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The Protection of Traditional Knowledge: Classifications and Legal Effects

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Abstract:

In the context of knowledge governance, diverse players with different interests regarding the question of protectable knowledge and access to knowledge have developed a wide range of linked terms such as: traditional knowledge, disclosed traditional knowledge, codified traditional knowledge, indigenous knowledge, heritage of indigenous peoples and publicly available. Much effort has focused on negotiating appropriate definitions of TK, to which, so far no agreement could be found. This paper suggests instead focusing on defining objectives and subsequently seeking classifications of TK in terms of developing appropriate scope of legal protection.

Keywords:

Classification, Intellectual Property Rights, Traditional Knowledge, Sui-generis System, Public Domain

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Introduction

During the presentation made by the World Intellectual Property Organization (WIPO) at the 11th session of the United Nations Permanent Forum on Indigenous Issues held on 7–18 May 2012, some delegates representing indigenous peoples turned up with t-shirts printed with the words: "World Intellectual Piracy Organization". They presented the view that the current procedures and measures taken by WIPO on the issues of genetic resources, traditional knowledge (TK) and traditional cultural expressions (TCEs) are immoral and illegal. They also recommended indigenous peoples and nations to establish their protection mechanisms with their own legal standards.[3] This approach seems to be unsuitable to meet the real needs and expectations of TK holders worldwide for protection of their knowledge and cultural expressions on one hand and the other beneficiaries of TK on the other hand. Nowadays, recognition of TK as a classified type of protectable knowledge and the increasing awareness about its spiritual, cultural and growing economic, scientific and commercial value has attracted a wide range of stakeholders. In consequence, preservation, managing, utilization and benefit-sharing of TK are being addressed within different policy areas, including agriculture, environment, cultural and trade policies. These different areas put TK at the heart of many international organizations' debates and negotiations. Such organizations include WIPO, World Trade Organization (WTO), World Health Organization (WHO), Convention on Biological Diversity (CBD), United Nations Educational, Scientific and Cultural Organization (UNESCO) and others. Logically all these bodies, in accordance with their competences, have a special interest in the diverse issues of TK and categorize them in relation to their relevant professional duties and protection mechanisms. WIPO, as one of the United Nations specialized agencies, as declared in

[3] GALE COUREY TOENSING, *World Intellectual Property Organization Blasted for 'Misappropriation' of Indigenous Knowledge, Resources*, Indian Country (2012), available at http://indiancountrytodaymedianetwork.com (last visited Sep. 24, 2012).

Article 2(viii) of the Convention Establishing the World Intellectual Property Organization, is dedicated to work on the rights resulting from intellectual activities:

> Intellectual property shall include the rights relating to: … and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.[4]

Also the Organisation for Economic Co-operation and Development (OECD) redefines IPRs as products of the intellectual efforts of humans:

> Intellectual property rights are rights granted by state authority for certain products of intellectual effort and ingenuity.[5]

The above-mentioned definitions could therefore include TK which, in the narrow sense, refers in particular to the knowledge resulting from intellectual activities and efforts, but in a traditional context.[6] Adopting the same attitude, United Nations Declaration on the Rights of Indigenous Peoples (hereinafter declaration), one of the most significant policy steps in the area of protection of TK to be taken by the international community states that:

> Article 31(1) – 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, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop 'their intellectual property'[7] over such

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[4] See Convention Establishing World Intellectual Property Organisation, Jul. 14, 1967, available at http://www.wipo.int/treaties/en/convention/trtdocs_wo029.html

[5] R. S. CRESPI & JOSEPH STRAUS, *Intellectual property, technology transfer and genetic resources: an OECD survey of current practices and policies* 12 (Organisation for Economic Co-operation and Development; OECD Washington Center. 1996).

[6] See WORLD INTELLECTUAL PROPERTY ORGANIZATION, *Intellectual property needs and expectations of traditional knowledge holders: WIPO report on fact-finding missions on intellectual property and traditional knowledge (1998-1999)* 25 (World Intellectual Property Organization. 2001).

[7] Emphasis added by authors.

> cultural heritage, traditional knowledge, and traditional cultural expressions.[8]

Although the declarations of the United Nations General Assembly do not have legal effect beyond soft law, they reflect the will of most members of the international community[9] to create customary international law on the issue of protection of TK through the intellectual property rights (IPRs) system *inter alia*. The wording of Article 31 seems to be a good starting point to offer an argument as to how the real expectations of traditional communities' property rights in the TK context could be met.

In analysing the text of the declaration, two main issues arise: Firstly, the integration between TK and TCEs and their manifestations is under stress. This confirms the arguments of some authors who believe that any division made between TK and TCEs would be artificial, and in the eyes of indigenous people and local communities both present the same value and must be classified and protected as a whole.[10] Many scholars accept that TK and TCEs share certain common characteristics from the intellectual property point of view; including the basic notion of the intellectual activities of human beings. Secondly, Article 31 emphasizes that indigenous people have the right to maintain, control, protect and develop 'their intellectual property' over TK and TCEs; thus, the term 'their intellectual property' covers a range of conceptual issues in the system of classification of IPRs, which require further scrutiny. Several questions on this term can be raised. Was it intended by Article 31 of

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[8] United Nations Declaration on the Rights of Indigenous Peoples, G.A. Res. 61/295, UN GAOR, at UN Doc A/RES/61/295 (2007). available at http://ap.ohchr.org/documents/alldocs.aspx?doc_id=15480.

