CHAPTER 4

LEGAL PROTECTION OF TRADITIONAL KNOWLEDGE AND TRADITIONAL CULTURAL EXPRESSIONS IN INDIA - A REVIEW.
4.1. Different Mechanisms or tools for the protection of TK and TCEs

Traditional knowledge (TK) and Traditional Cultural Expressions (TCEs) reflect the cultural identity of millions and millions of Traditional and Indigenous Peoples of the world. These are very important intellectual properties of these communities. Hence, TK & TCEs should be effectively protected particularly in developing and underdeveloped countries. Such protection should primarily be with regard to the recognition of the rights of the original traditional knowledge holders and also the unauthorized acquisition of rights by third parties over traditional knowledge. A great degree of international coordination and cooperation is necessary to frame a widely accepted mechanism in this regard. The mechanisms sought to be implemented for the protection of TK & TCEs must give subjective consideration to the original holders of the knowledge. Interest of traditional people must be protected and such protection should be affordable, understandable and accessible to traditional knowledge holders. The role of Intellectual Property (IP) systems in relation to TK and how to preserve, protect and equitably make use of TK, has recently received increasing attention in a range of international policy discussions. The country's wealth of ancient traditional knowledge and its rich biodiversity are additional platforms on which the economic strength of the country will be build1. India is in forefront in developing practical solutions to defend against the misappropriation of traditional knowledge, genetic resources and traditional cultural expressions. However, protection of TK in Intellectual Property law can be discussed in two heads. These are as bellow:

(i) Defensive Protection of TK and
(ii) Positive Protection of TK.

These are discussed as below:

4.1.1. Defensive Protection of Traditional Knowledge

Defensive Protection of TK prevents others from seeking IPR to one's TK. These are measures which ensure that IP rights over TK are not given to parties other than the customary TK holders. Defensive protection refers to provisions adopted in the law or by the regulatory authorities to prevent IPR claims to knowledge, a cultural expression or a product being granted to unauthorized persons or organizations. These measures include the amendment of WIPO administered patent systems (the International Patent Classification System and the Patent Cooperation Treaty Minimum Documentation). Some countries and communities are also developing Traditional knowledge databases that may be used as evidence of prior art to defeat a claim to a patent on such TK [for example, India's Traditional Knowledge Digital Library (TKDL)]. Defensive protection is a mechanism to safeguard against illegitimate intellectual property rights acquired by third parties over traditional knowledge. This is a mechanism to define relevant prior art in disproving novelty in the patent claim over traditional knowledge. It is also a mechanism to ensure that the traditional knowledge constituting prior art is available and accessible to search authorities so that the patent claim is rejected. It requires relevant patent applications to include disclosure of the source of the genetic resources and associated TK, as well as evidence of Prior Informed Consent (PIC) and Benefit Sharing. It prevents others from seeking Intellectual Property Right over one's TK. Developing countries, including India have demanded at the international level to include this requirement in the TRIPs agreement. Like minded mega biodiversity countries of the world, have agreed to join efforts for effectively negotiating the development of an international regime on Access and Benefit Sharing (ABS). Some of these countries are Bolivia, Brazil, China, Costa Rica, Ecuador, India, Peru, Philippines, South Africa, and Venezuela etc. The main aim of defensive protection is to prevent misappropriation. Carlos M. Correa proposed a misappropriation regime for this purpose. According to him- "national laws would be free to determine the means to prevent it, including criminal and civil remedies (such as an obligation to stop using the relevant knowledge or to pay compensation for such use) as well as how to empower
communities for the exercise and enforcement of their rights\textsuperscript{2}. As per him, three elements should be there. These are:

I) documentation of TK,  
II) proof of origin of materials, and  
III) prior informed consent\textsuperscript{3}.

Correa refers to United Nations documents which clearly support his proposal\textsuperscript{4}. The first is the Decision V/16 of the CBD'S Conference of the Parties(COP). It, inter alia, states and “requests parties to support the development of registers of traditional knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity through participatory programmes and consultations with indigenous and local communities, taking into account strengthening legislation, customary practices and traditional systems of resource management, such as the protection of traditional knowledge against unauthorized use” \textsuperscript{5}. According to Correa, the second is the “Principles and Guidelines for the Protection of the Heritage of Indigenous peoples\textsuperscript{6}”. These were elaborated by the special Rapporteur, Mrs. Erica-Irene Daes, in conformity with resolution 1993/44 and decision 1994/105 of the Sub Commission on prevention of Discrimination and protection of Minorities of the Commission on Human Rights, Economic and Social Council, United Nations\textsuperscript{7}.Principle 3 says that “Indigenous peoples should be recognized as the primary guardians and interpreters of their cultures, arts and sciences, whether created in the past, or developed by

\textsuperscript{3} Ibid 2 (supra).
\textsuperscript{4} Ibid 2 (supra).
\textsuperscript{5} Vide, Decision V/16 of CBD’s Conference of Parties 5; http://www.cbd.int/decision/cop/?id=7158 (Accessed on 17/03/10).
\textsuperscript{7} http://www.ankn.uaf.edu/IKS/potect.html (Accessed on 01-05-2010).
them in the future). Principle 5 says that "Indigenous people’s ownership and custody of their heritage must continue to be collective, permanent and inalienable, as prescribed by the customs rules and practices of each people." Principle 26 says that "National laws should deny to any person or corporation the right to obtain patent, copyright or other legal protection for any element of indigenous people's heritage without adequate documentation of the free and informed consent of the traditional owners to an arrangement for the sharing of ownership, control, use and benefits."

Principle 27 says that "National laws should ensure the labeling and correct attribution of indigenous people's artistic, literary and cultural works - whenever they are offered for public display or sale. Attribution should be in the form of a trademark or an appellation of origin, authorized by the peoples or communities concerned."

The WIPO Intergovernmental Committee's draft provisions for the protection of Traditional knowledge also contain provisions for the protection against misappropriation of TK. It, inter alia, states as below:

i) Traditional knowledge shall be protected against misappropriation.

ii) Any acquisition, appropriation or utilization of traditional knowledge by unfair or illicit means constitutes an act of misappropriation. Misappropriation may also include deriving commercial benefit from the acquisition, appropriation or utilization of traditional knowledge when the person using that knowledge knows, or is negligent in failing to know, that it was acquired or appropriated by unfair means; and other commercial activities contrary to honest practices that gain inequitable benefit from traditional knowledge.

iii) In particular, legal means should be provided to prevent:

   a) acquisition of traditional knowledge by theft, bribery, coercion, fraud, trespass, breach or inducement of breach of contract; breach or inducement

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8. Ibid 7 (Supra).
9. Ibid 7 (Supra).
10. Ibid 7 (supra).
of breach of confidence or confidentiality, breach of fiduciary obligations or other relations of trust, deception, misrepresentation, the provision of misleading information when obtaining prior informed consent for access to traditional knowledge, or other unfair or dishonest means;

b) acquisition of traditional knowledge or exercising control over it in violation of legal measures that require prior informed consent as a condition of access to the knowledge and use of traditional knowledge that violates terms that were mutually agreed as a condition of prior informed consent concerning access to that knowledge;

c) false claims or assertions of ownership or control over traditional knowledge, including acquiring, claiming or asserting intellectual property rights over traditional knowledge-related subject matter when those intellectual property rights are not validly held in the light of that traditional knowledge and any conditions relating to its access;

d) if traditional knowledge has been accessed, commercial or industrial use of traditional knowledge without just and appropriate compensation to the recognized holders of the knowledge, when such use has gainful intent and confers a technological or commercial advantage on its user, and when compensation would be consistent with fairness and equity in relation to the holders of the knowledge in view of the circumstances in which the user acquired the knowledge; and

e) willful offensive use of traditional knowledge of particular moral or spiritual value to its holders by third parties outside the customary context, when such use clearly - constitutes a mutilation, distortion or derogatory modification, of that knowledge and is contrary to ordre public or morality.

iv) Traditional knowledge holders should also be effectively protected against other acts of unfair competition including acts specified in Article 10 bis of the Paris Convention. This includes false or misleading representations that a product or service is produced or provided with the involvement or endorsement of traditional knowledge holders, or that the commercial exploitation of products or services benefits holders of traditional knowledge.
It also includes acts of such a nature as to create confusion with a product or service of traditional knowledge holders; and false allegations in the course of trade which discredit the products or services of traditional knowledge holders\textsuperscript{12}.

v) The application, interpretation and enforcement of protection against misappropriation of traditional knowledge, including determination of equitable sharing and distribution of benefits, should be guided, as far as possible and appropriate, by respect for the customary, norms, laws and understanding of the holder of the knowledge, including the spiritual, sacred or ceremonial characteristics of the traditional origin of the knowledge\textsuperscript{13}.

4.1.2. Positive Protection of Traditional Knowledge

Positive protection of TK or the creation of positive rights in TK holders empower to them to protect and promote their TK. Positive protection gives the traditional knowledge holders the right to take action or seek remedies against any misappropriation of traditional knowledge. However, a system of positive protection of traditional knowledge should have the following features\textsuperscript{14}:

a) Recognition of value and promotion of respect for Traditional Knowledge Systems;
b) Meetings the actual needs of traditional knowledge holders;
c) Prevention of misappropriation of traditional knowledge and other unfair and inequitable uses;
d) Adoption of Equitable Benefit Sharing from use of traditional knowledge;
e) Protection of tradition based creativity and innovation;
f) Support of traditional knowledge systems and empowerment of traditional knowledge holders;
g) Promotion of the use of IK for a bottom-up approach to development.


\textsuperscript{13} Ibid 12 (supra) at p- 13.

While a register of data base of TK, PIC and ABS system, TKDL etc. act as instruments of defensive protection, a positive protection requires a legislative basis for the recognition, granting and protecting rights of the traditional knowledge holders. Positive protection may consist of the extension of existing intellectual property rights regimes i.e. legislations or the enactment of sui generis regimes. Positive protection may also be granted by customary law and practice or the legal enactments of Indigenous Peoples where their rights to regulate their cultural patrimony, whether tangible or intangible are recognized by national law and policy\(^\text{15}\). The options for positive protection include existing Intellectual Property laws and legal systems (including the law of unfair competition), extended or adopted IP rights specifically focused on TK (i.e. Sui Generis aspects of IP laws) and new, stand-alone Sui-Generis systems.

Many traditional knowledge holders complain that their knowledge and cultural heritage are treated as common property and their intellectual properties are used by third persons freely without any permission from them. As major portion of this knowledge are not patented, so defensive protection would not be suitable for protection of their TK. These communities claim to protect their knowledge by national and international laws. A legislative tool may be used for the declaration of rights of indigenous and local communities and also the ownership of their TK. Another tool would be the recognition of customary laws in national legislation. In most TK holding communities, the use of TK is governed and regulated by their customary laws. But, this law may work well within this community. Outside the communities, the laws have little effect, unless they are recognized in national legislation or the formal judicial system. This approach is widely supported by indigenous and local communities as this law respects their values and beliefs and allows them to continue their traditional lifestyles.

4.1.3. Use of existing Intellectual Property laws

The existing IP laws e.g. the laws of patents, trademarks, geographical indications, industrial designs and trade secrets may be used successfully to protect TK and to prevent some forms of misuse and misappropriation of TK. But the existing laws should be modified and changed for this purpose. For example, TK is often held by communities. This community held knowledge is not suitably protected by the existing IP regimes. So, change in law is necessary.

Besides the above, the existing intellectual property system may be used through sui generis measures for TK protection. In china, for example, the State Intellectual Property office has a team of patent examiners specializing in traditional Chinese Medicine. They use their specialized knowledge to prevent patent of TK.

4.1.4. Use of Sui Generis exclusive rights

The term ‘sui generis’ means of its own kind and consists of a set of nationally recognized laws for the protection of traditional knowledge and genetic resources. Under the sui generis system, any person interested in gaining access to a community’s biological resources or knowledge for scientific, commercial or industrial purposes would need to obtain the Prior Informed Consent (PIC) of the indigenous peoples who possess the knowledge in question, unless the knowledge is in public domain. The overall purpose of sui generis systems could be to put in place a set of measures that would respect, preserve and promote the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity including biological and related genetic resources and to ensure that they derive fair and equitable benefits from its utilization and that such utilization is based on their Prior Informed Consent (PIC). As per Article 8(j) of the CBD, a sui generis system shall have three objectives –

a) to respect, preserve and maintain traditional knowledge, innovations and practices;
b) to promote their wider application with the Prior Informed Consent and involvement of the holders and

c) to encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices with these holders.

A sui generis system could provide the means for Indigenous and Local communities to:

a) Control, access to, disclosure and use of traditional knowledge;

b) Exercise their prior informed consent for any access to or disclosure and use of traditional knowledge;

c) Ensure that they derive fair and equitable benefits from the wider application of their traditional knowledge, innovations and practices;

d) Ensure continued customary use of traditional knowledge, innovations and practices and avoid negative effects thereon.

However, the Secretariat of the Convention on Biological Diversity produced a document which inter alia contains the following:

i) Sui generis systems are based on recognition that the knowledge and related resources are collective property and hence sui generis systems could provide safeguards against claims of third parties to intellectual property rights over traditional knowledge. The safeguarding of knowledge from intellectual property claims from third parties could extend to protection against unauthorized disclosure, culturally offensive or unauthorized use of traditional knowledge.

ii) Sui generis systems could also promote a clear, transparent and effective system of traditional knowledge protection, which increases legal certainty and predictability to the benefit not only of knowledge

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16 UNEP/CBD/WG8J/5/6; Development of elements of Sui generis Systems for the protection of Traditional knowledge, Innovations and practices to identify priority elements. Note by the Executive Secretary, P-2.

holders, but also of society as a whole. This transparency and efficiency would help the sui generis system to lower transaction costs for local and indigenous communities for protecting their traditional knowledge or for those using it for commercial or non-commercial purposes.

iii) Sui generis system should not require the separation and isolation of the different elements of traditional knowledge, but rather take a systematic and comprehensive approach because of the logistic nature of TK. Developing effective sui generis systems for the protection of traditional knowledge, that conform with the obligation to respect, preserve and maintain knowledge, innovations and practices requires a recognition of the holistic character of traditional knowledge and the holistic world view of indigenous and local communities. So, an overall objective of sui generis systems should be holistic in nature and allow for a comprehensive approach to the needs and concerns of the communities involved.

iv) An important objective of the sui generis system is to develop framework and/or guidelines that support local systems of protection based on relevant principle of indigenous customary laws.

v) A sui generis system can –
   (a) Recognize and register, as appropriate, the ownership of traditional knowledge by the indigenous and local community that is the holder of said knowledge;
   (b) Control access to, disclosure and use of traditional knowledge;
   (c) Exercise the right to require free Prior Information Consent (PIC) for any use of TK;
   (d) Exclude improper use by third parties;
   (e) Ensure that they derive Fair and Equitable Benefits from the wider application of their Knowledge;
   (f) Generate protection mechanisms at the international and national government levels, and within relevant customary law;
   (g) The customary laws of Indigenous and local communities generally govern all aspects, of the community's and the individual's life. The sui generis system at the local level be based on the relevant customary
laws of the communities concerned. The importance of customary law is particularly crucial for the attribution of rights and benefits within the community. Any measures concerning the protection and equitable sharing of benefits of traditional knowledge both at the national and international levels, should respect the communities customs and traditions involving permission for individuals to use elements of traditional knowledge within or outside the community concerned, as well as, issues concerning ownership, entitlement to benefits etc. National and international measures should, therefore, be more general in nature and provide best-practice guidelines or a framework that recognizes and supports local measures. So, it can be said that a sui generis system of protection should be local in nature but supported by national and international frameworks and/ or guidelines

Potential rights of traditional knowledge holders under sui generis systems may include:

i) Inalienable rights held in perpetuity as long as the knowledge exists;

ii) The right to assign, transfer and license rights in traditional- knowledge with a commercial use;

iii) Protection against the reproduction use or exploitation of any kind of the traditional knowledge;

iv) The rights to all components of the bio - cultural heritage associated with the traditional knowledge including rights over the biodiversity, customary laws, cultural and spiritual values and lands and waters traditionally occupied or used by indigenous and local communities;

v) The potential of a different set of rights over knowledge that is acknowledged to be in the 'public domain';

vi) The right to pass on information as well as the rights associated with the knowledge to future generations.

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18. UNEP/CBD/WG8J/5/6, 20th September, 2007, Development of Elements of Sui generis Systems for the protection of Traditional knowledge, Innovations and practices to Identify priority Elements Page 4-5.

19. Ibid (18) at p-11.
Traditional knowledge, innovations and practices owe their existence to indigenous and local communities; and to no one else. Respecting TK implies respecting their right to decide whether and how it may be used and on what terms. Traditional knowledge has intrinsic cultural, spiritual and social value for indigenous and local communities as well as being for essential for their livelihoods and survival. For indigenous peoples it is the very essence of identity as a culturally distinct people. Sui-generic system should therefore be developed and implemented with the full and active participation of indigenous and local communities, including in defining the subject matter of protection. Their opinions should carry for more weightage than those of other factors.

If a special or sui generis regime for the protection of TK is developed at the national or international level, registers will likely serve as one of the various tools required to make such a regime functional. Trade secrets, patents, copyright, collective marks, access and benefit-sharing law and policy, contracts, registers etc, among other instruments, could all play a role in the context of a regime or system to protect TK. These different tools and instruments could be incorporated into a sui generis regime established to protect TK which might include the following ingredients:

i) Establishment of laws to recognize exclusive rights for indigenous peoples over their TK;

ii) Registries and/or databases that promote the documentation, maintenance and preservation of TK;

iii) Mechanisms for the monetary and non-monetary compensation of indigenous peoples for the use of their TK;

iv) Procedures ensuring that TK is not utilized without the Prior Informed Consent of Indigenous Peoples, including disclosure of origin, requirements in patent application procedures;

v) Utilization or amendment of existing Intellectual Property instruments, including copyright, patents, trade secrets, plant breeders rights and

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unfair competition laws in order to secure indigenous peoples interests over their products of intellectual efforts;

vi) Mechanisms establishing a duty to negotiate in good faith;

vii) Measures for resolving conflicts arising from access to and use of TK;

viii) Investigation and enforcement powers;

ix) Recognition of the role and importance of customary law and practice in the definition of rules for access and use of TK, Benefit Sharing and resolution of disputes.

