The Legal Safeguard for Traditional Knowledge and Traditional Cultural Expressions

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Abstract

This paper attempts to address issues involving the protection of traditional knowledge as intellectual property in societies. Intellectual property rights as enshrined in the TRIPS Agreement are characterised as individual/private rights. Indigenous or traditional knowledge differs from individual/private property in that such knowledge is moral, ethical, spiritual and holistic. However, individual self identity is not separate from the surrounding world and traditional knowledge is an integrated system of knowledge, practice and belief. An attempt has been made to justify the reasons for protecting traditional knowledge as intellectual property and the possible legal approaches to the protection of such knowledge.

Introduction

The World Intellectual Property Organization (WIPO) uses the term Traditional Knowledge to include traditional and traditional based literary, artistic and scientific works, performances, inventions, scientific discoveries, designs; marks, names and symbols; undisclosed information and all other innovations and creations resulting from intellectual activity in industrial scientific literary or artistic fields. The terms 'traditional' and 'tradition based' refer to knowledge systems, creations, innovations and cultural expressions that have been transmitted from generation to generation and are regarded as pertaining to a particular people or territory and continuously evolve in response to changing environment (Secretariat for the 3rd session of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Geneva 13-21 June 2002). UN Declaration on the Rights of Indigenous People (UN Doc E/CN.4/1995/) uses the expression "indigenous knowledge cultures and traditional practices". Therefore, categories of Traditional Knowledge would include agricultural knowledge, scientific knowledge, technical knowledge, ecological knowledge, medicinal knowledge including knowledge relating to medicines and remedies; knowledge relating to bio-diversity, traditional cultural expressions in the form of music, dance, song handicrafts,

designs, stories, art work and elements of languages such as names, geographical indications and symbols and movable cultural properties.

Traditional Knowledge has become the focus of attention in recent times and was an important aspect in the discussions relating to the Doha Declaration. Paragraph 19 of the Declaration inter alia reads:

> Ministers instruct the Council for TRIPS in pursuing its work program ... to examine inter alia the relationship between the TRIPS Agreement and the Convention on Biological Diversity the Protection of traditional knowledge and folklore and other relevant new developments raised by members pursuant to Article 71.1.

The developing countries argue that they have not derived great benefit from traditional forms of intellectual property although they find themselves rich with traditional knowledge especially genetic resources and folklore. They would like to exploit these resources. Secondly, there is a growing political importance of aboriginal communities in several countries.

Referring to the connection between intellectual property and traditional knowledge Gudman (1996) states

> … built upon cartesian duality of mind and body intellectual property rights are aligned with practices of rationality and planning. The expression "intellectual property rights" makes it appear as if the property and rights are products of individual minds. This part of a western epistemology that separates mind from body subject from object observer from observed and that accords priority control and power of the first half of the duality. The term "intellectual" connotes as well the knowledge side and suggests that context of use is unimportant... In contrast to this modernist construction in a community economy innovations are cultural properties in a sense that they are a product and property of a group. (102-3)

Indigenous (viz. traditional) differs from scientific knowledge in being moral, ethically based, spiritual, intuitive and holistic; it has a large social context. Social relations are not separated from relations between humans and non-human entities. The individual self identity is not distinct from surrounding world. There, often, is no separation of mind and matter. Traditional knowledge is an integrated system of knowledge practice and belief.

Protection of Traditional Knowledge

Property rights are considered collective or communal in nature. Western notions on property on the other hand are individualist. Further, specialised knowledge may be held exclusively by males, females, certain lineage groups or ritual or society specialists to which they have rights of varying levels of exclusivity and in such cases this does not necessarily give the group to privatise what may be more widely considered the communal heritage. One of the problems that arise in the modern legal system is whilst customary laws regulate access and use of local knowledge resources and cultural products and when the manufactured goods spread beyond the control of the local administrative or judicial institution either through raid or misappropriation and commercialised without the consent of the community what protection could be offered to such communities (Dutfield and Suthersanen 2008: 328).

