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Role of International Forums in Protecting Traditional Knowledge

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Abstract:

India is rich in traditional knowledge. Patenting of traditional knowledge is a burning issue in the whole world. Different international forums are playing important role in protecting traditional knowledge from patenting. The efforts, which are done by the international forums, so for, are not sufficient. Patenting of traditional knowledge cannot be prevented in an overnight. Still much effort has to be done by all the member States of WIPO as well as all the international forums.

Introduction:

Traditional knowledge (TK) is a valuable knowledge. This knowledge developed over generations by local communities in various parts of the world. This knowledge is validated overtime, in a way it is different to the western empirical system.

Traditional knowledge has been developed in many fields and is still evolving.

There is no agreed definition for 'traditional knowledge'. "WIPO in its fact finding mission report, uses the term traditional knowledge" to refer to ".....tradition based literary, artistic or scientific works; performances; inventions; scientific discoveries; designs; marks, names and symbols; undisclosed information; and all other tradition based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic fields".[1]

Traditional knowledge often flows in oral forms and is not codified in writing or in systematized forms (i.e., books or databases). Key feature of traditional knowledge is its collective nature. Knowledge is generated collectively in complex communal manners where no one individual can be recognized as a "creator".

Who owns traditional knowledge is the hardest question which experts and indigenous communities themselves face when conceptualizing positive mechanisms[2] or defensive mechanisms[3] to protect traditional knowledge.

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[1] Ruiz Manual "The International Debate on Traditional Knowledge as Prior Art in the Patent System: Issues and Options for Developing Countries". Para 8. http://www.southcentre.org/publications/occasional/paper09 pdf. Visited on: 12-01-2007.

[2] Positive mechanisms (positive protection of traditional knowledge) refers to mechanisms which ensure rights are actually provided and conferred to indigenous peoples with regards to their traditional Knowledge.

[3] Defensive mechanisms (negative or preventive protection of traditional knowledge) refers to the use of mechanisms to impede traditional knowledge from being misappropriated. For example, the prior art search (for traditional knowledge) during patent procedures and ensuring non-obviousness of an invention are two ways through which negative protection can be ensured.

One best example for patenting Indian traditional knowledge is neem.

Neem:

Neem (Azadirachta indica) is a tree from India and other parts of South and South East Asia. The Neem tree is a source of Traditional Medicine used in India. It is now planted across the tropic because of its properties as a natural medicine, pesticide and fertilizer. Indian texts dating back two millennia state that neem could be used as an insect, repellant, medicine and cosmetic.

W.R.Grace and Co. filed patent applications (the US, European and New Zealand applications) covering a hydrophobic extract of the neem tree, an oil, for use as an insecticide and fungicide.[4] The chemical called Azadirachtin was identified as the active substance. A process to stabilize this chemical in water was patented, as was stabilized form of the chemical.[5] The company did not apply for an Indian patent because the law at the time did not grant patents for agricultural products. The foreign patents therefore drew a rapid response from India.

Neem extras can be used against hundreds of pests and fungal diseases that attack food crops, the oil extracted from neem seeds is used to treat colds and flu, and mixed in soap, it is believed to offer low cost relief from malaria, skin diseases and even meningitis.

In 1994 the EPO granted European patent No. 0436257B1 to the US Corporation W.R. Grace and USDA for a "method for controlling fungi on plants by the aid of hydrophobic extracted neem oil".[6]

In 1995 a group of international NGO's and representative of Indian farmers filed a legal opposition against the patent.

They submitted evidence that the fungicidal effect of extracts of neem seeds had been known and used for centuries in Indian agriculture to protect crops, and thus was the invention claimed in EP257 was not novel.

In 1999 the EPO determined that according to the evidence "all features of the present claim have been disclosed to the public prior to the patent application and (the patent) was considered not to involve an inventive step".

The patent was revoked by the EPO in 2000.

