

Protection of Traditional Knowledge under Intellectual Property Rights System: Indian Scenario

“A people without the knowledge of their past history, origin and culture is like a tree without roots”.

-----Marcus Garvey

INTRODUCTION

The international debate on the protection of traditional knowledge mainly centers on whether adequate and appropriate protection is best provided through either the conventional Intellectual Property Rights System or through an alternative *sui generis* system.¹ Traditional knowledge, being ‘knowledge,’ feasibility of its protection needs to be sought first under the principles and rules of intellectual property.² The moralistic arguments that advocate for the protection of Traditional Knowledge mainly focus on the western impression that every person has a moral right to control the product of his or her labor or creativity.³ The developing countries argue that their traditional knowledge has been the basis for the research leading to high-priced inventions, the benefit of which is reaped by developed nations.⁴ Intellectual property rights for traditional knowledge have been justified from a natural right based perspective on the basis of a system of entitlement theory,⁵ and theories of self-development as value of individual autonomy.⁶ Based on natural rights justifications, several systems of protection have been proposed for traditional knowledge which includes a system of traditional resource rights,⁷ a system of discoverer’s rights,⁸ a system of identification of source materials,⁹ and a system that advocates separation of ownership of genetic resources from

¹ WIPO/GTRKF/IC/7/6.

² Hanns Ullrich, *Traditional Knowledge, Biodiversity, Benefit Sharing and the Patent System - Romantic v. Economics*, European University Institute, (EUI Working Paper Law No. 2005/07), Badia Fiesolana, Italy, 2005, p. 4, wherein he argues that being knowledge, the promise of protection for traditional knowledge can be sought under the rules of intellectual property.

³ See, Srividhya Ragavan, “Protection of Traditional Knowledge,” *Minnesota Intellectual Property Law Review*, Vol. 2, No. 2, 2001.

⁴ Craig D. Jacoby & Charles Weiss, “Recognizing Property Rights in Traditional Bio-cultural Contribution”, *STAN. ENVTL. L.J.*, Vol. 16, 1997, p. 85.

⁵ Entitlement theory states that communities are morally entitled to intellectual property rights in plant genetic resources and associated knowledge. See, Anthony J. Stenson and Tim S. Gray, *The Politics of Genetic Resource Control*, Macmillan Press Ltd., London, 1999

⁶ *Id.*

⁷ Darell A. Posey, *Traditional Resource Rights: International Instruments for Promotion and Compensation for Indigenous Peoples and Local Communities*, IUCN, Gland, Switzerland, 1996.

⁸ Michael A Gollin, “An International Property Rights Framework for Biodiversity Prospecting” in Walter V. Reid *et. al.*, *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development*, World Resources Institute, Washington, 1993.

⁹ Madhav Gadgil and P. Devasia, “Intellectual Property Rights and Biological Resources: Specifying Geographical Origins and Prior Knowledge of Uses,” *Current Science*, Vol. 8, 1995, p. 69.

the ownership of the knowledge itself. However, these justifications do not provide any guiding parameters for either demarcating the resource that sought to be protected or for making a transaction worthy agreement wherein the benefits automatically flows to the beneficiaries.

However, before analyzing question of extending intellectual property protection to traditional knowledge under the existing Intellectual Property Rights¹⁰ regime, it will be prudent to analyze the scope and nature of both Intellectual Property and Traditional Knowledge with reference to the issues surrounding (i) identification of original inventor, (ii) identification of beneficiaries, (iii) question of ownership and (iv) economic analysis, etc. which are crucial factors in the determination of ownership. It will help one to determine to what extent IPR regime can accommodate traditional knowledge protection and to what extent traditional knowledge is commensurate with intellectual property.

