 (2) The Patent Act, 1970.

¹⁷ Section 10(4). The Patent Act, 1970.

by patents. Patents can safeguard processes for preparing products isolated from biological resources such as microorganisms, plants, and animals. However, under Patents, codified TK cannot be covered due to lack of novelty. Nevertheless, codified TK can serve as prior art to prevent others from obtaining patents.

2005 Amendment Act

The Patents (Amendment) Act, 2005, was enacted with the aim of safeguarding the rights of indigenous communities. It imposes an obligation on patent applicants to disclose the origin of the biological resources utilized in their inventions. If this information pertains to traditional knowledge (TK), the patent office reserves the right to reject the patent application. According to the 2005 Amendment, the following grounds may lead to the refusal of a patent application or the revocation of an existing patent:

1. The patent may be revoked if it is determined that false or misleading information was provided regarding the geographical origin of the biological resources involved in the patent.
2. A patent application may be rejected if the invention is simply an aggregation of properties inherent in traditional knowledge.
3. If the patent, considering the knowledge accessible to indigenous communities, is deemed to lack novelty, it may be refused.

COPYRIGHT

Copyright serves as a vital tool for safeguarding the artistic expressions of traditional knowledge (TK) holders, particularly artists hailing from indigenous and migrant communities, against unauthorized exploitation and misuse. This protective umbrella extends across a diverse spectrum of creative works, encompassing literary creations like stories, legends, myths, customs, and poems, as well as theoretical and pictorial compositions. Textile works, including fabrics, clothing, tapestries, and carpets, are also afforded protection, alongside musical compositions and three-dimensional artworks such as pottery, ceramics, paintings, and sculptures. Public rights play a crucial role in ensuring the involvement of singers, dancers, and performers in various theatrical and cultural performances, including puppet shows. Additionally, the World Intellectual Property Organization (WIPO) recognizes the

performances of indigenous and local communities as part of common knowledge. Under copyright law, performances are covered through adjacent rights or performer rights, thus allowing for the protection of traditional, indigenous, and local community performances within the framework of copyright law.

Copyright law protects the form of expression rather than the underlying ideas themselves, granting copyright holders the authority to exercise the rights outlined in Section 14¹⁸ of the 1957 Copyright Act. Within this framework, copyright serves as a means to shield the artistic manifestations of traditional knowledge (TK) holders, particularly artists from indigenous and migrant cultures, against unauthorized reproduction and misuse. Moral rights play a significant role in governing the relationship between creators, artists, or authors and their works, offering a mechanism to safeguard the interests of indigenous peoples in creations derived from indigenous knowledge. Furthermore, Section 31A¹⁹ of the Copyright Act, 1957 addresses compulsory licensing for unpublished Indian works. Under this provision, if the author of a work is deceased, unknown, cannot be traced, or if the copyright owner cannot be located, any individual can petition the Copyright Board for a license to publish the work or a translation thereof in any language. Prior to filing an application, the applicant is required to publish their proposal in a widely circulated English-language daily newspaper and, if applicable, in a daily newspaper in the relevant language for translation publications. This notification allows for any surviving original authors to assert their ownership rights.²⁰

TRADEMARK

Under the Trademark Act 1999, agricultural and biological products, along with various other goods and services crafted or provided by producers, artisans, craftsmen, and traders within native and indigenous communities, can receive protection. Through the use of trademarks and service marks, these products and services can be distinguished from those offered by others. Collective marks serve to safeguard artisanal and cultural products, while certification marks differentiate a wide range of products and services, including traditional art, food, clothing, and tourism offerings. Indigenous groups have the opportunity to register trademarks and market their products under this symbol, ensuring brand differentiation and guaranteeing their

¹⁸ Section 14. The Copyright Act, 1957.

¹⁹ Section 31A. The Copyright Act, 1957

²⁰ Ipleaders. (n.d.). IPR vis-a-vis Traditional Knowledge. Ipleaders Blog. <https://blog.ipleaders.in/ipr-vis-vis-traditional-knowledge/>

unique quality. While trademarks offer a degree of protection for the prestige of traditional knowledge, they do not safeguard the content of such knowledge. However, they provide defensive protection against instances of passing off non-genuine goods or services. By utilizing trademarks, indigenous communities can establish product authenticity and mitigate reputation damage resulting from the misuse of traditional knowledge designations for derivative products. This approach mirrors the use of trademarks to maintain product authenticity even after the expiration of patents, particularly in the pharmaceutical sector.