ROLE OF INTERNATIONAL FORUMS IN PROTECTING TRADITIONAL KNOWLEDGE FROM PATENTING:

There are numerous forums and institutions working on different aspects of traditional knowledge. Some of the main forums and institutions that deal with the issue of traditional knowledge, prior art and databases include the CBD, the World Health Organization (WHO), the

[4] Emil Marden, The Neem Tree Patent: International Conflict over the Commodification of Life, 22 B.C. INT'L & COMP. L. REV. 279 (1999).
[5] U.S.Patent No. 5,281,618 (issued Jan 25, 1994).
[6] Ganguli Prabhudha "Intellectual Property Rights – Unleasing the Knowledge Economy" New Delhi TataMcGrew – Hill (2001) at P 157.

United Nations Human Rights Commission, the WTO in its Committee on Trade and Environment (CTE) and in the TRIPS Council.

Other forums and institutions working on different aspects of traditional knowledge and indigenous and local people in general include: the World Bank, the United Nations Conference on Trade and Development (UNCTAD), the Andean Community of Nations, the Inter-American Development Bank and African Union, to name a few.

1. World Intellectual Property Organization (WIPO).

In September 1999 WIPO's Standing Committee on the law of Patents (SCP) held its third session, which was to be devoted mainly to discussing a draft Patent Law Treaty (PLT).

The PLT was intended to harmonize certain patent procedures while steering clear of matters relating to substantive patent law. The Colombian delegation at the session submitted a brief document entitled "Protection of Biological and Genetic Resources" that turned out to be quite controversial.

The delegation proposed that the PLT include an article based on two proposals that the document property protection shall guarantee the protection of the country's biological and genetic heritage consequently the grant of patents or registrations that relate to elements of the at heritage shall be Subject to their having been acquired legally.

The second was that:

Every document shall specify the registration number of the contract affording access to genetic resources and a copy thereof where the goods or services for which protection is sought have been manufactured or developed from genetic resources of products there of which one of the member countries is the country of origin.

This idea of linking patent filing with access and benefit sharing regulations gained the support of Bolivia, Paraguay, China, Namibia, Cameroon, Mexico, South Africa, Chile, Cuba, India, Kenya, Costa Rica and Barbados. Predictably it did not go down well with some of the other delegations including the United States, the European Union, Japan and South Korea all of which argued that the proposed article related to substantive patent law and there fore had no place in the patent law treaty.

As things turned out, Colombia's proposal did not fail completely in that the concerns behind it were given of the opportunities for expression within WIPO.

As a compromise the SCP invited WIPO's International Bureau to do two things. The first was to include the issue of protection of biological and genetic resources of the agenda of that November's meeting of the working group on Biotechnological Inventions. The second was to arrange another meeting specifically on that issue.

This meeting on 'Intellectual Property and Genetic Resources' took place in April 2000 and reached a consensus that "WIPO should facilitates the continuation with the other concerned

international organizations through the conduct of appropriate legal and technical studies and through the setting up of an appropriate forum with in WIPO for future work".

(2) World Trade Organization (WTO):

The World Trade Organization comes in to existence by signing the Marrakesh Agreement in the year 1995. This is the youngest of the international organizations and the strongest today. The WTO is the successor to the General Agreement on Tariffs and Trade (GATT) which was established in the wake of the Second World War.

In the area of patents, TRIP's references the key articles of the Paris Convention and requires members to comply with them. It requires both national treatment and most-favored-nation treatment. It provides that no nation may discriminate in its patent system based on field of technology, a provision extremely important to the pharmaceutical and biotechnology industries whose drugs were not patentable in several member states.

Most importantly it lays down the basic standards for patentability of inventions, establishes the term of patents to be at least twenty years from the time of filing the application, provides for effective enforcement of intellectual property rights both administratively and judicially, and limit the ability of the member states to grant compulsory licenses under patents that they have granted. The TRIP's Agreement is remarkable for not merely stating the rights, which Members must protect, but also defining in great detail the national civil and criminal procedures by which they are to be enforced.