The protection of traditional knowledge would not be effective without the availability of effective and expeditious remedies against unauthorized use. Enforcement and remedies should be developed according to customary law principles, and supported by strong institutions and legal processes. An effective sui generis mechanism must contain a strong enforcement mechanism and remedies for unauthorized use of TK.

4.1.5. Contractual Agreements

Traditional knowledge can be protected by the bilateral contract between holders of traditional knowledge and persons or companies wishing to access and use the knowledge. Know-how licenses and material transfer agreements are examples in this regard.

4.1.6. Other Instruments

Some of the other instruments which can also be used to protect TK are as below:

(a) Breach of confidence agreement or confidentiality agreement;

(b) Unfair competition;

(c) Trust funds;

(d) Institutional reforms e.g. Certificate of origin, Traditional knowledge Digital Library (TKDL);

(e) Other voluntary agreements etc.
4.1.7. Defensive vs. Positive Protection

The argument in support of the defensive protections is that databases will allow authorities to investigate prior art when reviewing patent applications to determine whether the invention fulfills all the essential conditions of granting patents or not. TK registration will also promote documentation, preservation and maintenance of TK. It will also help to identify the Indigenous Communities and which in turn help in adopting benefit sharing arrangement. But this TK registry may have some negative sides. These are as below21:

(a) Putting TK in the public domain through registration in databases can provide increased access to the private sector for TK. Third person would be able to exploit and appropriate TK without informing providers of the knowledge;

(b) TK is considered generally as collective property. So, there are no rewards or incentive for individuals to register their community knowledge in the database. Because, the right to the knowledge cannot be privately owned for individual use. This may discourage the individuals in the community to register their traditional knowledge;

(c) Identification of real beneficiaries for the benefit sharing is another problem in the defensive protection. Most of the knowledges have been passed on from one generation to other and from one community to other. There is not prior ownership claim. So, it becomes really difficult to identify individuals or groups of people who are entitled to claim the benefit.

However, the ultimate aim is to protect the interests of traditional people and indigenous people and also to preserve the traditional knowledge from misappropriation. Both the Defensive and Positive protections have their benefits and drawbacks. The choice, of course, belongs to each country. But, only Positive or Defensive protection alone cannot serve the purpose of protection of TK. A comprehensive approach to protection needs to consider

21 Vilailuk Tiranutti, Trade marking traditional knowledge available at : http:// www. techmonitor. net/techmon/ 07mar apr/tm/pdf/07mar_apr_sfs.pdf(Accessed on (20.03.10).)
Positive and Defensive protection as two sides of the same coin. Both of these two approaches should be considered as complementary and supplementary to each other. Both of these two instruments must be used to extend strong protection to the traditional knowledge and traditional knowledge holders.

4.2. Existing Indian Legal regime and protection of Traditional Knowledge and Traditional Cultural Expressions:

4.2.1. Preliminary

The protection of knowledge, innovations and practices of indigenous and local communities has been receiving greater attention by the world communities very recently. They have realized the importance of Traditional Knowledge. This is due to several reasons. First, it has been recognized that TK plays a key role in the preservation and sustainable use of bio diversity. This is also highlighted in the Convention on Biological Diversity (CBD) and the International Undertaking on Plant Genetic Resources of the Food and Agriculture Organization (FAO). Secondly, many activities and products based on T.K. are important sources of income, food and healthcare for large parts of the populations in various developing countries and Least Developed Countries (LDC's). But, this T.K. is being rapidly lost as local eco systems are degraded and traditional communities are integrated into the wider society. Thirdly, a major portion of the Traditional Knowledge is available in the developing and least developed countries. Access of these resources and traditional knowledge can provide great benefit to companies and scientific research centers in both developed and developing countries. But, often this traditional knowledge is misappropriated and pirated by unauthorized persons and multi national corporations. The real owner of these knowledge do not get anything in return. Lastly, the commercialization of TK-based products may contribute to the long-term socio-economic viability of indigenous and local communities, as well as the creation of new trading opportunities for developing countries. These are some of the main reasons for which the
importance of legal protection of TK is being felt all over the world. In India there is no specific sui generis legislation for the protection of Traditional Knowledge and Traditional Cultural Expression. But, some provisions of some legislations can be used and applied to protect TK and TCEs. These are discussed as below:

4.2.2. The Constitution of India

The constitution of India confers on its citizens the Fundamental Rights to equality, equal opportunity, right to life and personal liberty and to conserve distinct language, script or culture. Article 29(1) says any section of the citizens residing in any part of India having a distinct language, script or culture of its own has the right “to conserve the same.” This provision protects the language, script or culture of any section of the citizen. So, protection of various cultural expressions is our fundamental right under this Article. This right is available to the citizens. In order to invoke this Article, a section of the citizens, residing in India should have a distinct language, script or culture of its own. If so, they will have the right “to conserve the same.”

Article 39 of the constitution lays down principles for the establishment of a Welfare State that prescribes that the State shall direct its policies towards securing, inter alia, that the citizens equally have the right to an adequate means of livelihood and that the ownership and control of the material resources of the community are so distributed as best to sub serve the common good; and that the operations of the economic system do not result in the concentration of wealth and means of producing to the common detriment. Our genetic resources could well be considered as the 'material resources of the community' which are capable of generating wealth for the community. Article 47 imposes duty upon the State to raise the level of nutrition and the standard of living of its people and the improvement of public health. The term 'standard of living' includes various cultural aspects of life. Article 51(A)(f) of the constitution says that it shall be the duty of every citizen of India to value and preserve the rich heritage of our composite culture. The

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genetic resources, other traditional knowledge and cultural expressions nurtured and developed by the farming communities over generations are a part of our rich heritage and composite culture.

So, a review of the various provisions of the constitution makes it clear that indigenous practices and knowledge are recognized and traditional cultural expressions are respected and also protected.

4.2.3. **Indian Patents Act, 1970 (as amended in 2005)**

The history of Patent regime in India is a history of legislative enactments. It indicates that the present Patent Act 1970 is the result of series of legislative enactments. In 1859, during the British Rule, the ‘Act for granting exclusive privileges to inventors’ (Act XV of 1859) was passed. After series of changes and amendments we have got our present Patent Act 1970. But this Act was also amended several times. The last two in this series were the patents (Amendment) Act, 2002 and the Patents (Amendment) Act, 2005. Several changes had taken place in this new and amended Patent Act. The rules of procedure are contained in the Patents Rules 2003 as amended by Patents (Amendment) Rules 2005. The Fundamental Principle of Indian Patent Law is that a patent is granted only for an invention which must be new and useful that means it must have novelty and utility. In order to be valid a patent relate to the inventor’s own discovery as opposed to mere verification of what was already known before the date of the Patent. The basic principle of patent law is that a patent monopoly is granted only for inventions which are new and useful and which have industrial application. The Patent office examines an application for the patentability of the invention and makes in-depth search for its novelty. The controller of patents has wide powers to refuse to grant patent on various grounds. Patent monopoly is completely a creation of the statute and hence the State can impose any conditions for its grant in the form of compulsory license and revocation of patent etc. The object of granting patent

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24. Ibid 23 (supra).
is not only to encourage inventions, but to see that the inventions are worked in India on a commercial basis to strengthen Indian economy. However, the Indian Patent Act 1970 provides the negative method of excluding the categories of inventions that are not patentable\(^{26}\). Patent Law consists of a list of items which will not be considered as inventions. These are mentioned in Section 3. In other words, Section 3 of the Patents Act, 1970 deals with the inventions that are not patentable. Section 3(P) says that an invention which in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components\(^{27}\), is not patentable. So, as per this section any traditional knowledge or any invention which is an aggregation or duplication of known properties of traditionally known – component or components is not patentable. This section prevents evil attempt to misappropriate traditional knowledge. It protects traditional knowledge from bio piracy.

Again, Section 10 of the Patents Act 1970, deals with contents of specifications. As per this section, every specification whether provisional or complete shall describe the invention and shall begin with a title sufficiently indicating the subject-matter to which the invention relates\(^{28}\). Every complete specification shall fully and particularly describe the invention and its operation or use and the method by which it is to be performed\(^{29}\). Every complete specification shall disclose the best method of performing the invention which is known to the applicant and for which he is entitled to claim protection\(^{30}\), and also end with a claim or claims defining the scope of the invention for which protection is claimed\(^{31}\). Every complete specification shall also be accompanied by an abstract to provide technical information on the invention\(^{32}\). So, Section 10 also helps protecting traditional knowledge from bio piracy and misappropriation. The details, about the subject matter of


\(^{27}\) Section 3(P), Patents Act 1970.

\(^{28}\) Section 10(1) of the Patents Act, 1970.

\(^{29}\) Section 10(4)(a) of the Patents Act, 1970.

\(^{30}\) Section 10(4)(b) of the Patents Act 1970.

\(^{31}\) Section 10(4)(c) of the Patents Act, 1970.

\(^{32}\) Section 10(4)(d) of the Patents Act, 1970.
invention must be mentioned in the specification under this section. Hence, it indirectly protects traditional knowledge.

Chapter V of the Patents Act 1970 deals with opposition proceedings to grant of patents. This chapter inter alia deals with both pre-grant and post-grant opposition of patent. Section 25(1), inter alia, states that where an application for a patent has been published but a patent has not been granted, any person may, in writing, represent by way of opposition to the controller against the grant of patent on the ground-

(a) that the applicant for the patent or the person under or through whom he claims, wrongfully obtained the invention or any part thereof from him or from a person under or through whom he claims;
(b) that the invention so far as claimed in any claim of the complete specification was publicly known or publicly used in India before the priority date of that claim;
(c) that the invention so far as claimed in any claim of the complete specification has been published before the priority date of the claim in any specification filed in pursuance of an application for a patent made in India on or after the 1st day of January, 1912; or in India or elsewhere, in any other document;
(d) that the invention so far as claimed in any claim of the complete specification is obvious and clearly does not involve any inventive step, having regard to the matter published as mentioned in section 25(1)(b) or having regard to what was used in India before the priority date of the applicants claim;
(e) that the subject of any claim of the complete specification is not an invention within the meaning of this Act or is not patentable under this Act;

33 Section 25(1)(a) of the Patents Act 1970;
34 Section 25(1)(d) of the Patents Act 1970;
35 Section 25(1)(b) of the Patents Act 1970;
36 Section 25(1)(e) of the Patents Act 1970;
37 Section 25(1)(f) of the Patents Act 1970;
(f) That the complete specification does not sufficiently and clearly describe the invention or the method by which it is to be performed\textsuperscript{38};

(g) That the applicant has failed to disclose to the controller the information required by Section 8 or has furnished the information which in any material particular was false to his knowledge\textsuperscript{39}.

(h) That the complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention\textsuperscript{40};

(i) That the invention so far as claimed in any claim of the complete specification is anticipated having regard to the knowledge, oral or otherwise, available within any local or indigenous community in India or elsewhere\textsuperscript{41}.

Section 25 (2) of the Act deals with post-grant opposition. This section, inter alia, says that at any time after the grant of patent but before the expiry of a period of one year from the date of publication of grant of a patent, any person interested may give notice of opposition to the controller in the prescribed manner on any of the following grounds-

i) that the patentee or the person under or through whom he claims, wrongfully obtained the invention or any part thereof from him or from a person under or through whom he claims\textsuperscript{42};

ii) that the invention so far as claimed in any claim of the complete specification has been published before the priority date of the claim in any specification filed in pursuance of an application for a patent made in India on or after the 1\textsuperscript{st} day of January, 1912 or in India or elsewhere, in any other document\textsuperscript{43};

\textsuperscript{38} Section 25(1)(g) of the Patents Act, 1970;
\textsuperscript{39} Section 25(1)(h) of the Patents Act, 1970;
\textsuperscript{40} Section 25(1)(j) of the Patents Act 1970;
\textsuperscript{41} Section 25(1)(k) of the patents Act 1970;
\textsuperscript{42} Section 25(2)(a) of the Patents Act, 1970.
\textsuperscript{43} Section 25(2)(b) of the Patents Act, 1970.
iii) That the invention so far as claimed in any claim of the complete specification was publicly known or publicly used in India before the priority date of that claim\(^{44}\).

iv) That the subject of any claim of the complete specification is not an invention within the meaning of this Act, or is not patentable under this Act\(^{45}\),

v) That the complete specification does not sufficiently and clearly describe the invention or the method by which it is to be performed\(^{46}\).

vi) That the patentee has failed to disclose to the controller the information required by section 8 or has furnished the information which in any material particular was false to his knowledge\(^{47}\);

vii) That the complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention\(^{48}\).

viii) That the invention so far as claimed in any claim of the complete specification is anticipated having regard to the knowledge, oral or otherwise, available within any local or indigenous community in India or elsewhere\(^{49}\).

So, the above provisions are useful to protect traditional knowledge. Specifically, Section 25(2) (j) and 25(2) (k) are to be mentioned first. As per Section 25(2) (j)-if the complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention then any person interested may give notice of opposition to the controller at any time after the grant of patent but before the expiry of a period of one year from the date of publication of grant of a patent. It will prevent misappropriation of patent of Traditional Knowledge. Again section 25(2) (k) directly helps to prevent illegal patent on indigenous knowledge.

\(^{44}\) Section 25(2)(d) of the Patents Act, 1970.

\(^{45}\) Section 25(2)(f) of the Patents Act, 1970.

\(^{46}\) Section 25(2)(g) of the Patents Act, 1970.

\(^{47}\) Section 25(2)(h) of the Patents Act, 1970.

\(^{48}\) Section 25(2)(j) of the Patents Act, 1970.

Section 64 of the Patents Act, 1970 deals with revocation of patents. This Section, inter alia, states that a patent, whether granted before or after the commencement of this Act, may be revoked on a petition of any person interested or of the Central Government by the Appellate Board or on a counter-claim in a suit for infringement of the patent by the High Court on any of the following grounds-

i) That the patent was obtained wrongfully in contravention of the right of the petitioner or any person under or through whom he claims;\(^50\);

ii) that the subject of any claim of the complete specification is not an invention within the meaning of this Act;\(^51\);

iii) that the invention so far as claimed in any claim of the complete specification is obvious or does not involve any inventive step, having regard to what was publicly known or publicly used in India or what was published in India or elsewhere before the priority date of the claim;\(^52\);

iv) That the invention, so far as claimed in any claim of the complete specification, is not useful;\(^53\);

v) That the patent was obtained on a false suggestion or representation;\(^54\);

vi) That the subject of any claim of the complete specification is not patentable under this Act;\(^55\);

vii) That the applicant for the patent has failed to disclose to the controller the information required by section 8 or has furnished information which is any material particular was false to his knowledge;\(^56\).

viii) That the complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention;\(^57\);

ix) That the invention so far as claimed in any claim of the complete specification was anticipated having regard to the knowledge, oral or

\(^{50}\) Section 64(1)(c) of the Patents Act, 1970;

\(^{51}\) Section 64(1)(d) of the Patents Act, 1970;

\(^{52}\) Section 64(1)(f) of the Patents Act, 1970;

\(^{53}\) Section 64(1)(g) of the Patents Act, 1970;

\(^{54}\) Section 64(1)(j) of the Patents Act, 1970;

\(^{55}\) Section 64(1)(k) of the Patents Act, 1970;

\(^{56}\) Section 64(1)(m) of the Patents Act, 1970.

\(^{57}\) Section 64(1)(p) of the Patents Act, 1970.
otherwise, available within any local or indigenous community in India or elsewhere\textsuperscript{58}.

So, in view of the above discussions it can be said that a patent may be revoked. Out of these provisions of Section 64, Section 3 (P), Section 10, Section 64(1) (p) and section 64(1) (q) are very useful to prevent unlawful and unauthorized patent on traditional knowledge. Other provisions have also an indirect role to prevent bio piracy of traditional knowledge.

4.2.4. The Designs Act, 2000 (Act 16 of 2000)

Great Britain was the first country in the world to offer protection of designs. In 1787, the first Designs Act protecting designs was passed in England\textsuperscript{59}. In India, the first legislation on the subject was the Patents and Designs Act, 1872\textsuperscript{60}. The Act of 1872 was followed by the Inventions and Designs Act 1888 which consolidated and amended the law relating to the protection of inventions and designs, and contained provisions relating to designs in a separate part. Finally the British Patents and Design Acts, 1907 had become the basis of the Indian Patents and Designs Act, 1911. In 1970, the Patents Act 1970 repealed the provisions of patents law from the Patents and Designs Act, 1911. After that, to provide more effective protection to registered designs and to promote design activity it has become necessary to provide better protection to industrial design\textsuperscript{61}. To achieve these objectives and with a view to repeal the existing Designs Act, 1911, the Designs Act, 2000 was enacted by Indian Parliament. Since the enactment of the Designs Act 1911 considerable progress has been made in the field of science and technology. The legal system to protect industrial design was also felt to be changed in order to ensure effective protection to registered designs. The old Act 1911 failed to respond to the needs of the changing situations. Therefore, the new act of 2000 was enacted to cope with the changing situation and development in the field of science, technology and law.

\textsuperscript{58} Section 64(1)(q) of the Patents Act, 1970.
\textsuperscript{59} David Bainbridge, Intellectual Property, fifth edn., Pearson Education; Page 454.
\textsuperscript{60} Dr. G. B. Reddy; Intellectual Property Rights and the law; Gogia Law Agency, Hyderabad, 7\textsuperscript{th} edn. (2009-2010), P-345.
\textsuperscript{61} Dr. J. K. Das; Intellectual Property Rights; Kamal Law House, Kolkata, 1\textsuperscript{st} edn. 2008; P-557.
However, the Design Act, 2000 also extends protection to Traditional Cultural Expressions (TCEs) from being illegally pirated. The relevant provisions are as below:

Section 4 of the Design Act, 2000, inter alia, says that- a design which-

(a) Is not new or original; or
(b) Has been disclosed to the public anywhere in India or in any other country by publication in tangible form or by use or in any other way prior to the filing date, or where applicable, the priority date of the application for registration; or
(c) Is not significantly distinguishable from known designs or combinations of known designs shall not be registered.