CONCEPTUALIZING TRADITIONAL KNOWLEDGE

The term Traditional Knowledge,¹¹ has become popular in modern international discourse, and acquired a wide usage in many academic disciplines spanning from law to sociology, anthropology and natural sciences. Since it encompasses a wide range of subject matter, it arises as an issue in fora relating to food and agriculture, biodiversity and the environment, biotechnology innovation and regulation, human rights, cultural policies and trade and economic development to name a few. The working concept of TK in each forum tend to be shaped by the policy framework of that forum, leading to a decentralized and disintegrated set of approaches, in which the issues are subjected to differing policy considerations, cultural and ethical environments, analytical tools and legal concepts.¹²

Traditional Knowledge (TK), variously referred to as ‘traditional knowledge’ ‘traditional ecological knowledge’, ‘local knowledge’, ‘folk knowledge’ is knowledge developed by local and indigenous communities over time in response to the needs of their specific local environment¹³.

¹⁰ Hereinafter referred as IPR

¹¹ Hereinafter referred as TK

¹² WIPO, *Traditional Knowledge – Operational Terms And Definitions*, Document prepared by the Secretariat to the third Session of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore [here in after IGC], at Para. 15, WIPO Doc. WIPO/GRTKF/IC/3/9 (May 20, 2002)

¹³ Dr. Vishwas Kumar Chouhan, “*Protection of Traditional Knowledge in India by Patent: Legal Aspect*” *IOSR Journal of Humanities and Social Science (JHSS)* ISSN: 2279-0837, ISBN: 2279-0845. Volume 3, Issue 1 (Sep-Oct. 2012), PP 35-42 www.iosrjournals.org

The term ‘traditional knowledge’ has been the subject of many conceptualizations. The various expressions, viz, traditional knowledge (TK), indigenous knowledge (IK), and local knowledge are interchangeably used to refer to the matured long-standing traditions¹⁴ and practices of certain regional, indigenous,¹⁵ or local communities which are often expressed through stories, legends, folklore,¹⁶ rituals,¹⁷ songs, and even laws.

However, there is no universally agreed and legally precise definition to the term TK as it can be defined in deferent ways. According to WIPO, there is no need for a complete and authoritative definition of TK in order to develop a legal system for its protection.¹⁸

The World Intellectual Property Organization¹⁹ fact-finding report has come up with examples of what can be considered to be TK and states that:

Traditional Knowledge is not limited to any specific field of technology or the arts. Traditional Knowledge systems in the fields of medicine and healing, biodiversity conservation, the environment and food and agriculture are well known. Other key components of Traditional Knowledge are the music, dance, and ‘artisanat’ (i.e. designs, textiles, plastic arts, crafts, etc.). Although there are creations which may be done purely to satisfy the aesthetic will of artisans, many such creations are symbolic of a deeper order or belief system. When a traditional singer performs a song, the cadence, melody, and forms all follow rules maintained for generations. Thus, a song’s performance entertains and educates the current audience, but also unites the current population with the past²⁰.

The Convention of Biological Diversity, 1992 delineates TK as ‘knowledge, innovations and practices of indigenous and local communities embodying traditional

¹⁴ Tradition refers to a set of information, customs, practices, or beliefs taught by one generation to the next, often orally.

¹⁵ Any ethnic group who inhabit the geographic region with which they have the earliest historical connection

¹⁶ Folklore is the body of expressive culture, including tales, music, dance, legends, oral history, proverbs, jokes, popular beliefs, customs, and so forth within a particular population comprising the traditions (including oral traditions) of that culture, subculture, or group. It is also the set of practices through which those expressive genres are shared.

¹⁷ A ritual is a set of actions, often thought to have symbolic value, the performance of which is usually prescribed by a community because of the perceived efficacy of those actions.

¹⁸ WIPO, *Matters Concerning Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore – An Overview*, Document prepared by the Secretariat to the First Session of the IGC, at Para. 65, WIPO Doc. WIPO/GRTKF/IC/1/3(March 16, 2001)

¹⁹Hereinafter referred to as WIPO.