In cases where patents restrict indigenous communities from selling certain products, trademark registration and subsequent licensing of the trademark can ensure authenticity for authorized companies. Community-endorsed procedures for product authentication can add value to products and potentially generate royalties on sales.

GEOGRAPHICAL INDICATION (GI) AND ITS RELEVANCE TO TRIBALS

The Geographical Indications of Goods (Registration and Protection) Act, 1999 defines "Geographical Indication" as an indication identifying agricultural, natural, or manufactured goods as originating in a specific territory, region, or locality, where a particular quality, reputation, or characteristic of the goods is essentially linked to their geographical origin. Similar to trademarks, geographical indications attribute a recognized quality to a product associated with a particular geographical area. The use of a geographical indication for products manufactured outside the designated geographical area is prohibited. Examples of geographical indications include Darjeeling Tea, Kanchipuram Silk, Alphonso Mango, Nagpur Orange, Kolhapuri Chappal, Bikaneri Bhujia, Agra Petha, and Goa Feni. Geographical indications can also be employed to protect traditional medicinal products, especially those whose characteristics are influenced by the geographical origin of botanical components.

Geographical indications play a crucial role in recognizing and rewarding farmers for their longstanding cultural contributions to the preservation, knowledge exchange, conservation, and social cohesion within their communities. By acknowledging the cultural values and innovation of traditional knowledge holders, geographical indications contribute to the

sustainability and evolution of societies.²¹

SIGNIFICANCE OF GEOGRAPHICAL INDICATION

G.I. tags serve as guardians of India's diverse cultural heritage, safeguarding traditional art forms, handicrafts, textiles, foods, and beverages that hold profound cultural significance. By acknowledging the origins and uniqueness of these products, G.I. tags play a pivotal role in preserving indigenous knowledge, skills, and traditions. Furthermore, G.I. tags ensure transparency and trust in the marketplace by guaranteeing the quality, authenticity, and distinctiveness of the products they adorn. This certification empowers consumers to make informed choices, confident in the integrity of the products they purchase. Additionally, G.I. tags bestow a competitive advantage upon producers by setting their products apart from counterfeit or inferior alternatives. Moreover, G.I. tags empower local communities economically by safeguarding their traditional products and facilitating access to markets. By increasing visibility and marketability, G.I. tags stimulate demand and command better prices for these products, thereby sustaining livelihoods and fostering the intergenerational transmission of traditional knowledge.²²

Under the leadership of the Prime Minister's Office (PMO), TRIFED, in collaboration with the Lal Bahadur Shastri National Academy of Administration (LBSNAA), Ministry of Culture, Ministry of Textile, and Ministry of External Affairs, is spearheading efforts to promote and market Geographical Indication (GI) products of tribal origin. The objective is to elevate these products into a recognizable brand symbolizing the empowerment of tribal artisans. TRIFED is dedicatedly working towards the upliftment of tribal communities across India by mobilizing them into Self Help Group-based micro-enterprises. This involves providing training and capacity building to foster entrepreneurship among tribal individuals. Additionally, TRIFED facilitates the commercialization of research and development outputs to enhance market positioning. Through branding and packaging initiatives, TRIFED aims to improve the marketability of tribal products. Moreover, TRIFED extends financial support for the procurement of equipment and other startup costs for tribal entrepreneurs. By facilitating

²¹ FasterCapital. (n.d.). *Geographical Indications: Protecting Intellectual Property and Cultural Heritage*. *FasterCapital Blog* <https://fastercapital.com/content/Geographical-Indications--Protecting-Intellectual-Property-and-Cultural-Heritage.html>

²² Deepankar Singhal (July 13, 2023) *G.I. Tags in India: Preserving Cultural Heritage and Promoting Economic Growth*, <https://www.successmantra.in/blog/g-i-tags-in-india>

access to both domestic and international markets, TRIFED endeavors to create opportunities for tribal artisans to showcase their products on a global platform.²³

PROTECTION OF PLANT VARIETIES AND FARMER RIGHTS ACT, 2001

To establish an effective framework for safeguarding plant varieties, securing the rights of farmers and plant breeders, and promoting the development of new plant varieties, the Government of India has enacted the "Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001" under a sui generis system. This legislation aligns with the standards set by the International Union for the Protection of New Varieties of Plants (UPOV), 1978, while also ensuring adequate provisions for safeguarding the interests of public sector breeding institutions and farmers.