As per Section 4 of the Act, a design which is not new or original shall not be registered. If any design which has been disclosed to the public i.e. which is in public domain, anywhere in India or in any other country by publication in tangible from or by use or in any other way prior to the filing date, shall also not be registered. Again if any design is not significantly different from known designs or combination of known designs - shall also not be registered. So, Section 4 of the Act, has imposed restriction upon registration of design. This Section prevents unlawful registration of design of traditional cultural expressions. Most of cultural expressions (e.g. handicrafts, handlooms, traditional dresses, and other traditional cultural expressions) are not new or original and have been disclosed in India or in any other country. Hence, these are not registerable and it indirectly prevents piracy of traditional cultural expressions.

The expression ‘new or original’ which is used in Section 4 of the Act has separate meaning. A design is considered new if it never exists before. A design is considered ‘new’ where the shape or pattern was wholly new in itself and on the other hand ‘original’ referred to a situation where it is old but new in its application to the particular subject matter, though it had existed before. The word ‘original’ indicates that the person who originated something by the exercise of intellectual activity, that idea had not occurred to anyone before. In
order to be original it is enough if it is new in its application to an article, although it had existed before. Novelty may consist not in the idea itself, but in the way in which the idea is to be rendered applicable to some special subject-matter. The word 'original' contemplates that the person has originated something that by the application of intellectual activity he has started an idea which has not occurred to anyone before, that a particular pattern or shape or ornament may be rendered applicable to the particular article to which he suggests that it shall be applied\textsuperscript{62}. If that state of things be satisfied then the design will be original, although the actual picture or shape or whatever it is which is being considered is old in the sense that it has existed with reference to another article before\textsuperscript{63}. The words "new or original" involve the idea of novelty, either in the pattern, shape, or ornament itself, or in the way in which an old pattern, shape, or ornament is to be applied to some special subject matter\textsuperscript{64}. The word 'new' in relation to a design means a design which is completely new in the sense that it is invented or created for the first time and was hitherto unknown. The word 'original' here means a new application of an existing or known design to a new subject matter. So, a design may not be new in the sense that it is completely new. It may be an existing or known design but has been applied to a particular article for the first time. Such a design, therefore, may be original in the sense that its application to the article is new\textsuperscript{65}. However, novelty alone is not sufficient. There must be substantial originality as well as novelty. Again, it is not necessary that the whole of the design should be new. It is sufficient if some part of it is new or original\textsuperscript{66}. The novelty or originality of the particular part may be enough to consider the character of novelty and originality to the whole\textsuperscript{67}.

So, from the above discussion, it is clear that section 4 of the Act imposes restriction in registration of design any form of Traditional Cultural

\textsuperscript{62} P. Narayanan, Law of copyright and Industrial Designs, Fourth edn. 2007, Eastern Law House, P-468;
\textsuperscript{63} Ibid 62.
\textsuperscript{64} Ibid 62.
\textsuperscript{67} Ibid 66.
Expressions (TCEs) if that does not fulfill the criteria of novelty and originality. That is if any Traditional Cultural Expressions (TCEs) of any indigenous people is not new and original then it will never be registered. No one can register any design on the traditional cultural expressions of traditional people if it fails to satisfy the novelty and originality requirement under Section 4 of the Act.

4.2.5. The Trade Marks Act – 1999

Indigenous people and traditional communities are very anxious about unauthorized and illegal infringement of their words, names, designs, symbols, and other distinctive signs in the course of trade and registering them as trademark by the authorized persons and companies. There are many examples of the unauthorized use of indigenous and traditional words, names, designs, symbols and other distinctive signs and of their registration as trademarks. The reason behind misappropriation of indigenous and traditional words and other marks is to earn commercial profit. The dishonest businessmen and companies try to encash the goodwill and name of indigenous and rational people by unauthorized use of distinctive indigenous words and symbols of Indigenous People. Use of indigenous signs as trademarks may give consumers the impression that such products are genuinely made by indigenous or traditional people or have some traits and qualities that are inherent to the indigenous cultures when they do not in reality.

However, the Trade Marks Act in India contains some provisions which can prevent misappropriation and infringement of indigenous and traditional people’s trademark. Basically, prior to 1940 there was no statutory law relating to Trade Marks in India. The Trade Marks Act 1940, promulgated in 1940, introduced for the first time a mechanism for the registration and statutory protection of trade marks in India. This Act was in force until 1958 when it was replaced by the Trade and Merchandise Marks Act 1958. At Present, this Act was also repealed and it was replaced by the trademarks

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69 Ibid-68.
The object of Trade mark legislation is to provide for the registration and better protection of trade marks and for the prevention of the use of fraudulent marks. Registration of a trade mark confers certain statutory rights on the registered proprietor which enables him to sue for infringement of the trade mark. A person infringes a registered trade mark if he uses in the course of trade a sign which is identical with the trade mark in relation to goods or services which are identical with those for which it is registered. A person infringes a registered trade mark if he uses in the course of trade a sign if:

i. The sign is identical with the trade mark and is used in relation to goods or services similar to those for which the trade mark is registered; or

ii. The sign is similar to the trade mark and is used in relation to goods or services identical with or similar to those for which the trade mark is registered.

Because of the above reason there exits a likelihood of confusion on the part of the public, which includes the likelihood of association with the trade mark.

As per the Trade Marks Act, 1999, a trade mark is registrable if-

i. It is devoid of any distinctive character, that is to say, not capable of distinguishing the goods or services of one person from those of another person.

ii. It consists exclusively of marks or indications which may serve in trade to designate the kind, quality, quantity, intended purpose, values, geographical origin or the time of production of the goods or rendering of the services or other characteristics of the goods or services.

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71. Ibid-70.

72. Section 9(1)(a) of the Trade Marks Act 1999.

73. Section 9(1)(b) of the Trade Marks Act 1999.
iii. It consists exclusively of marks or indications which have become customary in the current language or in the bona fide and established practices of the trade\textsuperscript{74}.

Again, a mark shall not be registered as a trade mark if-

i. It is of such nature as to deceive the public or cause confusion\textsuperscript{75},

ii. It contains or comprises of any matter likely to hurt the religious susceptibilities of any class or section of the citizens of India\textsuperscript{76};

So, a trade mark is not registrable if –

i. It is not distinctive or capable of distinguishing ;

ii. It consists exclusively of marks or indications which are directly descriptive of any characteristics or qualities of the goods or services;

iii. It consists exclusively of marks or indication which has become customary in the current language or in the bona fide and established practices of the trade.

The above provisions have prevented the unauthorized and illegal infringement of the indigenous people’s words, names, designs, symbols and other distinctive signs in the course of trade. These provisions prevent unauthorized use of indigenous and traditional words, names, designs, symbols and other distinctive signs of traditional people and of their registration as trademarks. However, though these are not very strong legal protection yet, these can not be undermined.

4.2.6. Copyright Act, - 1957

Although the Copyright Act does not include a specific provision to protect TK or TCES, a traditional and indigenous artist who creates original, new works based on traditional cultural expressions is afforded protection under the Copyright Act. Copyright protection is automatic. A “copyright work” means any such work in which copyright subsists. Literary, dramatic, musical and

\textsuperscript{74} Section 9(1) (c) of the Trade Marks Act 1999.

\textsuperscript{75} Section 9(2) (a) of the Trade Marks Act 1999.

\textsuperscript{76} Section 9(2) (b) of the Trade Marks Act 1999.
artistic works must comply with the criterion of originality in order to be protected. Copyright springs into life immediately on creation of the work. So, the work is protected as soon as it is recorded, in writing or otherwise, on paper, canvas, tape, disc, film or other recording medium from which it is capable of being reproduced. Hence, it is not necessary to apply to any authority in order to enjoy copyright protection. Any person who by his or her own skill and labor creates an original work of whatever character shall, for a limited period, enjoy an exclusive right to copy that work. The US Supreme Court declared the copyright as “the engine of free expression.” Copyright gives the owner of the copyright in a work of any description the exclusive right to do certain acts in relation to the copyright work. This includes the right to copy the work itself and also to use the work in other different ways. A person who does any of the acts restricted by copyright without the license of the copyright owner infringes the copyright in the work, unless the act, are otherwise excused. In order to enjoy copyright on any work – the work must be original one. Only original, literary, dramatic musical or artistic works are protected. The originality which is required relates to the expression of the thought. It is not required that the expression should be in an original or novel form but that the work should not be copied from another work; it should originate from the author. If no skill or labor is employed in producing the particular form in which the work is expressed, there will be no copyright in it, although it may embody an original idea or opinion. To secure copyright it is necessary that labor, skill or independent judgment be expended to import to the product some quality or character which the raw material did not possess and which differentiates it from the raw materials. However, the copyright works differently. When a work is created, its creator obtains a set of

78. Ibid 77.
81. Ibid - 80.
82. Ibid -80.
83. Ibid -80.
exclusive right in relation to the work. Thus, when copyright law grants a creator the ‘exclusive right to make copies’ of the work, this means little more than that if and when someone else copies the work, the creator can commence an action claiming an interference with the exclusive right. Yet, until someone actually uses the work in a way that is understood to constitute ‘copying’, the entitlement remains abstract. Copyright is thus a bipolar entitlement through which the plaintiff’s right correlates directly to the defendant’s actions with both originating in the same underlying reason. In other words, the reason why a defendant is liable for copyright infringement is also the reason why the plaintiff of the creator has a copyright in the work. The term ‘original’ requires that the work must be new or innovative in some sense. But in Copyright Law the term ‘original’ does not have its ordinary dictionary meaning. The work does not have to be unique, or even particularly meritorious. Rather, originality is more concerned with the manner in which the work was created and is usually taken to require that work in question originated from the author, its creator, and that it was not copied from another work. However, the object of copyright Law is to protect the author of the copyrighted work from an unlawful reproduction or exploitation of his work by others.

However, the oldest statute law in India relating to Copyright is the, Indian copyright Act of 1847 enacted during the East India Company’s regime. In 1911, the law of copyright was codified in England by the Copyright Act 1911. After that the Copyright Act was passed in 1914, which was nothing but a copy of the U.K. Copyright Act 1911. The next Act is – the copyright Act, 1957 which adopted many principles and provisions contained in the U.K. Act of 1956. This Act was amended – several times to cope with the changing social situations. Various provisions of the present Act can be used to prevent piracy.

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84. The Yale Law journal, April 2009, volume 118, Number- 6, Page 1169.
85. The Yale Law journal, April 2009, Volume 118, Number- 6, Page 1170.
or infringement of copyright of Traditional and Indigenous people. The important relevant provisions are as below:

Section 4 of the Act deals with the circumstances when work would not be deemed to be published or performed in public. This section says- except in relation to infringement of copyright, a work shall not be deemed to be published or performed in public, if published or performed in public without the license of the owner of the copyright. So, as per this section, if any work is published or performed in public without the license of the owner of the copyright- then it will not be deemed to be published or performed in public. No person can publish or perform any work of any original owner without taking permission or license from that original work. This is nothing but an indirect restriction upon infringement of copyright.

Section 13 deals with the works in which copyright subsist. As per this section – subject to the provisions of this section and other provisions of this Act, copyright shall subsist throughout India in the following classes of works89 -

a) Original literary, dramatic, musical and artistic works;
b) Cinematograph films; and

c) Sound recording.

Section 13 (2) inter alia says copyright shall not subsist in any work [as specified in section 13(1)], unless-

i. In the case of a published work, the work is first published in India, or where the work is published outside India, the author is at the date of such publication, or in a case where the author was dead at that date, was at the time of his death, a citizen of India;

ii. In the case of an unpublished work other than a work of architecture, the author is at the date of the making of the work a citizen of India or domiciled in India, and

iii. In the case of a work of architecture, the work is located in India.

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89. Section 13(1) of the Copyright Act 1957.
Section 13(3) says copyright shall not subsist –

a) In any cinematograph film if a substantial part of the film is on infringement of the copyright in any other work;
b) In any sound recording made in respect of a literary, dramatic or musical work, if in making the sound recording, copyright in such work has been infringed.

Section 13(5) says in the case of a work of architecture, copyright shall subsist only in the artistic character and design, and shall not extend to processes or methods of construction.

So, from the above provisions it can be said that the works which are already published i.e. which are already in public domain cannot be registered under the Act. In other words, works which are not original – cannot be considered for registration under the Act. In this regard section 16 of the Act, inter alia, says no person shall be entitled to copyright of any similar right in any work, whether published or unpublished, otherwise than under and in accordance with the provisions of this Act or of any other law for the time being in force. Section 51 of the Act, inter alia, says Copyright in a work shall be deemed to be infringed -

a) When any person, without a license granted by the owner of the copyright or the Registrar of copyright under this Act or in contravention of the conditions of a license so granted or of any condition imposed by a competent authority under this Act-

i. does anything, the exclusive right to do which is by this Act conferred upon the owner of the copyright, or

ii. permits for profit any place to be used for the communication of the work to the public where such communication constitutes an infringement of the copyright in the work unless he was not aware and had no reasonable ground for believing that such communication to the public would be an infringement of copyright; or
b) when any person-
   i. makes for sale or hire, or sells or lets for hire, or by way of trade
displays or offers for sale or hire, or
   ii. distributes either for the purpose of trade or to such an extent as to
affect prejudicially the owner of the copyright, or
   iii. by way of trade exhibits in public , or
   iv. imports into India,

any infringing copies of the work.

Though the Copyright Act 1957 does not contain a specific provision to
protect TK or TCEs, a contemporary artist who creates originals, new works
Based on TCEs is given protection under the Copyright Act. Copyright
protection is automatic. Copyright protection is available for literary and artistic
works as per the provisions of the Burne Convention. Many TCEs are
productions in the literary, scientific and artistic domain and, therefore, in
principle, constitute the actual or potential subject matter of copyright
protection. Copyright is the right of an author to control the reproduction .of his
or her intellectual creations. Folklore is also protected under the category of
performer's right under this Act. According to section 2(qq)- the term
"performer" includes an actor, singer, musician, dancer, acrobat , juggler ,
conjurer , snake charmer , a person delivering a lecture or any other person
who makes a performance .Under the copyright Amendment Act in 1994, a
certain amount of protection is offered to the performers. The concept of a
performer is not limited to one who performs a literary or artistic work as
envisaged in the provisions of the Rome Convention; rather the performer as
per the Indian Copyright Act can be any one who makes a performance.
Under the Copyright Act, 1957 a person who performs folklore is a –
performer and his rights are protected under this Act. However, the rights of
performers given under the Act are limited and offer only the possibility of
preventing certain acts undertaken without the consent of the performer.
Section 38 of the Act, inter alia, says as follows:
1) Where any performer appears or engages in any performance, he shall have a special right to be known as the “performer’s right” in relation to such performance.

2) The performer’s right shall subsist until fifty years from the beginning of the calendar year next following the year in which the performance is made.

3) During the continuance of a performer’s right in relation to any performance, any person who, without the consent of the performer, does, any of the following acts in respect of the performance or any substantial part thereof, namely-
   a) makes a sound recording or visual recording of the performance or;
   b) reproduces a sound recording or visual recording of the performance, which sound recording or visual recording was:
      i. made without the performer’s consent, or;
      ii. made for purposes different from those for which the performer gave his consent; or
      iii. made for purposes different from those referred to in section 39 from a sound recording or visual recording which was made in accordance with section 39; or
   c) broadcast the performance except where the broadcast is made from a sound recording or visual recording other than one made in accordance with section 39, or is a re-broadcast by the same broadcasting organization of an earlier broadcast which did not infringe the performer’s right; or
   d) communicates the performance to the public otherwise than by broadcast, except where such communication to the public is made from a sound recording or a visual recording or a broadcast,

   Shall, subject to the provision of section 39, be deemed to have infringed the performer’s right.

4) Once a performer has consented to the incorporation of his performance in a cinematograph film, the provisions of sub-sections (1), (2), (3) shall have no further application to such performance.
Again, section 39 of the Act deals with certain fair use provisions in relation to performer's right and the right of broadcast organization, like private use, and the reporting of current events. However, Section 39 inter alia, says- no broadcast reproduction right or performer's right shall be deemed to be infringed by-

a) The making of any sound recording or visual recording for the private use of the person making such recording, or solely for purposes of bona fide teaching or research;

b) The use, consistent with fair dealing, of excerpts of a performance or of a broadcast in the reporting of current events, or for bona fide review, teaching or research; or

c) Such other acts, with any necessary adaptations and modifications, which do not constitute infringement of copyright under Section 52.

So, from the above discussion it can be concluded that though the performance of the expressions of folklore can be covered under the definition of performance, the limited extent of the performer's rights itself, to a great extent, limit, the operation of performer's right in expressions of folklore. Thus, even though the expressions of folklore are not protected in India, the performers of the folklore can claim these limited benefits.

4.2.6.1. Protection of Traditional Cultural Expressions or Folklore and Copyright Law in India:
Expressions of folklore can be divided broadly into the following four categories depending on the form of expressions:

a) Verbal expressions, such as: folk stories, legends and poetry;

b) Musical expressions, such as: folk songs and instrumental music;

c) Expressions by action, such as: popular dances, plays and shows and
d) Tangible Expressions, such as: productions of folk art, especially drawing, sculptures, pottery, jewels, costumes, musical instruments as well as architectural works.

Folklore is “the wisdom of the people”91. It should be protected because it is a living tradition and forms part of the universal heritage of humanity but its protection should not restrain the freedom to promote creativity and innovation. Copyright may protect the expressions of folklore because of the similarity between copyrighted works and folkloric works. However, certain characteristics of copyright conflict with the expressions of folklore and the protection become difficult. An expression of folklore is not exactly the same as the “work”, the subject matter protected under copyright law. Copyright law does not protect many expressions of folklore, such as religious activities, architectural styles etc.92. Moreover, the expression of folklore may not be in fixed form. Expressions of folklore include more than the ‘works’ as defined under the copyright laws93. In some cases it may not be possible to identify author of the TCEs. In other cases many individuals from a community or communities may have contributed to the creation of the TCEs over many generations. So, it will be very difficult to identify the Author. Again, copyright law has the basic principles regarding requirements of original creation, copying a traditional symbols or design. In transmitting a symbol or design from generation to generation, there are inevitable changes that reflect the individuality of each artist that may not meet the test of originality as necessary in the Indian copyright Act, 1957. Fixation of the work in some material form helps to decide when the creative process has transformed an idea into a copyrightable work. Many TCEs, however, are not evidenced in some material form. Rather, these are exited only in collective and individual memories e.g. - "folk song and stories". Even where the TCEs may qualify for copyright protection, the term of protection would be limited, not perpetual.

