CSCanada
Cross-Cultural Communication
Vol. 16, No. 4, 2020, pp. 39-43
DOI:10.3968/11943

ISSN 1712-8358[Print]
ISSN 1923-6700[Online]
www.cscanada.net
www.cscanada.org

Traditional Knowledge Protection Consistent With Indigenous Interests

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Received 15 August 2020; accepted 26 October 2020
Published online 26 December 2020

Abstract
The issue of traditional knowledge protection attracts world attention, which is also a move towards identifying indigenous works from other subjects of intellectual property. And the protection of traditional knowledge usually falls under patent law and biodiversity rights, as well as copyright law. This paper first focuses on the introduction of the TRIPS and the CBD, and then continues to explain the harmonization of the two agreements. It also attempts to discuss solution options to traditional knowledge protection consistent with indigenous interests.

Key words: Traditional knowledge; The TRIPS; The CBD; Harmonization; Indigenous interests

Mai, X. M. (2020). Traditional Knowledge Protection Consistent With Indigenous Interests. *Cross-Cultural Communication, 16*(4), 39-43. Available from: http://www.cscanada.net/index.php/ccc/article/view/11943
DOI: http://dx.doi.org/10.3968/11943

1. INTRODUCTION
Traditional knowledge is rooted in a distinctive traditional knowledge system, which each community has developed and reserved in its local context. It is not limited to a certain technical field, and may well include agricultural and medicinal knowledge, and knowledge related to genetic resources.[1] The past few years has seen an ever-increasing number of traditional knowledge cases associated with genetic resources.

In the context of this paper, traditional knowledge is regarded as knowledge of biodiversity and genetic resources and how they can be used in medical treatments and as a source of food or nourishment.

2. INTERNATIONAL PROTECTION FRAMEWORK
In regard to international protection of traditional knowledge, there are mainly the following two attempts: the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the Convention on Biological Diversity (CBD).

2.1 The TRIPS
2.1.1 Focus of the TRIPS
In 1994, member states of the World Trade Organization (WTO) came to sign the TRIPS, which was considered one of the three pillars of the WTO. (Abbott, 2005) The TRIPS has been called the most comprehensive multilateral agreement on intellectual property negotiated so far by incorporating into itself the main pre-existing intellectual property conventions. (Letterman, 2001, pp.29-37) Simply put, the TRIPS is significant regarding its three features: (1) standards; (2) enforcement; (3) dispute settlement. (*Ibid.*)

Throughout the entire text of the TRIPS, however, little is relevant to the protection of traditional knowledge. Although Article 1 allows some flexibility in implementing the agreement, by stipulating that "Members may, but shall not be obliged to, implement in their domestic law more extensive protection than is required by this Agreement, provided that such protection does not contravene the provisions of this Agreement",[2] the absence of any specification of traditional knowledge implies its inattention to this issue.

[1] Glossary - https://www.wipo.int/tk/en/resources/glossary.html#49

[2] The TRIPS Agreement - http://www.tripsagreement.net/trips_files/documents/TRIPS_E.pdf

One provision relevant to traditional knowledge is Article 27 that addresses patentable subject matter. Article 27.1 states: "…patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step, and are capable of industrial application".[3] However, traditional knowledge cannot fulfill the novelty requirement as it is the kind of knowledge accumulated through generations and shared within communities. The TRIPS also fails to meet the non-obviousness criterion because the knowledge about plant variety and genetic resources may not be sufficiently inventive. As such, it is not possible to seek protection of traditional knowledge associated with genetic resources under this clause.

Article 27.2 of the TRIPS focuses on excluding inventions from patentability on the ground of public order or morality, including prejudice to the environment.[4] Although the notions of public order and morality are not specifically defined, it is said that this clause could be used to prevent against unfair or abusive exploitation of genetic resources. (Weeraworawit, 2003) But it does not confer specific legal protection to traditional knowledge or its holders.

Article 27.3 (b) is considered to have created an opportunity for legal protection of traditional knowledge, which says, "Members may also exclude from patentability plants and animals other than microorganisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof."[5]

Although Article 27.3 (b) gives member states considerable flexibility to legislate their national law in regard to traditional knowledge, it does not clarify what *sui generis* system is. It is left to the governments of its member states to decide. Consequently, it may result in interpretational confusion or operational difficulty.

