

## **Traditional Knowledge Under Intellectual Property Rights In India- Legality And Need!**

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### **Understanding Traditional Knowledge:**

Traditional Knowledge (TK) springs from the long years of interaction of the human beings with their natural environment. It has been preserved and passed on orally from generation to generation by indigenous and local communities. Traditional Knowledge evolved over centuries from the traditions, culture and understanding of nature and can be traced in vital areas like agricultural development, medical treatment, food security, etc.

From artwork to handicraft designs to culturally inherited folklores, songs, dances, literature along with the agricultural, ecological, scientific, technical and medicinal knowledge, all are closely associated with the identity of the indigenous and local communities. Such knowledge is religiously passed on to individuals, families or communities, and preserved over centuries and are rendered sacrosanct by the communities and tribes in which they were formulated by their forefathers. Each

senior member of the community has a vast reservoir of such practical and useful knowledge and therefore, it was said that ‘when an elder dies, a library burns’.

### **Examples of Traditional Knowledge:**

# Use of haldi (turmeric) by the Indians as an antibacterial and anti-inflammatory, as a dye.

# Use of hoodia cactus by the San people to thwart their hunger while hunting for long hours.

# Use of plao-noi by the Thai traditional healers for treatment of ulcers.

### **Salient Features of Traditional Knowledge:**

- 1) They are conserved, protected and communicated from generation to generation, from time immemorial.
- 2) They are related to a particular community or tribe.
- 3) They keep changing and evolving as the community counters new challenges and requirements.
- 4) They are collective and casual in nature with no formal recorded documentation or evidence.
- 5) TK covers tangible as well as intangible knowledge, encompassing innovations that are of either potential or of actual value.
- 6) The real guardians of TK are a community of 360 million aboriginal and native people residing in various parts of the world.
- 7) TK is still vitally significant for the poorest segment of the society as they are primarily dependent on traditional medicines for health care and well-being.
- 8) TK is indispensable in environmental preservation as it prevents land and soil degradation, depletion, erosion and deforestation.

### **Traditional Knowledge And Its Significance In India:**

An ancient civilization of unmatched acclaim, it is not at all surprising that India has a vast reservoir of Traditional Knowledge. India is estimated to be the homeland of nearly 100 million aboriginal indigenous people, mostly tribals. It is quite obvious then that India boasts of immense Traditional Knowledge which is inherent to the natives residing here since centuries.

Abundantly rich in biodiversity, India is abode to varied species and categories of animals, insects, birds, plants and microbes. This provides an edge to the country as-

- Approximately 580 plant species are cultivated in this tropical country.
- Almost 330 wild relatives of crop species are found here.
- Holds an enviable 10<sup>th</sup> place in the world among plant rich nations.
- Ranks 7<sup>th</sup> in the world when it comes to plant diversity.
- Of the world mangrove 7% exists here.
- Medicinal products that are commonly used here are plant based.

It is but natural that the various indigenous communities residing here are a store house of Traditional Knowledge, as they have survived and prospered for ages.

### **Why Do We Need To Protect Traditional Knowledge?**

The need to preserve, protect and foster TK is the demand of the hour as it would otherwise perish a rich, cultural heritage and lead to immense damage to the ecosystem, disrupt the biological diversity and impact the health and living of millions of indigenous and tribal people all over the world.

The primary motive of doing so is:

- 1) To promote equitableness and fairness
- 2) To conserve environment
- 3) To stimulate sustainable agriculture
- 4) To nurture food security
- 5) To preserve traditional culture, knowledge and practices
- 6) To boost and promote its wider use
- 7) To encourage and motivate the communities
- 8) To assist in safeguarding it for future
- 9) To save it from extinction

### **Misappropriation of Traditional Knowledge:**

As the importance and significant use of TK dawned upon the world, thriving companies of developed nations have started vying for patents of many of them. This move by them has created manifold disadvantages for the indigenous communities and tribes who are the rightful owners of these Traditional Knowledge. Misappropriation by third parties for their industrial or commercial benefits has left

the rightful owners high and dry; as their consent is not taken nor any of the derived benefit is shared with them.

A blatant example of inappropriate and erroneous patents has plagued India in recent times when third parties acquired patent of Neem, Turmeric, Basmati Rice, etc. These brought to light the inadequacies of Intellectual Property Right in relation to safeguarding Traditional Knowledge. The narrow definitions and stringent requirements of IPR that are primarily meant for modern, individual innovations and inventions but are incapable of preserving and conserving the TK of communities.