Folklore forms an integral part of the cultural heritage of our country. It is very important to a multi-lingual and multi-cultural country like India. It is an essential means of social identity of our country. In recent decades, there has been an increase in the commercial exploitation or misappropriation of

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91 Ibid 90.
93 Ibid 92.
expressions of folklore or traditional cultural expressions by entrepreneurs and other dishonest persons who have no connection whatsoever with the communities to which the TCEs belong. In major cases, the communities who were custodians or preservers of the TCEs do not enjoy the economic benefit or share the returns from such unauthorized exploitation by persons not belonging to the communities. Indian traditional people are also facing the same problem. Sometimes, very little respect and regard is shown to these original custodians of TCEs. Indigenous communities are very concerned with the continued exploitation of their culture. To prevent cultural integrity, avoid unjust enrichment of the outsiders and prevent economic exploitation to the communities – protection of TCEs is very essential. According to the sixth report of the Inter-Governmental Committee Report on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, the term TCE was introduced to reflect the value systems of indigenous groups and to reinforce their heritage and worldview. As per the report, TCEs act as sources of inspiration for practitioners of traditional arts and hence they need to be protected. Protection of traditional knowledge, here, means protection against injury and more importantly against derogatory and offensive use. The injury to a community’s cultural expressions could be in different way such as intrusion into their privacy, passing off their identity, blindly imitating their customs and accessing their literature etc. without their consent.

However, the copyright law and other forms of Intellectual property law do not address all of the concerns that have been raised in connection with the protection of TCEs. A WIPO document highlights the fact that contemporary examples of TCEs or “modern evolving cultural heritage” does benefit from IP protection, whereas “pre-existing, underlying cultural heritage” may not benefit from IP protection. So, tradition-based “modern, evolving cultural
"heritage" as exemplified by a traditional song that is recorded on a CD is afforded copyright protection, and a recording Artist has the legal right to prevent third parties from copying his or her rendition of the traditional song. However, if the "Pre-existing, underlying cultural heritage" as represented by the traditional song is considered to form part the public domain, copyright law would not prevent a third party from using the traditional song in the creation of a new work\textsuperscript{97}. So, the modern evolving cultural expressions which are easily identifiable and recorded with the help of modern technology may be protected by copyright law but the pre-existing, underlying cultural expressions may not be suitable to be protected by the present copyright law of India.

Due to their antiquity many TCEs originating from Aboriginal and non-Aboriginal communities would be considered from an intellectual property perspective to be in the public domain and hence beyond protection. Because, it fails to fulfill the basic criteria of ‘originality’ of Copyright Act, 1957. Again, as copyright does not extend to the protection of ideas, it would not protect even those ideas or beliefs that may be considered by a community as having great cultural or religions significance. Again, as copyright does not protect artistic style, Indian copyright Act 1957 would be failed to stop fashion designers from copying traditional clothing designs and symbols (i.e. various expressions of cultures) that may be considered to be in the public domain. Copyright is based on the identification of the creator, but in contrast folklore is distinguished by the anonymity and by the fact that the tradition is the attribute of a community. Copyright confers the exclusive right of exploitation on the person who creates the work, which is difficult to reconcile with the diffuse nature of folklore within a community. Many expressions of folklore are formed over a long period of time which exceeds the term of copyright protection in India. So, if we want to protect all traditional cultural expressions in India by the existing copyright Act, 1957- that will be a troublesome and

difficult task. Many provisions of the present Act are to be changed to make it suitable to protect TCEs. Due to the above reasons, UNESCO and WIPO approved the Model Provisions for National Laws on the Protection of Expressions of Folklore against illicit exploitation and other Prejudicial Actions (Model Provisions) which established a sui generis system independent of the exiting Indian copyright law. The Model Provisions use the term “expression of folklore” to substitute the term “works of folklore” in copyright law of various countries including of India. The main reason behind this is to highlight the difference between “folklore creation” and copyright works.

For copyright to subsist in a work, it must be in writing, recorded or reduced to material form. But, some of the expressions of Folklore are not able to satisfy this requirement. In India, various verbal expressions e.g. – folktales, aboriginal legend and indigenous poetry, folk music and dance are not traditionally reduced to material form. Generally, these are passed down from generation to generation through memorization and imitation. Body painting and face painting are also in existence in various parts of the country and surely forms part of TCEs. But, due to their temporary and short lasting nature- copyright law fails to protect them. Though traditional people are the owners of various indigenous stories, poetry, traditional songs and indigenous ritualistic performing arts, yet some outsiders who are not original creator of these TCEs, claim themselves as the owner of these TCEs. As these works do not fulfill the basic criteria for getting copyright protection under the exiting Indian copyright laws, so these remain unprotected by the Act.

In this context a summary of Draft policy objectives and core principles for protection of Traditional Cultural Expressions is given below:\textsuperscript{98}:

"The protection of traditional cultural expressions or expressions of folklore, should aim at:

i. recognize that indigenous peoples and traditional and other cultural communities consider their cultural heritage to have intrinsic value, including social, cultural, spiritual, economic, scientific, intellectual, commercial and educational values, and acknowledge that traditional cultures and folklore constitute frameworks of innovation and creativity that benefit indigenous peoples and traditional and other cultural communities, as well as all humanity;

ii. promote respect for traditional cultures and folklore, and for the dignity, cultural integrity, and the philosophical, intellectual and spiritual values of the peoples and communities that preserve and maintain expressions of these cultures and folklore;

iii. be guided by the aspirations and expectations expressed directly by indigenous peoples and by traditional and other cultural communities, respect their rights under national and international law, and contribute to the welfare and sustainable economic, cultural, environmental and social development of such peoples and communities;

iv. provide indigenous peoples and traditional and other cultural communities with the legal and practical means, including effective enforcement measures, to prevent the misappropriation of their cultural expressions and derivatives therefrom, control ways in which they are used beyond the customary and traditional context and promote the equitable sharing of benefits arising from their use;

v. be achieved in a manner that is balanced and equitable but yet effectively empowers indigenous peoples and traditional and other cultural communities to exercise right and authority over their own traditional cultural expressions /expressions of folklore;

vi. respect the continuing customary use, development, exchange and transmission of traditional cultural expressions by, within and between communities;
vii. contribute to the preservation and safeguarding of the environment in which traditional cultural expressions are generated and maintained for the direct benefit of indigenous peoples and traditional and other cultural communities, and for the benefit of humanity in general;

viii. reward and protect tradition-based creativity and innovation especially by indigenous peoples and traditional and other cultural communities;

ix. promote intellectual and artistic freedom, research practices and cultural exchange on terms which are equitable to indigenous peoples and traditional and other cultural communities;

x. contribute to the promotion and protection of the diversity of cultural expressions;

xi. where so desired by communities and their members, promote the use of traditional cultural expressions for community-based development, recognizing them as an asset of the communities that identify with them, such as through the development and expansion of marketing opportunities for traditional-based creations and innovations;

xii. preclude the grant, exercise and enforcement of intellectual property rights acquired by unauthorized parties over traditional cultural expressions and derivatives thereof;

xiii. enhance certainly, transparency, mutual respect and understanding in relations between indigenous peoples and traditional and cultural communities, on the one hand, and academic, commercial, governmental, educational and other users of TCEs; on the other.

The WIPO-IGC at its Eighth session considered the above draft provisions embodying policy objectives and core principles for the protection of Traditional Cultural Expressions (TCEs). These provisions are based on the statements, comments, and proposals by committee participants and national and regional approaches to protection of TCEs described and discussed in the committees sessions. The draft provisions set out substantive standards
which may provide the content of international standards for the protections of TCEs against misappropriation and misuse. All these points should be taken into consideration at the time of enacting a legal framework to protect TCEs in India.

So, it can be opined that the exiting Copyright Act, 1957, of our country is not at all strong enough to protect the traditional cultural expressions in India. However, only some of the provisions of the Act may be partially used to prevent misappropriate of some folklore. A sui generic Legal regime to protect TCEs will be the best possible legal solution in this juncture.

4.2.7. The Geographical Indications of Goods (Registration and Protection) Act, 1999

The use of Geographical Indications is an important method of indicating the origin of goods and services. Geographical Indication indicates that particular goods originate from a country, region or locality and have some special characteristics, qualities or reputations which are attributable to its place of origin. The protection of geographical indication means prohibiting any unauthorized person from using the geographical indication to the products which do not originate from the indicated geographical region or place. The geographical indication is a right, which may not be granted to a single person like a copyright to the author of a novel. It can be used by all the producers from the geographical region covered by the particular geographical indication. A Geographical Indication indicates that particular goods originate from a country, region or locality and has some special features, qualities or reputation, which are attributable to its place of origin. The connection between the goods and place becomes so famous that any reference to the place reminds the goods being produced there and vice versa. So, geographical indications reflect the traditions, culture, human efforts, resources, and environment of particular region. Geographical indications

have features that respond to the needs of indigenous and local communities and farmers. Geographical indications are based on collective traditions and a collective decision-making process; reward traditions while allowing for continued evolution; emphasize the relationship between human efforts, culture, land resources and environment; and are not freely transferable from one owner to another.

However, some traditional cultural expressions, (such as handicraft, which are made with the help of natural resources) may qualify as "goods" which could be protected by geographical indications under the Geographical Indications of Goods (Registration and protection) Act, 1999. Again, some Traditional Cultural Expressions may themselves be geographical Indications. For examples, indigenous and traditional names, signs, other indications. The Geographical Indications of Goods (Registration and protection) Act, 1999 of India is an Act to provide for the registration and better protection of geographical indications relating to goods. The term "geographical indication in relation to goods means an indication which identifies such goods as agricultural goods, naturals goods or manufactured goods as originating, or manufactured in the territory of a country or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin and in case where such goods are manufactured goods one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality, as the case may be. An explanation to section 2(e) says that any name which is not the name of country, region, or locality of that country shall also be considered as the geographical indication if it relates to a specific geographical area and is used upon or in relation to particular

102. Ibid 101.
103. Ibid 101.
goods originating from that country, region or locality, as the case may be. Again, Section 2(f) of the Act defines the term “goods”. The term “goods" means any agricultural, natural or manufactured goods or any goods of handicraft or of industry and includes food stuff.

However, the main object of the law is to prevent unauthorized personas from misusing geographical indications and to protect the consumer from deception. A Geographical indication may be registered in respect of any or all of the goods, comprised in such class of goods as may be classified by the Registrar and in respect of a definite territory of a country, or a region or locality in that territory, as the case may be. However, the Registrar shall classify the goods under section 8(1) in accordance with the international classification of goods for the purposes of registration of Geographical Indications. He may publish in the prescribed manner an alphabetical index of classification of goods referred to in section 8(2). So this Act enables the authorized users who may also include the representatives of the traditional communities to register Geographical Indications as well as themselves in respect of a definite territory of a country, or a region or a locality in that territory. Again, the Act prohibits registration of certain Geographical Indications in some circumstances. A Geographical Indication:

i. the use of which would be likely to deceive or cause confusion; or

ii. the use of which would be contrary to any law for the time being in force; or

iii. Which would otherwise be disentitled to protection in a court; or

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iv. Which are determined to be generic names or indications of goods and are, therefore, not or ceased to be protected in their country of origin, or which have fallen into disuse in that country; or

v. Which although literally true as to the territory, region or locality in which the goods originate, but falsely represent to the persons that the goods originate in another territory, region or locality, as the case may be, shall not be registered as a geographical indication.

So, the present Act encourages traditional people to register their expressions of folklore and also prevents unauthorized persons to use geographical indications. The Act may help to prevent misappropriation of the cultural expressions.

4.2.8. Biological Diversity Act, 2002

Biodiversity is consisted of variety of all life on earth. India is one of the 12 mega biodiversity countries of the world\(^1\) with only 2.5% of the land area, India already accounts for 7- 8% of the recorded species of the world\(^2\). India is also very rich in Traditional and Indigenous Knowledge. India was a party to the Convention on Biological Diversity (CBD) 1992. The main objectives of the CBD were:

i. Conservation of biological diversity;

ii. Sustainable use of its components; and

iii. Fair and equitable sharing of benefits arising out of utilization of genetic resources.

The Convention on Biological Diversity (CBD) states that a member country should facilitate access to its genetic resources by other parties on mutually agreed terms, but that access requires a Prior Informed Consent (PIC) of the


country providing the resources. It also provides for an equitable sharing of any benefit arising from the commercial use of these resources, or any TK associated with the biological resources subject to domestic legislations. In response to its obligation under the CBD (as a CBD member country) after 10 years of negotiations and discussions with the entire stake holders India has enacted the Biological Diversity Act in 2002. The Act provides for the conservation of biological diversity, sustainable use of its components and equitable sharing of the benefits arising out of the use of biological resources. The salient features of the Act are:\footnote{Justice P.S. Narayana, Intellectual Property Law in India, Gogia Law Agency, Hyderabad, 3\textsuperscript{rd} Edition 2005, P- 1085-1086.}\textsuperscript{113}:

a) To regulate access to biological resources of the country with the purpose of securing equitable share in benefits arising out of the use of biological resources; and knowledge relating to biological resources;

b) To conserve and sustainable use of the biological diversity;

c) To respect and protect knowledge of local communities related to biodiversity;

d) To secure sharing of benefits with local people as conservers of biological resources and holders of knowledge and information relating to the use of biological resources;

e) To conserve and develop areas of importance from the standpoint of biological diversity by declaring them as biological diversity heritage sites;

f) To protect and rehabilitate the threatened species;

g) To involve institutions of state government in the broad scheme of the implementation of the Act through constitution of committees.

The main function of the Act seems to be to provide a legal access the biological resources of the country through a process of permissions to be sought from the National Biodiversity Authority and state level Biodiversity...
Boards being established under this law. The law also makes provisions for ensuring equitable benefit sharing arising out of the use of accessed biological resources, their by products innovations and practices associated with their use and applications and knowledge relating thereto in accordance with mutually agreed terms and conditions between the person applying for such approval, local bodies concerned and the benefit claimers.

The terms “benefit claimers” means the conservers of biological resources, their by – products, creators and holders of knowledge and information relating to the use of such biological resources innovations and practices associated with such use and application. "Biological diversity" means the variability among living organisms from all sources and the ecological complexes of which they are part and includes diversity within species or between species and of eco- systems. The term "biological resources" means plats, animals and micro organisms or parts thereof, their genetic material and by products (excluding value added products) with actual or potential use or value but does not include human genetic materials.

The Act contains some special provisions for the protection T.K. Among them chapter II of the Act, regulates access to biological diversity. The Act prohibits certain persons from obtaining any biological resources occurring in India or Knowledge associated thereto for research or for commercial utilization or for bio-safety and bio- utilization. However, section 3 of the Act deals with certain persons not to undertake biodiversity related activities without approval of National Biodiversity Authority. The Section, inter alia, says no person [referred to under section 3(2)] shall, without previous approval of the National Biodiversity Authority, obtain any biological resource occurring in India or Knowledge associate thereto for research or for commercial utilization or for bio-survey and bio- utilization. The persons who shall be required to take

114. Section 2(a) of the Biological Diversity Act 2002.
115. Section 2(b) of the Biological Diversity Act 2002.
116. Section 2(c) of the Biological Diversity Act 2002.
117. Section 3(1) of the Biological Diversity Act 2002.
the approval of the National Biodiversity Authority under Section 3(1) are the following\textsuperscript{118}:

a) A person who is not a citizen of India;

b) A citizen of India, who is a non-resident as defined in clause (30) of section 2 of the Income Tax Act, 1961.

c) A body corporate, association or organization-

   i. not incorporated or registered in India or

   ii. incorporated or registered in India under any law for the time being in force which has any non-Indian participation in its share capital or management.

Again, no person shall, without the previous approval of the National Biodiversity Authority, transfer the results of any research relating to any biological resources occurring in, or obtained from India for monetary consideration or otherwise to any person who is not a citizen of India or citizen of India who is non-resident as defined under section 2(30) of the income Tax Act, 1961 or a body corporate or organization which is not registered or incorporated in India or which has any non-Indian participation in its share capital management\textsuperscript{119}. So, this section prevents any person from transferring the results of any research for monetary consideration or otherwise to such certain persons without previous approval of the National Biodiversity Authority (NBA).

The provisions of section 3 and 4 of the Act shall not apply to collaborative research project involving transfer or exchange of biological resources or information relating thereto between institutions, including government sponsored institutions of India, and such institutions in other countries, if such collaborative research project satisfy the conditions specified in sections 5(3)\textsuperscript{120}. All collaborative research projects, other than those referred to in

\textsuperscript{118} Section 3(2) of the Biological Diversity Act 2002.
\textsuperscript{119} Section 4 of the Biological Diversity Act 2002.
\textsuperscript{120} Section 5(1) of the Biological Diversity Act 2002.
section 5(1) which are based on agreements concluded before the commencement of this Act and in force shall, to the extent the provisions of agreement are inconsistent with the provisions of this Act or any guidelines issued under section 5(3)(a), be void. For the purposes of section 5(1), collaborative research projects shall-

a) conform to the policy guidelines issued by the Central Government in this behalf;

b) be approved by the Central Government.

Section 6 of the Act, is the main provision dealing with intellectual property Rights (IPR) on biological resources and associated knowledge. According to this provision, no person shall apply for any IPR by whatever name called, in or outside India for any invention based or any research or information on a biological resource obtained from India without obtaining the previous approval of the NBA. This section, inter alia, says-

1. No person shall apply for any Intellectual Property Right, by whatever name called in or outside India for any invention based on any research or information on a biological resource obtained from India without obtaining the previous approval of the National Biodiversity Authority before making such application:

   Provided that if a person applies for a patent permission of the National biodiversity Authority may be obtained after the acceptance of the patent but before the sealing of the patent by the patent authority concerned.

   Provided further that the National Biodiversity Authority shall dispose of the application for permission made to it within a period of ninety days from the date of receipt thereof.

2. The National Biodiversity Authority may, while granting the approval under this section, impose benefit sharing fee or royalty or both or

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121. Section 5(2) of the Biological Diversity Act 2002.
122. Section 5(3) of the Biological Diversity Act 2002.
impose conditions including the sharing of financial benefits arising out of the commercial utilization of such rights.