TRIP's is silent on TK and makes no reference to the CBD. But this has not prevented developing countries from referring to the TRIPS – CBD relationship and portraying it in a negative light. Discussions on TK have come up, at the TRIP's council. These initially took place in the context of the review of implementation of Article 27.3(b). The 2001 launching of the Doha Development Agenda has made traditional knowledge and folklore as well as the relationship between TRIP's and the CBD integral to the TRIP's councils work.

In October 1999, twelve developing countries from Asia, Africa and Latin America submitted two Joint papers to the TRIP's general council detailing the implementation issues they were seeking solutions to.

The two papers put forward several TRIP's related proposals. One of these argued that TRIP's is incompatible with the CBD and sought a clear under standing that patent inconsistent with Article 15 of the CBD which vests the authority to deter mine access to genetic resources in national governments should not be granted, several other proposals were directed to Article 27.3 (b) and the review of its substantive provisions. One proposal was that the subparagraph should be amended in light of the provisions of the CBD taking fully into account the conservation and sustainable use of biological diversity and the protection of the rights

and knowledge of indigenous and local communities.

Traditional knowledge has become an especially important element of the debate. On 6th August, 1999 the African group of countries proposed to the WTO general council that in the sentence on plant variety protection in Article 27.3 (b),

a foot note should be inserted stating that any sui–generis law for plant variety protection can provide for (inter alia): (i) the protection of the innovations of indigenous farming communities in developing countries consistent with the Convention on Biological Diversity and the International Undertaking on plant genetic resources.[7]

At the fourth meeting of the WTO Ministerial Conference which took place in Doha in November 2001, a Ministerial Declaration was adopted according to which the WTO member states instructed the council for TRIP's in pursuing its work program including under the review of Article 27.3(b), the review of the implementation of the TRIP's Agreement under Article 71.1 and the work foreseen pursuant to paragraph 12 of this Declaration, to examine, inter alia, the relationship between the TRIP's Agreement and the Convention on Biological Diversity, the protection of traditional knowledge and folklore.

As a contribution to this examination, Brazil, China, Cuba, Dominican Republic, Ecuador, India, Pakistan, Thailand, Venezuela, Zambia and Zimbabwe jointly submitted a paper to the council for TRIP's in June 2002.[8]

The paper, noting the relevant provisions of the Bonn Guidelines proposed that TRIP's be amended to provide that WTO member states must require that an applicant for a patent relating to biological materials or to traditional knowledge shall provide, as a condition to acquiring patent rights:

(i) Disclosure of the source and country of origin of the biological resource and of the traditional knowledge used in the invention;

(ii) Evidence of prior informed consent through approval of authorities under the relevant national regimes; and

(iii) Evidence of fair and equitable benefit sharing under the national regime of the country of origin.

3) Convention on Biological Diversity (CBD):

The CBD was signed by some 150 world leaders at the Rio Earth summit in 1992. Today it has 168 signatories the U.S however is a notable exception.

The Convention on Biological Diversity (CBD) which entered into force on 29 December 1993 has as its three objectives, "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the

[7] Graham Dutfield "Protecting Traditional Knowledge and Folklore: A review of progress in diplomacy and policy formulation, UNCTAD/ICTSD Capacity Building Project on Intellectual Property Rights and Sustainable Development at P 6.

[8] http://www.wipo.org/members/convention/con1.html. at p 20. Visited on 18-08-2007.

benefits arising out of the utilization of genetic resources".[9]

Article 8 (j) requires State parties to:

Respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.[10]

The international negotiations on the CBD that deal with legal solutions to TK protection have considered, among other things the following:

(i) national and international sui-generis regimes;

(ii) legally and non-legally binding instruments and agreements including

contracts, guidelines and codes of conduct;

(iii) specific protection measures such as TK databases and disclosure of origin of

genetic resources and associated TK in patent applications;

(iv) principles such as prior informed consent and respect for customary laws; and

(v) the incorporation of TK protection provisions in the International Regime on

Access and Benefit Sharing.