### **Some Recent Cases Of Biopiracy That Triggered The Need For Protection of Traditional Knowledge In India:**

#### **#1. Neem Patent:**

- In 1995 WR Grace patented use of neem seeds in pesticides in the US.
- A challenge was made by India laying claim of age-old practice of neem known for its antifungal properties.
- It was neither a novel idea nor an invention.
- It was Traditional Knowledge which was in use from ancient times.
- After 10 years, in 2005, The European Patent office revoked the patent.

## **#2. Haldi Patent:**

- In 1995, University of Mississippi Medical Center, Mississippi was granted US patent 5,401,504 for use of Haldi (powdered turmeric) for wound healing.
- Indian government objected and appealed against it.
- It cited supporting documents like Ayurvedic texts and scientific publications.
- The patent was finally revoked on the grounds that it was Traditional Knowledge and no invention or innovation was involved.

## **#3. Basmati Rice Patent:**

- A US rice company obtained a patent on basmati rice, (US 5663484)
- It was a hybrid of basmati, cross-bred with an American long rice variety.
- It further claimed future rights on any new varieties.
- A protest by the Indian Govt., farmers and a worldwide citizens campaign saw the revocation of the patent.

## **#4. 'Nap Hal' Wheat Patent:**

- US giant, Monsanto was granted patent of Nap Hal variety of wheat (EP 0445929 B1).
- In 2004, Greenpeace of Germany, Bharat Krishak Samaj of India and Research Foundation for Science Technology and Ecology filed a petition challenging the patent.
- The patent was revoked in October, 2004.

These few examples are a confirmation of the ineffectiveness of IPR in protecting Traditional Knowledge.

## **Traditional Knowledge And IP Protection:**

Let's analyze the different categories of IPR to understand how Traditional Knowledge can be protected.

### **#1. Traditional Knowledge and Indian Patents Law:**

- Patents are awarded to individuals and this is a hurdle for TK as they are community owned knowledge.
- Patent protections are given to inventions and because TK are naturally owned and not inventions or innovations, they can't be patented.
- TK cannot be patented in India as they are not invented in a single act, as mandated, instead, they evolve and develop with time.
- Patents are a costly affair, to get as well as to maintain, which obviously the indigenous communities or tribes cannot afford.
- It is a daunting task for such communities to deal with legalities, procedures and technicalities of patenting.

Keeping all these factors in mind it's clear that it is next to impossible to secure a patent for Traditional Knowledge.

## **#2. Traditional Knowledge and Indian Copyright Law:**

- Section 32A (2) of the Indian Copyright Law protects unpublished work but there are major drawbacks in context with TK.
- Authorship protection is given to the owner or author of the work; TK is community owned knowledge that is passed on from generation to generation, impossible to trace the author.
- The protection provided is for a limited time period, granted for 60 years; this cannot work in case of TK as it is imperative in nature and demands continuous protection.
- Copyright is awarded to tangible things; here TK fails most of the time, as there is generally no documentation. They are casually passed on from one generation to next.

A close examination of the requirements for copyright makes it obvious that TK won't be able to stand the test.

## **#3. Traditional Knowledge as Trade Secrets:**

- India has not formulated any specific Trade Secrets law.
- If there ever is a Trade Secrets law enacted in India, it would help the cause of TK immensely.
- All that is needed is to keep the knowledge confidential, confined within the community.
- It is a very cost-effective measure too.

Thus, the scrutiny of the IPR system shows that there is a wide gap between IPR and TK. The narrow definitions, time-bound implementation, complicated procedures, high costs- all are a hurdle for TK and therefore, fails to protect it in any way.

## **Steps Taken By India Towards Protecting Traditional Knowledge:**

The impact of globalization has brought to the fore the need for the Indian government to take concrete steps to safeguard Traditional Knowledge. The patents granted to third parties for haldi, basmati rice, neem and many more, which in reality are Traditional Knowledge and used from ancient times by communities dwelling here. The Indian government had to take great measures to revoke them as the documentary evidence was lacking or not made available to the outside world.

As a commendable step India's Council of Scientific and Industrial Research, and the Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and

Homeopathy have developed a Traditional Knowledge Digital Library (TKDL). The main features of TKDL is-

- This is a major tool that effectively prevents misappropriations of Traditional Knowledge.
- It records age old Traditional Knowledge.
- TKDL contains exhaustive data of almost 2.6 lakh formulations of the traditional medicine systems like Ayurveda, Unani, Siddha and Homeopathy.
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- TKDL provides access to a searchable base of 30 million pages of database of Traditional Knowledge.
- Original TK is translated from different Indian languages like Sanskrit, Hindi, Arabic, Urdu, Persian and Tamil to English, Spanish, German, French and Japanese.
- Patent examiners of the United States Patent and Trademark Office (USPTO) and European Patent office (EPO) was allowed to access the data in 2009.
- The local names and format have been modernized too, for the advantage of patent examiners.
- It functions as a bridge between a Patent examiner at a Global level, and formulations, Tk in local languages.
- It is a platform which sees a confluence of traditional knowledge with modern science.
- It is mandatory for patent examiners to refer to this database before awarding any patent.