²⁰ World Intellectual Property Organization *Intellectual property needs and expectations of Traditional Knowledge holders*. WIPO report on fact-finding missions on intellectual property and Traditional Knowledge (1998–1999). Main Program 11, Program and Budget 1998–1999; WIPO (2001) Geneva: WIPO, 16.

lifestyles relevant for the conservation and sustainable use of biological diversity.²¹ Furthermore, TK is wide and covers the spectrums of agriculture, science, technology, medicine and biodiversity. In fact there has been a growing demand in recent decades for natural products and methods in the fields of biotechnology and pharmaceuticals. Consequently, this has led to a renewed interest in TK. This is as a result of the significance of TK as a prime factor in advancing the development of science and technology. TK has been significant in acquiring insightful understanding about the inter-relatedness of ecological systems²².

IMPORTANCE OF TRADITIONAL KNOWLEDGE

The importance of traditional knowledge can be perceived by looking at some facts:

- a. Some 85 per cent to 90 per cent of the basic livelihood needs of the world's poor (more than half of the world population, including indigenous and local communities) are based on direct use of biological resources (and related traditional knowledge) for food, medicine and shelter.
- b. Over 1.4 billion poor farmers rely on farm-saved seed and local plant-breeding techniques as their primary source of seed.
- c. About 57 per cent of the top 150 brand-name drugs prescribed during a six-month period in 1993 contained at least one major active compound derived or patterned on compounds from biological diversity and of 35 plant-derived drugs were included in these top 150. Of these 35, about 94 per cent contained at least one compound with proven use in traditional medicinal practices by indigenous and local community²³.

These facts show that traditional knowledge plays an important role not only in protecting and maintaining human health, but also in conserving the environment. In addition, traditional knowledge is not only used as input into pharmaceuticals industries but also botanical, medicine, cosmetics and toiletries, agriculture and biological pesticides.

²¹ Article 8(j) The Convention of Biological Diversity, 1992.

²² KA Sackey and Ossy MJ Kasilo 'Intellectual property approaches to the protection of Traditional Knowledge in the African Region' (14 August 2010) *African Traditional Medicine Day*, Special Issue-14.

²³ Ruiz, Manuel, the International Debate on Traditional Knowledge as Prior Art in the Patent System: Issues and Options for Developing Countries, Centre For International Environmental Law. 2002, Para 10.

JUSTIFICATIONS FOR PROTECTION OF TRADITIONAL KNOWLEDGE IN INDIA

The protection of TK is justified because of the value and importance that TK offers to the world population at large. In addition, TK protection is required in response to the threats and challenges posed to TK systems from global environmental, social, and economic pressures. In sum, the protection of TK would result in concrete realization of the rights of indigenous peoples to preserve their cultural and spiritual identity.²⁴ The protection of TK is also important to humankind in general because biodiversity resources and their underlying TK systems contribute to scientific discovery and biotechnology development.²⁵

As far as the conservation of biodiversity is concerned, TK provides, in the words of the CBD Secretariat, “unquantifiable, but probably substantial, opportunities for identifying improved techniques for conservation and sustainable use of biological diversity.”²⁶ Thus, it is clear that the protection of TK closely relates to the protection of the environment and living resources, as the content of TK is mostly embedded in the biological resources and ecosystems themselves.²⁷

TK plays a crucial role in providing important leads for the development of processes that result in modern plant breeding and biotechnology. A study reveals that one-quarter of all currently available prescription drugs are derived from plants and more than half are developed from natural compounds; yet, less than one percent of all of the plants have been tested for medicinal properties.²⁸

The protection of TK fulfills the socio-economic goal of preserving the basic means of survival for a large sector of the world’s population in satisfying their needs for medicine, food, and health. In many developing and in the least developed countries, traditional

²⁴ Stephen B. Brush, “Whose Knowledge, Whose Genes, Whose Rights?” in S.B. Brush & D. Stabinsky, eds, *Valuing Local Knowledge: Indigenous peoples and Intellectual Property* (Washington: Island Press, 1996) at 3.

