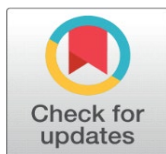
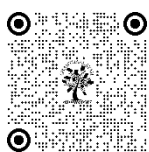


REORIENTING DEFENCE MECHANISM OF TK UNDER CRIMINAL LAW: A CASE STUDY OF AHOM TRIBES OF ASSAM

Anurupa Chetia¹

¹ PhD Student 2019, WBNUJS, Assistant Professor, Ramaiah College of Law, Bengaluru, India



DOI

10.29121/shodhkosh.v5.i5.2024.4945

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Copyright: © 2024 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](#).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



ABSTRACT

Ahom tribe of Assam is a distinct tribe of Assam which is believed to have travelled from the parts of Mongolia and they inherit the Mongolian traits. They are known for their unique culture and tradition. They are practising and preserving their traditional knowledge from long times. Although there are many traditional medicinal practitioners in different pockets of the State, here going to focus on one lady traditional medicinal practitioner who is serving the community for healing bone fractures with some herbal plants and she now converted this into her livelihood. She has tried to maintain the secrecy of her traditional medicinal knowledge. But what will happen when there will be biopiracy as she is not aware about her rights or how to protect with any kind of legal remedies, how she will maintain her livelihood. As we can see the consequences of the turmeric case where India must fight so hard to protect the well-known traditional knowledge of India. This may be the condition of every TK practitioner of India. Therefore, we cannot sit on the duck for misappropriation to occur but should start with some defensive criminal enforcement mechanism so that we can protect the community privacy of the TK holders. In this article the author will try to find the mechanism already available for reorienting the defensive mechanism of protection of TK and try to find out some new mechanism for this purpose. Along with it also try to justify the TK as a property right of the Community and which cannot be disclosed or snatched away by any outsider and only provide with benefit sharing to the community.

Keywords: Tribe, Culture, Tradition, Traditional knowledge, Community, TK, Livelihood

1. INTRODUCTION

Traditional knowledge (TK) is knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity.¹ Traditional knowledge has been an important topic at the international level for several years now as there is an increased recognition of the rights of indigenous peoples, including the right to self-determination; the loss of traditional knowledge and the apparent need for its protection; the destruction of the environment and the reduction of biological diversity².

¹ World Intellectual Property Organization, [Traditional Knowledge](http://www.wipo.int/tk/en/tk/) (Dec. 2, 2016) www.wipo.int/tk/en/tk/

² Christoph Beat Graber and Martin A. Girsberger, "Traditional Knowledge at the International Level: Current Approaches and Proposals for a Bigger Picture That Includes Cultural Diversity", J.Schmid/Hansjörg Seiler (eds.), *Recht des ländlichen Raums*, 2006 Pp. 243-282.

Traditional knowledge has the potential to earn billions³. For example take the case of Mexico as it was appealing for the bioprospectors as it is considered as a biodiversity “goldmine” as it contains 34 of the 36 identifiable climates in the world. Like this the Countries with traditional knowledge should take protective measures. Traditional knowledge’s largely undocumented history makes it particularly vulnerable to bioprospectors who are searching for new products to patent.⁴ An invention which, in effect, is traditional knowledge, or which is an aggregation or duplication of known properties of traditionally known component or components, is not patentable.⁵ For example, the use of turmeric to heal wounds would not be patentable as it forms part of traditional knowledge. However, if an invention is developed based on traditional knowledge, such an invention might be patentable. For example, an ointment for curing muscle and bone injuries containing active ingredients from the leaf of a plant, whose paste is traditionally used for tropical application in case of muscle injuries, would be patentable subject matter.⁶ However, if the invention is a development or improvement over the traditional knowledge it may be novel.⁷ But the bioprospectors doesn’t want to put any kind of input and simply turn the available traditional knowledge into million dollar profit earning medicines in the market. It becomes difficult by the Indigenous Communities to prove that the particular medicine origin is coming from traditional knowledge as it is unrecorded.