Supposing in a hypothetical case there is an exotic coffee produced in a particular area and a company isolates the DNA of that coffee and obtains exclusive rights for the use of the DNA in coffee production. The Company would argue that DNA was a natural resource which was in the public domain by mixing the labour with the plant that is by isolating the DNA the Company could claim that it deserves to claim the benefits of intellectual property protection for the coffee producers. This difference has been brought out by J. Boyle in his article 'The Second Enclosure Movement and Construction of Public Domain'. He points out that public domain is not the same as commons although certain commentators such as Litman (See Litman 1990) uses the term interchangeably (Boyle 2003: 33). The crucial difference according to Boyle (2003) is that "commons" as generally understood would incorporate intellectual resources which have been developed communally and which has a positive value. By contrast public domain is a repository of intellectual products which will become valuable only with the labour of others. In the example quoted above whilst the coffee company would argue that by mixing its labour with the plant it deserves to receive the protection of intellectual property protection for its coffee, producers would argue on the contrary that the particular type of coffee was not always present in nature and it was a product of selective breeding by the community of the coffee growers of the particular area over several decades if not several hundred years.

There is therefore a debate as to whether the interest of those who produce intellectual products communally and over a time should be protected. In developing countries most of which are rich in traditional knowledge have called for reforms in intellectual property rights which would protect traditional knowledge. The TRIPS imposes a uniform regime of Intellectual Property Rights (IPR) on all members of World Trade Organization (WTO) and critics argue that this does not acknowledge the claims of traditional knowledge. WIPO in 2000 established an intergovernmental committee on Intellectual Property (IP) and genetic resources.

Objections to the Protection of Traditional Knowledge

There have also been objections to the protection of Traditional Knowledge. The common objections are –

1. That already the public domain is threatened by intellectual property protection and therefore it is not necessary to extend the protection further.
2. The claims in respect of bio-piracy are greatly exaggerated.
3. Commercial users have to pay to access knowledge that has hitherto been freely available and they will not use and no benefits will therefore be generated for the traditional knowledge holders and their communities.

Furthermore, Traditional Knowledge holders have their own regime to regulate access and use of knowledge. These customary rules would vary widely from Western intellectual property rights. The protection of Traditional Knowledge only recognises existing rights and does not create new rights and not everything in the public domain should be in the public domain. Disclosed Traditional Knowledge has always been treated as belonging to nobody. Further, the concept of public domain is conceptually problematic as in many traditional societies traditional knowledge holders have permanent responsibilities concerning the use of traditional knowledge irrespective of whether it is secret or not.

In respect of bio-piracy whilst the opponents of protection of traditional knowledge argue that claims are exaggerated there is no consensus on the definition of bio-piracy. Bio-piracy is a compound word consisting of the words “Bio” and “Piracy”. Piracy has been defined as –

1. practice or an act of robbery of ships at sea
2. similar practice or act in other forms especially high jacking and
3. infringement of copyright

The verb "to pirate" could mean –

1. Appropriate or reproduce work of another without permission for one's own benefit, or
2. Plunder.

Therefore, it is inherent in bio-piracy that there is misappropriation of genetic resources or traditional knowledge and unauthorised collection for communal ends of genetic resources and/or traditional knowledge (Dutfield and Suthersanen 2008: 333).

Perhaps the concept should be better defined. Certain countries have taken the initiative of documenting cases of bio-piracy and countries such as Peru have established a national anti bio-piracy commission who reports its work to WIPO, IGC (Inter Governmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore of WIPO).

Protection of Traditional Knowledge and Intellectual Property Rights

The protection of traditional knowledge is progressively taking center stage in global discussions relating to intellectual property and international trade law. This is, because, firstly a large number of countries believe that they have not derived great benefit from traditional forms of intellectual property but find themselves rich with traditional knowledge especially in genetic resources and folklore. They would like to exploit these resources and several major companies share this interest. Secondly, there is a growing political importance of aboriginal communities in several countries (Gervais 2003: 467). Property rights in the Western Legal systems do not exist in indigenous local communities. In view of its exclusionary effects, they tend to see the attempt to obtain property rights on derivatives of their traditional knowledge as 'piracy'.

Regarding pharmaceutical seed and agricultural industries they coined the term 'bio-piracy' to denote the extraction and utilisation of traditional knowledge associated with biological and genetic resources and the acquisition of intellectual

property rights on inventions derived from such knowledge without providing for benefit sharing with the individuals or community that provided the knowledge or resources.