²⁵ William D. Coleman & Melissa Gable, “Agricultural Biotechnology and Regime Formation: A Constructivist Assessment of the Prospects” (2002) 46 *International Studies Quarterly* 451–595; David R. Downes, “New Diplomacy for the Biodiversity Trade: Biodiversity, Biotechnology, and Intellectual Property in the Convention on Biological Diversity” (1993) 4 *Touro J Transnat’l L* 1; Charles R. McManis, “The Interface between International Intellectual Property and Environmental Protection: Biodiversity and Biotechnology” (1998) 76 *Wash U L Q* 255 [Mcmanis, “Interface”].

²⁶ CBD Secretariat, *Knowledge, Innovations and Practices of ILCs*, *Supra note 9*.

²⁷ Erica Daes, “Protection of the Heritage of Indigenous peoples” cited in David R. Downes & Sarah A. Laird, *Innovative Mechanisms for Sharing Benefits of Biodiversity and Related Knowledge: Case Studies on Geographical Indications and Trademarks* (Paper Prepared for UNCTAD Biotrade Initiative, 1999) at 4.

²⁸ Rainer Fischer & Neil Emans, “Molecular Farming of Pharmaceutical Proteins” (2000) 9 *Transgenic Research* 279 at 299 (noting that close to one quarter of prescription drugs are still of plant origin); William D. Coleman & Melissa Gable, “Agricultural Biotechnology and Regime Formation: A Constructivist Assessment of the Prospects” (2002) 46 *International Studies Quarterly* 451–595; see also Noah Zerbe “Biodiversity, Ownership, and Indigenous Knowledge: Exploring Legal Frameworks for Community, Farmers, and Intellectual Property Rights in Africa” (2005) 53 *Ecological Economics* 493 at 500.

medicines provide the only affordable treatment available to the economically disadvantaged.²⁹ The protection of TK would ensure that the originators of TK gain economic benefits through fair participation in international trade over their products, and through fair sharing of benefits from inventions that utilize their TK.

PROTECTION OF TRADITIONAL KNOWLEDGE UNDER THE EXISTING MODES OF INTELLECTUAL PROPERTY

Though TRIPS does not specifically mention traditional knowledge as a protectable subject matter under its ambit, it does not expressly debar or prohibit protection to TK as a form of IPR. Hence the possible interpretation would be if traditional knowledge, practice and innovations fulfill the criteria for protection under existing categories of intellectual property rights they are not excluded from the purview of the TRIPS agreement. If, any kind of TK, by nature is compatible with the specifications of IPR, it can be protected under the IPR regime. To determine the eligibility of traditional knowledge to be recognized as an intellectual property under the existing regime of IPRs, it has to be tested against the universally accepted pre-requisites or conditions which determine the eligibility for IPRs protection. In other words, TK must meet the statutory criteria stipulated for various forms of IPRs under the relevant statutes let us discuss them one by one in brief:

1. PATENTS

The patentability of any invention lies in the triple test of (a) novelty, (b) inventive step and (c) industrial utility. These are the globally accepted pre-requisites for patents. TRIPS agreement states that patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.³⁰ Correspondingly, the Indian Patent Act, 1977

²⁹ According to the World Health Organization (WHO) Fact sheet, up to 80 percent of the population in developing countries depends on traditional medicines to help meet their healthcare needs while 70 per cent-80 per cent of the population in many developed countries has used some form of alternative or complementary medicine. See WHO, *Fact Sheet N°134: Traditional Medicine* (December 2008), online: <<http://www.who.int/mediacentre/factsheets/fs134/en/>>.

³⁰ Section 5: Article 27. 1 of TRIPS runs as follows: Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

2. Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *order public* or morality, including to protect human, animal or

defines 'invention' as a new product or process involving an inventive step and capable of industrial application.³¹

Chapter 2 of the Patent Act exclusively deals with inventions that are not patentable. Section 3³² and Section 4³³ declare certain inventions as not patentable inventions within the meaning of the Act. Section 3 (p) excludes from patentability an invention which, in effect, is traditional knowledge or which is an aggregation or duplication of known properties or traditionally known component or components.