Traditional knowledge therefore encompasses everything from plant cultivation to medicinal remedies to food recipes. Examples of traditional knowledge include the use of the *hoodia cactus* by the Kung Bushmen in Africa to stave off hunger, the use of the turmeric plant in India to heal wounds, the use of *j’oublie* in Cameroon and Gabon as a sweetener, and the use of ground roots in Mexico for removing teeth.⁸ Each natural product has its own method of preparation that has been developed from generation to generation within these communities. It is this specialized knowledge that is now sought by bioprospecting companies.

1.1. CASE STUDY ON TMK OF AHOM TRIBE

Assam is a beautiful state surrounded by six other states which are combinedly known as seven sisters of North-east with Sikkim nearby. It is abundant with biodiversity and many flora and fauna which promotes the State with rich medicinal plant and animal diversity. Having a combination of many communities who are having rich cultural diversity and abundant knowledge about plant and animal spices which can be used for various treatment of diseases. Like other communities, these communities are also dependent on the forest for their livelihood and all other things. There is various traditional medicinal knowledge practised by these communities and they prepared it mostly from the herbs available in the nearby forest areas. Although they have moved forward with the time of globalization and many youths are settling in the mainstream societies and leading a modern lifestyle, they still tend to practise their culture and traditions. They are still connected with the roots of their community, culture and traditions.

³ Gavin Stenton, *Biopiracy within the Pharmaceutical Industry: A Stark Illustration of How Abusive, Manipulative and Perverse the Patenting Process can be Towards Countries of the South*, 26 E.I.P.R. 17, 17 (2004) (noting the existence of a market for herbal medicines is estimated at \$43 billion, with an annual growth rate between 5-15%). cited in Javier Garcia, *Fighting Biopiracy: The Legislative Protection of Traditional Knowledge*, 18 Berkeley La Raza L.J. 5 (2007).

⁴ See DeGeer, *supra* note 3, at 200 (noting the biotechnological industry depends on Southern nations like Mexico that are resource rich and economically poor); see also United Nations Environment Programme (“UNEP”): *GEO Latin American and the Caribbean, Environmental Outlook*, 63-64 (2003), <http://earthwatch.unep.net/latinamerica/index.php> (“In Brazil, Columbia, Ecuador, Mexico, Peru, and Venezuela, 190,000 of the world’s 300,000 known vascular plants have been identified. These six countries are part of the group of nations that, worldwide, have been identified as having biological megadiversity; together they harbour between 60 to 70 percent of all forms of life. Their topography, climate variety, geology, and biology have contributed to a mosaic of many diverse small-scale environmental conditions that support a large variety of habitats and life forms.”). See, e.g., 35 U.S.C. §§ 101, 102 (2000); see also Subbiah, *supra* note 3, at 545 (Traditional knowledge is “passed down orally and in practice from generation to generation and will not appear .. on ... limited [prior art] search[es].”); Confronto, *supra* note 6, at 364 (“[T]raditional knowledge is passed on by word of mouth and unlikely to be published.”). cited in Javier Garcia, *Fighting Biopiracy: The Legislative Protection of Traditional Knowledge*, 18 Berkeley La Raza L.J. 5 (2007).

⁵ Indian Patent Act, 1970, s.3(p): an invention which in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components.

⁶ Kalyan C. Kankanala, et.al., *Indian Patent Law And Practice*, (23rd ed., Oxford University Press 2015).

⁷ *Id.*

⁸ Stephen Hansen & Justin Vanfleet, *Traditional Knowledge And Intellectual Property: A Handbook On Issues And Options For Traditional Knowledge Holders In Protecting Their Intellectual Property And Maintaining Biological Diversity* 3 (2003); Gina Marie mcandrews, *Utilization of Medicinal Plant Species in the Zapotec Community of Yatzachi el Bajo, Oaxaca, Mexico* (1995), shr.aaas.org/tek/handbook/handbook.pdf. cited in Javier Garcia, *Fighting Biopiracy: The Legislative Protection of Traditional Knowledge*, 18 Berkeley La Raza L.J. 5 (2007).