The PPV&FR Act acknowledges the significant contributions of both commercial plant breeders and farmers in the realm of plant breeding activities. It aims to implement Trade-Related Aspects of Intellectual Property Rights (TRIPs) in a manner that addresses the specific socio-economic concerns of all stakeholders, including private entities, public sectors, research institutions, and resource-constrained farmers. By recognizing and protecting the rights of farmers in conserving, enhancing, and making available plant genetic resources, this legislation promotes innovation, sustains agricultural diversity, and fosters equitable outcomes for all involved parties.

I. OBJECTIVES

The objective is to establish a robust framework for safeguarding plant varieties, ensuring the rights of farmers and plant breeders, and fostering the innovation and development of new plant varieties. This involves acknowledging and preserving the invaluable contributions of farmers towards conserving, enhancing, and sharing plant genetic resources for the advancement of new plant varieties. Additionally, it aims to catalyze agricultural progress by protecting the rights of plant breeders, thereby incentivizing investment in research and development across both public and private sectors. By nurturing the growth of the seed industry, the initiative seeks to guarantee farmers access to high-quality seeds and planting material, thereby

²³ Tribes India. (n.d.). G.I. Corner. Tribes India. <https://www.tribesindia.com/gi-corner/#:~:text=Under%20the%20aegis%20of%20the,symbolizes%20empowerment%20of%20tribal%20artisans.>

promoting agricultural sustainability and productivity.

II. HISTORICAL PERSPECTIVE

The enactment of The Protection of Plant Varieties and Farmers' Rights Act in 2001 sparked nationwide discussions on how intellectual property rights should be integrated into Indian agriculture, following the country's accession to the World Trade Organization in 1995 and its commitment to implement the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). India faced a pivotal decision: whether to adopt a law that safeguards the interests of farming communities or to embrace the plant breeders' rights system outlined by the International Union for Protection of New Plant Varieties (UPOV Convention). The latter option was dismissed primarily because the current version of UPOV, established in 1991, curtailed farmers' rights to save and exchange farm-saved seeds. Consequently, The Protection of Plant Varieties and Farmers' Rights Act in India includes a section dedicated to Farmers' Rights, comprising three key components:²⁴

1. Farmers are acknowledged as plant breeders and granted the ability to register their varieties.
2. Farmers engaged in conserving genetic resources of landraces and wild relatives of commercial plants, as well as enhancing them through selection and preservation, are recognized and incentivized.
3. The Act safeguards the traditional practices of farmers saving seeds from one harvest and utilizing them for planting in the next cycle or exchanging them with fellow farm neighbors.

III. IMPLEMENTATION OF THE ACT

To enforce the provisions of the Act, the Protection of Plant Varieties and Farmers' Rights Authority was established in 2001 under the Department of Agriculture, Cooperation and Farmers Welfare, Ministry of Agriculture and Farmers Welfare. The chairperson serves as the chief executive of the authority. In addition to the chairperson, the authority comprises

²⁴ Ipleaders. (n.d.). Important Provisions Regarding Protection of Plant Varieties & Farmers' Rights Act, 2001. iPleaders Blog. <https://blog.ipleaders.in/important-provisions-regarding-protection-plant-varieties-farmers-rights-act-2001/>

15 members appointed by the Government of India (GOI). Eight members are ex-officio representatives from various departments/ministries, three are from State Agricultural Universities (SAUs) and state governments, while one member each is designated by the GOI to represent farmers, tribal communities, the seed industry, and women's organizations involved in agricultural activities. The Registrar General serves as the ex-officio member secretary of the authority.²⁵

IV. **RIGHTS UNDER THE ACT**

- a. **Breeders' Rights:** The registration certificate issued under this Act confers an exclusive right upon the breeder or their successor, agent, or licensee to produce, sell, market, distribute, import, or export the variety as per Section 28(1)²⁶ of the Act.
- b. **Researchers' Rights:** Under Section 30²⁷ of the Act, researchers have been granted access to registered varieties for legitimate research purposes. This provision allows for the utilization of any registered variety for conducting investigations or research, as well as using a variety as an initial source for developing a new variety, provided that repeated use of the variety requires the breeder's approval.
- c. **Farmers' Rights:** The farmers' rights outlined in Chapter VI of the Act emphasize their entitlement to protect varieties developed or conserved by them. Farmers can freely save, use, sow, resow, exchange, share, and sell farm produce of a protected variety, except for commercial marketing involving branded seeds as stipulated in Section 39(1)(i)-(iv)²⁸ of the Act. Additionally, farmers are provided with protection against innocent infringement under Section 42²⁹ if they are unaware of breeder rights at the time of infringement. Farmers engaged in conserving genetic resources of landraces and wild relatives of economic plants are eligible for recognition and grants from the Gene Fund, provided the material preserved contributes to registered varieties. Furthermore, farmers must be informed of the