4) Food and Agriculture Organization (FAO):

In November 2001, the Food and Agriculture Organization of the United Nations concluded an "International Treaty on Plant Genetic Resources for Food and Agriculture" (ITPGRFA) that entered into force on June 29, 2004.

The objectives of this treaty are the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of benefits derived from their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security.[11]

No provisions on patent disclosure were included in the treaty, but the treaty notes that no intellectual property rights can be obtained on resources accessed under the treaty "in the form received from the multilateral system".[12] Indeed, the ITPGRFA is illustrative of efforts recognizing that implementation of benefit-sharing internationally does not require introduction of new requirements in the patent system.

The second meeting of the Contact Group established by the Interim Committee of the International Treaty on Plant Genetic Resources for

[9] Art.8.The Convention on Biological Diversity 1992. Text available at http://www.biodiv/org/doc/legal/cbd-un-en.pdf (last visited on Sept. 5, 2006).

[10] Kate H.Murashige, Patent Protection Biotechnology 382PLI/PAT 473,476(1994) (Commenting on the Environmental and Socioeconomic impact of biotechnology" innovations''/Patents).

[11] http://www.fao.org Visited on 08-11-2006.

[12] Food and Agriculture Organization of the United Nations, International Treaty on Plant Genetic Resources in Food and Agriculture. Available at http://www.ftp://ftp.fao.org. Visited on 03-11-06.

Food and Agriculture (ITPGRFA), held in Alnarp, Sweden on April 24-28, 2006 agreed to a Standard Material Transfer Agreement (SMTA) under the ITPGRFA. This was adopted at the first meeting of the Governing Body of the ITPGRFA, held June 12-16, 2006 in Madrid, Spain.[13] The regime envisions an SMTA governing transactions involving plant genetic resources. In addition, it envisions utilizing international arbitration to settle disputes. Concerns have been raised that the financial provisions are overly burdensome and may negatively affect the use of materials by research entities. However, this approach is consistent with general trends underway to look to more direct and pragmatic solutions to these issues that do not involve patent disclosure requirements, and underscores the central importance of contractual elements of ABS systems.

5) United Nations Conference on Trade and Development (UNCTAD):

In 2000 the United Nations Conference on Trade and Development (UNCTAD) began its work on TK by holding an expert meeting on National Experiences and Systems for the Protection of Traditional Knowledge, Innovations and Practices.

The meeting which was requested by the member states resulted in a report intended to reflect the diversity of views of experts.[14] The report was taken up in February 2001 by UNCTAD's Commission on Trade in Goods, Services and Commodities. Based upon this report the commission adopted recommendations directed to governments, the international community and to UNCTAD.[15]

The Recommendations to the International Community are as follows:

The issue of protection of TK has many aspects and is being discussed in several forums, in particular the CBD working Group on the Implementation of Article 8 (j) and related provisions the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore and the WTO (both the TRIP's council and the committee on Trade and Environment). There fore, continued coordination and cooperation between inter governmental organizations working in the field of protection of TK should be promoted. The commission makes the following recommendations at the international level:

- Promote training and capacity – building to effectively implement protection regimes for TK in developing countries in particular in the least developed among them:
- Promote fair and equitable sharing of benefits derived from TK in favor of local and traditional communities:

[13] Governing Body of the International Treaty for Plant Genetic Resources for Food and Agriculture, Document IT/GB/1-06/Report (June 2006). Available at http://www.atftp://ftp.fao.org Visited on 05-01-2007.

[14] UNCTAD (2000), Report of the Expert Meeting on National Experiences and Systems for the Protection of Traditional Knowledge, Innovations and Practices [TD/B/COM.1/33; TD/B/COM.1/EM.13/3].

[15] http://www.unctad.org/en/special/cldos5.htm.