2.1.2 Inequalities of the TRIPS

As is mentioned, the TRIPS, though offers flexibility and opportunity for members to legislate, remains silent on providing any protection for the traditional knowledge associated with genetic resources. If it has anything to do with the protection of indigenous innovations, Article 27 is the one provision relevant, which deals with patentable subject matter.[6]

What is more, it is widely agreed that there are few positive effects in the TRIPS protection regime for developing countries, which are usually abundant in traditional knowledge. A review of how the TRIPS came into being would help to demonstrate this viewpoint.

First, it was the United States that initiated the negotiations since it was the world's leader in the production of intellectual property and it therefore strived to bring its intellectual property rights abroad under protection, especially in developing countries. (Goldberg, 2001) And US-led industrialized countries claimed that strengthened and universal protection of intellectual property rights would help develop new technology and bring about investment flows to developing countries. (Correa, 2000) Since no WTO member could afford to be excluded from the organization, they became signatories of the TRIPS. To be in compliance with their commitments under the WTO, these countries, in regard to intellectual property rights, were to provide for national legislation minimum standards regarding intellectual property rights, standards that are far above the national laws of many developing countries. (Czub, 2001) Would developing countries thereafter live in perfect harmony with the developed world? That was not the end of the story.

Second, developing countries expected that, having agreed to high intellectual property rights standards of the TRIPS, they would be protected from unilateral actions and further demands of higher levels of intellectual property protection from the developed world. But being weaker economic actors, developing countries are still confronted with constant unilateral pressure and even trade retaliations from developed countries. (Correa, 2000, pp.207-221)

Specifically speaking, developing countries rich in traditional knowledge have little bargaining power and great social costs when implementing the TRIPS.

As Picciotto points out, when law is employed to define and enforce economic rights, it can consolidate the rights of the economic powers, the haves against the have-nots. (Picciotto, 2003) This being the case, the protection of intellectual property rights will yield profits for those with innovative power, while raising the costs of access to those without such power.

Although the TRIPS is the result of multilateral negotiation, the inequalities inherent in the bargaining positions of developed and developing countries is obvious in the agreement, which to a large degree serves the interests of developed countries. (Sweeney, 2000)

Attitude towards embracing the TRIPS is divided. For member states' that favor it, the TRIPS is there to be defended and perhaps extended to a broader scope. Vested interest groups, mainly from developed countries, are all on this side. Ruppenthal also suggests that the TRIPS is designed to serve the interests of the developed world. But for those who are negatively affected by the TRIPS (Ruppenthal, 2001), namely newly-developed and developing countries which benefit little from the TRIPS

[3] *Ibid.*
[4] *Ibid.*
[5] The TRIPS Agreement - http://www.tripsagreement.net/trips_files/documents/TRIPS_E.pdf
[6] *Ibid.*

and incur enormous costs through its implementation, the problem lies in how to stay away from it or cope with it. (Sell, pp.55-58)

The process of incorporating intellectual property law into international economic law understandably imposes short and medium-term social costs on developing countries. And these costs may be somewhat offset by prospects of greater market access. However, it seemed to the developing world that the TRIPS was still going to hurt more than it would help, at least in the short run; and that the price was not only paid in dollars but also in human lives. (Reichman, 1995)

2.2 The CBD

2.2.1 Focus of the CBD

The asymmetry of protection has led to inequities and stimulated arguments against the globalization of certain intellectual property rights. One of the inequities that developing nations have noticed is the "taking" of genetic resources and biodiversity, developed by traditional knowledge in local communities, to support research and development (R&D) efforts for certain industries in the developed world. Developed countries regard such exploitation as legitimate R&D, while the developing world and their supporting non-governmental organizations call this "biopiracy."

Article 2 of the CBD defines the term, *"genetic resources" as meaning "genetic material of actual or potential value."* And the CBD defines the term "biodiversity", a shortened form of "biological diversity", as meaning the *"variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems."*[7]

The recognition of the economic value of traditional knowledge and, consequently, the debate surrounding its misuse and misappropriation, has drawn considerable international attention to the issue. The misappropriation, or even outright theft, of such genetic resources has been generally referred to as "biopiracy".

