



PROTECTING TRADITIONAL KNOWLEDGE WITH PATENTS- 'A MISNOMER'

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Abstract

Intellectual Property Rights (IPR) treat knowledge as a commodity with economic value and financial esteem as opposed to indigenous who consider their knowledge as pious sacrosanct. With the increasing quest to protect Traditional Knowledge and to prevent its misappropriation, the primary concern that has to be addressed is: Can IP protect Traditional Knowledge? Protecting Traditional Knowledge with IPR is often faced with the criticism that IPR stimulates the reification or commodification of knowledge. The subject of this paper will be limited to patent only, and not other areas of IPR. Should Patent protection be granted to Traditional Knowledge? If yes, the pivotal question is how to protect and prevent its misappropriation.

Keywords– Patent, Traditional Knowledge

Introduction

Patents recognize the right of an individual for his invention. However, on the other hand, Traditional Knowledge acknowledges community owned knowledge. Moreover, critics are of the opinion that Traditional Knowledge is innate cognition and already in public domain (*not an invention*). Therefore, no patent protection can be conceded to it. If one accepts the contention that patent protection will not work for Traditional Knowledge, another issue to be dealt with is Misappropriation of Traditional Knowledge (*Neem and Turmeric patent controversies*¹) by developed nations. Therefore, the protection of indigenous and Traditional Knowledge under IPR has garnered high attention since the adoption of the Convention on Biological Diversity (CBD) in 1992 and the various conferences of WTO held thereon. However, a fool proof solution could not be adopted, as financial crunch and technicality of patents has left indigenous people exasperating.

'Protecting Traditional Knowledge under Patents is a Misnomer'. To understand these contradictions, we must first know what is the nature of Traditional Knowledge. A report submitted by the International Council for Science Study Group on Science and Traditional Knowledge² characterized Traditional Knowledge as: "*a aggregate collection of knowledge, know-how, practices and representations maintained*

¹ US patent No. 4946681 and US patent No. 5124349 were granted by the US Patent Office to W.R. Grace for extraction and storage processes of *Neem*, which is traditionally used in India since ages for its medicinal properties. US Patent Office counts only published work on inventions as prior art. However, there was a lot of hue and cry against these grants and US Patent

Office Policies. India claimed that US is stealing their knowledge.

² Prepared by a study group set up by the Executive Board of the International Council for Science (ICSU), following a resolution adopted by the 26th General Assembly of ICSU held in Cairo in September 1999.



*and developed by peoples with extended histories of interaction with the natural environment. These sophisticated sets of understandings, interpretations and implications are part and parcel of a cultural complex that encompasses dialect, naming and classification framework, resource use practices, ritual, spirituality and otherworldly existence and perspective.*³ According to WIPO⁴, “*Traditional Knowledge refers to knowledge systems, creations, innovations and cultural expressions which have been transmitted from generation to generation; are regarded as pertaining to a particular people or its territory; and are always developing in light of an evolving situation.*”⁵

WIPO’s work on Traditional Knowledge addresses three distinct yet related areas: Traditional Knowledge in the narrowest sense (technical know-how, practices, skills, and innovations related to, say, biodiversity, cultivation or health); conventional cultural articulations of folklore (cultural manifestations such as music, craftsmanship, outlines, images and exhibitions); and genetic assets (genetic material of actual or potential value found in plants, animals and micro-organisms).⁶ The remarkable nature of Traditional Knowledge poses various challenges for patent protection. To understand those difficulties,

we should examine the relationship between these concepts.

Patent Law vis-à-vis Traditional Knowledge

As of now, *sui generis* protection for Traditional Knowledge is still a fantasy for many countries. Hardly, a couple of nations are offering explicit *sui generis* protection for Traditional Knowledge. The Patent law aims to further the causes of scientific research, technological and industrial progress. The monopoly is granted for fixed time. The inventor is required to disclose his invention at the Patent Office and upon the expiry of 20 years of the monopoly, the said invention passes into the public domain. Critics are of the view that contrary to it Traditional Knowledge is already in public domain, not an invention, therefore not fit for patent protection.

The importance of securing Traditional Knowledge by protecting it has been a prime concern of the world community. The other issue of equal importance is to forestall misappropriation of Traditional Knowledge. The object of Patent and Traditional Knowledge are different.