Besides to this, sections 25 (1) (d) and 25 (2) (d) states that if the subject of any claim of the complete specification is not an invention within the meaning of the Act, or is not patentable under the Act, then it can be opposed on that ground. Correspondingly, sections 64

plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

3. Members may also exclude from patentability: (a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals; (b) plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement.

³¹ Section 2 (j) of the Patent Act, 1977 as inserted by the Patent Amendment Act, 2002.

³² Section 3: What are not inventions: The following are not inventions within the meaning of this Act, -

a) an invention which is frivolous or which claims anything obvious contrary to well established natural laws; b) an invention the primary or intended use of which would be contrary to law or morality or injurious to public health; c) the mere discovery of a scientific principle or the formulation of an abstract theory; d) the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant.

Explanation.—For the purposes of this clause, salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy;".

e) a substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or a process for producing such substance;

f) the mere arrangement or re-arrangement or duplication of known devices each functioning independently of one another in a known way;

g) * * * *

h) a method of agriculture or horticulture;

i) any process for the medicinal, surgical, curative, prophylactic or other treatment of human beings or any process for a similar treatment of animals or plants to render them free of disease or to increase their economic value or that of their products.

j) plants and animals in whole or any part thereof other than micro-organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals;

k) a mathematical or business method or a computer programme per se or algorithms;

(l) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;

(m) a mere scheme or rule or method of performing mental act or method of playing game;

(n) a presentation of information;

(ó) topography of integrated circuits;

(p) an invention which, in effect, is traditional knowledge or which is an aggregation or duplication of known properties or traditionally known component or components.

³³ Section 4: Inventions relating to atomic energy not patentable: No patent shall be granted in respect of an invention relating to atomic energy falling within sub-section (1) of Section 20 of the Atomic Energy Act, 1962.

(1) (d) permits revocation of a patent if the subject of any claim of the complete specification is not an invention within the meaning of the Act.

A combined reading of these sections reiterates that there can be no patent protection in the country on traditional knowledge per se or which involves traditionally known component or components.

On the basis of the statutory requirement of novelty one can categorically argue that majority of the existing products and processes based on traditional knowledge will not satisfy the test of novelty. The lack of novelty will disqualify the products based on the knowledge to be treated as invention for the purpose of patent protection. In this context the existing traditional knowledge will remain as a prior art rather than a new art for patent protection.

2. Copyright and Neighbouring Rights

Under copyright regime, creators and authors are entitled to both economic and moral rights though TRIPS agreement focuses mainly on economic rights. However, the Universal Declaration of Human Rights (UDHR), 1948 recognizes these set of rights.³⁴ Moral rights cover special inalienable rights of the author such as paternity rights, privacy rights and integrity rights.

Section 57 of the Indian Copyright Act, 1957³⁵ deals with authors' special rights and recognizes authors' right to claim authorship of the work and their right to restrain distortion, mutilation, modification, etc. prejudicial to his honour and reputation of the work.³⁶

It is evident from the above discussion that the literary, artistic, religious, scientific, technological and other traditions and productions created by the national or ethnic communities or unknown or unidentified authors, but passed on from generation to generation can fabulously be given legal recognition and protection under the copyright law as intellectual property. A wide range of traditions which form part of cultural heritage can be protected under this option. It can be argued that this kind of protection would provide traditional and indigenous communities with legal means to prevent any acts that distort the paternity rights of the community or affect their integrity as TK holders. However, in this aspect, identification of the author and duration of protection will be concerns in the

³⁴ Article 27 of UDHR which recognizes the material interests resulting from any scientific, literary or artistic production.

³⁵ Inserted by the Amendment Act 38 of 1994.