- Encourage the WTO to continue the discussions on the protection of TK;
- Exchange information on national systems to protect TK and to explore minimum standards for internationally recognized sui-generis system for TK protection.[16]

6) The United Nations Commission on Human Rights (UNCHR):

United Nations human rights system is an international regime that had devoted increasing attention to intellectual property issues of indigenous peoples. Intellectual property law making is occurring in a variety of different United Nations forums including the Commission on Human Rights, its sub-Commission on the Promotion and Protection of Human Rights, the U.N. High Commissioner for Human Rights, special Rapporteurs appointed by the Commission and the Committee on Economic, Social and Cultural Rights (the ICESCR committee). These bodies adopt non-binding declarations, resolutions, recommendations and reports concerning the internationally recognized rights of individuals and groups, including in particular those referred to in three legal instruments that together comprise the International Bill of Rights, the Universal Declaration of Human Rights (UDHR), the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural rights (ICESCR).

Beginning in the early 1990's the U.N human rights system began to devote significant attention to the rights of indigenous communities. Among many claims that these communities sought from nation states was, the right to recognition of and control over their culture including traditional knowledge relating to biodiversity, medicines and agriculture. From an intellectual property perspective traditional knowledge was treated as part of the public domain, either because it did not meet established subject matter criteria for protection, or because the indigenous communities who created it did not endorse private ownership rights. By treating this knowledge as un-owned, however intellectual property law made that knowledge available for exploitation by third parties, to be used as an input for innovations that were themselves privatized through patents, copyrights and plant breeders rights. Adding insult to injury the financial and technological benefits of these innovations were rarely shared with indigenous communities.

United Nations human rights bodies intended to close this hole in the fabric of intellectual property law, by commissioning a working group and a special rapporteur to create a Draft Declaration on the Rights of Indigenous Peoples and Principles and Guidelines for the Protection of the Heritage of Indigenous People. These documents adopt a decidedly skeptical

[16] International Treaty for Plant Genetic Resources for Food and Agriculture, Art 9. Document IT/GB/1-06/Report (June 2006). Available at http://www.atftp://ftp.fao.org Visited on 05-01-2007.

approach to intellectual property protection. On the one hand these documents urge states to protect traditional knowledge using legal mechanisms that fit comfortably within existing intellectual property paradigms- such as allowing indigenous communities to seek injunctions and damages for unauthorized uses. Both the documents also define protect able subject matter more broadly than existing intellectual property laws and they urge states to deny patents, copyrights and other exclusive rights over "any element of indigenous peoples heritage" that does not provide for "sharing of ownership, control, use and benefits" with those peoples.

The Human Rights Commission and Human Rights sub-Commission first considered legal mechanisms to protect the intellectual property of indigenous communities in the early 1990. Work proceeded along two parallel lines. The human Right sub-Commission charged the working group on Indigenous Populations with the task of writing a Draft United Nations Declaration on the Rights of Indigenous People's (Draft Declaration). The sub-Commission also appointed a special Rapporteur to conduct a study and later to draft Principles and Guidelines for the Protection of the Heritage of the Indigenous People.

The Draft Declaration on the Rights of Indigenous peoples called for the broad recognition and respect for indigenous people's rights, including cultural and intellectual property rights.

The Draft Declaration recognizes the rights indigenous people to the full ownership, control and protection of their cultural and intellectual property", and to restitution of such property "taken without their free and informed consent or in violation of their laws, traditions and customs".[17]

7) World Health Organization (WHO):

The WHO coordinates a Traditional Medicine Team set up to support countries in developing national strategies on traditional medicine and upgrading the knowledge of traditional medicine practitioners. During an inter regional Workshop on Intellectual Property Rights in the Context of Traditional Medicine (Bangkok, December, 2000) it was recommended that traditional knowledge in the public domain should be documented in the form of digital libraries and exchanged and disseminated through mechanisms related to intellectual property rights. Work in this regard should be coordinated with WIPO.[18]

The World Health Organization's involvement in TK relates to the organizations work on traditional medicine and in response to requests from its members to cooperate with WIPO, UNCTAD and other international organizations to support countries in improving their awareness and capacity to protect knowledge of traditional

[17] Draft Declaration on the Rights of Indigenous People's, as agreed upon by the members of the working group on Indigenous populations at its Eleventh session, August23, 1993, United Nations Document E /CN.4/Sub.2/1993/29.