²⁵ Vikaspedia. (n.d). *Protection of Plant Varities and Farmer's Rights Acts, 2001* <https://vikaspedia.in/agriculture/policies-and-schemes/crops-related/protection-of-plant-varieties-and-rights-of-farmers/protection-of-plant-varieties-and-farmers-rights-act-2001>

²⁶ Section 28(1). Protection of Plant Varities and Farmer's Rights Acts, 2001.

²⁷ Section 30. Protection of Plant Varities and Farmer's Rights Acts, 2001.

²⁸ Section 39(1) (i) (iv). Protection of Plant Varities and Farmer's Rights Acts, 2001.

²⁹ Section 42 Protection of Plant Varities and Farmer's Rights Acts, 2001.

expected performance of a variety at the time of seed/spreading material sale, and they may claim compensation under the Act if a variety or propagating material fails to meet expected performance standards, as asserted by the breeder.

V. GENERAL FUNCTIONS OF THE AUTHORITY

The registration process for new plant varieties involves several key steps and responsibilities:

1. Firstly, inferred assortments (EDV) and surviving assortments are identified and registered. This includes establishing criteria for distinctiveness, uniformity, and stability (DUS) testing rules for new plant species.
2. Once identified, these varieties are thoroughly characterized and documented, with comprehensive records maintained for each registered variety.
3. Compulsory listing facilities are established for all plant varieties, ensuring that a comprehensive database is maintained.
4. Special attention is given to documenting, indexing, and listing farmers' varieties, recognizing the invaluable contributions of farmers, particularly those from indigenous and rural communities, in conserving and developing plant varieties.
5. Efforts are made to preserve the plant genetic resources of economic plants and their wild relatives, safeguarding biodiversity and ensuring the availability of diverse genetic material for future generations.
6. The maintenance of a national register of plant varieties is crucial, providing a centralized database for easy access to information on registered varieties.
7. Additionally, the establishment and maintenance of a National Gene Bank play a vital role in preserving genetic diversity, storing seeds, and facilitating research and development efforts in the field of plant breeding and agriculture.

VI. CONVENTION COUNTRIES

Convention countries refer to nations that have ratified an international treaty for the protection of plant varieties, to which India has also agreed. It also includes countries that have legislation

for the protection of plant varieties, with which India has entered into an agreement to grant plant breeders' rights to residents of both countries. If an individual applies for the registration of a variety in India within one year after the date of application in the convention country, the variety will be registered in India as of the date of application in the convention country. This date will be considered the date of registration for the purposes of this Act.

VII. VARIETY REGISTRATION

The registration process under the PPV&FR Act requires a variety to meet the criteria of Distinctiveness, Uniformity, and Stability (DUS). The Central Government designates genera and species eligible for registration through notifications published in official Gazettes, which currently include 157 crop species. Specific guidelines for conducting DUS tests are provided by the PPV&FR Authority for each crop species. For extant varieties, the registration process has a specified time limit, which can be accessed through relevant resources provided by the Authority. The registration process itself involves submission of necessary documentation and adherence to established guidelines and procedures outlined by the Authority.

VIII. REGISTRATION FEES

The application for registration of plant varieties must include the registration fee determined by the Authority. The fee varies depending on the type of variety being registered.

1. Section 5 - Extant Variety notified under this section of the seeds act, 1966 is Rs. 2000
2. New variety/essentially derived variety (EDV)/Extant Variety about which there is common knowledge (VCK) - Individual Rs. 7000/-, Education Rs. 10000/- Commercial Rs. 50000/-
3. Farmers varieties - No Fee

The registration of a variety can be renewed by paying the annual and renewal fee as specified in the Plant Variety Journal of India by the Authority and in the Gazette of India dated 15.06.2015.

IX. DUS Test Centers

The Authority has designated DUS test Centers for various crops, tasked with maintaining and multiplying reference collections, exemplar varieties, and generating databases for DUS descriptors in accordance with the guidelines specific to each crop.

X. CERTIFICATE OF REGISTRATION

The certificate of registration granted for trees and vines remains valid for nine years, while for other crops, it is valid for six years. Renewal is possible for the remaining period upon payment of renewal fees, with the total validity not exceeding eighteen years for trees and vines from the registration date, and fifteen years for other crops from either the notification date under the Seeds Act, 1966, or the registration date, depending on the circumstances.