Among the various communities of Assam, the “Ahom tribe” are those people migrated from China believed to be originated from Mongolia known as Tai Group settled in Assam and established their kingdom and made its capital, at present Sibsagar District within the State of Assam. They ruled for over 600 years in Assam and today they are the dominion tribe in Assam. They have their unique culture and tradition which they still practise with the same knowledge as their forefathers have transferred to them.⁹ The Ahom tribe is well known for its historical records which their rulers have introduced and believed that everything needs to be written down which will be considered as evidence of this tribe’s existence of their unique culture and tradition. Hence, according to many historians, Ahom tribes’ kings used to have historians who have to write down each and every event that has occurred during that king's reign.

The TMK of Ahom tribe spread over the vast plain areas of Assam in a very vague manner. The community as a whole cannot claim knowledge on one particular TMK. They have knowledge about various herbs, vegetables and plants available in forest as well as plain areas. In various pockets of Assam, there are still many TMK practitioners practising this profession with the knowledge being transferred from their four fathers. Although for some this is not the only profession, they practised but they are well known in their particular village as a TMK Practitioner. They are able to cure many diseases like jaundice, pneumonia, women’s menstruation related problems, teeth related disorders, indigestion, bone fracture and also able to cure some of the major disorders like diabetes, urinary disorders, Asthma, Cancer, Heart weak, skin diseases etc. Few practitioners are so knowledgeable that they are trying to find out some of the herbs scientific names so that it becomes easy for scientists to come up with new drugs. It is found that these practitioners are very innocent and generous people who want to make the world aware about their knowledge so that even outside the community or their native place could know about this knowledge and get benefitted from their medicines.

The author while the survey found that one particular family belonging to this tribe practices TMK don’t want to disclose their knowledge and want to continue practising it secretly as they are converting this practise into their livelihood. They inculcate scientific knowledge with their traditional medicinal knowledge and are able to cure many patients not only from Assam but even from outside of Assam. This family resides in a small Ahom village named “*Kuworì Phukhuri*” under the sub-district of Titabor. They became famous for bone joining by applying a medicine prepared from a combination of herbs found in the forest area of that region. They are practising this from their father's time and it has now turned into their livelihood. Every day patients of nearly 50 to 100 visit their house. They consider the X-ray report before putting the paste of medicines on the affected area. They claim that even a severe bone fracture can be cured within a very short time with only three days of medicine applied on the affected area. The cost of the medicine is also very minimal which can be afforded even by the poor people. The most interesting fact is that even some Doctors prefer this over plaster of Paris which requires a long duration of bed rest.

The family till date was able to keep the TMK secret, not even allowing their relatives to know about it. They believe it to be ancestral property from their forefathers which helped them to lead a very good life at present modernisation period. The local MLA has constructed a small community hall for the patients who visit their home for treatment as that particular area became famous for its treatment.

Now, neither this family nor the other TMK practitioners are aware about the rights they possess nor are they aware about the IPR or other legal methods by which they can protect their TMK Practices. They are very simple, innocent and generous people who know only to serve the people to make them disease free and healthy. If by any way if these people’s knowledge is taken away without their consent or knowledge, how are they going to defend their rights in front of the mainstream big scientist or multinational companies? Can these people be able to protect their TMK? Let’s understand the other aspects of this discussion.

What is Biopiracy?

The process of taking indigenous people’s knowledge without compensation is referred to as biopiracy.¹⁰ Biopiracy is found in three forms, varying by the extent to which they are piratical.

Bio-prospecting:

This is the least piratical form of biopiracy known as bio-prospecting. It means when someone discovers an unknown plant or organism and after that scientists conduct further research into the plant or organism that often leads

⁹Id. At 9.

¹⁰ John Reid, *Biopiracy: The Struggle for Traditional Knowledge Rights*, American Indian Law Review, Vol. 34, No. 1 (2009-2010), pp. 77-98

to the discovery of unknown properties. The issue arises when these discoveries include traditional knowledge and they somehow try to make them patentable.

