

CONVERSION OF TRADITIONAL KNOWLEDGE TO INTELLECTUAL PROPERTY: AN ANALYSIS OF THE USE OF BIOTECHNOLOGICAL RESOURCES OF INDIA

by

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ABSTRACT

Intellectual Property is valuable resource to generate money. Due to its uniqueness and its revenue generating capability there is always a risk of theft with such properties. Intellectual Properties are created through some artistic, scientific or indigenous knowledge. While indigenous knowledge falls under the greater protection of law, traditional knowledge which is very general in nature lacks such protection. Though few handful of protection is available both nationally and internationally, those are not sufficient to protect every traditional knowledge due to the higher rate of development in scientific knowledge. Traditional knowledge is the resource to old scientific practices of the society which leads humans to create something new over the old. Such knowledge is also a source about the use of various genetic resources of biodiversity. Our laws protect such knowledge till the first trade through benefit sharing process, but it does not stop anyone to further study and earn from advanced form of uses of that knowledge. Such lacunae require proper attention of law and needs better and long-lasting protection.

Keywords: Traditional Knowledge, intellectual property, biodiversity, genetic resources.

Introduction

Knowledge is the most valuable product. Such knowledge can come from any source, and if such is used in a proper manner can generate revenue from using such knowledge. One of the most popular categories of such knowledge is known as traditional knowledge (TK). Traditional knowledge refers to the expression 'knowledge that is passing from traditional days'. That means the practices which any community or group of people from any particular region are using for a long time and taking the benefit from that use for a long period and that is known to most of the people are called traditional knowledge. For the protection of this knowledge there is no particular statute, as they cannot be monopolised because of their widely use.

Traditional knowledge can be protected with the help of the human morals only. This include the practices like use of turmeric paste to heal the wounds, use of neem as anti-fungal, diabetes medicines from the extracts of jamun etc. Many folk music, designs and paintings are also a part of traditional knowledge.

In current era, technology has developed up to such extent that we can create many novel things and can claim exclusive ownership for a certain period, throughout which the whole thing is exploited by the creator. Those are intellectual properties like patent, copyright, trademark, GI etc. To create such properties, it requires knowledge and raw materials, but sometimes such knowledge is being used as raw materials.

Our biodiversity is rich in various flora and fauna, which have healing particles. Like use of turmeric for healing, ginger for cough, neem as antibacterial. Such uses has been in practice for ages which are well known in general public throughout Asia. Due to development in scientific knowledge and technologies, now the scientists can create a single medicine which works for both healing and antibacterial purpose or cough and headache. Such skills are getting more attention nowadays because they generate revenue if protected as patent more than protecting as TK only. There is a concept of access and benefit sharing (ABS) introduced by Nagoya protocol which says to share the benefit by the creator with the TK sharer. Such practice of ABS is over throwing the value of TK as it has converted to patent. Therefore there is a requirement to analyse such overlap and provide much stronger protection for those TK preservers. Otherwise this might result to destruction of TK by other IP.

Legal protection

Protection of traditional knowledge is the most difficult task. There has been ample debate in protecting them through various ways but still is not sufficient. There are various challenges to protect TK. Challenges lists as below:

- Identification of TK
- Which IP is adequate to protect TK or introduction of sui generis system
- Term of protection of TK
- Overlap of various IP
- Ownership of TK

TK is available throughout India's biodiversity and culture. If we speak about the protection of TK in India then, there might be hardly few narrow sources. TK is most places in India is protected by the community personally. And personal protection is not that strong like legal ones.

Indian Patent Act, 1970 provides few provisions for the protection of patents among which only two disclosed about TK. In such scarcity of protection, these two provisions has provided grounds where patent can be revoked if found to be based on any TK. These provisions are as follows:

- Section 25 (1)(k) and Section 25 (2)(k) : These provisions speaks about grounds for opposition of any patent application. If anyone has applied for patent and it has been opposed by any other person in writing that such invention is based on knowledge of any local or indigenous community in India or anywhere else, then such application can be disposed by the Controller of patents if such ground is found true. Both the provisions follow the same rule in pre grant opposition and post grant opposition respectively.
- Section 64 (1)(q) : This provision says about the grounds of revocation of patent. If any patent is granted before or after commencement of the current Act, and any person who has direct commercial interest and is affected by such patent, files a petition against that patent due its connection with the knowledge of any local or indigenous community in India or anywhere else, can be revoked if such ground is found true.

These above mentioned provisions are indirectly indicting towards the protection of TK, but such protection is very limited and is not sufficient to protect TK in India. TK is vastly involved with different fields in India, and culture is one of them, which are in the form of literary and artistic works. Copyright Act, 1957 protects such type of works in India. The provision under this Act, which twines with TK is as follows:

- Section 31A : This provision does not speak about TK, rather it speaks about unpublished work should be popularised through distribution by compulsory license and thus communicating to public. But it has no trace of TK. Through proper interpretation unpublished work can be related to traditional culture like literary or artistic works, and thus can be mingled with TK. Still there is absence of protection of TK.