XI. COMPULSORY LICENSE

The authority is empowered to grant a compulsory license in cases where there are concerns regarding the accessibility of seeds of a registered variety to the public at a fair price. Such a license may be issued to any interested party to undertake production, distribution, and sale of the seed or other propagation material of the variety, three years after the issuance of the registration certificate, as stipulated under Section 47(1)³⁰ of the Act.

XII. BENEFIT SHARING

Benefit sharing is a fundamental aspect of farmers' rights, as outlined in Section 26³¹ of the Act. Claims for benefits can be submitted by Indian citizens, firms, or non-governmental organizations (NGOs) established in India. The breeder of the variety is required to deposit an amount in the Gene Fund, determined by factors such as the extent and nature of the genetic material's use in developing the variety, as well as its commercial utility and market demand. The deposited amount is then disbursed to the claimant from the National Gene Fund. To facilitate benefit sharing, the Authority publishes the certificate's contents in the PVJI to invite claims.

³⁰ Section 47 (1). Protection of Plant Varieties and Farmer's Rights Acts, 2001.

³¹ Section 26. Protection of Plant Varieties and Farmer's Rights Acts, 2001.

XIII. PLANT VARIETY APPELLATE TRIBUNAL

Until the establishment of the Plant Varieties Protection Appellate Tribunal (PVPAT), the Intellectual Property Appellate Board (IPAB) assumes jurisdiction over PVPAT matters. Consequently, the PVPAT has been established with appointed technical members. Appeals or decisions of the registrar of authority concerning variety registration, as well as appeals or decisions of the registrar regarding registration as an agent or licensee, can be appealed in the Tribunal. Additionally, appeals regarding benefit sharing, revocation of a compulsory license, and payment of compensation can also be lodged with the Tribunal. Decisions of the PVPAT can be challenged in the High Court. The Tribunal is mandated to resolve appeals within one year.

XIV. THE TIME PERIOD OF PROTECTION

The validity of the registration granted under Section 24³² or subsection 9 of Section 23³³ shall extend to nine years for trees and vines and six years for other crops. Upon payment of prescribed fees, as determined by the rules, the registration may be reviewed and renewed for the remaining period, subject to certain conditions. These conditions stipulate that:

- (i) For trees and vines, the total validity period shall not exceed eighteen years from the date of registration of the variety;
- (ii) For surviving varieties, the total validity period shall not exceed fifteen years from the date of notification of that variety by the Central Government under Section 5 of the Seed Act, 1996; and\
- (iii) In other cases, the total validity period shall not exceed fifteen years from the date of registration of the variety.

INTERNATIONAL UNION FOR PROTECTION OF NEW PLANT VARIETIES (UPOV CONVENTION).

The International Union for the Protection of New Varieties of Plants (UPOV) is an intergovernmental organization headquartered in Geneva, Switzerland. UPOV was established

³² Section 24. Protection of Plant Varieties and Farmer's Rights Acts, 2001.

³³ Section 23. Protection of Plant Varieties and Farmer's Rights Acts, 2001.

through the International Convention for the Protection of New Varieties of Plants, initially adopted in Paris in 1961 and subsequently revised in 1972, 1978, and 1991. The primary objective of UPOV is to ensure effective plant protection measures that facilitate the development of new plant varieties for the benefit of society. Under the UPOV Convention, breeders of new plant varieties are granted intellectual property rights known as breeder's rights. These rights provide breeders with control over the propagation of their protected varieties for commercial purposes. Only the breeder of a new plant variety can secure protection for that variety, and authorization from the breeder is required for its commercial propagation. While there are no restrictions on who can qualify as a breeder under the UPOV system, India is not currently a member of the organization.