Some of the criticisms that Gervais points out relating to the current intellectual property system is that the application of patents concerning drugs or other products that have derived from traditional sources, could include the source of traditional knowledge to ensure that the invention is indeed novel as required by the patent laws worldwide. Such a result could be achieved by minor changes to the current practices. According to Gervais the cases in which patents should not have been granted are in fact examples of bad patents and not those of a bad patent system. Therefore, he suggests that a dialog should be established between the holds of the traditional knowledge, the private sector and the government. Greater awareness raising would result in more technical, finely calibrated and nuanced assessments of the traditional knowledge/intellectual property nexus. According to Gervais's arguments the case for the current intellectual property system not being able to protect traditional knowledge is not convincing. The fact that the community owns traditional knowledge does not necessarily mean that all forms of intellectual property protection is excluded. Example of collective marks and geographical indications show that in certain cases rights can be granted to representatives of group or community. An example in the field of real property is the concept of 'communal property'. Gervais states that one should ask the question whether our current conceptions of intellectual property particularly in relation to who we identify as creators of IP and what we deem to be appropriate subject matter should be rethought. If we look at the requirement that intellectual property promotes a progress of science and useful arts why should certain forms of traditional knowledge not be protected by intellectual property or put differently in the absence of statutory exception?, Should intellectual property be defined by the common characteristics of current forms of intellectual property viz. (a) an identifiable work of invention or other object, b) identifiable authors or inventors and c) defined restricted acts in relation to the said object without the authorisation of the right holders?, Are these historical accidents of the nineteenth century when intellectual property rights emerged?. If this be the case how can one protect amorphous objects or categories of objects and grant exclusive rights to an ill defined and ill definable community or group of people.

Looking at the issue from the patent point of view, Dutfield (2005) points out that just because the United States Company holds a patent for a stable storage form of neem pesticides it does not prevent Indian farmers from continuing to use neem as a pesticide as they have done for generations (495-520). It may be argued that as long as the patent requirements of usefulness, novelty and inventive steps are strictly upheld there is no reason for local communities to feel exploited since it is in their knowledge that if their knowledge was simply copied there would be no invention to patent. Although Dutfield points out both these theories are correct the turmeric patent case US patent No. 5304718 shows that the theory and practice may somewhat differ. In this case neem patents of which there are over 150 in the world and the lapsed quinoa patent exemplify some of the various ways that inventions may be derived from traditional knowledge and how the just entitlements of traditional knowledge holders may vary as a result. In the turmeric case the invention was traditional use of the plant and it is because this traditional use has been documented that the invention was deemed ultimately to lack novelty. Quite a few of the neem related inventions embody uses identical to those of Indian farmers but the products and/or methods of extraction are different. In such cases it can safely be assumed that the existence of relevant traditional knowledge was *a* but not *the* sine qua non of the invention. On the other hand in the quinoa patent US Patent No. 5304718 (Cyto Plasmic Male Sterile Quinoa) Traditional knowledge was not a sine qua non for the invention except in the sense the development and continued existence of Quinoa varieties can be attributable to the efforts of past and present Andean peoples.

It is argued that the patents systems based on the European and United States models are inherently harmful to the indigenous people and local communities and they reinforce the existing injustices. These may be mitigated by a careful drafting and interpretation of IPR Laws. IP Laws do not enable all creative or inventive expressions to be protected. In traditional societies the sources of traditional knowledge may be attributable to individuals' kinship or gender based groups. In theory such knowledge may be patentable. However a great deal of traditional knowledge is not traceable to a specific community or geographical area. Once traditional knowledge is recorded and publicly disseminated its use and application is beyond the control of the original knowledge providers. However if a researcher investigates a piece of published traditional knowledge and improves it in a practical way the result may be that there is an invention which the researcher can own.