This vital step has brought some conclusive results in protecting TK by revoking patents. It has also effectuated withdrawals in many a case.

# Jumpsun Bio-Medicine (Shanghai) Co. Ltd of China withdrew their application no EP 1889638 for ‘Medicaments and food for treatment or prevention of obesity and/or diabetes containing cicer arietinum extract’.

# Unilever (Netherland) have withdrawn their application EP1607006 for ‘Functional berry composition’ dated 04 August 2009.

# Amcod Limited, Mombasa, Kenya have withdrawn their application no EP1807098 for ‘Herbal compositions for treatment of diabetes’.

# Nestec S.A. Avenue Nestlé Switzerland, have withdrawn their application no EP2263481 for ‘Green tea extracts of improved bioavailability’.

### **Global Initiatives To Protect Traditional Knowledge:**

# UN Draft Declaration on Rights of Indigenous Peoples: Article 29 of the UN Declaration specifically states that, “Indigenous peoples are entitled to the recognition of the full the ownership, control and protection of their cultural and intellectual property”.

# Global Guidelines: Delegates from 166 countries of UN Biodiversity Congress adopted guidelines for businesses that intended to use Traditional Knowledge in any field.

# International Treaty on Plant Genetic Resources for Food and Agriculture: This treaty extends protection to farmers rights and covers TK too.

# Inter-Governmental Committee (IGC) on IP and Genetic Resources, TK and Folklore: This provides a platform to negotiate on international mechanisms on Traditional Knowledge.

### **Best Recourse To Safeguard Traditional Knowledge:**

In recent years lot many debates and deliberations have taken place as nations have taken cognizance of the fact that complexities in safeguarding Traditional Knowledge requires innovative and futuristic approach. IPR has failed to prove its efficacy therefore, the governments need to comprehensively deliberate on policy issues regarding the intent, procedure and implementation that can shield the rights of the indigenous communities.

# Empowerment of local and indigenous communities (LICs): Use of Traditional Knowledge for commercial purposes leading to capital benefits should be done with the consent of the said community which is the rightful owner. Empowering them by spreading awareness will ensure that their inheritance is not misappropriated.

# Sui Generis system of protection: To ensure equity and fairness from the market forces it is suggested to grant proprietary rights to LICs as an effective system of protection of TK.

# Consent and profit sharing: Unauthorized use of Traditional Knowledge has already dented the LICs authority. A corrective measure would be to strengthen the existing IPR system in a way that TK can be patented by collective ownership. This will guarantee control and profit sharing that shall conclusively benefit the community at large.

# Bilateral Contract: Another constructive way that will result in fruitful sharing of Traditional Knowledge would be to frame a contract that shall be signed by the concerned LIC and the company eager to acquire the TK. This will result in effective profit sharing and at the same time ensure no misappropriation takes place. The profit shared will be put to good use by the community.

### **The Last Word:**

An issue as complex and tricky as this, needs extensive deliberations to work out on intricacies related to protection of Traditional Knowledge and their rightful owners. Indian government acknowledges the necessity to bridge the gap to shield the LICs and TK from unauthorized commercialization.

The foremost point to reckon with is the comprehension providing insight into the unique standing of the indigenous communities. Traditional Knowledge for them is a legacy which is sacred and secret and a way of life. It provides a distinctive identity to them and any effort to make it public should seek consent and put to good use.

Creating awareness towards their rights should be initiated at the earliest as empowering them collectively will enhance their sense of bonding. Traditional Knowledge protection and sharing will ensure profit for the community which can be used to uplift their living standard.

Apart from getting the legal rights to protect TK, the communities need support in conserving and preserve their culture and traditions. The legislation brought into effect should harmonize with the social, economic, political and environmental leanings of the indigenous communities, so that they do not have to compromise on their tradition and culture.

An extraordinary legal tangle like this needs exceptional strategy to evolve an effective solution, keeping in mind the rights of the LICs. The traditional communities are an integral part of a

diversified country like ours and undoubtedly an asset to the world at large. Their well-being and prosperity is the collective responsibility of the government and the society at large.

***“The best world is the one which encompasses all communities, groups, race, religion and provides space for them to grow in harmony and peace.”***

***- Surbhi Aggarwal,  
(Founder and CEO, School of Legal Education)***