³ *Science and Traditional Knowledge: Report from the ICSU Study Group on Science and Traditional Knowledge*, International Council for Science and the United Nations Educational, Scientific and Cultural Organization (Mar. 2002), <https://unesdoc.unesco.org/ark:/48223/pf0000150501>

⁴ The World Intellectual Property Organization (WIPO) is one of the 15 specialized agencies of the United Nations. WIPO was created in 1967 to

encourage creative activity, to promote the protection of intellectual property throughout the world.

⁵ *Information note on Traditional Knowledge*, International bureau of WIPO (Aug. 2001), http://www.wipo.int/arab/en/meetings/2002/muscat_forum_ip/iptk_mct02_i3.html.

⁶ *Traditional Knowledge and Intellectual Property-Background Brief*, International bureau of WIPO, http://www.wipo.int/pressroom/en/briefs/tk_ip.html.



Patent protects knowledge and secures information as a commodity with economic value and monetary esteem, which is by far different from Traditional Knowledge that is devout from the Indigenous Person's perspective. Be that as it may, there exists various criticism of protecting Traditional Knowledge with patent.

Patents are individualistic rights of an inventor. Traditional Knowledge is the knowledge of the community as a whole and not of a distinct person. Patents are granted to invention that is new, novel or one of a kind with inventive step, whereas, Traditional Knowledge is evolved and developed over generations, appraisal of Novelty and Inventive step is the most crucial aspect of Traditional Knowledge. On one hand, the Indian patents are expensive and on the other their legality and technicality are quite difficult on the part of indigenous people to draw in themselves. For the registration and maintenance of a patent exorbitant prices are to be paid, which is an impossible task for the indigenous people as they lack financial resources.

A patent is usually granted for an invention having the attributes of novelty, non-obviousness and utility. Thus it has been contended that Traditional Knowledge, which do not satisfy the existing pre-requisites of novelty, non-obviousness and inventiveness, ought not be prevented. Critics also argue that Traditional Knowledge is innate cognition and not an invention, therefore does not fulfill the requirements of patent, Thus

Traditional Knowledge should not be protected by patents. It is fundamental for the legitimacy of a patent that it must be the inventor's own idea or discovery rather than simple confirmation of what was known before the date of the patent. A patentable creation, apart from being another manufacture, should be useful as well.⁷

Intellectual Property Protection of Traditional Knowledge

There are two kinds of intellectual property protection that are being sought for—

Defensive Protection, which aims to prevent individuals outside the community from getting intellectual property rights over a Traditional Knowledge. India, for instance, has incorporated an accessible database of traditional medicine that can be used as an evidence for earlier art by patent analysts while evaluating patent applications. This perspective was followed by a famous case in which the US Patent and Trademark Office granted a patent (which was later revoked) for the use of turmeric to treat wounds, a property which is mentioned under the ancient manuscripts in Sanskrit language and known to the traditional communities in India. Defensive procedures may be used to ensure sacred social indications, for

⁷*Intellectual Property Rights and India*, InsightsIAS, (Mar. 21, 2016),

<http://www.insightsonindia.com/2016/03/21/intellectual-property-rights-india/>.



example, sacred symbols or words from being registered as trademarks.⁸

Positive protection, which involves the granting of rights to the members of a community or group in order to enable them to foster and boost their Traditional Knowledge and also prevent it from being misused. By way of the special legislations existing in many countries and the prevailing intellectual property system, a few uses of customary knowledge can be ensured. Special legislations for protection, followed by a particular nation may not equally hold good for any other nation. This is one of the reasons that numerous indigenous and local groups as well as governments are pressing for an international legal instrument.⁹

Protecting Traditional Knowledge under Indian Patents Law

Although, for the protection of Traditional Knowledge there are apposite legal provisions in India, yet few practical and workable solutions are needed. Section 2 (1) (j) of the Patents Act, 1970, defines an 'invention' as 'a new product or process involving an inventive step and capable of industrial application'. Now, since Traditional Knowledge is in the public domain, thus, any application seeking patent protection relating to Traditional Knowledge does not qualify as an

'invention' under the Indian Patent Act, 1970.