[18] http://www.who.org

medicine and medicinal plants, and sharing fair and equitable benefits derived from them pursuant to this undertaking on intellectual property rights in the context of Traditional Medicine in Bangkok in December 2000.

8) International Union for the Protection of New Varieties of Plants (UPOV):

The International Convention for the Protection of New Varieties of Plants comes in to existence on December 02, 1961. Subsequently revised, at Geneva on November 10, 1972, on October 23, 1978 and on March 19, 1991. UPOV stands for the French acronym Union Internationale pour la protection des Obtentious Vegetales (International Union for the Protection of New Plant Varieties. Only fifty countries currently belong to the International Convention for the Protection of New Plant Varieties.

Plant variety certificate mechanism of UPOV is used to protect the rights of breeders of sexually reproducing varieties of plants (reproducing by seed). Breeder's rights protect the commercial interests of the breeder so that economic incentives exist for continued breeding of new plant varieties. Unlike the patents, plant variety certificates do not require the authorization of the breeder for use of the variety by others for research purposes.

The criteria for a plant variety certificate are slightly different from those for a plant patent. To meet UPOV requirements, varieties must be:

- Distinct from existing, commonly known varieties,
- Sufficiently uniform,
- Stable
- Novel.[19]

Union Internationale pour la protection des Obtentious Vegetales or the International Union for the Protection of New Varieties of Plants (UPOV) has opined on the issue of disclosure requirements in the context of plant variety protection. The UPOV system is a sui-generis system established for protecting new plant varieties and has its mission to "provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of the society".[20] The UPOV council has actively considered disclosure requirements issues under the UPOV Convention in response to requests from the Executive Secretariat of the CBD. In that context, a consensus view was formed that a disclosure of countries of origin or geographic origin of genetic resources should not be introduced as a condition for plant variety protection and that implementation legislation pertaining to access and benefit-sharing is more appropriately implemented outside the system for protection of plant varieties.[21] This is based on

[19] "Brief Outline of the Role and Functions of the Union, UPOV, October 2000. Available at http://www. Upov.int/eng/brief.htm. Visited on: 27-09-2007.
[20] http://www.upov.int last visited 07-11-2006.
[21] UPOV Council, Reply of UPOV to the Notification of June 26, 2003 from the Executive Secretary of the Convention on

many reasons that also appear relevant to the patent context, including that applicants may find it difficult or impossible to identify the exact geographic origin of all material used for breeding purposes, that authorities with competence for grant of breeder's rights are not in a position to verify such information and further that legislation on access and benefit-sharing pursues objectives different from that of UPOV and that such items should be in separate legislation that is compatible and mutually supportive.

Plant Variety Protection system comes in to existence for protecting new plant varieties developed by farmers and breeders and has its mission to "provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of the society. UPOV is one of legal mechanisms to protect new plant varieties.

CONCLUSIONS:

Till today patenting of traditional knowledge is a burning issue for biodiversity rich countries such as India. The present intellectual property regime is not entirely suitable for protecting traditional knowledge. Some instruments of intellectual property regime such as trademarks, geographical indications, and trade secrets can be adopted to meet the specific features of traditional knowledge, there by protect traditional knowledge. Other instruments of traditional knowledge such as patents and copyright are not entirely suitable for protecting traditional knowledge.

Undertaking good and more comprehensive prior art searches and fully complying with disclosure requirements are useful tools and mechanisms through which bio-piracy and the patenting of traditional knowledge can be effectively controlled.

The efforts, which are done by the international forums, so for, are not sufficient. Patenting of traditional knowledge cannot be prevented in an overnight. Still much effort has to be done by all the member States of WIPO as well as all the international forums.

Biological Diversity, UPOV Document C/37/21 at Annex III. Last visited 10-11-2006.