2. DISCOVERY OF UNKNOWN PROPERTIES IN KNOWN PLANTS AND ORGANISMS

The second type of biopiracy involves properties discovered in known plants and organisms that are slightly different from the regular species, and therefore, patentable but actually it is an obviousness of the plants or organisms. This can be better understood with the case of Enola Bean Patent which was provided to a Colorado man, Larry Proctor, a patent after he claimed he had developed a new field bean variety that produces distinctly different yellow colored seed but this was opposed by the International Center for Tropical Agriculture ("ICTA") stating that the invention was obvious.

2.1. EXPLOITATION OF TRADITIONAL KNOWLEDGE

The third and most piratical type of biopiracy is the exploitation of traditional knowledge. Let's look into the case of Pozol which is a fermented Mexican drink, invented by the Mayan people centuries ago. It contains the health-promoting and antibacterial properties. This led a Dutch corporation and the University of Minnesota to extract bacillus subtilis from pozol to use as a natural inhibitor of unwanted flora in foods and feeds. Based on that a patent was issued to them but they did not paid any compensation to the Mayan community for the invention of their ancestors. Critics argued that the patenting of the isolated microorganism, which is the active component, rather than the drink itself, constituted an exploitation of traditional knowledge. Hence, the indigenous communities wanted the Mexican government to adopt anti-prospecting legislation to protect traditional knowledge like pozol.¹¹

2.2. BIOPIRACY UNDER THE BIODIVERSITY ACT

The Biodiversity Act provides that access to biological resources and associated knowledge is subject to terms and conditions, which secure equitable sharing of benefits. Further, it would be required to obtain the approval of the National Biodiversity Authority before seeking and IPR based on biological material and associated knowledge obtained from India.¹²

2.3. EXEMPTIONS PROVIDED IN THE ACT

Exemption to local people and community of the area for free access to use biological resources within India.

Exemption to growers and cultivators of biodiversity and to Vaidis and Hakims to use biological resources.

Exemption through notification of normally traded commodities from the purview of the Act.

Exemption for collaborative research through government sponsored or government approved institutions subject to overall policy guidelines and approval of the Central Government.¹³

Apart from this there are provisions like Section 6 where if in case of persons intending to apply for any form of Intellectual Property right in or outside India for any invention based on any research or information on a biological resource found in India, then one need to take prior permission of the NBA is required.¹⁴ The NBA may impose a benefit sharing fee or royalty or conditions on the financial benefits arising out of commercial utilization of such right while granting permission. In the Biodiversity Act itself there is penalty for contravention of this provision where one shall be punished with imprisonment for a term which may extends to five years or with fine which may extend to ten lakh rupees and where the damage caused exceeds ten lakh rupees such fine may commensurate with the damage caused or with

¹¹ See Marcia E. DeGeer, Biopiracy: The Appropriation of Indigenous Peoples' Cultural Knowledge, 9 NEW ENG. J. INT'L & COMP. L. ANN. 179, 180 (2003) ("Indigenous Peoples have been cultivating and improving their local plant life for centuries."); see also Sumathi Subbiah, Reaping What They Sow: The Basmati Rice Controversy and Strategies for Protecting Traditional Knowledge, 27 B.C. INT'L & COMP. L. REV. 529, 544 (2004) ("Traditional knowledge develops incrementally from generation to generation.").

¹² Prof S.Kannaiyan, An Overview On Biological Diversity Act – 2002, Special lecture delivered in the National Horticulture Research Conference, 2007 – Theme – Looking Beyond, National Agricultural Science Centre Complex, ICAR, New Delhi during 27th and 28th April, 2007.

¹³ *Supra* Note 14.

¹⁴ The Biological Diversity Act, 2002.

both.¹⁵ But is this an effective measure if we compare it with the criminal sanctions. This is like a bare provision which doesn't have much effect on the wrongdoer as they can easily evade it. Therefore, it is required to have a strong defensive mechanism which can have an effect upon the wrongdoer.