It is now proposed to consider how traditional knowledge may be protected under the Trademark Law. Traditional cultural artistic expressions such as paintings have been reproduced without authority on carpets, printed fabrics, T Shirts, dresses, garments and greeting cards. Sarees of South Asia, Tie and Dye Cloth in Nigeria are such examples. It is proposed to look at Trademark law from the point of view of protecting traditional knowledge firstly *against* trademarks and protection *by* trademarks. Although at first sight the distinction appears to be between positive and defensive protection of traditional knowledge. Some indigenous people and traditional communities want positive protection of their cultural expressions and they want to benefit from the commercialisation of these expressions. To them such use deprives these expressions of their cultural significance which in turn may disrupt and dissolve their culture. So this group argues for the defensive protection of cultural expressions. The trademark law may prohibit registration of distinctive signs and a trademark which may offend sections of the community including indigenous local communities or which falsely suggest a connection between such sign and an indigenous or local community may not be registerable. In New Zealand for instance following a proposal by a Maori Advisory Group an absolute ground for a refusal of a trademark has been added: the Commissioner for Trademarks must not register a trademark where its use or registration would be likely to offend a significant section of the community including the Maori (section 17 (1) (c) (1) of the Trademarks Act 2002). In South Africa it is provided that the trademark should not be registered or should be removed from the register if it is "likely to given offence to class of persons". 'The class of persons' would be wide enough to include indigenous or local community (Section 10 (12) of Act No. 194 of 1993). In the United States of America a registered trademark may be refused registration and a registered trademark cancelled if the mark consists of or comprises matter that may disparage or falsely suggests the connection with persons (living or dead) institutions beliefs or national symbols or bring them into contempt or disrepute (15 USC S 1052 (a)). Therefore United States Patents and Trademark office may refuse to register a trademark that falsely suggests a connection with an indigenous tribe or beliefs held by that tribe. The patent office protects not only Native American tribes but also other indigenous peoples worldwide (The Final Report on National experiences with the legal protection of expressions of folklore 2002).

In the United States in accordance with the Trademark Law, Treaty Interpretation Act 1998 office had to complete a study of the official protection of insignia of federally and State recognized Native American tribes. As a result of this study a data base of an official insignia of Native American tribes that may prevent the registration of a mark confusingly similar to official insignia has been established. The registrars and applicants may consult such data bases compiled by other registrars. It may be difficult for local indigenous communities to make such information available internationally by means of a data base administered by a body such as WIPO.

Convention on Biological Diversity and Traditional Knowledge

In this connection it may be relevant to consider the provisions of the Convention on Biological Diversity (CBD) and TRIPS. There is a difference in views between developing and developed countries about the need to reconcile the needs of TRIPS and CBD. Developing countries believe that patents systems are not based on searching both written and oral prior art for which wide novelty such as in the US do not insist on disclosure of the origin and proof of prior informed consent for the use of biological materials or knowledge on which the invention is based. This has resulted in extensive Bio piracy which has been documented based on products on plant materials and knowledge developed and used by local indigenous communities such as the case of Neem Tree, Kava, Barbasco and Turmeric (Dutfield 2001: 140-5, Rao and Guru 2003). In 1995 two researchers at the University of Mississippi Medical Center were granted the US Patent for using Turmeric to heal wounds. However, in India this has been common knowledge for several thousand years. Numerous other patents on products for processes using various medicinal properties of turmeric not known in India have also been granted by the US Patent and Trademark office and European Patent Office. US Patent Office has also granted a patent to Reliv International Ink for "Dietary supplement for nutritionally promoting healthy joint function" (Jacoby and Weiss 1997: 75-81). The Dietary Supplement for which patent was granted contained among others turmeric and ashwagandha two of the more common substances having been based by the traditional systems of medicine in India. There have also been bio piracies of patenting Indian herbs. Basmathi, Cummin, Gooseberry, Blackberry, Pepper, Bitter Gourd, Brinjal and many other plants and fruits have already been patented. The US Patent office has patented eight ginger formulations. The US Patent has also granted patent to Natreon Inc for thirteen

claims covering products and processes of Amla. In countries such as India there is a rich reservoir of medicinal plants in forest areas. The medicinal plants in wild areas are relied for two reasons –

1. Quality of the medicinal plants
2. The prospects of cultivation of medicinal plants by large manufacturers of ayurvedic medicine in land scarce States such as Kerala

When US Patent Office granted Basmathi rice patent to RiceTech it was challenged by APEDA and RiceTech withdrew the 4 claims. Similarly the US Patent granted to W R Grace & Company for the Neem patent was challenged by the Research Foundation for Science and Technology of India and it was vacated in May 2000. An aligned problem is the growth of genetically engineered crops. Genetically modified crops carry one or more genes from an unrelated species. This has more advantageous over breeding methods in scope reliability precision and speed. Prof. M.S. Swaminathan has observed that