Further, under Section 3(e) of the Patents Act "a substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or process for producing such substances" is not a 'creation' and is thus excluded from patent protection. The Indian Patents Act additionally has an extraordinary provision under Section 3 (p), wherein "an invention which, in effect, is Traditional Knowledge or which is an aggregation or duplication of known properties of traditionally known component or components" is not an invention and consequently, not patentable, as per the Patents Act. Furthermore, a special emphasis needs to be laid on Sections 3 (b), (c), (d), (f), (h), (I) and (j) while dealing with the Patent applications relating to Traditional Knowledge.¹⁰

Moreover, applications for patents based on Traditional Knowledge and/or biological material contravening the provisions of law can be refused under section 15 or in pre-grant opposition under clauses (d), (f) and (k) of Section 25 (1) and granted patents can be revoked in post-grant opposition under clauses (d), (f) and (k) of Section 25 (2) of the Patents Act, 1970. Section 25(1)(j) and 25(2) provide for 'Pre' and 'post' grant oppositions respectively, on the grounds of non-disclosure or wrong mentioning of the source or geographical origin of the

⁸ Supra note 6.

⁹ Id.

¹⁰ *Guidelines for Processing of Patent Applications Relating to Traditional Knowledge and Biological*

Material, Office of the Controller General of Patents, Designs & Trademarks, http://www.ipindia.nic.in/writereaddata/Portal/IPOGuidelinesManuals/1_39_1_5-tk-guidelines.pdf.



biological material, used for an invention. In the light of the gravity and sensitivity of the issue, it is crucial that due care and diligence be employed while processing Patent applications relating to Traditional Knowledge and/or biological materials as well as in dealing with the post-grant processes.¹¹

The System Administrator is required to publish a list of all the pending Traditional Knowledge-related Patent applications. It is published in a separate link on the official website of the *Controller General of Patents, Designs and Trade Marks* (CGPDTM), under Section 11(A) of the Patents Act.¹² Moreover, a list of all the patents related to Traditional Knowledge granted from July 1st, 2012, needs to be also published on the official website. The said lists should at least include the following fields/provisions– name of the applicant, application number, date of filing and the title of the invention.

A critical examination has to be made w.r.t the Patent applications pertaining to Traditional Knowledge on the basis of the disclosures (full and particular) made in relation to the said invention. The IPO¹³ has already laid down well settled laws and guidelines for the Patents related to Traditional Knowledge and since ‘*Traditional Knowledge*’ lies in the public domain, any such application (according Patent protection to Traditional Knowledge) does not qualify as an

‘*invention*’ under the section 2(1) (j) of the Patents Act, 1970.

With effect from 01-01-2005, in the Patents Act, 1970, the process of grant of patent has been modified to replace acceptance and subsequent grant and sealing of patent by a process of grant of patent.

Challenges

The manner in which indigenous communities have lived in and worked with the organisms in their parent environment has enriched them with extensive knowledge. Due to the non-technological nature of indigenous knowledge, it is commonly referred to as ‘*Traditional Knowledge*’. There are number of reasons because of which Traditional Knowledge can hardly be perceived in current patent procedures. Identifying Traditional Knowledge in a patent procedure is impeded by the reality that in India it is generally not codified, classified and structured in manners prevalent in the western countries. Without taking sufficient care to observe the mandate of law, the Indian Patent Office is granting patents on the use of Traditional Knowledge of India, particularly relating to the Ayurveda, Unani and Siddha systems of medicine, etc. Emphasis here is to be applied to the fact that other international patent offices

¹¹ Id.

¹² Particulars of Organization, Functions and Duties of the Patent Office, Office of the Controller General of Patents, Designs & Trademarks, <http://www.ipindia.nic.in/writereaddata/images/pdf/office-of-cgpdmt.pdf>.

¹³ Intellectual Property Organizations are organizations that are focused on Copyright, Trademark, Patent or any other Intellectual Property Rights concept.



are objecting in granting such patents on the basis of prior art evidence retrieved from the Traditional Knowledge Digital Library (TKDL).¹⁴

According to R S Praveen Raj, any endeavour to codify community-held Traditional Knowledge in the form of Traditional Knowledge Digital Libraries (TKDL) using ‘*Prior Informed Consent*’ and ‘*Access and Benefit Sharing*’ concepts would be a gross injustice to those communities if the knowledge was shared with patent offices or even with researchers, as it would influence the livelihoods of Traditional Knowledge practitioners. He also cautions against creating statutory registrable rights on the same and categorizing Traditional Knowledge under Intellectual Property Rights (IPR). Rather, he suggests the promulgation of a Traditional Knowledge Docketing System (TKDS) which covers the following aspects–