"Biopiracy" is often used to describe the "unauthorized" and "uncompensated" appropriation of traditional knowledge and resources. (Woods, 2002) The term "biopiracy" vividly adapts the western intellectual property legal terminology to indicate the unique features of traditional knowledge protection. Conventional intellectual property law usually employs the word "piracy" to describe those activities in which intellectual property rights, which are often awarded through patents and copyrights, are infringed upon by means of misappropriation. Some developed countries, notably the United States, claim that developing nations have greatly facilitated piracy due to their weak intellectual property laws and lax enforcement. (Subbiah, 2004) Such complaint often arises in regard to the pharmaceutical and technological industries, whose profits mainly depend on the economic gains of patents, copyrights, and trademarks.

The CBD is considered to be the first international intellectual property convention to explicitly acknowledge the significance of traditional knowledge in preserving biodiversity and in achieving the ultimate goal of sustainable development. (Krumenacher, 2004) In other words, the CBD operates as a mechanism for protecting traditional knowledge, biodiversity and genetic resources, and intellectual property rights in all member countries. (Ibid.)

The CBD also contains several articles that make reference to traditional knowledge. For example, Article15.5 requires prior informed consent of the indigenous peoples by specifying that, "Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources";8 Article 18.4 stipulates that the Contracting Parties shall "encourage and develop methods of cooperation for the development and use of technologies, including indigenous and traditional technologies".9

The most authoritative provision dealing with traditional knowledge is probably Article 8(j) which requires that each contracting party shall "as far as possible and as appropriate", "subject to its national legislation, respect, preserve and main knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles" and "promote their wider application with the approval and involvement of the holders of such knowledge". (Ibid.)

However, Article 8(j) is rather problematic. First, the use of such terms as "as far as possible and as appropriate" and "subject to its national legislation" implies that the provision is not mandatory and hence allows a fairly high degree of leeway. They were mainly proposed and promoted by governments that did not want to commit themselves to the protection of traditional knowledge. (de Carvalho, 2003) Second, the article does not provide any specific measures of protection. The level and form of protection is left for each of the member states to implement. Moreover, Article 8(j) merely calls for preservation, respect and maintenance of traditional knowledge but does not guarantee any actual right for indigenous communities. (Coombe, 2001)

2.2.2 Insufficiency of the CBD

The CBD has now been signed by almost 200 countries, yet significant debate surrounded its passage and still plagues the implementation of the convention today. (Gollin,2005) It is to be noted that the United States failed

[7] Convention on Biological Diversity - http://www.biodiv.org/convention/articles.asp?lg=0&a=cbd-02

[8] Convention on Biological Diversity - https://www.cbd.int/doc/legal/cbd-en.pdf

[9] *Ibid.*

to adopt the CBD. Although the Clinton Administration signed the CBD in 1993, the American Congress has not yet ratified the convention. The failure of the United States to do so is another way in which US patent policy fails to recognize and acknowledge the economic value of indigenous cultural knowledge. (Woods, 2002)

Though the CBD is a big step forward in recognizing the contributions of indigenous knowledge, it tends to emphasize the transmission, diffusion and sharing of traditional knowledge instead of its protection. In general, the CBD does little to bridge the gap between indigenous knowledge and intellectual property rights. (Quinn, 2001)

2.3 Harmonization of the TRIPS and the CBD

To this date, not many countries have made instruments for the protection of indigenous traditional knowledge. This fact reveals that a lot remains to be done towards reaching a consensus. (Coombe, 2001)

In November 2001, the Declaration of the Fourth Ministerial Conference in Doha, Qatar, requested a review of the TRIPS provisions and called for a harmonization between the CBD and the TRIPS. In particular, the Doha Declaration called for the TRIPS Council to go over the relationship between the TRIPS and the CBD; the protection of traditional knowledge and traditional cultural expressions; and any other new issues that member governments raise in the review of the TRIPS Agreement. (Bodeker, 2003)