Under Indian scenario there are other legislations protecting TK but they are very specific to certain types of protection. Like Geographical Indication of Goods Act, 1999 protects TK but in the form of indigenous people specific to one geographic location which is in the form of some craft or food. Protection of plant varieties and farmer's rights Act, 2001 protects TK related to the breeding of plants in the form of the plant bred by the farmer. Biological Diversity Act, 2002 regulates the access to biological diversity and the knowledge related to it. All the these Acts lacks proper protection for TK.

With such lacking in the national laws, if we try to search hope in the international protection of TK, there also lies very few protection of it. Convention on Biological Diversity (CBD) is the only international instrument which recognises the protection of TK. Article 8(j) of CBD says regarding conservation of TK through sustainable use and benefit sharing. Article 15 and Article 16 of CBD indicates TK as primary knowledge and resources to use the biodiversity.

Nagoya Protocol, 2010 is a vital part of CBD which widens the access to genetic resources and their uses through benefit sharing. Article 16 of the protocol specifically speaks about TK related to biodiversity and its access and benefit sharing with compliance to the domestic legislation. Thus it is clear that the international protection is specifically related to access and benefit sharing only, but still there is no specific protection for TK. In the present scenario TK is protected through listing under traditional knowledge digital library (TKDL) without any benefit unless accessed by anyone.

Importance of stronger protection of TK is because of bio-piracy mostly. There are few famous cases related to misappropriation of TK of India.

- Turmeric case : In 1995, University of Mississippi medical centre was awarded patent by USPTO for turmeric's healing properties.¹
- Neem case : W.R. Grace and the Department of Agriculture, USA filed the patent for neem oil formula in European Patent Office.²
- Basmati case : RiceTec of Texas, USA filed patent in USPTO in 1997 for aromatic rice basmati with the name 'Taxmati'.³

All the above mentioned patents were withdrawn or revoked after India has successfully defended through producing evidences related to their uses. India showed the TK possessed by every household in India related to these properties.

Question lies where is the appropriate lacunae in these above mentioned protections and how to protect appropriately. Answer to the first question lies with the scientific development. In the case of Monsanto Technology LLC V. Nuziveedu & Ors⁴, 2019, Supreme Court of India overturned the judgement of Delhi High Court revoking the patent of Monsanto's biotechnological cotton. Delhi HC pronounced that India has separate sui generis system for the protection of seeds and thus cannot be protected under patent. But Supreme Court's decision led to the patent of the seeds as they include biotechnological inventions and does pass all the requirements of patent.

The above mentioned case discloses the superiority of invention over the protection of sui generis system and the overlap between them. It has become easy to create any synthetic version of any chemical compound and gaining patent through it because of the access to scientific knowledge and development in research. Curcumin⁵ is a chemical property in turmeric and which is used for various treatments. So, if any medicine is designed for healing

¹ PATENT LAW: IMPORTANT CASE LAWS AND RECENT GRANTED PATENTS, <http://lawnetra.com/patent-law-important-case-laws-recent-granted-patents/> (last visited Feb. 8, 2022)

² *Id.*

³ *Id.*

⁴ INFOLEX NEWSALERT, JANUARY 2019, <https://www.manupatrafast.com/NewsletterArchives/listing/Induslaw/2019/January-2019%20--%20Monsanto%20vs%20Nuziveedu%20Supreme%20Court%20InfoAlert.pdf> (last visited Feb. 8, 2022)

⁵ CURCUMIN, <https://pubchem.ncbi.nlm.nih.gov/compound/Curcumin> (last visited Feb. 6, 2022)

by using the similar synthetic properties of turmeric, or for both healing and anti-bacterial using the properties of turmeric and neem then a patent can be easily bagged without any disturbance to the claims of TK. Though the property itself cannot be protected by anyone but creation through them cannot be stopped from gaining exclusive right if found novel.

Conclusion

There has always been a demand for a sui generis system for the protection of TK. All the above mentioned protections has its own loopholes and doesn't provide any active protection to TK. To overcome the challenges for protecting TK the procedure of identification of such knowledge can be setup by the government, similar to GI products. Where such knowledge is within the community, if not qualifying for GI can be protected under that sui generis system if found has qualities of providing any benefit like health and economical. Further, if such TK is being used to achieve any patent or any other IP through modern scientific process as discussed above, shall get benefit from such patent as provided under CBD. Answering the challenge of term and ownership for protection of TK, it can be owned indefinitely by the community, if it is community based or by the government if it is general to the whole nation. Along with all these procedures, national government must encourage the scientific authorities of the nation to break down the chemical properties and uses of such properties involving any genetic resource and TK. With such research the findings can be protected under the system with better protection and access to the use of any genetic resource.