3. The provisions of this section shall not apply to any person making an application for any right under any law relating to protection of plant varieties enacted by parliament.

4. Where any right is granted under law referred to in sub-section (3), the concerned authority granting such right shall endorse a copy of such document granting the right to the National Biodiversity Authority.

Again, section 7 of the Act, inter alia, says- no person, who is a citizen of India or a body corporate, association or organization which is registered in India, shall obtain any biological resource for commercial utilization, or bio-survey and bio-utilization for commercial utilization except after giving prior intimation to the State Biodiversity Board concerned;

Provided that the provisions of this section shall not apply to the local people and communities of the area, including growers and cultivators of biodiversity and Vaids and Hakims who have been practicing indigenous medicine.

The procedures for the access and other purposes mentioned in the Act are provided to ensure effective, efficient and transparent access procedures through, written agreements and applications in prescribed formats. The NBA, through proper consultation mechanisms shall dispose of the application and communicate its decision to grant access or otherwise to the applicant within a period of six months from the date of receipt of the application. The Authority is required to communicate the grant of access to the applicant in the form of a written agreement duly signed by an authorized official. According to the Rule 14(8), the Authority may for reasons to be recorded in writing reject an application if it considers that the request cannot be acceded to. No application shall be rejected unless the applicant is given a reasonable opportunity of being heard. The Authority shall take steps to widely publicize the approvals granted, through print or electronic media and

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shall periodically monitor compliance of conditions on which the approval was accorded\textsuperscript{125}.

The access procedures are only regulatory in nature, but are not prohibitive in any manner to any applicant irrespective of their nationalities, affiliations, origins, etc. The Authority may either on the basis of any complaint or suo motu withdraw the approval granted for access under rules 15 and revoke the written agreement under the following circumstances\textsuperscript{126}:

i. On the basis of reasonable belief that the person to whom the approval was granted has violated any of the provisions of the Act or the condition on which the approval was granted;

ii. When the person who has been granted approval has failed to comply with the terms of the agreement;

iii. On failure to comply with any of the conditions of access granted;

iv. On account of overriding public interest or for protection of environment and conservation of biological diversity.

After having withdrawn the access permit, the Authority is required to send an order of revocation to the concerned Biodiversity Management Committee and the State Biodiversity Board to prohibit the access and to assess the damage, if any, caused and steps to recover the damages\textsuperscript{127}.

The Act and the Rules\textsuperscript{128} insists upon appropriate benefit sharing provisions in the access agreement on mutually agreed terms related to access and transfer of biological resources or knowledge occurring in or obtained from India for Commercial use, bio-survey, bio-utilization or any other monetary purposes. The Authority shall develop guidelines and shall notify the specific details of benefit sharing formula in an official gazette on a case- to- case basis. The suggested benefit sharing measures may include ‘monetary

\textsuperscript{125} Rule 14 (10) of the Biological Diversity Rules 2004.
\textsuperscript{126} Rule 15 (1) of the Biological Diversity Rules 2004.
\textsuperscript{127} Rule 15 (2) of the Biological Diversity Rules 2004.
\textsuperscript{128} Section 21 of the Biological Diversity Act, 2002 and Rule 20 of the Biological Diversity Rules 2004.
benefits’ such as, royalty, joint ventures, technology transfer, product
development and ‘non – monetary benefit’ such as, education and awareness
raising activities, institutional capacity building, venture capital fund etc. The
time frame and quantity of benefit to be shared shall be decided on case – to-

The time frame and quantity of benefit to be shared shall be decided on case – to-

The time frame and quantity of benefit to be shared shall be decided on case – to-

case based on mutually agreed terms between the applicant, authority, local
bodies, and other relevant stakeholders, including local and indigenous

bodies, and other relevant stakeholders, including local and indigenous

communities. One of the suggested mechanisms for benefit sharing includes
direct payment to persons or group of individuals through district
administration if the biological material or knowledge was accessed from
specific individuals or organizations. In cases where such individuals or
organizations could not be identified, the monetary benefits may be paid to
the National Biodiversity Fund. Five percent of the benefit may be earmarked
for the Authority or State Biodiversity Board towards administrative service
charges.

As per the Biological Diversity Act, 2002 there will be a National Biodiversity
Authority at the federal level, state Biodiversity Board at the state level and
Biodiversity Management Committees at the local bodies’ level. The National
Biodiversity Authority has to give effect to benefit sharing in any of the
following manners129:

a) Grant of joint ownership of IPRs to the National Biodiversity Authority,
or where benefit claimers are identified, to such benefit claimers;

b) Transfer of technology.

c) Location of production, research and development units in such areas
which will facilitate better living standards to the benefit claimers;

d) Association of Indian scientists, benefit claimers and the local people
with the research and development in biological resources, bio-survey
and bio-utilization;

e) Setting up of venture capital fund for aiding the cause of the benefit

129. Section 21(2) of the Biological Diversity Act, 2002.
f) Payment of monetary compensation or other non-monetary benefits to the benefit claimers as the National Biodiversity Authority may deem fit.

Every local body shall constitute a Biodiversity Management Committee within its area for the purpose of promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals and micro-organisms and chronicling of knowledge relating to biological diversity. The National Biodiversity Authority and the State Biodiversity Boards shall consult the Biodiversity Management Committees while taking any decision relating to the use of biological resources and knowledge associated with such resources occurring within the territorial jurisdiction of the Biodiversity Management Committee.

So, from the above discussion it can be said that the Biological Diversity Act, 2002 and Biological Diversity Rules, 2004 contain many provisions to protect the traditional knowledge. However, this law thus provides more of a defensive protection of the traditional knowledge.

4.2.9. The Protection of Plant Varieties and Farmers Rights Act, 2001

In order to conserve and preserve the biodiversity and prevent the bio piracy problem, India made a maiden effort in the world by enacting various legislations in the Indian Parliament. The Protection of plant varieties and Farmers Right Act, 2001 is one of such legislation.

India is a country where various crops such as, rice, little and kodo millets, red gram, moth bean, Jute, pepper cardamoms, many vegetables and fruit species are available. These plants were identified from the wild, selected and cultivated by Indian farmers over hundreds of years. The present wealth of varieties of crops in India includes both crops that have originated in the
country and those that were introduced from other countries in the past\textsuperscript{134}. The introduced crops include wheat, sorghum, maize, pearl millet, ragi, groundnut, gram, sugarcane, cotton, tea, rubber etc.\textsuperscript{135}. Recently, few crops like soybean, sunflower, oil palm and kiwi fruit were also introduced in India. Indian farmers have evolved a rich diversity out of these introduced crops\textsuperscript{136}. During the long process of selection, conservation and cultivation, farmers have gained extensive knowledge of each variety. This Knowledge includes suitability of variety for specific growing seasons and conditions, its maturity duration in different seasons, resistance to different diseases and pests, suitability of different soil and quality of the crops etc. Cultivators and farmers play an important role and apply their intellectual capacity to produce all these crops and plant varieties\textsuperscript{137}. This makes the contribution of farmers to plant genetic diversity as important as the contribution of scientists which they make in developing modern plant varieties. So, when scientists are given the right to own new varieties created by them, this right concurrently recognizes the right of the farmers on their varieties. The Protection of Plant Varieties and Farmers Rights Act 2001, therefore, seeks to protect the rights of farmers and breeders on plant varieties\textsuperscript{138}. The Act recognizes the individuals and community roles played by farmers in the improvement and conservation of varieties.

Various countries of the world have come to evolve a legal system that has as its main concerns, the protection of plant varieties, and the rights of farmers and plant breeders. In the race of development of any country, who does not maintain a legal system which is at par with the system in the concerned field developed and implemented by other countries, always stands the risk of being left behind\textsuperscript{139}. India being a signatory to the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs) had to make provision.

\textsuperscript{134} Ibid 132.
\textsuperscript{135} Ibid 132.
\textsuperscript{136} Ibid 132.
\textsuperscript{138} Ibid 137.
for giving effect to the agreement which calls for protections of plant varieties, rights of plant breeder’s etc.\textsuperscript{140}. So, the Protection of Plant Varieties and Farmers Rights Act 2001 aims at to protect the farmers traditional rights including the right to save, use, share or sell his farm produce of a variety protected under the Act. This Act also facilitates equitable sharing of benefits arising out of the use of plant genetic resources that may accrue through a breeder from the sale, disposal etc. of the seeds and planting material of protected variety\textsuperscript{141}.

The aim of the Act is to provide for the establishment of an effective system for protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants. The Act seeks to recognize and protect the rights, of the farmers in respect of their contribution made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties. The Act recognizes that for accelerated agricultural development in the country, it is necessary to protect plant breeder’s right to stimulate investment for research and development, both in the public and private sector, for the development of new plant varieties. Such protections will facilitate the growth of the seed industry in the country which will ensure the availability of high quality seeds and planting materials to the farmers.

The term “breeder” under the Act means a person or group of persons or a farmer or group of farmers or any institution which has bred, evolved or developed any variety\textsuperscript{142}. "Farmer” means any person who –

i. Cultivates crops by cultivating the land himself; or

ii. Cultivates crops by directly supervising the cultivation of land through any other person; or

\textsuperscript{140} Ibid 139.
\textsuperscript{142} Section 2(c) of the Protection of Plant Varieties and Farmer’s Right Act, 2001.
iii. Conserves and preserves, severally or jointly, with any person any wild species or traditional varieties, or adds value to such wild species or traditional varieties through selection and identification of their useful properties\textsuperscript{143}.

The Central Government shall, by notification in the Official Gazette, establish an Authority to be Known as the Protection of Plant Varieties and Farmer’s Rights Authority which shall be a body corporate having perpetual succession and a common seal with power to acquire, hold and dispose of properties and to contract. It is also capable to file a suit against anyone and any other person can also file a suit against it\textsuperscript{144}. The Authority may appoint committee for the efficient discharge of its duties and performance of its functions. It has also the power to appoint officers and employees for the efficient discharge of its functions. It shall be the duty of the Authority to promote the encouragement for the development of new varieties of plants and to protect the rights of farmers and breeders by adopting suitable measures. The measures so adopted, may relate to registration of new plant varieties, development characterization and documentation of varieties registered under the Act; documentation of farmers varieties; compulsory cataloguing facilities for all varieties of plants, ensuring the availability to the farmers of the seeds of the varieties registered under this Act and providing for compulsory licensing of such varieties and ensuring the maintenance of the register etc.\textsuperscript{145}. The Authority or the Registrar, as the case may be, shall have all the powers of a civil court for the purposes of receiving evidence, administering oaths, enforcing the attendance of witnesses, compelling the discovery and production of documents and issuing commissions for the examination of witnesses\textsuperscript{146}.

The Central Government shall establish, for the purposes of this Act, a Registry which shall be known as the Plant Varieties Registry\textsuperscript{147}. As per

\textsuperscript{143} Section 2(k) of the Protection of Plant Varieties and Farmer’s Right Act, 2001.
\textsuperscript{144} Section 3(1) & 3(2) of the Protection of Plant Varieties and Farmer’s Right Act, 2001.
\textsuperscript{145} Section 8 of the Protection of Plant Varieties and Farmer’s Right Act, 2001.
\textsuperscript{146} Section 11 of the Protection of Plant Varieties and Farmer’s Right Act, 2001.
\textsuperscript{147} Section 12 of the Protection of Plant Varieties and Farmer’s Right Act, 2001.
section 16 of the Act, an application for registration of a plant variety may be made by any person claiming to be the breeder of the variety or his successor or his assignee; any farmer or group or community of farmers claiming to be the breeder of the variety or any university or publicly funded agricultural institution claiming to be the breeder of the variety.

A farmer who has bred or developed a new variety shall be entitled for registration and other protection in like manner as a breeder of a variety under this Act. A farmer who is engaged in the conservation of generic resources of land races and wild relatives of economic plants and their improvement through selection and preservation shall be entitled in the prescribed manner for recognition and reward from the Gene fund provided that material so selected and preserved has been used as donors of genes in varieties registerable under this Act. A farmer shall be deemed to be entitled to save, use, sow, re sow, exchange, share or sell his farm produce including seed of a variety protected under this Act in the same manner as he was entitled before the coming into force of this Act148.

Section 41 of the Act is very relevant with regard to protection of rights of traditional people and community rights of these people. This section, inter alia, says- any person, group of persons (whether activity engaged in farming or not) or any governmental or non- governmental organization may, on behalf of any village or local community in India, file in any centre notified, with the previous approval of the Central Government by the Authority in the Official Gazette, any claim attributable to the contribution of the people of that village or local community as the case may be, in the evolution of any variety for the purpose of staking a claim on behalf of such village or local community. The Authority shall dispose of the matter by hearing both the parties concerned. If the Authority is satisfied by the claims staked, it may grant – compensation to be paid by the registrant to the claimant. The compensation so granted shall be deposited by the registrant of the variety in the Gene Fund.

At any time after the expiry of three years from the date of issue of a certificate of registration of a variety, any person interested may make an application to the Authority alleging that the reasonable requirements of the public for seeds or other propagating material of the variety have not been satisfied or that the seed or other propagating material of the variety is not available to the public at a reasonable price and pray for the grant of a compulsory license to undertake production, distribution and sale of the seed or other propagating material of that variety. The Authority may grant such a license in consultation with the central government and after giving the breeder a reasonable opportunity of hearing.

A right established under this Act is infringed by a person who, not being the breeder of a variety without the permission of its breeder; or who uses, sells, export, import, or produces any other variety giving such variety, the denomination identical with or deceptively similar to the denomination of a variety registered under this Act in such manner as to cause confusion in the mind of general people in identifying such variety so registered. No suit for infringement shall be instituted in any court inferior to a District Court having jurisdiction to try the suit. The relief which a court may grant in any suit for infringement includes an injunction and at the option of the plaintiff, either damages or a share of the profits.

So, from the above discussion, it can be said that some of the provisions of the Act are useful to protect traditional knowledge of the traditional people. By and large, these provisions can be used, at least to some extent, to prevent misappropriation of traditional knowledge.

4.2.10. The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006

A major portion of the traditional knowledge is held by tribal people of India. The ancient literature of India says that the old and tribal communities have been using several kinds of medicinal plants to cure their various diseases.

Tribal healers use medicinal plants for a wide variety of diseases, ranging from rheumatism, paralysis, epilepsy, dropsy, leprosy, jaundice, diabetes and malaria to syphilis, gonorrhea, chronic constipation, dysentery and diarrhea\textsuperscript{152}. They also, treat various skin diseases, women’s ailments and bone fractures. Several of the medicinal plants which were being used by the tribal people of India for centuries, have found wide acceptance and application in other systems of Indian medicine e.g. Ayurveda, Siddha and Unani, and even in modern medicine\textsuperscript{153}. These are traditional medicinal knowledge of these tribal people and surely form part of their intellectual properties. But, these intellectual properties of the tribal community are often misappropriated by various unauthorized persons and corporations. Western style of allopathic medicine has also usurped several of these medicinal plants used by the tribal’s after chemical investigation revealed presence of active ingredients of these biological materials. However, in order to recognize rights of these traditional people an Act has been enacted by the Indian Parliament the name of which the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

The Act was passed to recognize and vest the forest rights and occupation in forest land in forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded; to provide a framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land\textsuperscript{154}. The Act also admits that the recognized rights of the forest dwelling Scheduled Tribes and other traditional forest dwellers include the responsibilities and authority for sustainable use, conservation of biodiversity and maintenance of ecological balance and thereby strengthening the conservation regime of the forests while ensuring


\textsuperscript{153} Ibid (152).

\textsuperscript{154} Object of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
livelihood and food security of the forest dwelling Scheduled Tribes and other traditional forest dwellers.

The term “Forest Dwelling Scheduled Tribes” means the members or community of the Scheduled Tribes who primarily reside in and who depend on the forests or forest lands for bona fide livelihood needs and includes the Scheduled Tribe pastoralist communities. The term “other traditional forest dweller” means any member or community who has for at least three generations prior to the 13th day of December, 2005 primarily resided in and who depend on the forest or forests land for bona fide livelihood needs.

Section 3(1) of the Act, inter alia, says the following rights which secure individual or community tenure or both, shall be the forest rights of forest dwelling Scheduled Tribes and other traditional forest dwellers on all forest lands, viz-

(i) Right of ownership, access to collect, use, and dispose of minor forest produce which has been traditionally collected within or outside village boundaries;

(ii) Other community rights of uses or entitlements such as fish and other products of water bodies, grazing and traditional seasonal resource access of nomadic or pastoralist communities;

(iii) Right to protect, regenerate or conserve or manage any community forest resource which they have been traditionally protecting and conserving for sustainable use.

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155. Section 2(c) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
156. Section 2(o) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
157. Section 3(1)(c) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
158. Section 3(1)(d) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
159. Section 3(1)(i) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
(iv) Right of access to biodiversity and community right to intellectual property and traditional knowledge related to biodiversity and cultural diversity.\textsuperscript{160}

The recognition and vesting of forest rights under this Act to the forest dwelling Scheduled Tribes and to other traditional forest dwellers is relating to any State or Union territory in respect of forest land and their habitat shall be subject to the condition that such Scheduled Tribes or Tribal communities or other traditional forest dwellers had occupied forest land before the 13\textsuperscript{th} day of December, 2005.\textsuperscript{161} A right conferred by Section 4(1) shall be heritable but not alienable or transferable and shall be registered jointly in the name of both the spouses in case of married persons and in the name of the single head in the case of a household headed by a single person and in the absence of a direct heir, the heritable right shall pass on to the next-of-kin.\textsuperscript{162}

The holder of any forest right, Gram Sabha and village level institutions in areas where there are holders of any forest right under this Act are empowered to\textsuperscript{163}

(i) Protect the wild life, forest and biodiversity;

(ii) Ensure that adjoining catchments area, water sources and other ecological sensitive areas are adequately protected;

(iii) Ensure that the habitat of forest dwelling Scheduled Tribes and other traditional forest dwellers is preserved from any form of destructive practices affecting their cultural and natural heritage;

(iv) Ensure that the decisions taken in the Gram Sabha to regulate access to community forest resources and stop any activity which adversely affects the wild animals, forest and the biodiversity are complied with.