The TRIPS Council conducted two reviews between November 2001 and June 2002. One was a specific review of the TRIPS Article 27.3(b), which stresses patentability or non-patentability of plant and animal inventions, and the protection of plant varieties. The other was a thorough review of the TRIPS Agreement as a whole. (*Ibid.*)

The TRIPS Council came to agree that an examination of these provisions, first began in 1999, should be expanded and member states were strongly advised to provide additional material, especially those countries that did not yet apply these provisions in 1999. (*Ibid.*) And it was widely agreed that the TRIPS Council should join efforts with both the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) and the CBD in dealing with the aforementioned issues. (*Ibid.*)

IGC has been dealing with a wide range of issues concerning the interplay between intellectual property and genetic resources. (de Carvalho, 2003) In particular, the Conference of Parties of the CBD has provided important guidance to IGC in this work, since the CBD has fundamental roles in the international legal and policy framework for genetic resources.[10]

IGC's work has mainly covered three areas: (1) Defensive protection of genetic resources by means of preventing the grant of patents over genetic resources that do not meet the criteria of novelty and non-obviousness.[11] (2) Intellectual property aspects of access to genetic resources and equitable benefit-sharing schemes that regulate the exploitation of genetic resources. (*Ibid.*) (3) Disclosure requirements in patent applications associated with genetic resources and related traditional knowledge used in a claimed invention. At the invitation of the Conference of Parties of the CBD, IGC released a technical study on this issue, with input from many WIPO Member States.[12]

3. INDIGENOUS PROTECTION STRATEGIES

Studies on the protection strategies of traditional knowledge associated with genetic resources bring enormous environmental benefits as well as possible commercial applications. (Woods, 2002) As the result of a better organization of indigenous groups, and more accurate representation of their interests in various forms, indigenous issues as a whole have attracted the attention of both governments and the general public. And the increasing awareness of indigenous people and their claims is easier to spot. Moreover, indigenous people have made very strong claims in the realm of indigenous knowledge. (Lewinski, 2003, p.747) And the real driving force behind the re-emergence of the issue has been developments related to genetic resources and traditional knowledge. (*Ibid.*)

Indigenous groups have developed many strategies to seek protection of their cultural heritage. These strategies include the preservation of traditional knowledge, protection against commercial exploitation, attribution, benefit-sharing and more. (Carpenter, 2004) Their motives vary a lot and may originate from the conservation of biodiversity, concern over misappropriation, promotion of the use of traditional knowledge for further development, or pressures exerted upon the communities from outside the groups.

4. CONCLUSION

There are two major concerns for the intellectual property system in policy debate: the demand for recognition of the rights of traditional knowledge holders involving such knowledge; and concerns about the "unauthorized acquisition" of intellectual property rights by third parties over this kind of knowledge. In answer to those two concerns, two types of intellectual property-related protection have been developed:

[10] Genetic Resources – http://www.wipo.int/tk/en/genetic

[11] Intellectual Property and Traditional Cultural Expressions/ Folklore - http://www.wipo.int/freepublications/en/tk/913/wipo_pub_913.pdf

[12] Intellectual Property and Traditional Knowledge - http://www.wipo.int/freepublications/en/tk/920/wipo_pub_920.pdf

"– positive protection: giving traditional knowledge holders the right to take action or seek remedies against certain forms of misuse of traditional knowledge; and – defensive protection: safeguarding against illegitimate intellectual property rights taken out by others over traditional knowledge subject matter."[13]

"Positive protection" refers to the recognition of intellectual property in traditional knowledge. This may imply the use of conventional intellectual property laws and adaptations of conventional intellectual property through *sui generis* measures. And "defensive protection" refers to protecting traditional knowledge over illegitimate intellectual property rights. And this may indicate the revision of current WIPO-governed patent systems.[14]

The contributions of indigenous communities, who are the custodians or holders of traditional knowledge, are not acknowledged, compensated or protected. The conventional international property law does not cover this knowledge or grant any right to its holders. The controversy lies in that, while the knowledge and technology created by the developed world are granted full protection, knowledge held by indigenous peoples is not treated as intellectual property worth protection. Thus this imbalance opens for reform.

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[13] Intellectual Property and Traditional Knowledge - http://www.wipo.int/freepublications/en/tk/920/wipo_pub_920.pdf
[14] *Ibid.*