3. PRESENT MECHANISM OF DEFENCE AVAILABLE IN INTELLECTUAL PROPERTY RIGHTS

The Indian Patent Act, 1970 under **Section 3 (p)**¹⁶ states 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*” is not patentable. This section basically grants defensive protection for the use of traditional knowledge in product or process of patent applications. It doesn't provide any kind of positive rights to the communities. The Act also mandates the disclosure of the source and geographical origin of the biological material in the patent specification when the invention claimed is based on biological material¹⁷. Since the use of biological material is closely associated with TK the requirement for disclosure is important. Nonetheless, the Indian Patent Act is conspicuous in its failure to require the disclosure of the nature of the traditional knowledge used, the community or the holder it belongs to and the prior informed consent of the community or the holder to use the same. There is also no reference to the provisions of the Biological Diversity Act in this regard at least in cases where the traditional knowledge is based on genetic materials.

The Indian Patent Act acknowledges the oral tradition in TK and accordingly allows opposition to a patent application if the invention claimed in the application is anticipated having regard to the knowledge, oral or otherwise, available within any local or indigenous community in any country¹⁸. Opposition to patent is also allowed where the complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention¹⁹. Similarly, a patent granted can also be revoked on the above-said grounds.²⁰

But under the Patent Act there is no such provision to oppose a patent application or revoke it on the ground that the traditional knowledge is used in the patent application either as a product or process without giving any benefit sharing to the communities or prior informing them or taking any kind of consent from them. Though these provisions prevent the patenting of existing knowledge of the communities but at the same time facilitate the patenting of new products and processes based on traditional knowledge. The Act while treating the traditional knowledge as public domain has failed to recognize the customary ownership and rights of the custodians of this knowledge and the norms for patenting particularly the inventive step going to be used in favour of modern pharmaceutical industries to give protection to new products based on traditional knowledge.²¹ In this scenario, if a particular community wants to preserve and protect their traditional knowledge its very difficult for them. The big Pharma MNC can take their knowledge without informing the NBA or the Community before applying for Patent based on their traditional knowledge. What are the available measures under the Patent Act they can take for preventing the MNC people from

¹⁵ *Supra* Note 14.

¹⁶ **Section 3:** What are not inventions. —The following are not inventions within the meaning of this Act,

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

¹⁷ **Section 10 : Contents of specifications-**

(d) be accompanied by an abstract to provide technical information on the invention: Provided that:-

(ii) if the applicant mentions a biological material in the specification which may not be described in such a way as to satisfy clauses (a) and (b), and if such material is not available to the public, the application shall be completed by depositing the material to an international depository authority under the Budapest Treaty and by fulfilling the following conditions, namely:

(D) disclose the source and geographical origin of the biological material in the specification, when used in an invention.

¹⁸ **Section 25: Opposition to the patent (1)** 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:-

(k) 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;

¹⁹ **Section 25: Opposition to the patent : (j)** that the complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention;

²⁰ **Section 64 Revocation of patents:**

(p) that the complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention;

(q) that the invention so far as claimed in any claim of the complete specification was anticipated having regard to the knowledge, oral or otherwise, available within any local or indigenous community in India or elsewhere.

²¹ Bhushan Patwardhan, *Traditional knowledge patents: New guidelines or deterrents?* Journal Ayurveda Integrated Medicine 2013 Jan-Mar; 4(1): 1-3. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3667426/>

recognising them and sharing benefits or taking prior consent? Therefore, there must be some new and strict mechanism introduced.

3.1. POSSIBILITIES OF PROTECTION OF TMK BY GI ACT:

Geographical indications and appellations of origin can be used to enhance the commercial value of natural, traditional and craft products of all kinds if their particular characteristics are attributed to their geographical origin. The special characteristics of those products may be symbolized by the indication of source used to identify the products. Better exploitation and promotion of traditional geographical indications would make it possible to afford better protection to the economic interests of the communities and regions of origin of the products.²²

If we try to bring this TMK under the umbrella protection of Geographical Indication, then also how to grant protection for a family?

One of the meeting points of protection under the GI Act for the case study mentioned above is that the family depends upon the TMK based on a certain combination of medicines found in a particular forest area which shows the geographical significance of that area and hence can attract the protection under GI Act. Another aspect is that though only one particular family practises it but they belong to a specific community known as Ahom tribe which also comes under another indicator for the application of GI Act. They can be made authorised users and register their TMK as Registered GI and benefits can be enjoyed by them.