- a. source of the Traditional Knowledge (*i.e. the location at which it is available*),
- b. the community that possesses such Knowledge,
- c. nature of such Knowledge, and
- d. Community protocol, if any.¹⁵

Further, he goes on to contend that “*the indigenous communities should be educated and empowered to protect their Traditional Knowledge through existing*

legal mechanisms or take patents on the innovations made by them on it (if they feel so) and to negotiate with the potential clients by forming societies or trusts of their own. There is no bar for patenting inventions, though it may be based on Traditional Knowledge.” Section 3(p) of the Patents Act, 1970 does not expressly bar the patenting of any invention based on Traditional Knowledge but only prohibits patenting of Traditional Knowledge or something which is an aggregation, duplication, etc. of the known properties of component(s) which are traditionally known.

Efforts of the Indian Government

First of all, the conceptualization and then the establishment of the Traditional Knowledge Digital Library (TKDL) has been a foremost attainment for India as also serves as a vast pool of Traditional Knowledge. “*India has been successful in thwarting the attempts to misappropriate its Traditional Knowledge. The next challenge is to use India’s vigor in Traditional Knowledge for its effective promotion, development and utilization.*”¹⁶

IPR Policy of the Kerala Govt. – Intellectual Property Rights (IPRs) Policy of Kerala which was released in 2008 suggests that for the preservation of Traditional Knowledge there should be adoption of concepts like ‘knowledge

¹⁴ *Guidelines for processing of Patent Applications relating to Traditional Knowledge and Biological Material*, Office of the Controller General of Patents, Designs & Trademarks (Oct. 2014), http://www.ipindia.nic.in/writereaddata/Portal/IPOGuidelinesManuals/1_37_1_3-guidelines-for-

[examination-of-patent-applications-pharmaceutical.pdf](#).

¹⁵ T. Nandkumar, *Caution on classifying-Traditional Knowledge under IPR*, The Hindu, Aug. 28, 2015.

¹⁶ Supra note 7.



commons’ and ‘*commons licence*’.¹⁷ This policy seeks to separate Traditional Knowledge from the public domain by putting all Traditional Knowledge into the sphere of ‘*knowledge commons*’. On one hand, direct misappropriation can be prevented by codifying Traditional Knowledge in digital libraries and sharing the same with Patent Offices. While, on the other hand, it is feared that by making cosmetic advancements to such Traditional Knowledge, an opportunity for private appropriation may be thus be provided¹⁸. In the words of the Chief Architect of the Policy, R.S. Praveen Raj– “TKDL cannot at the same time be kept confidential and treated as prior art.”

To be entitled for patent protection, an invention must be new and innovative. Novelty is assessed by comparing the invention with the relevant prior art. In theory, the prior art may include anything and everything that was ever made available to the public anywhere in the world in any language. In practice, however, no one has access to all the world’s knowledge and there is a ceiling to what patent offices can check in assessing applications. Traditional Knowledge may be considered prior art if it has already been–

- *published*;

- *publicly used* (this will require proof of when and where it was used); or
- *orally disclosed* (again, this will require proof)

There is wide variation among patent offices as to whether the novelty and inventive step of a claimed invention is assessed and, if so, how. A few countries’ laws require the patent office to inspect each patent application thoroughly to ascertain whether novelty and other necessities have been met, but in other countries the patent office may not inspect for novelty or inventive step.¹⁹ The high-level *Brundtland Report*²⁰ (1987) proposed a change in the development policy that observed the rights and aspirations of the indigenous people and authorized a direct community based participation. A ‘*Working Group on Indigenous Populations*’ was established after a group of indigenous peoples and others successfully beseeched the United Nations. It made two early surveys on land rights as well as treaty rights. Therefore, a need was felt to address the issue of collective human rights thereby giving greater public and governmental recognition to land and resource rights of the indigenous population.

India has played a consequential position for bringing the protection of Traditional

¹⁷ Roy Mathew, *IPRs policy proposes ‘knowledge commons’*, The Hindu (Chennai), June 28, 2008.

¹⁸ Emphasis needs to be given on the fact that such a Traditional Knowledge may not be readily accessible otherwise.