> … while bio technology is going to be the key factor in the agricultural development there is need to address the concern on safety to humans and environment. India needs a regulatory framework that can at all times identify transgenic products in use having independent data and not what is given by the MNC as no unequivocal conclusion can be drawn about the overall effect of genetic engineering technologies. While we cannot discard new technologies one has to adopt them with adequate safeguards (Swaminathan 2001)

The Sixth meeting of the Conference of the Parties (COP-6) was held in Hague in 2002. The Bond guidelines on access to genetic resources and fair and equitable sharing of the benefits arising out of their utilisation were officially adopted. COP Decision Viii/7 requested WIPO and UNCTAD to analyze certain issues relating to the imposition of disclosure or origin.

At the Sixteenth Session of the Standing Committee of Law of Trademarks Industrial Designs and Geographical Indications of WIPO in Brazil, a non exhaustive list of customary names used in Brazil associated with Bio-Diversity. This was an attempt to bring these items of traditional Brazilian knowledge to the trademark registries worldwide and to highlight the fact that trademarks incorporating items of traditional knowledge particulars should generally be refused registration. In Australia the preferred technique to protect non-

indigenous persons who sell indigenous artifacts at the expense of indigenous artistic community is through the use of certification marks (Wiseman 2001: 14-25). In New Zealand where Maori words and symbols and words can be found in many registered trademarks the Maori Arts Board in consultation with Maori artists registered the 'Maori Trademark' and two companion marks viz. mainly Maori mark and a Maori co-production mark. These marks are used to promote and sell authentic quality Maori arts and crafts and also to authenticate exhibitions and performances of Maori arts by Maori artists. In India also there has been experimentation with certification marks. The Policy Sciences Center has been instrumental in implementing with the Indian Commissioner of Handicrafts certification system for production of products labeled and made in India. Also a certification mark 'Indian organic' owned by the Government of India is available for use on the basis of compliance with national standards for organic production. The protection of traditional knowledge by trademark law is modest by giving some protection by means of collective and certification marks. For the protection of traditional and cultural expressions the indigenous communities may have to turn to protection closer to copyright. However it is not easy to fit copyright into the protection of traditional knowledge. This is because –

1) Traditional cultural expressions are often the result of continuing and slow process of creative activity exercised by a local or indigenous community by consecutive imitation whereas copyright usually requires some form of individual creativity

2) Copyright is author centric whereas notion of an author in the copyright sense is usually absent in the case of traditional cultural expressions and

3) Traditional cultural expressions continue to evolve and have evolved over centuries which do not fit into a fixed term protection.

Concept of Trust

It has also been suggested that a concept of trust may be effectively utilised with regard to Traditional Knowledge particularly the principles of public trust doctrine while privately owned aspects of traditional knowledge are protected through private trusts. For instance, San Hoodia Benefit Sharing Trust was created for the San Tribes in a benefit sharing venture with the South African Council for Scientific and Industrial Research. In Sri Lanka, this can be done

through a benefit sharing as stipulated in Chapter 11 of the Trust Ordinance No. 9 of 1917 (Sumanadasa 2011).

Pyramid Model

It has also been suggested that one distinctive approach to the regulation of traditional knowledge is by responsive regulation (Drahos 2007: 385-415). It has been suggested that creating an international enforcement pyramid for traditional knowledge is the key to a strategy of regulation for traditional knowledge because the actors that are most interested in the enforcement of ownership norms concerning traditional knowledge are also likely to have the weakest capacity to take an enforcement action of some kind. Therefore, access to networks as a means of increasing capacity and power has become a key theme of social science theory. For example, a network of software companies led by the business software alliance can do a lot to further an agenda for stronger protection of intellectual property rights.