\textsuperscript{160} Section 3(1)(k) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

\textsuperscript{161} Section 4(3) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

\textsuperscript{162} Section 4(4) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

\textsuperscript{163} Section 5 of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
The Gram Sabha shall be the authority to initiate the process for determining the nature and extent of individual or community forest rights or both that may be given to the forest dwelling Scheduled Tribes and other traditional forest dwellers within the local limits of its jurisdiction under this Act by receiving claims consolidating and verifying them and preparing a map delineating the area of each recommended claim in such manner as may be prescribed for exercise of such rights and the Gram Sabha shall, then, pass a resolution to that effect and thereafter forward a copy of the same to the Sub-Divisional Level Committee\(^{164}\). Any person aggrieved by the resolution of the Gram Sabha may prefer a petition to the Sub-Divisional Level Committee constituted under Section 6(3) and that Sub-Divisional Level Committee shall consider and dispose of such petition\(^{165}\). Besides the Sub-Divisional level committee, the State government shall also constitute a District Level Committee and a State Level Committee in this regard\(^{166}\).

Under Section 14(1) of the Act, the Central Government has made the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Rules, 2007. The term “other traditional right” under Rule 2(5) means any other traditional right customarily enjoyed by the forest dwelling Scheduled Tribes or other traditional forest dwellers whether recorded or not and shall include right to traditional agricultural practices. However, at a cursory glance to the various provisions of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 and Rules 2007, it is amply clear that both the Act and Rules recognize the community and traditional intellectual property right of tribal people. The Act has recognized the traditional knowledge of tribal and other forest dwellers and also has provided various mechanisms to sustainably use various resources and to resolve any dispute in this regard. Chapter II, Rule 3 of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

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\(^{164}\) Section 6(1) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

\(^{165}\) Section 6(2) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

\(^{166}\) Section 6(5) and 6(7) of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
Rights) Rules, 2007 deals with the Gram Sabha and its function. The Gram Sabha shall be the authority-

(i) To determine the nature and extent of forest rights;

(ii) To communicate with regard to such with the Sub-Divisional Level Committee;

(iii) To receive, hear and settle disputes on such claims under the Act;

(iv) To prepare a list of claimants of forests rights and maintain a register of claims; and

(v) To pass a resolution on claims on forest rights and forward the same to Sub -Divisional Level Committee in terms of the provisions contained in the Act and rules made there under.

So, it can be said that the Act and Rule contain some provisions to protect traditional knowledge of some traditional people.

4.3. Traditional Knowledge Digital Library (TKDL), Biodiversity and protection of Traditional Knowledge:

4.3.1. Background

India is a home to a vast number of traditional medicines, therapies and yoga that have been handed down over generations. The protection of these traditional treasures has long been a matter of concern for Indian Scientists and IP specialists. The nature of traditional knowledge is such that more of it is transmitted orally than written down. This poses a particular problem when parties not authorized by the holder of that knowledge seek to obtain IPRs over it. In the absence of any accessible written record, a patent examiner in another country is unable to access documentation that would challenge the novelty or inventiveness of an applications based on traditional knowledge. The only option for an aggrieved party, be it the holders of the knowledge, or someone representing them, is to challenge the patent during the granting process or after grant, where national laws permit. Some of these knowledge have been described in ancient classical and other literature, often
inaccessible to the common man. Documentation of this existing knowledge, available in public domain, on various, traditional systems of medicine has become imperative to safeguard the sovereignty of this traditional knowledge and to protect them from being misused in patenting on non-original discoveries, and this has been a matter of national concern. Protection and preservation of traditional knowledge have been a matter of concern to the developing countries in general and India in particular. India successfully contested the grant of patents for non-original inventions in its traditional knowledge systems i.e. turmeric for wound healing (US patent No. 5401540), Neem for anti-fungal properties (EPO patent No. 0436257), Basmati patent etc. But it is extremely difficult and costly for developing countries to monitor and challenge IPRs issued all over the world. Cancelation of these patents established that –

(a) it is not impossible to oppose and ultimately win grant of wrong patent at international level and

(b) it is extremely expensive and time consuming to contest the wrong patents at international level.

For example, cancellation of the patent for turmeric took about 2 years whereas that for Neem it took 5 years. On an average, it takes five to seven years for opposing a granted patent at the international level, which may even cost Rs. One to three crore.

In 2000, CSIR found that almost 80 percent of the 4,896 references to individual plant based medicinal patents in the United States patent Office that year related to just seven medicinal plants of Indian Origin.167 Three years later there were almost 15,000 patents on such medicines spread over the United States, UK, and other registers of patent offices. In 2005 this number had grown to 35,000, 168 which clearly demonstrates the interest of developed world in the traditional knowledge of the developing countries. However, these granting of wrong patents at international level happens due to non-availability

of information in a language known to International Patent Examiner and also, the information not being in retrievable form. Therefore, it was felt necessary to adopt a practical and scientific approach to the problem of grant of wrong patents in our traditional knowledge systems at international level.

4.3.2. History and Formation of TKDL

In fact, the need of creation of Traditional knowledge (TK) data bases and need of support to developing countries was recognized by standing committee on Information Technology (SCIT) of World Intellectual Property Organization (WIPO) in June, 1999. It directed to the Department of Indian Systems of Medicine and Homoeopathy (ISM&H) for initiating measures to protect Indian Traditional Knowledge in particular, Ayurveda. An Approach paper was prepared in October, 1999, by Mr. V.K. Gupta, the then, Senior Technical Director, National Informatics Centre at the direction of the then Secretary, Department of ISM&H. This approach paper was also submitted to SCIT, WIPO in December, 1999. Then the Department of Indian Systems of Medicine & Homoeopathy (ISM&H) constituted an interdisciplinary task force consisting of Ayurveda experts from Central Council of Research in Ayurveda and Siddha ,Banaras Hindu University(BHU), Department of Indian System of Medicine and Homoeopathy, Patent Examiners from the office of the Controller General of Patent ,Design and Trade Marks, Information Technology Experts from National Informatics Centre(NIC), and Scientists from Council of Scientific and Industrial Research(CSIR)under the chairmanship of Mr.V.K.Gupta, Director, National Institute of Science Communication(NISCOM),New Delhi.

In May, 2000 TKDL Task Force submitted the TKDL Task Force Report to the Department of Indian Systems of Medicine &Homoeopathy (ISM&H). Dr. R.A. Mashelkar presented the concept of TKDL at various International forum. The Cabinet Committee of Economic Affairs (CCEA’s) approved the TKDL Project in January, 2001.TKDL software specifications and design was prepared in July, 2001.A Memorandum of Understanding (MOU) between

The TKDL concept and methodology were also discussed with eminent experts in Ayurveda with respect to the advantages and disadvantages of creating such a digital library in public domain. TKDL, besides ensuring prevention of the grant of wrong patents for non-original inventions in our traditional knowledge system at international level, shall also ensure enhancement of modern research in Ayurveda and provide immense benefit to MD and PhD students, researchers and manufacturers. The Cabinet Committee on Economic Affairs, hence, has approved early establishment of Traditional knowledge Digital Library in Ayurveda in the first instance followed by similar digital library in other systems of Indian medicines, such as Unani, Siddha, Yoga, Naturopathy, etc. At international level, TKDL also received wide acceptance and support. World Intellectual Property Organization (WIPO) in its 3rd plenary session at Geneva, at the initiative of India, decided to take up the creation of traditional knowledge databases on the knowledge in public domain so that such data bases can facilitate-establishment of prior art. WIPO Standing Committee of Information Technology (SCIT) was chaired by Dr. R.A. Mashelkar, Secretary, Department of Science, Industrial Research and Director General, Council of Scientific and Industrial Research.

WIPO’s special union for the International Patent Classification (IPC) Committee of experts in its 30th session held at Geneva during 19-23 February 2001 decided to create a task force with United States of America, Japan, European Patent office, China and India as members to study in detail the Traditional Knowledge Resource Classification (TKRC), elaborated in India and investigate its information aspects and its relationship to international patent Classification (IPC) with a view to linking and/or integrating TKRC with IPC. This integration ensured that every international patent examiner shall be obliged to search for prior art on more than 5000 sub-classifications against only one sub classification. Thus, this largely eliminated the possibilities of grant of wrong patents at international level in the domain of our traditional knowledge system in Ayurveda. Internationally recognized specification and
standards for – setting up of TK data bases and registries based on TKDL specification was drafted at WIPO Regional – Symposium at Kochi, based on TKDL in November, 2002. The WIPO document No WIPO/GRTKF/IC/4/14 was presented at the 4th session of Intergovernmental Committee (IGC) of WIPO on Intellectual Property and Genetic Resources, Traditional knowledge and expression of folklore in December, 2002. The recommendations contained in document No WIPO/GRTKF/IC/4/14 was adopted by International IP Community at the 5th Session of IGC in July, 2003. The TKDL team of Project Assistants (IT), Ayurveda, Patent Examiners , and Scientists functioning at NISCAIR completed data abstraction work on 36,000 Ayurvedic formulations for creating TKDL in five languages i.e. English, German, Spanish, French and Japanese in March, 2003.

4.3.3. Present Status

TKDL is a collaborative project between NISCAIR and Department of Indian System of Medicine and Homoeopathy (D/o ISM & H), Ministry of Health and Family welfare which have been implemented at NISCAIR. The work of creation of TKDL began in October 2001. Initially the team of 12 Ayurveda Experts and 4 Scientists started the work on transcription of Sanskrit Slokas into Traditional knowledge Resource Classification (TKRC). The complete team at present consists of 29 Ayurveda Experts, 5 Information Technology (IT) Specialists, 2 Patent Examiners, 4 NISCAIR Scientists and 3 Technical Officers. They have worked in a dedicated manner for one and a half year for creating TKDL in the present form.

TKDL (Ayurveda) has been created on the codified traditional knowledge on Indian systems of medicine and in the first phase information present in 14 Ayurvedic texts listed in Indian Drugs and Cosmetic Act was taken, 36,000 formulations have been transcripted in Patent Application format in five international languages viz. English, French, German, Spanish, and Japanese. The images from the original texts have also been incorporated into the database. TKDL is also being created for Unani System of Medicine.

for 77,000 formulations from 42 Unani texts which are in Arabic, Persian and Urdu. TKDL technologies are knowledge conversion technologies which permit conversion of TK and intangible cultural heritage available in local languages to international languages such as English, Japanese, and French etc. Present size of the data base is ten million pages (A-4 size) which is likely to grow to 30 million pages\(^{171}\). In the first phase a ‘Traditional Knowledge Resource Classification (TKRC)’ is being prepared for 2,147 medicinal plants. The content of TKDL would initially consist of about 35,000 ‘slokas’ (verses) from Ayurveda.

The Department of AYUSH and NISCAIR started in August 2005 the project on TKDL Siddha. In January 2006, the WIPO included approximately 200 subgroups in the eighth edition of IPC. The Cabinet Committee on Economic Affairs, in June, 2006, put its stamp of approval on access to TKDL data base to IPO. In July 2006 the Access Agreement was sent to EPO and in December 2006 to USPTO\(^{172}\). In January 2008 the CSIR, the department of AYUSH and MDNIY (Morarji Desai National Institute on Yoga, New Delhi) commenced the work for creating TKDL Yoga. In July 2008 the APIC (Access Policy Issue Committee) met to discuss the clarifications sought by EPO, and gave clearance to signing of Access Agreement. The CSIR entered into an Access Agreement with EPO on February 03, 2009. About 600 Yoga postures (i.e. asanas) had been digitized till February, 2009\(^{173}\). India has entered into an agreement on February 03, 2009 with European Patent Office (EPO) whereby the patent applications filed from any of the 34 members of the European Union shall have to be examined, inter alia, in the light of the data available on TKDL. India is in the process of entering into similar agreements with Japanese patent Office, United States patent and Trademark Office, and

\(^{171}\) http://www.stockholmchallenge.org/project/data/traditional-knowledge-digital-library.tkdl. (Accessed on 05/03/10).


\(^{173}\) Ibid (172).
other prominent patent regimes of the world to ensure that the TK and TCEs are not patented by outsiders and bio-pirates\textsuperscript{174}.

4.3.4. Methodology used for TKDL\textsuperscript{175}

In making TKDL, slokas from ayurvedic texts are first identified. Each sloka is read and converted into structured language using Traditional Knowledge Resource Classification (TKRC). The TKRC classification has been evolved for about 5000 sub-groups as against one group in International Patent Classification (IPC) for Traditional Knowledge. The codes for each sloka are fed into a data entry screen and also saved on the database. Computer-savvy ayurveda experts carry out the data entry. These are then decoded in different languages. The Ayurvedic formulation can be presently decoded in English, French, German, Hindi, Japanese and Spanish. In future, it would be available in 20 more foreign languages and all Indian languages. The decoded format of the formulation is very easy to understand even by laymen. The web version of TKDL would include a web-based search interface. This would provide for a full text search and retrieval of traditional knowledge information on IPC and keywords in multiple languages. The TKDL software developed in-house does not, however, do translation but it does smart translation\textsuperscript{176}. Once abstracted, data from the slokas are converted into several languages using Unicode meta data methodology. The software developed can perform smart translation of botanical names and ayurvedic descriptions from traditional terminology\textsuperscript{177}. The project cost for TKDL is about 1.18 crore.

4.3.5. Role of TKDL

Traditional Knowledge Resource Classification (TKRC) is based on International Patent Classification System. TKDL is a multi-disciplinary project

\textsuperscript{174} Dr. J. P. Mishra, An Introduction to Intellectual Property Rights; Central Law Publications; Allahabad; Second edition 2009; P-357.

\textsuperscript{175} Nirupa Sen, TKDL-a safeguard for Indian Traditional Knowledge, www.infinityfoundation.com/mandala/z_es/t_es/t_es_EA_TKDL_frameset.htm.(Accessed on 05.03.2010).

\textsuperscript{176} Nirupam Sen, TKDL-a safeguard for Indian Traditional Knowledge, www.infinity foundation.com/mandala/z_es/t_es_TKDL_frameset.htm.(Accessed on 05.03.2010).

\textsuperscript{177} Ibid 176.
which was initiated as an answer to the bio-piracy of Indian TK System in particular TM at an international level. TKDL holds unique-methodologies and technologies and has been able to provide internationally recognized scientific structures to the TK Systems by developing a unique classification system now internationally known as “Traditional Knowledge-Resource Classification (TKRC)”.

TKDL would play a crucial role not only in documenting our precious heritage in the area of traditional healthcare systems, but also in preventing bio-piracy and un-scrupulous patenting of indigenous herbal medicinal formulations. TKDL will also be useful for research workers. It will help in preventing extinction of rare species. It would help patent examiners for easy retrieval of traditional knowledge-related information, thus avoiding the possibility of granting patents to unoriginal inventions.

TKDL database shall act as a bridge between ancient Sanskrit /Unani verses and a Patent Examiner at a global level, since the database will provide information on modern as well as local names in a language and format understandable to Patent Examiners. It is expected that the gap on lack of prior art knowledge shall be minimized. The database has sufficient details on definitions, principles, and concepts to minimize the possibility of minor/insignificant modifications. TKDL will give legitimacy to existing Traditional Knowledge. TKDL is a multi-disciplinary project which was initiated as an answer to the bio-piracy of Indian TK System in international levels. TKDL holds unique methodologies and technologies and has been able to provide Internationally recognized scientific structures to the TK- Systems by developing a unique classification system now internationally known as “Traditional Knowledge-Resource Classification”(TKRC).TKDL technologies are knowledge-conversion technology which permits conversion of TK and intangible culture heritage available in local language(s) to international languages such as English, Japanese, French etc. Technology permits one person to produce in one working day about 600 to700 pages of documented information in 5 international languages. TKDL is being targeted for Ayurveda,
Unani, Siddha, and Yoga System. Present size of the data base is 10 million pages (A4 Size) which is likely to ultimately grow to 30 million pages.

The TKDL project would save huge costs involved in fighting legal battles against patent. It enables research in Ayurveda, Siddha, Unani, Yoga, and Naturopathy and folklore medicine. The compilation of the Traditional Knowledge Digital Library reflects a nationalistic pride in India's ancient scientific heritage as well as its citizen's continuing faith in herbal and other natural treatments that often are viewed with skepticism in the west. Data collection effort will promote the commercialization of traditional Indian remedies, help validate their scientific underpinnings and encourage collaboration between Indian and foreign pharmaceutical companies. The project will encourage the development of a uniquely Indian health – care industry that blends 21st – century technology with spirituality.

TKDL database breaks the language and format barriers. Hence, TKDL database is a valuable tool for carrying out advanced research for identifying novel drugs through the route of reverse pharmacology. This is possible by the integration of traditional knowledge with Modern Medicine and Modern Science. In fact, CSIR of India has new drugs developed using the concept of Golden Triangle. Based on Indian Traditional knowledge, TKDL is likely to serve as a valuable tool for carrying out advanced research. TKDL is a mechanism which validate Indian system of medicine e.g. Ayurveda, Unani, Siddha etc. against each other. There is a scope for active research programmes based on TKDL database. The information collected in TKDL can become the basis for development of new pharmaceutical products, which can bring major health care benefits to wide populations in India and abroad. The TKDL database is intended to act as a bridge between ancient Sanskrit slokas and a patent examiner at a global level, since the database will provide information on modern as well as local names in a language and

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format understandable to patent examiners. It is expected that the gap on lack of prior art knowledge shall be minimized. By recording the traditional knowledge, legally, it becomes public domain knowledge. Under the patent law, this means that it is considered as prior art and hence it is not patentable. Patent examiners could easily check this database and reject any patent application that might be a mere copy of traditional knowledge. So, it will be a useful tool to prevent bio-piracy. India would get international recognition for its centuries-old traditional knowledge. However, following are some of the reasons behind documentation of traditional knowledge:

a) To preserve TK or IK and protect against its loss;
b) To ensure IPR protection of IK;
c) To enhance recognition of IK;
d) To share IK with outsiders;
e) To benefit humanity with such knowledge;
f) To prevent the granting of IPR over their knowledge to outsiders.
g) To support research projects with public interest objectives;
h) To preserve their culture;
i) To prevent misappropriation of IK and
j) To assert land rights etc.