3.4. THEN WHAT ARE THE CONFLICTING POINTS AGAINST THE GI ACT?

One of the most important conflicting points is the process or method of production to be given in detail to the Registrar. For the families since they want to keep it secret it will create a problem. The families who wanted to keep it secret even from their community people or relatives would not come up for its registration in fear of its being leaked in the public. Article 12 of the *Universal Declaration of Human Rights 1948* states that “No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks”²³ and Article 17 of the *International Covenant on Civil and Political Rights 1966*²⁴ prohibits arbitrary, unlawful interferences on a person’s privacy, which includes its family, home complementing the right to freedom of expression under “Article 19 of the *International Covenant on Civil and Political Rights 1966*”²⁵. We cannot negate Privacy rights only from the perspective of the global era but it can also be useful as a bundle of rights or interest for preserving the traditional knowledge or expression of the indigenous people. Secondly, they don’t have any kind of written process or methods of preparing that TMK which will be required to produce Infront of the registrar for registration. Thirdly, they don’t have that much money which they can invest for advertisement of their medicines or invest money for GI Logo formation and publication after being registered as GI. So, one should understand from their perspective how they will preserve and protect their knowledge from being bio pirated by the third party and if they want to keep it secret under which law they will get the protection for this purpose? These are some very pertinent grey areas where we need to have some new defence mechanisms.

3.5. POSSIBILITIES OF PROTECTION UNDER THE INDIAN PENAL CODE

Firstly, Section 2(27) of the Bharatatiya Nyay Sanhitha, 2023 states the definition of public which includes any community or a body or class of persons living in a particular locality may come within the term ‘public’ which means that the traditional knowledge holder of the community will come under this definition of public. Secondly, Section 2(21) of the Indian Penal Code, 1860 states the definition of Property which means moveable property. The moveable property includes the things growing on, affixed to, or found in land, the traditional medicinal knowledge means knowledge about a group of herbal plants which can be considered as the moveable property. Thirdly, once this can be proved as the

²² Graham Dutfield, *TRIPS-Related Aspects of Traditional Knowledge*, 33 Case W. Res. J. Int’l L. 233 (2001) Available at: (Apr. 4, 2019) <https://scholarlycommons.law.case.edu/jil/vol33/iss2/4>.

²³ Matthew Rimmer, *Indigenous Intellectual Property A handbook of Contemporary Research*, Edwar Elgar Publication (2015).

²⁴ Id.

²⁵ Id.

moveable property that means bio piracy can be considered as theft of the traditional knowledge. Hence, we can bring the criminal sanctions even for the traditional knowledge protections.

4. CONCLUSION

When the world discussing about the protection of Personal privacy and bringing that protection under the umbrella of criminal sanctions then why can't we think about the protection of biopiracy of the traditional knowledge of the communities which they are carry forwarding it from their forefathers which is having much more value for them then their personal privacy. Traditional knowledge is equally important as compared with Intellectual Property Rights. If there is proper protection provided to the communities then it will become a boost rather than a burden to carry forward it and transfer it to their next generation. Also, they will have a secure livelihood to carry forward even if they are having shortage of employment or livelihood. Moreover, this will impact the economy of a country if one community gets some financial benefits and recognition of their knowledge then it will add value to the Nation's income as well.

If we look from the perspective of the prior art or the knowledge been available in the public domain, is again a controversial issue as we need to understand the jurisprudential aspect of knowledge been kept under the public domain, like for example if we say something which one discover is not an invention it is already present in the public domain similarly, if something is not disclosed or kept in the public domain we cannot termed it as the prior art. There should be demarcation and need to determine some criteria which we can say that it is not coming under the public domain. Similarly, we cannot just leave the traditional knowledge under the public domain and simply ask for revocation of patent application based on this argument. If some knowledge is practised, preserve and transferred from one generation to other that means it has much more value then the knowledge available in the prior art or in the public domain. These things must be considered and some new mechanism must be developed for their protection.