Traditional Knowledge and Human Rights

In addition, protection for Traditional Knowledge cannot be separated from human rights protection of indigenous peoples and is also inextricably linked to the protection of land rights. Therefore, it has been suggested that a treaty on Traditional Knowledge be the best possible means to strengthen the protection of Traditional Knowledge holders. Treaties bind the signatory governments. A treaty articulates the general principles that may evolve over a time into a powerful international regime with a high rate of compliance. There are many treaties which begin as ‘vague and platitudinous’ and end up as a highly abiding enforcement regime. Developing countries that advocate strong Traditional Knowledge protection are also the same governments which groups such as Human Rights Watch classify as violators of rights of indigenous people particularly in relation to land rights. In 2002, a group of 12 countries representing 70 per cent of the world’s biological diversity met at Cancun in Mexico and formed a group of like minded mega diverse countries. The Cancun Declaration that launched the mega diverse group contains sweeping agenda that includes the pursuit of a new international regime for the fair and equitable sharing of benefits that arise from the use of bio diversity. Therefore, the best

strategy for the protection of Traditional Knowledge may be a framework in the form of a treaty.

Traditional communities in their dealings with industry have to accept that western legal forms and instruments including patents and contracts are the basic rules of the game. Traditional Knowledge holders and communities are concerned with the universalisation and prioritisation of one type of intellectual property system that excludes all others including their some customary systems. This does not seem to be unfair. If indigenous people in WTO Member States are required to accept the existence of patents that they are economically prevented from availing themselves and contracts that they cannot realistically enforce in the courts why should their own knowledge related customary regimes be not protected by others. Securing of protection of traditional knowledge according to local regulations require the existence of effective local governance structures and customary law including property regimes and respect for those structures and regime from outsiders. This is easier to achieve in countries where customary law systems can operate with relative freedom and where rights are enforceable (Dutfield and Suthersanen 2008: 349).

While TRIPS is silent on traditional knowledge the Doha round of talks has made traditional knowledge and folklore an integral part of the TRIPS Councils work. As a consequence Brazil, China, Cuba the Dominian Republic, Ecuador, India, Pakistan, Thailand, Venezuela Zambia and Zimbabwe submitted a paper to the Council of TRIPS in June 2002 which inter alia required –

1. Disclosure of the source and country of origin of the biological resources and traditional knowledge used in the invention
2. Evidence of prior informed consent through approval of authorities under the relevant national regimes and
3. Eminence of fair and equitable benefit sharing under the national regime of the country of origin.

South and South East Asia Experiences

Clause 19 of the Doha Declaration provides:

> We instruct the Council for TRIPS, in pursuing its work program including under the review of Article 27.3 (b) the review of the implementation of the

> TRIPS Agreement under Article 71.1 and the work foreseen pursuant to paragraph 12 of this Declaration to examine inter alia the relationship between the TRIPS Agreement and the Convention on Biological Diversity, the Protection of Traditional knowledge and folklore, and other relevant new developments raised by members pursuant to Article 71.1. (WTO Doc No. WT/ MIN (01)/ DEC/ 1)

China and other G77 countries issued a statement that TRIPS Agreement should be supportive of and not run counter to the objectives and principles of CBD.

Prof. Gurdial Singh Nijar (1996) in a third world network publication advocated that traditional knowledge may be best protected by "Community Intellectual Rights". China has collated and documented its folklore. More than 3 million folk ballads and 7 Million Proverbs have been so collated and documented.

ASEAN in a draft Agreement agreed that it member states "shall recognise , respect, preserve and maintain the knowledge, innovations and practices of indigenous peoples and local communities embodying traditional lifestyles to their natural resources including genetic resources." (The ASEAN Framework Agreement on Access to biological and Genetic Resources at http://www.grain.org/system/old/brl_files/asean-access-2000-en.pdf)

Indigenous Peoples Rights Act 1997 of the Republic of Philippines has enforced the traditional and alternative Medicine Act 1997 by which traditional communities can require uses of such knowledge to acknowledge the source of such knowledge and demand a share of the financial return. In introducing this Bill Senator Flavier observed

> … that the existing legal framework for intellectual property has failed to recognize the more informal, communal system of innovation through which farmers and indigenous communities produce, select, improve, and breed a diversity of crop and livestock varieties, a process which takes place over a long period of time. The existing IPR framework effectively side steps the traditional knowledge of indigenous communities even if it is widely acknowledged that without the input of indigenous knowledge many products used extensively throughout the modern world would not exist today. (Genetic Resources ActionInternational (GRAIN) Bio-Diversity Rights Legislation http://www.grain.org/brl.phillipinescirpa- 2001- en.cfn.)