4.3.6. Limitations and Criticism against traditional knowledge database

Traditional Knowledge Database or TKDL is criticized by many in various ways. Some considers it, as another tool for bio piracy. How far the database will be successful in preventing bio piracy - it is really a controversial question. In a world where profit and greed have become the new economic mantras, private companies will go to any extent to manipulate what is already known and what is within the data base. Any tinkering with the original medicinal remedy with a little cosmetic covering can be easily presented as a new and

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179. The Role of Registers and Databases in the Protection of Traditional Knowledge-A Comparative Analysis; UNU-IAS Report; P-18, UNITED NATIONS UNIVERSITY.

novel product. So, by a little change in the composition of the product (Which is within the database), multinational companies may end up in smoke the real object of TKDL. It is not possible to know all medicinal properties of all medicinal plants in a vast country like India. Even in a country where patents and theft of intellectual property rights have become an emotive issue, it has been difficult to fight the piracy of traditionally-known products like basmati rice. The ministry of commerce has, in fact, issued a circular saying that it has no money to take the basmati battle any further. If the Government has no money and no political will to challenge and fight the patent on basmati rice, which is a culturally and politically sensitive issue, then it is meaningless to expect any fruitful challenges to other cases of bio piracy.

The ultimate aim, however, is to record the traditional knowledge. But it is virtually impossible to record everything. Any database is not at all completely is itself. The terminology used in traditional knowledge is another problem. Apart from the difficulties inherent in translation, traditional words used are often general in nature and cannot be equated always with the present medical terminology. One word or phrase may cover several types of a particular disease. Indian old text, for example, uses various general words for a liver complaint. But the western world today uses the terminology, 'Hepatitis A', 'Hepatitis B', 'Hepatitis C', etc. So, while a particular plant may be genuinely effective and prescribed over centuries in India for liver problems, the western world may refuse to accept this as prior use and may say that since words, like say "Hepatitis B" were not used in the traditional knowledge system, such a use is novel today. Another limitation of database is that it only provides protection for information within the database and would not as such amount to the granting of a right over the knowledge to the benefit of local communities or indigenous peoples. Further more, ownership of the database may be held by a person other than the relevant indigenous

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knowledge holders\textsuperscript{182}. However, the criticism of documentation of Traditional Knowledge can be summarized in the following points:

(i) Misappropriation of Traditional Knowledge

Some Indigenous peoples are against the documentation initiative of Traditional Knowledge. As per them registries, data bases and intellectual property systems are not adequate systems for protecting and transmitting their knowledge, innovations and practices. Harison is of the view that some indigenous peoples have expressed their anxiety for probable misappropriation of their knowledge that is being documented\textsuperscript{183}. Again, representatives at the world’s Indigenous Peoples Conference held from October 16-19, 2002, in Kelowna, British Columbia, also expressed their anxiety for the probable misappropriation of their Cultural heritage that could take place through Traditional knowledge database\textsuperscript{184}.

(ii) Reliance upon customary law

Indigenous people prefer to protect their innovations, knowledge and cultural expressions not by the TK databases but by their Own Systems of protection and customary law. They think customary law will be best suitable to protect their intellectual property than any other system.

(iii) Fear of loosing control

Indigenous people often become anxious of loosing control over their own intellectual properties as a result of documentation of TK. They don’t trust the database. According to them once the indigenous knowledge is revealed, then it will no longer under their exclusive control. They are very eager to retain control over the use of indigenous knowledge. They believe that indigenous knowledge is the collectively held knowledge subject to their full


control and administration. Indigenous peoples in some countries have expressed their unwillingness and skepticism to register their knowledge. In Brazil, for example, indigenous peoples are quite relevant to document their knowledge\(^{185}\). The Venezuelan Indigenous Council has also voiced its rejection to the process of documentation of TK\(^{186}\).

(iv) Lack of certainty and clarity regarding IPR protection

In some cases, the lack of certainty and clarity regarding use of indigenous knowledge to protect IPR. There is unclear determination of IPR for documented indigenous knowledge. The indigenous people are sometime confused that how this documented information would be used.

(v) Demand for Prior Informed Consent

Indigenous people have long been claiming respect and recognition of their knowledge. They are demanding that Prior Informed Consent (PIC) should be taken from them before using their knowledge. Without PIC - access to genetic resources and their knowledge cannot be allowed to be used. Before documentation of their knowledge, their prior consent is also necessary - they claim. They should be consulted and their permission must be taken before the commencement of documentation process. They often express fear that lack of their PIC may pave the way of exploitation of their knowledge by the third parties. In order to avoid this, they are also against the documentation initiatives.

(vi) Difficulty is sharing the benefits of the research results

Most of the indigenous people are not highly educated. Though, they participate in the research process they often fail to benefit from the research results. That’s why they often raise questions regarding the efforts of documentation of IK by non - indigenous peoples.


\(^{186}\) Ibid (185).
(vii) Individual nature of Indigenous Knowledge

According to the indigenous people the very nature of indigenous knowledge is such that it is not suitable for documentation. As the traditional knowledge is very dynamic in nature it cannot be documented or fixed in tangible form. TK cannot be extracted, documented and made fixed. It is, closely linked to their intergenerational cultural development, survival, beliefs, spirituality and medicinal systems. It is closely related to the cultural identity of the indigenous people. Traditional knowledge as an individual character which is related to their identities, values and customary law. However, the documentation may affect the individual nature of Indigenous knowledge.

(viii) Database may enhance the possibility of misappropriation of knowledge

Inclusion of knowledge of indigenous people into the data bases may increase the possibility of misappropriation of knowledge as the knowledge will be in public domain. So, the database may enhance the possibility of misappropriation of knowledge.

However, from various quarters the documentation effort is criticized. It is the absence of any global safeguards; the digital library will become a source of information for private companies. In a world where profit and greed have become the new economic mantras, private companies may run after for manipulation and misappropriation of available knowledge of this database187. Dishonest private companies and other multinational companies may misuse and consider this database as bank of information and knowledge. So, if the digital library is not properly safeguarded, instead of protection of indigenous knowledge it will facilitate misappropriation of knowledge. Previously Indian Knowledge laboratories were not exposed to the outside world and the outside world was also not in a position to exploit this knowledge at random because of the language barriers. But, at present these knowledge are easily available in international languages which will help in easy exploitation. Previously, Because of lack of technological development India failed to utilize

these resources. Now, India is rapidly heading towards technological development. At this point of time, it will be blunder to expose Indian Knowledge library before the outside world without due protection. Recording of traditional knowledge in the manner in which it is being done at present without imposition of restriction - would only result in making a free gift of India’s traditional knowledge to the rest of the world\textsuperscript{188}. Restriction may be imposed upon access through a contractual agreement. This contractual agreement will also pave the way of benefit sharing agreements. Steps must be taken to prevent free access of the digital library. Proper mechanism must be implemented and incorporated to prevent misuse of this digital library. The access conditions and terms of compensation must be incorporated along with the very structure of the database itself. Any person who wishes to access the database must be required to first agree to certain conditions - one of them may be being eventual compensation to the source of the knowledge\textsuperscript{189}.

4.4. Sui-Generis legislation and other initiatives in India to protect Traditional Knowledge and Traditional Cultural Expressions

Because of various problems the present IPR regime in India cannot protect the traditional knowledge strongly. Some of the reasons are\textsuperscript{190}:

i. The current system seeks to privatize ownership and is designed to be held by individuals or corporations, whereas traditional knowledge has (generally) collective ownership;

ii. This protection is time-bound, whereas traditional knowledge is held in perpetuity from generation to generation;


\textsuperscript{190} Justice Vijender Jain, "safeguarding the traditional knowledge in India". www.highcourtchd.gov.in/right\_menu/events/.../apjaspeech.pdf. (Accessed on19/10/2010).
iii. It adopts a restricted interpretation of invention which should satisfy the
criteria of novelty and be capable of industrial application, whereas
traditional knowledge is informal and passed on from one generation to
other.

Various academies and many NGOs have also been demanding the
enactment of a Sui generis legislation to protect TK and TCEs in India.
According to Mr. N.R. Subbaram, consultant on intellectual property rights and
former controller of patents, "India should enact a sui generis law to protect its
traditional knowledge and fight western piracy of the knowledge\textsuperscript{191}.

One of the greatest problems facing bio prospecting contracts has been
valuation of the resources covered by the contract. Since biodiversity
legislation largely view TK as an associated feature of genetic resources, the
former is likely to be devalued in comparison to the latter. A sui generis
legislation on TK that recognizes its autonomous economics, cultural and
‘development’ character is able to ensure a more objective valuation of TK
from a benefit sharing perspective. Geographical indications and biodiversity
legislations offer scope for TK protection but the scope of protection is very
restricted in nature. A sui generis legislation that views TK as a composite
resource, having both economic and cultural features has a better prospect of
ensuring protection of TK, through improved valuation and benefit sharing. A
sui generis regulation that covers all facets of TK will be wider in scope and
comprehensive in approaching TK in its totality\textsuperscript{192}. While national sui generis
legislations would facilitate a robust system of TK protection, international
action to frame guidelines is desirable. International guidelines not only
guarantee reciprocity but also ensure that norms of TK protection and benefit
sharing are harmonized within the framework of a multilateral regime\textsuperscript{193}. So, if
national measures for sui generis protection are backed by international
regulations that harmonize protection measures, TK protection within national

\textsuperscript{191} R.Gopalkrishnan, Enact law to protect traditional knowledge, The Hindu, october, 19,

\textsuperscript{192} A Damodaran, Traditional knowledge, Intellectual Property Rights and Biodiversity conservation:
Critical issues and key challenges; Journal of Intellectual Property Rights; vol-13; September 2008,

\textsuperscript{193} Ibid 192(supra).
boundaries would be fortified by 'reciprocity' guaranteed by international compacts.\footnote{194}{Ibid 192 (supra).}

However, in India the demand of enactment of a Sui generis legislation to protect the Traditional Knowledge and Traditional Cultural Expressions has been raised from many corners. An attempt was made in Kerala in this regard. The Kerala Tribal Intellectual Property rights Bill, an initiative of the Kerala Institute for Research, Training and Development Studies of Scheduled Castes and Scheduled Tribes (KIRTADS), focuses on constitution of specific authorities for documenting the knowledge of tribal peoples and negotiating terms for access to it. The bill has been discussed at workshops organized by KIRTADS between 1996 and 1998, involving representatives of tribal communities with whom KIRTADS has been working actively, NGOs, lawyers, journalists and different government ministries.\footnote{195}{R.V.Anuradha, Bansuri Taneja and Ashish Kothari, Experiences with Biodiversity Policy-making and Community Registers in India, International Institute for Envioronment and Development (IUED), 3,Endsleigh street, London,WC1H0DD.UK,February 2001, http://WWW cbd.int/doc/case-studies/abs/cs-abs-reg-in-en.pdf (accessed on 20/10/2010).}

The Tribal Intellectual Property Rights Council (TIPRC) would be constituted as an independent agency under the Government of Kerala, and would be responsible for approving the list of tribal communities and their intellectual property. Each tribal community would form a committee which is called as the Ethnic Intellectual Property Rights Committee (EIPRC). The TIPRC and the EIPRC would have the joint responsibility to negotiate terms with persons external to such communities in relation to the intellectual property of the group. The Bill enunciates certain conditions for agreement with a person seeking access to intellectual property including:\footnote{196}{Ibid 195 (Supra).}

I. Clear definition and specification of the product/method/knowledge;
II. Prior Informed consent of the community concerned;
III. Terms for determining the amount payable for access, as well as clear agreement for payment of royalties in the event of commercialization of the material, method or knowledge, and any derivatives.
IV. Monitoring and reporting: the TIPRC and the EIPRC would have to be kept informed about the developments from research and related activities, and should have uncontrolled access to the research activities.

V. The Community, through the EIPRC, should be the co-owners of the research data and any intellectual property right obtained on any of the outputs of the research.

VI. Prior Informed Consent of the community is required for the further transfer of the materials/method/knowledge.

However, the general idea behind the bill is welcomed but there are some concerns regarding some aspects of the bill. Some of these are as below:\footnote{197 cite{Ibid 195 (Supra)}.}

I. The fact that tribal communities are not always organized cohesive units;

II. Tribals do not always have secure access to or ownership over the resources they use;

III. The relationship of the suggested authorities under the Bill to the existing formal structures such as the Panchayat institutions would have to be addressed;

IV. The relationship with the formal system of intellectual property rights would have to be addressed more closely;

V. The Bill needs to be re-drafted keeping in view existing laws and institutions;

VI. The Bill does not encompass the knowledge and practices of non-tribal communities.

Some have also expressed the views that some of the provisions of the proposed Bill are far too radical and may not be implementable. In fact there is very little consensus regarding the possibilities of the implementation of the bill and the bill has not yet passed as an Act.

Another effort was made in 1994 in Karnataka. The Karnataka Community Intellectual Rights Bill was passed in 1994. In fact, this was an Act to provide
for the establishment of Sui Generis System in respect of plant varieties. However, under the bills the term “local community” means a group of people having a long standing social organization that binds them together whether in a defined area or howsoever otherwise and shall include indigenous peoples, and local populations, and shall where appropriate refer to any organization duly registered under the provisions of this Act to represent its interest\(^{198}\). The term “innovation” shall include any collective and cumulative knowledge or technology of the use, properties, values and processes of any plant variety and any plant or part thereof rendered of any or enhanced use or value as a result of the said cumulative knowledge or technology whether documented, recorded, oral, written or howsoever existing including any alteration, modification, improvement thereof\(^{199}\).

The local community shall at all times and in perpetuity be the lawful and sole owners of the innovation\(^{200}\). No such innovation or invention shall be sold, assigned, transferred or dealt with in anyway except by the community/communities either singly or in case of negotiations with foreign based institutions and individuals, jointly with the State Government or anybody duly permitted to act on its behalf\(^{201}\). No innovations shall be sold, assigned, transferred or dealt in any way whereby the status of the local community as custodians and stewards of the innovation is impaired\(^{202}\).

The Community or Communities shall have rights on all these innovations and shall together with the State Government or anybody duly appointed by it jointly negotiate terms and conditions for making it available to foreign nationals or for commercial utilization to the private sector\(^{203}\). Any person, body, organization or corporation using any innovation or any part thereof for commercial utilization shall pay to the local community which is the custodian or stewards of the said innovation a sum representing not less than 20% of

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\(^{198}\) Section 2(b) of the Karnataka Community Intellectual Rights Bill-1994.  
\(^{199}\) Section 2(c) of the Karnataka Community Intellectual Rights Bill-1994.  
\(^{200}\) Section 3(1) of the Karnataka Community Intellectual Rights Bill-1994.  
\(^{201}\) Section 3(2) of the Karnataka Community Intellectual Rights Bill-1994.  
\(^{202}\) Section 3(3) of the Karnataka Community Intellectual Rights Bill-1994.  
\(^{203}\) Section 5(1) of the Karnataka Community Intellectual Rights Bill 1994.
the gross sales of any product or process incorporating the said innovation\textsuperscript{204}. Any local community may apt to be paid a non-monetary equivalent as may be determined by the local community in accordance with its customs practices and usages\textsuperscript{205}. Nothing in section 5 shall prevent more than one person, body, organization or corporation from using any innovation or any part thereof for commercial utilization and at the same or any other time. However, the payment shall be made\textsuperscript{206}.

I. To an organization duly registered under the provisions of this Act as representing the local communities;

II. Where no such organization exists to the State Government or anybody duly accredited by it, which shall hold it in trust for the local community/ies pending its registration under the provisions of this Act;

III. In respect of an innovation, this is, as at the date of coming into force of this Act, developed by a community, to the State Government which then applies any such monies for the protection, development and maintenance of its genetic resources.

Any local community may apply to be registered as an organization to represent its interest provided that its failure to do so will not prejudice its custodianship or stewardship of its innovation\textsuperscript{207}.

However, the above attempt of enacting sui generis intellectual property legislation to protect TK must be encouraged. Most of the provisions of the bill are very effective. But some of the provisions of the Bill are not free from criticism. This bill has not also been passed as an Act still today.


In Bangalore, in January 2009, a group of like minded people from diverse backgrounds including farmers, academicians, scientist, administrators,

\textsuperscript{204} . Section 5(2) of the Karnataka Community Intellectual Rights Bill 1994.
\textsuperscript{205} . Section 5(3) of the Karnataka Community Intellectual Rights Bill 1994.
\textsuperscript{206} . Section 5(5) of the Karnataka Community Intellectual Rights Bill 1994.
\textsuperscript{207} . Section 6(1) of the Karnataka Community Intellectual Rights Bill 1994.
folklore artists, traditional healers and intellectual property lawyers met together to deliberate on the most practical ways to conserve traditional knowledge. This was, probably, the first national consultation on TK and IPR. A policy paper was issued on the basis of two day deliberation titled 'Draft Policy Framework for Traditional Knowledge Systems in India'. This was also known as Bangalore Policy Paper. The objectives of the Paper were as below:\textsuperscript{208}:

I. Recognizing and respecting the intrinsic value and diversity of knowledge, wisdom and practices;

II. Ensuring the conservation and continuum of knowledge and its practice where it is rooted;

III. Sustaining the lives and livelihoods of traditional practitioners and resource dependent communities;

IV. Nurturing biodiversity and respecting the sanctity of all life-forms;

V. Ensuring a non-centralized system with community decision making/Autonomy.

A core team was formed which met in Delhi to deliberate on the basic structure of a sui generis legislation to protect the TK of Indian traditional people and to establish a transparent and viable Prior Informed Consent (PIC) and Access and Benefit Sharing (ABS) mechanism. The first draft of the proposed sui generis legislation to protect traditional knowledge was made ready and unveiled to a select group of lawyers, administrators, members of the civil rights groups, the WHO and other academicians at the second National Consultation on 3\textsuperscript{rd} July 2009\textsuperscript{209}. During the deliberation the Minister of State of Environment and Forest, Mr. Jairam Ramesh, suggested a more specific legislation relevant to the Ministry of Environment. He gave order to the members of the core group to prepare rules under section 36(5) of the Biological Diversity Act 2002. This section inter alia, says the Central


\textsuperscript{209} Ibid 208 (Supra).
Government shall endeavour to respect and protect the knowledge of local people relating to biological diversity, as recommended by the National Biodiversity Authority through such measures which may include registration of such knowledge at the local, state or national levels, and other measures for protection, including sui generis system. The core group were given two months time to prepare the rules for the regulation of access to traditional knowledge relating to genetic resources for submission to the Chairperson, National Biodiversity Authority (NBA). Accordingly, the draft was submitted to the Chairperson, NBA. Ultimately, in exercise of the power conferred under section 36(5) and 62 of the Biological Diversity Act, 2002 and on the recommendation of the National Biodiversity Authority, the Central Government makes the Protection, conservation and Effective Management of Traditional knowledge relating to Biological Diversity Rules, 2009.