³⁶ Also see, *Wiley Eastern Ltd. v. Indian Institute of Management*, 1995 PTR, 53 and *Manu Bhandari v. Kala Vikas Pictures Pvt. Ltd.*, AIR 1987 Del. 13.

copyright law. Though copyright accommodates the concept of joint authorship, copyright cannot be vested over the entire tribe or community since copyright does not recognize community ownership. Copyright does not recognize perpetual protection also. In such a situation until we develop a *sui generis* system or the concept of community ownership in the Indian copyright law, the customary law must prevail.³⁷

3. Trademark

Trademarks are a way of protecting the use of marks, words, phrases, symbols, designs, or any combination of these associated with goods or service. Once a trademark is established, it can be used to identify and differentiate similar goods and services. Trademarks can be used as a mechanism for the protection of some forms of indigenous art. The trademark can be used to refer to a tribe, an artist, or a combination of both. It has the flexibility to be used for all forms of folk art, including folk medicines. All goods manufactured and services offered by manufacturers, craftsmen, professionals and traders in native and indigenous communities, or by the bodies that represent them or in which they are grouped (co-operatives, guilds, etc), may be differentiated from each other with trademarks and service marks. Similarly, any manufacturer, craftsman, professional person or trader in a native or indigenous community, including the bodies that represent such persons or in which they are grouped may identify themselves with trade names. The trade name is also used to promote the activities of the person or entity that it identifies, both within and beyond the borders of the country of origin.

In the event, if a patent prohibits the indigenous community from selling the product, they could register the trademark and subsequently license out the use of the trademark in order to allow companies to ensure authenticity. Existing procedures could be performed on products and approved by a community as a method of adding value to a product with the potential to collect royalties on the products sold.

4. Geographical Indication

A number of products that come from various regions are the result of traditional processes and knowledge implemented by one or more communities or group in a given

³⁷ The Maori society in New Zealand provides example for a society that managed their resources and TK through customary rights. See, Lucy M. Moran, "Intellectual Property Law Protection for Traditional and Sacred "Folklife Expressions"—Will Remedies Become Available to Cultural Authors and Communities?", *U. BALT. INTELL. PROP. L.J.*, Vol. 6, 1998, p. 99.

region.³⁸ Geographical indications and appellations of origin can be used to enhance the commercial value of natural, traditional and craft products of all kinds if their particular characteristics are attributed to their geographical origin. The special characteristics of those products may be symbolized by the indication of source used to identify the products. Better exploitation and promotion of traditional geographical indications would make it possible to afford better protection to the economic interests of the communities and regions of origin of the products.

Hence, the producers in the relevant region, indigenous or local community, can associate together to develop, maintain, register and protect their products bearing the geographical indication.

5. Plant Varieties

To be protected, a variety has to be different from known varieties and uniform and stable in its essential characteristics, even after a number of reproduction cycles. New plant products, cultivars and varieties of all species of plants may be protected under plant breeders' rights (PBR). Varieties developed by the possessors of TK could also be legally protected in this way. Improvements to varieties representing the natural state of plant diversity could also constitute new varieties eligible for protection.

6. Undisclosed Information or Trade Secrets

Undisclosed information is a subject matter of IPR under the TRIPS agreement.³⁹ This branch of law protects undisclosed knowledge through secrecy and access agreements, which may also involve paying royalties to knowledge holders for access to and the use of their knowledge. Three elements are required for knowledge to be classified as a trade secret: the knowledge must have commercial value, the knowledge must not be in the public domain, and the knowledge is subject to reasonable efforts to maintain secrecy. A trade secret is only enforceable as long as it remains a secret. The object is to lawfully prevent information within the control of a person from being disclosed to, acquired by, or used by others without consent, in a manner contrary to honest commercial practices. But once the knowledge is released to the public, this option no longer exists.

According to Srividhya Ragavan, trade secret law is possibly the best form of protection for the traditional knowledge amongst the prevailing regimes of intellectual

³⁸ As in the case of *Aranmula* Mirror of Kerala.