Positive or Negative Protection of Traditional Knowledge

The protection of traditional knowledge may be positive or negative. In either case an entitlement theory could be built on. This could be either a property regime or a liability regime. In a property regime the exclusive rights vest with the owner and such rights could be refused. The liability regime is "use now pays later" system. An example of this is the approach adopted by Peru in 2002 known as the Regime for the Protection of the Collective Knowledge of Indigenous People. In the case of public domain traditional knowledge an indigenous group may be entitled to compensation from outside parties in the form of 0.5 per cent for the value of shares of any product developed from knowledge. A further question that arises is whether the rights which are to be protected and enforced should exist independent of registration with any government agency. Whilst it has been argued that such rights should exist independent of any filing with any governmental agency, on the other hand registration would enable the effective enforcement of such rights.

Carlos Correa proposed misappropriation regime. He observed:

> … national laws would be free to determine the means to prevent it, including criminal and civil remedies (such as 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 (Correa 2001)

Correa refers to two United Nations documents which he considers to be implicitly supporting his proposals. The first is Decision V/16 of CBD's conference of the parties and the second is the Principles and Guidelines for the Protection of Heritage of Indigenous Peoples which was elaborated in 1995 by Erica – Irine Daes then special rapporteur of UN sub commission on Prevention of Discrimination and Protection of Minorities. The WIPO IGC's draft provision for Protection of Traditional Knowledge contains an article on protection against misappropriation.

Positive protection of Traditional Knowledge is being discussed in a substantive manner firstly at the third session of the IGC (Inter Governmental Committee) on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore of WIPO in June 2002 where WIPO prepared a paper called "Elements of Suigeneris System of Protection of Traditional Knowledge". In autumn 2003 WIPO general Assembly decided that the IGC's new work would

focus particularly on the international dimensions of the relevant issues and agreed that "no outcome of its work is excluded, including the possible development of an international instrument or instruments." IGC drafted two sets of provisions first the provisions for the protection of Traditional Knowledge and secondly the provisions for protection cultural expressions. Both these proposals were presented at the eighth session of the IGC and were further deliberated on the Ninth session.

Drahos (2007) suggests that the members should establish a global bio collecting society that would co-ordinate enforcement work so as to constitute an international enforcement pyramid. The Treaty should establish a review mechanism and a set of indicators that could be used to evaluate the progress of the States on the regulation of traditional knowledge. The Treaty should have strong co-ordinating national enforcement activities to ensure that it does not become a dead letter.

However both proposals were controversial and it may take several years for the treaties to be completed.

Conclusion

Law of Intellectual Property Rights presents enormous challenge to the protection of Traditional Knowledge. Many forms of traditional knowledge do not qualify for the protection of intellectual property regime as they are too old and in the public domain. Therefore, the protection of exclusive rights for any period of time would appear to go against the general principles that intellectual property can only be granted for a limited time so that it may return to the public domain for others to use in due course. There are also several other types of traditional knowledge such as spiritual beliefs methods of governance, languages, biological and genetic resources which may be unfit by their very nature for protection under the intellectual property regime. Further problem is that property rights as is understood in the Western Legal systems may not be applicable to local communities which hold traditional knowledge.

United Nations documents have to some extent supported the development of a regime based on misappropriation. These include decision V/16 of the CBD's conference (Convention on Biological Diversity conference) and the principles and guidelines for the protection of the heritage of the indigenous peoples (see

Annex to document WIPO/GRTKF/IC/9/4). There have also been attempts outside the WTO for the recognition of rights of traditional knowledge. General comment 17 to the International Covenant on Economic, Social and Cultural Rights provides that State parties should adopt measures to ensure the effective protection of the interests of indigenous peoples relating to their productions which are often expressions of their cultural heritage and traditional knowledge and the 2007 United Nations Declaration on the Rights of Indigenous Peoples (UN DOC A/R/ES/61/295) further provides that indigenous peoples have the right to maintain control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions as well as the manifestations of their sciences technologies and cultures including human and genetic resources and develop their intellectual property over such cultural heritage and expressions. Whether these rights could be used under an intellectual property regime based on the TRIPS Agreement however remains unclear.

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