¹⁹ Begoña Venero Aguirre & Hai Yuean Tualima, *Protect and Promote Your Culture: A Practical Guide to Intellectual Property for Indigenous Peoples and Local Communities*, International bureau of WIPO (Feb. 2017),

https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1048.pdf.

²⁰ *Our Common Future: Report of the World Commission on Environment and Development*, United Nations General Assembly (Aug. 4, 1987), <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N87/184/67/IMG/N8718467.pdf?OpenElement>.



Knowledge at the focal point of the Intellectual Property System at an international level. These efforts of India have resulted inter alia in setting up of an Inter-Governmental Committee (IGC) on Intellectual Property, Traditional Knowledge, Genetic Resources and Folklore by WIPO and the Doha Ministerial Declaration of the year 2001 wherein it was decided to establish a relationship between the TRIPS Agreement and the UN Convention on Biological Diversity (CBD) on the issue of Access to Genetic Resources and the fair and equitable sharing of the benefits arising from their utilization. Further, India has been successful in concluding TKDL Access Agreements (*Non-Disclosure*) with various international patent offices such as United States Patent and Trademark Office (USPTO), European Patent Office (EPO), Japan Patent Office (JPO), etc. Accordingly, many patent applications concerning India's Traditional Knowledge have either been cancelled or withdrawn or claims have been modified in several international patent offices.²¹

The novelty and inventive steps are two fundamental principles of patentability as per Indian patent law. They are regarded as to be the final gatekeeper of the patent system. In case of Traditional Knowledge based inventions, the set guiding principles must be followed in assessing the said principles. Therefore, the subject-matter of claims is not considered as novel over the teaching of prior art obtained

from TKDL. This would exclude the patenting of even the convincing, independently developed inventions, which in some remote way would be relating to Traditional Knowledge.

Conclusion

By fostering innovation, the patent system seeks to galvanize steady enhancement of R&D, technological and industrial progress, economic growth. This also serves as the prime objective and rationale behind the patent system. It would then be easy to refute even the genuine claims for grant of Patents dealing with the Traditional Knowledge-inspired inventions, on the basis of prior art. Hence, it is ineluctable to consider an effective mechanism to comprehend and demarcate between typical knowledge accessible under the Traditional Knowledge and Traditional Knowledge-inspired innovations. Also, Traditional Knowledge-based innovations and inventions play a key role in health care and drug discoveries and this role is globally recognized.²²

The validity of any application for acquiring patent protection should be decided on a case to case basis and prominence should be given to the level of sophistication of the problem which the invention seeks to solve. The rigorous patent laws would be a discouragement for those who inspired from Traditional Knowledge involving traditional systems. This approach would encourage practice

²¹ Patwardhan B & Mashelkar RA., *Traditional medicine-inspired approaches to drug discovery: Can Ayurveda show the way forward?* Drug Discovery Today 14, 804 (2009).

²² Id.



of trade secrets and avoiding their protection with patents. Such a scenario would be a loss for both, scientific invention and economic. Therefore, a need arises to harmonize or strike a balance between the demand of patent innovation and Traditional Knowledge by way of such a system which provides for industrial development without destroying the abilities or compromising the rights of indigenous people.

The guidelines such prepared that may encourage innovations. In order to ensure that innovations are encouraged, the Indian Patent Office should make suitable revisions and amendments and also take serious cognizance of experts' opinions. It is essential that due care and diligence be exercised in case of patent protection to Traditional Knowledge in view of the above facts and the sensitivity of the issue. It should also be ensured that all Traditional Knowledge's patent applications are accurately identified and classified as 'Traditional Knowledge'. The relevant clauses of Section 3, particularly Sections 3(c), (e), (i), (j) and (p) of the Patents Act, for Traditional Knowledge, should be strictly followed while deciding the patentability of the claimed subject matter.

However, certain details given in the guidelines pertaining to '*assessment of novelty*' and '*assessment of inventive procedure*' are useful but still need to be reappraised. As discussed above, specific protection afforded under national law may not work for other countries. Hence an international legal instrument is needed to by indigenous and local communities. As well as for Defensive protection an

infallible database of Traditional Knowledge is required. The efforts of Indian patent office have been considerable but still more authentication is essential. Misnomer between Traditional Knowledge and Patents can be rooted out by constructing an international legally binding instrument on protection of Traditional Knowledge.