The term ‘abuse’ under Rule 2(a) of the Rule 2009 means use or application of the traditional knowledge or one or more of its components, by any person, including a member of the traditional community or a traditional practitioner, in a manner that is in contravention of their traditional beliefs and practices, or which is against public order and morality, or against the interests of the traditional communities or any action in contravention to these Rules. The term "Misappropriation of traditional knowledge" means any form of appropriation, monopolization, including claims of private ownership and /or intellectual property rights, and such other acts which deprive the traditional community whose traditional knowledge it is, from using ,conserving and protecting the said knowledge, and from equitable benefit sharing arising out of any commercial utilization of said traditional knowledge and/or derivatives thereof and also unsustainable utilization of the genetic resources relating to that traditional knowledge\(^\text{210}\). The term “Misuse of traditional knowledge” means access to and /or use of traditional knowledge by persons not belonging to the traditional community whose traditional knowledge it is, without License to use or against the terms and conditions of License to

use\textsuperscript{211}. The term “Traditional Community” means a community holding traditional knowledge including families, people belonging to Scheduled Tribes as per Article 342 of the Constitution of India, and other notified tribal groups including nomadic tribes, and shall be represented by their representative bodies\textsuperscript{212}. Again, the term “Traditional Knowledge” means the collective knowledge of a traditional community including of a group of families, on a particular subject or a skill and passed down from generation to generation, either orally or in written form, relating to properties, uses and characteristics of plant and animal genetic resources; agricultural and healthcare practices, food preservation and processing techniques and devices developed from traditional materials; cultural expressions, products and practices such as weaving patterns, colors, dyes, pottery, painting, poetry, folklore, dance and music; and all other products or process discovered through a community process including by a member of the community individually but for the common use of the community\textsuperscript{213}. However, this is very important attempt on behalf of Government of India towards the recognition and protection of Traditional Knowledge. The definition of “traditional knowledge “under rule 2 (w) is very wide. It includes all most all traditional knowledge and traditional cultural expressions.

Rule 3 of the above Rule, deals with various measures to be taken by the Authority for protection and promotion of traditional knowledge. Rule 3, inter alia, say the Authority shall recognize existing traditional forms of representative organizations of the traditional community, including family/community based organizations provided that where there are no representative bodies representing the said traditional community, the Authority shall through state Biodiversity Boards and Biodiversity Management Committee enable traditional communities to set up representative bodies keeping in view their customary practices and

\textsuperscript{211}. Rule 2(q) of the Protection, Conservation and Effective Management of Traditional Knowledge Relating to Biological Diversity Rules 2009.

\textsuperscript{212}. Rule 2(v) of the Protection, conservation and Effective Management of Traditional Knowledge Relating to Biological Diversity Rules 2009.

\textsuperscript{213}. Rule 2(w) of the Protection, Conservation and Effective Management of Traditional Knowledge Relating to Biological Diversity, Rules, 2009.
traditional forms of organization. Again where there is more than one representative organization representing the traditional community, the Authority shall refer the matter to the Biodiversity Management Committee through the State Biodiversity Board for identifying the representative organizations. A traditional community shall, for the implementation of these Rules, be represented by its traditional representative body and that body shall be the authorized body for all matters pertaining to the implementation of these rules with reference to that community. The Authority shall facilitate the traditional communities to exercise their collective rights to their own access and use, and to regulate access by others including fair and equitable benefit sharing for such access and relief on abuse and/or misuse and/or misappropriation and/or infringement of the traditional knowledge. The Authority shall take step to prevent abuse and/or misuse and/or misappropriation of traditional knowledge; and where such abuse, misuse, or misappropriation has taken place, the Authority shall institute proceeding in the appropriate forum. The Authority shall ensure that the traditional communities make sustainable use of the resources on which their traditional knowledge is based; and that the traditional community shall protect, conserve and practice the traditional knowledge for the continued good of the traditional community. The Authority shall set up a fund called the Traditional Knowledge Fund under section 27 of the Act and there shall be credited thereto all charges, fees, royalties and all sums received by the Authority in the administration of these Rules. The said fund shall be applied for the benefit of the traditional communities and in the protection, conservation and continued practice of traditional knowledge, by way of monetary and non-monetary as well as welfare based measures that shall include but not be restricted to incentives for continuing use and public service, direct income supports, registration and accreditation of such practices. The Authority shall also take initiatives to introduce traditional knowledge education including local traditional knowledge in the formal and non formal systems of education and shall involve knowledgeable members of traditional community for the same. The Authority shall also maintain a Traditional Knowledge Register to register Traditional Knowledge.
According to rule 4, the Authority shall enter in the Traditional Knowledge Register- the name, location, description of the traditional knowledge, as is revealed by the traditional community, along with the names of the practicing traditional community/ies in the prescribed format, as and when such information regarding the concerned Traditional Knowledge is intimated to the Authority by the traditional community or by the suo motu efforts of the Authority or any of the State Biodiversity Boards or the Biodiversity Management Committee upon an application for access. A proviso to this rule says that this is subject to the condition that the traditional community concerned has permitted the documentation and the form of documentation of the said traditional knowledge. Provided also that such permission is not necessary in case of traditional knowledge that is already in the public domain and/or the traditional community concerned is not identifiable. Subject to the superintendence and direction of the Central Government the Register shall be kept under the control and management of the chairperson. The contents of the Traditional Knowledge Register shall not be disclosed without authorization of the Chairperson.

Rules 5 deals with regulation of access to traditional knowledge and informed consent. This rule, inter alia, says that any person desirous of accessing traditional knowledge or any component thereof shall apply to the Authority in the prescribed form with the prescribed fee. On receiving the application for access, the Authority shall examine the application for compliance of formalities and refer the same to the National Standing Committee; whereupon said committee shall examine the application to check for registration of the traditional knowledge in the Traditional Knowledge Register. Where the traditional knowledge is found to be registered in the Traditional Knowledge Register, then the National Standing Committee shall refer the said application to the appropriate State Bio-diversity Board(s); Provided that the traditional knowledge is registered in the name of one more traditional communities from at least three different States, then the process for obtaining informed consent and negotiation shall be initiated by the Authority, in consultations with all the State Biodiversity Boards concerned. Where there are no State Biodiversity Boards and/or Biodiversity Management Committee,
the Authority shall direct the state(s) concerned to set up the State Biodiversity Board(s) and/or Biodiversity Management Committee(s) within 6 months from the date of such direction. An additional 6 months time may be given here, in case of failure to set up the State Biodiversity Board within stipulated time period\textsuperscript{214}.

On receiving the application, the State Biodiversity Boards shall refer the said application to the appropriate Biodiversity Management Committee and traditional communities. The traditional communities on receiving the application shall inform the State Biodiversity Board of their willingness or unwillingness to participate in consultation on prior informed consent. Where the traditional communities communicates their unwillingness to participate in consultation on prior informed consent to the State Biodiversity Board the said Board shall communicate the same to the Authority, through the National Standing Committee whereupon the Authority shall communicate denial of access to the applicant. Where the traditional communities communicate their willingness to participate in consultation on prior informed consent to the State Biodiversity Boards then the State Biodiversity Boards concerned shall refer the application to the State Standing Committee. The State Standing Committee shall in consultation with the said traditional community and the Biodiversity Management Committee conduct a comprehensive assessment including assessment on sustainability of the resources, social and environmental implications and potential value of the traditional knowledge, and produce a report along with recommendations and a resource management plan. On receiving the comprehensive assessment report of the State Standing Committee, the State Biodiversity Board shall facilitate consultation(s) among the applicant, the traditional community (ies) and the Biodiversity Management Committee(s) at the location(s). Where there is a consensus on the granting of access to traditional knowledge(s), the state Biodiversity Board shall initiate the process for negotiating the terms and conditions of the access, use and benefit sharing of the Traditional

\textsuperscript{214} Rule 4 of the protection; Conservation and Effective Management of Traditional knowledge Relating to Biological Diversity, Rules 2009.
Knowledge(s), taking into account the recommendations of the State Standing Committee. On agreement between the applicant and the traditional community the latter shall affix their signatures on the prior informed consent form, and thereafter both parties shall affix their signature on the agreement for access and benefit sharing. Copies of the Prior Informed consent, agreement on access and benefit sharing and the Report of the State Standing Committee shall be submitted to the National Standing Committee by the State Biodiversity Board. On receiving the prior informed Consent, the access and benefit sharing agreement and the report of the State Standing Committee, if any, the National Standing Committee shall refer the same to the Authority with appropriate recommendations for issuance of the “license of use” incorporating the prior informed consent and the terms and conditions of the access and benefit sharing agreement. The Authority shall issue the “License of Use” after satisfied that due processes under the law have been complied with, and the issuance of said “License of Use” shall not be against the national interest.215

Where the traditional knowledge is already in the public domain and is not specifically owned by any particular traditional community or if the traditional community (ies) is/are spread in more than three States, then the willingness to issue a prior informed consent and negotiating an access and benefit sharing agreement shall be done by the National Standing Committee in consultation with the respective State Biodiversity Boards, Biodiversity Management Committees, and traditional communities, wherever possible and recommendations made to the Authority216. The National Standing Committee shall in consultation with the respective State Biodiversity Boards, Biodiversity Management Committees and traditional communities, wherever possible, conduct a comprehensive assessment including assessment on sustainability of the resources, social and environmental implications and potential value of the traditional knowledge, and produce a report along with


recommendations, resource management plan along with an access and benefit sharing plan\textsuperscript{217}. The Authority, however shall exercise its discretionary powers with regard to the allowance of access to particular traditional knowledge on the basis of report(s) submitted by the National Standing Committee\textsuperscript{218}.

Where an application is received under rule 5(2) and the traditional knowledge is not registered the National Standing Committee shall evaluate the traditional knowledge for its availability in public domain\textsuperscript{219}. Where the said traditional knowledge is found to be in public domain the National Standing Committee shall conduct an assessment of the said traditional knowledge including sustainability of the traditional knowledge and recommend the said traditional knowledge to the Authority for registration in the Traditional Knowledge Register as Public Traditional Knowledge along with the said assessment report Provided that if the said traditional knowledge is not in public domain, the National Standing Committee shall refer the application to all/relevant state Biodiversity Board(s)\textsuperscript{220}. On receiving the recommendation for registration of traditional knowledge in public domain and the assessment report under Rule 7(2), the Authority shall register the said traditional knowledge in the Traditional Knowledge Register and commence negotiations as specified in Rule 6\textsuperscript{221}.

The Authority shall also develop national strategies, plans, programmes for the conservation, development and sustainable use of traditional knowledge including-

\begin{itemize}
  \item [a)] Measures for identification and monitoring of areas rich in traditional knowledge,
\end{itemize}

\textsuperscript{217} Rule 6(2) of the Protection, Conservation, and Effective Management of Traditional Knowledge Relating to Biological Diversity, Rules, 2009.

\textsuperscript{218} Rule 6(3) of the Protection, Conservation, and Effective Management of Traditional Knowledge Relating to Biological Diversity, Rules, 2009.

\textsuperscript{219} Rule 7(1) of the Protection, Conservation, and Effective Management of Traditional Knowledge Relating to Biological Diversity, Rules, 2009.

\textsuperscript{220} Rule 7(2) of the Protection, Conservation, and Effective Management of Traditional Knowledge Relating to Biological Diversity, Rules, 2009.

\textsuperscript{221} Rule 7(3) of the Protection, Conservation, and Effective Management of Traditional Knowledge Relating to Biological Diversity, Rules, 2009.
b) Incentives and support systems for traditional communities and traditional practitioners, and

c) Incentives for Training and public education to increase awareness with respect to traditional knowledge.222

Where the Authority has reason to believe that any area or traditional community rich in traditional knowledge and resources is being threatened by overuse, abuse or neglect, it shall issue directives to the State Government concerned to take immediate ameliorative measures and also offer the State Government concerned technical and other assistance that is possible to be provided.223 The Authority shall recommend as far as practicable wherever it deems appropriate, the integration, conservation, promotion and sustainable use of traditional knowledge and resources into relevant sectoral or cross-sectoral plans, programmes and policies.224

However, the Rule contains various important provisions by applying which traditional knowledge may be protected, preserved and sustainably used. This is the first such rule which contain elaborate provisions regarding traditional knowledge. If properly implemented the rule may prevent misappropriation of T.K.

4.5. The Traditional Knowledge (Protection and Regulation to Access) Bill-2009

A Round Table Conference on Protection of Traditional Knowledge was concluded recently (January 25-26, 2010) at National Law School of India University (NLSIU), Bangalore. The two day conference was held for the deliberation on the Sui-Generis Model developed for the Protection of Traditional knowledge /Traditional Cultural Expressions. The Traditional knowledge (Protection and Regulation to Access) bill 2009 was drafted by


NLSIU, Bangalore. However, the bill was the first ever attempt in India, for a separate and complete regime for the protection of Traditional knowledge in India\textsuperscript{225}. The Bill aims at to provide for protection, conservation and effective management of traditional knowledge. It further provides the need for protection of integrity and sentiments of communities against distortions and disrespectful representations of forms of traditional knowledge and protection from improper commercial exploitation of such forms. It emphasizes the need for sustainability of resources on which traditional knowledge is based as well as ensures the continuation of the customary practices of the traditional knowledge. It also provides for a mechanism to access and share such TK along with the rights of the communities who hold such knowledge\textsuperscript{226}. However, the salient features of the draft bill are as below\textsuperscript{227}:

i. Definition of terms such as traditional knowledge, abuse, access, accessor, benefit, misappropriation and traditional community etc.

ii. Identification of the sources and maintenance of the register of TK;

iii. Identification of the sources from where the informed consent to use the TK has to be gained;

iv. Indicative list of accessors who are required to obtain the prior consent for accessing the Traditional Knowledge\textsuperscript{2};

v. Duties and obligations of the Central Government, State Government and TK Authority to ensure prevention of misuse of TK;

vi. Preparation of national policy, strategy and action plan by the Traditional knowledge Authority every five year which ensures the protection, continuum of use and practice of TK and ensures sustainability of the resources including human resource on which the TK is dependent;

vii. Duty of the TK Authority to prevent bio piracy and other misuse of TK and to take preventive/punitive actions to safeguard the same;


\textsuperscript{226} Ibid 225 (supra).

\textsuperscript{227} Ibid 225 (Supra).
viii. TK Authority to be assigned with additional responsibility to ensure that the due environmental and social impact assessment be done before granting access to any traditional knowledge;
ix. TK Authority to ensure that the use of traditional knowledge is not against public order or morality;
x. The TK Authority to educate and increase awareness in the communities to ensure just and fair negotiations;
xii. The TK board to be assigned with power to notify certain traditional knowledge as endangered or on verge of extinction or likely to become extinct, and also the power to restrict access to such traditional knowledge;

xii. Appellate mechanism for appeal against the decision of the TK Authority. The orders issued by the Appellate mechanism shall be appealable at the supreme court of India.

Though this is not an Act and a mere bill prepared by a University yet the effort is only for the first time in India and the efforts must be praised. India has a duty towards her traditional communities to ensure their right to live in their natural environment and to help them earning their livelihood by way of practicing their traditional knowledge. It is imperative for India to establish a strong and viable mechanism to regulate access to traditional knowledge as well as to ensure that there is reasonable and equitable sharing of benefits based on Prior Informed Consent, regulated access to traditional knowledge resources and establishment of an equitable benefit sharing mechanism. However, the Act should be passed in such a way so that all genetic resources, TK and TCEs are properly protected, interest of all Traditional Communities is protected and resources are sustainably used.

4.6. Contractual Agreements and Benefit Sharing arrangements

Contractual Agreement is another option for protecting TK. A contract will be entered into between the holder of traditional knowledge and persons or companies wishing to access and use of the knowledge. Traditional Communities being one of the parties to the contract, gets monetary
consideration in lieu of giving permission to use their knowledge base to the other party to the contract. The entire process is very easy to understand and there is no procedural complicacy. In India, benefit sharing arrangement is there between Kani tribe of Kerala and Tropical Botanical Garden and Research Institute (TBGRI). The Governing body of the TBGRI authorized the TBGRI Director to transfer technology for the manufacture of Jeevani to interested parties on payment of an appropriate license fee. Negotiations were conducted for this purpose. The committee constituted for this purpose recommended a transfer of the right to manufacture Jeevani to Arya Vaidya Pharmacy (Coimbatore) Ltd. for a period of seven years at a license fee of Rs. 10 lakhs. TBGRI was also to receive 2% royalty on any future drug sales. In a separate resolution, approved by both the Governing Body and the Executives Committee of the TBGRI, it was decided that the Kani tribal would receive 50 percent of the license fee as well as 50 percent of the royalties obtained by the TBGRI on sale of the drug, as part of the benefit sharing arrangement between both the parties. This is a good example of Benefit Sharing Arrangement by which Kani tribal community of Kerala gets economic benefit for their traditional knowledge.

Besides the above, various Non Governmental Organizations in India are working hard to protect the TK & TCEs. They are raising mass awareness regarding importance of TK & TCEs through various ways. Some of these are: Sristi (the Society for Research and Initiatives for sustainable Technologies and Institutions) based in Ahmadabad, Gene Campaign etc. These NGO’s have undertaken work on documentation of indigenous knowledge among the tribal populations of the Mudas and Oraons of Jharkhand; the Bhils of Madhya Pradesh, and the Tharus of the Terai region.

However, no one mechanism is self reliant and perfect. Each system has some demerits and merits. Existence of both defensive and positive protection is necessary to properly protect the TK and TCEs in India. Hence, the researcher is of the opinion that use and application of both the defensive and positive protection can only serve the purpose and extend a strong protection to TK and TCEs in India.