CASE STUDY

a. Turmeric case

Turmeric, a tropical herb grown in eastern India, holds versatile uses ranging from medicine to food and dye. Its medicinal properties, including as a blood purifier and antiparasitic agent, have been recognized for generations in Indian households. However, in 1995, the University of Mississippi medical center obtained a US patent for turmeric's wound healing properties, granting exclusive rights for its use. The Indian Council for Science and Industrial Research (CSIR) contested the patent, presenting 32 references in Sanskrit, Urdu, and Hindi to establish turmeric's traditional knowledge. The US Patent and Trademark Office (USPTO) revoked the patent, acknowledging turmeric's ancient healing properties as common knowledge and safeguarding India's traditional knowledge.

b. Basmati Rice

The case of Basmati Rice highlights the tensions between PVP and the rights of tribal farmers. Basmati Rice, known for its distinctive aroma and long grains, is cultivated in the Indo-Gangetic plains of South Asia, predominantly by small-scale farmers, including tribal communities. However, the commercialization of Basmati Rice by multinational corporations and the granting of PVP rights to specific varieties have raised concerns about the misappropriation of traditional knowledge and genetic resources. In response, efforts have been made to challenge the validity of PVP claims and assert the rights of tribal farmers to freely use, save, and exchange traditional Basmati seeds. This case underscores the importance of

balancing intellectual property rights with the collective rights of indigenous communities to their cultural and biological heritage.

c. Neem Tree Patent

One significant case related to Tribal Intellectual Property Rights (IPR) and Traditional Knowledge (TK) is the case of the "Neem Tree Patent." In the 1990s, the European Patent Office (EPO) granted a patent to the European company W.R. Grace for the fungicidal properties of an extract from the Neem tree (*Azadirachta indica*). This patent essentially covered the traditional knowledge of Indian farmers and indigenous communities, who had been using Neem for centuries for various purposes, including as a natural pesticide.

The granting of this patent sparked outrage in India, leading to a legal battle to revoke the patent. Indian activists, farmers, and the Indian government challenged the patent's validity, arguing that the fungicidal properties of Neem were well-known and extensively used in Indian traditional medicine and agriculture. They contended that the patenting of traditional knowledge without the consent of the indigenous communities amounted to biopiracy. In 2000, after years of legal proceedings and public pressure, the European Patent Office revoked the Neem patent, acknowledging that the fungicidal properties of Neem were indeed part of traditional knowledge and not an invention of W.R. Grace. This landmark case highlighted the importance of protecting traditional knowledge and the rights of indigenous communities, sparking discussions on the need for stronger intellectual property laws to prevent biopiracy and ensure the fair recognition and benefit-sharing of traditional knowledge.

In the case of Medari Shanthamma & Ors. v. State of Andhra Pradesh & Ors³⁴. (AIR 2002 AP 246), The Andhra Pradesh High Court addressed a dispute between tribal communities and the state government regarding ownership of forest land traditionally inhabited by the tribes. Recognizing the tribes' historical occupation and dependence on the land, the court upheld their customary rights acquired through long-standing possession. Emphasizing constitutional protections under the Fifth and Sixth Schedules, it ruled in favor of the tribes, affirming their rights and restraining government interference. This case underscored the importance of safeguarding tribal rights over forest land in line with constitutional provisions and principles

³⁴ Medari Shanthamma & Ors. v. State of Andhra Pradesh & Ors, A.P.246 (2002).

of social justice, highlighting the need for legal mechanisms to protect indigenous communities.

***Harishchandra Hegde v. State Of Karnataka And Others*³⁵ (Supreme Court Of India, 2003).**

This judgment emphasizes the need for protecting tribal rights and preventing exploitation of tribals by non-tribals. It underscores the importance of laws and regulations to safeguard tribal lands and property from being acquired by non-tribals.

CONCLUSION

In conclusion, the Intellectual Property Rights (IPR) framework in India, as embodied in the Geographical Indication (GI) and Protection of Plant Varieties & Farmer Rights (PPV&FR) Acts of 2001, presents both opportunities and challenges for tribal communities. While these laws offer mechanisms for protection and recognition, their effective implementation remains elusive due to various factors such as lack of awareness, resource constraints, and exploitation by external entities. Addressing the shortcomings requires concerted efforts to enhance tribal awareness, strengthen community participation in decision-making processes, and ensure robust enforcement of legal provisions. Additionally, a more holistic approach integrating legal, socio-cultural, and economic perspectives is needed to safeguard tribal IPR effectively.

The judiciary also plays a crucial role in interpreting and enforcing IPR laws in a manner that upholds the rights and interests of tribal. Judicial decisions should prioritize equity, justice, and sustainability, thereby empowering tribal communities and promoting a fair and inclusive IPR regime. Ultimately, the protection of tribal IPR is not just a legal obligation but a moral imperative rooted in principles of justice, dignity, and human rights. By acknowledging and respecting the knowledge, heritage, and aspirations of tribal, India can forge a path towards a more equitable and sustainable future for all its citizens.

³⁵ Harishchandra Hegde v. State Of Karnataka And Others, 9 SCC 780 (SC) 2004.