³⁹ Under Article 39 of the TRIPS.

property. For example, trade secrets can vest an implied duty on a photographer not to sell or exhibit copies of a photograph without the consent of the photographed.⁴⁰ It is the best form of intellectual property for protecting any kind of undisclosed information. The first step towards trade secret protection of the knowledge of the indigenous people is the realization of its value by the holders: they must be aware of their rights and long term benefits that will be gained if protected as a trade secret.⁴¹

However, there is no statutory framework in India to regulate protection of undisclosed information. It works within the framework of law of confidence. Hence, it is important to remember that knowledge that is considered a trade secret can be used by anyone if the knowledge leaks into the public domain, is independently discovered by another individual, or reverse engineered. Due to lack of legal entitlement, it is difficult to protect undisclosed information against misappropriation or breach of confidence by the bearer of the secret.

Although the limitations of existing IP laws in the protection of TK cannot be undermined, conventional IP mechanisms can be used to protect TK and related resources. Existing intellectual property rights regime can be harnessed for the benefit of traditional knowledge holders in two ways: by positive as well as defensive protection. Positive protection of TK requires legal recognition of the rights of the TK holders over their TK. The positive protection entails the active assertion of IPRs or granting of exclusive property rights for TK with a view to exclude others from making specific forms of use of the protected TK or associated materials. As discussed above, the legal recognition of TK can be given and various forms of TK can be protected in existing or slightly modified and adapted existing IPR system.

Alternatively, traditional knowledge which is in the public domain can be protected defensively also. Defensive protection does not entail the assertion of IP rights, but rather aims at preventing third parties from claiming rights in misappropriated subject matter.⁴² As WIPO suggested such protection would essentially provide legal means to restrain third parties from undertaking certain unauthorized acts that involve the use of the protected

⁴⁰ Geetanjali Lakotia, "Trade Secret Laws: Do We Need Them in India — A Comparative Analysis", http://www.iprlawindia.org/law/contents/ts/Articles/trade_sec_laws_glakhotia.htm

⁴¹ As done by the tribal group in Peru to protect its property from the California based Shaman Pharmaceuticals Inc. (See Donald E. Bierer, Thomas J. Carlson, and Steven R. King, "Shaman Pharmaceuticals: Integrating Indigenous Knowledge, Tropical Medicinal Plants, Medicine, Modern Science and Reciprocity into a Novel Drug Discovery," <<http://www.netsci.org/science/special/feature11.html>> , visited on September 15, 2013.

⁴² "Elements of a *Sui Generis* System for the Protection of Traditional Knowledge," document prepared by the Secretariat, WIPO Doc. WIPO/GRTKF/IC/4/8, September 30, 2002, para. 13.

material.⁴³ In other words, traditional knowledge holders can ensure that their open access knowledge is not appropriated by other people. Defensive protection can be ensured by making use of the existing legislation.

Though positive protection can imply the adoption of new laws, the existing categories of intellectual property or a combination of various forms of intellectual property can be used to protect traditional knowledge, till we develop a comprehensive *sui generis* legislative regime.

CONCLUSION

Existing intellectual property rights regime can be harnessed for the benefit of traditional knowledge holders in two ways: by positive as well as defensive protection. Positive protection of TK requires legal recognition of the rights of the TK holders over their TK. The positive protection entails the active assertion of IPRs or granting of exclusive property rights for TK with a view to exclude others from making specific forms of use of the protected TK or associated materials. As discussed above, the legal recognition of TK can be given and various forms of TK can be protected in existing or slightly modified and adapted existing IPR system.

However, these are transitory solutions to continuing problems. One of the most important things that are to be realized is that protection of TK does not imply concealing it with the veil of IPR. However, protecting the rights of the indigenous people who depend on it for their livelihood and calling a halt to the unfair patent grants to pharmaceutical companies is an insistent necessity. Although the limitations of existing IP laws in the protection of TK cannot be undermined, conventional IP mechanisms can be used to protect TK and related resources.

⁴³ WIPO/GRTKF/IC/7/6.