[9] The Declaration was adopted by the General Assembly on Thursday 13 September 2007, by a majority of 144 states in favour, with 4 votes against (Australia, Canada, New Zealand and the United States) and 11 abstentions (Azerbaijan, Bangladesh, Bhutan, Burundi, Colombia, Georgia, Kenya, Nigeria, Russian Federation, Samoa and Ukraine). For more information see: http://social.un.org/index/IndigenousPeoples/DeclarationontheRightsofIndigenousPeoples.aspx

[10] TSHIMANGA KONGOLO, *Unsettled international intellectual property issues* 30 (Wolters Kluwer. 2008). and, ANTONY TAUBMAN, *A practical guide to working with TRIPS* 185 (Oxford University Press. 2011)..

the Declaration to address amendment and/or extension of the conventional IPRs regimes, such as patents to meet the various beneficiaries' needs, for example by putting a prior informed consent (PIC) requirement in the patent applications? Or does it rather demand a *sui-generis* protective regime for TK, similar to that established for protection of plant variety rights (PVR)/plant breeders' rights (PBRs), or a combination of both. It could be interpreted implying the need for a new system, which would be under general principles of IPRs. Such a new system can follow not only the general norms and principles of IPRs as defined in the international instruments, most importantly the Paris Convention, Bern Convention and the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), but can also take the indigenous peoples' and nations' flexible outlooks to establish their protection mechanisms with their own national legal standards. To find out which would be the best choice, the classification methodology is used in this paper and, to reach an appropriate conclusion, it will focus on classification of definitions, regimes and the notion of public domain in TK debates.

The Problem of legal definition of TK

In the *American Heritage Dictionary of English*, "Knowledge, information, learning, erudition, lore, scholarship are nouns which refer to what is known and having been acquired through study or experiences. The word knowledge has the broadest concept and includes facts and ideas, Knowledge is the understanding, and the totality of what is known."[11] Knowledge based on the above-mentioned definition could be understood as an intangible object. Given that IPRs establish property protection over ideas and information which are intangible things,[12] the definition could cover TK in nature and thus TK is

[11] The American Heritage dictionary (3rd ed. 1994)

[12] LIONEL BENTLY & BRAD SHERMAN, *Intellectual property law* 2 (Oxford University Press 3rd ed. 2008).

expected to enjoy the protection in the course of traditional classification of IPRs under copyrights and industrial property, but "it is tradition that differentiates TK from knowledge in general".[13] Also the significance of TK for its holders and for the international community at large, and the increasing requirement to preserve and promote such knowledge, has gained more recognition and attention in distinguishing features of TK. This peculiarity has led various stakeholders to employ different terms and colorful descriptions to define TK, from the diffuse significant parameters which they believe have the main role in instituting the ideal protective system. These diverse views were considered during the debates of WIPO's Intergovernmental Committee on Genetic Resources, Traditional Knowledge and Folklore (IGC):[14]

> [t]here is … a diffuse range of potentially overlapping terms in current use in international, regional and national discussions related to TK, corresponding with a wide range of policy frameworks. Terms are not neutral, and the choice of term is neither arbitrary nor irrelevant.[15]

Terms such as 'traditional group knowledge and practices',[16] 'traditional ecological knowledge',[17] 'traditional biodiversity knowledge',[18]

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[13] ANTONY TAUBMAN, *Saving the village: Conserving jurisprudential diversity in the international protection of traditional knowledge*, *in* International public goods and transfer of technology under a globalized intellectual property regime 563, (Keith E. Maskus & J. H. Reichman eds., 2005).

[14] IGC established by the WIPO General Assembly, at its Session held from September 25 to October 3, 2000. For more information see WIPO's documents WO/GA/26/6 [13] and WO/GA/26/10 [71].

[15] See Traditional Knowledge – Operational Terms and Definitions, WIPO/GRTKF/IC/3/9.

[16] See for example PETER DRAHOS, *Towards an International Framework for the Protection of Traditional Group Knowledge and Practice* (2004) (Paper presented at the Workshop on Elements of National Sui Generis Systems for the Preservation, Protection and Promotion of Traditional Knowledge, Innovations and Practices and Options for an International Framework, UNCTAD-Commonwealth Secretariat, Geneva, 4-6 February 2004). He used 'traditional group knowledge and practice' (TGKP) as a generic term to cover the various species of knowledge (indigenous, traditional, traditional medicinal, traditional ecological and etc.).

[17] See JULIAN INGLIS, et al., *Traditional ecological knowledge concepts and cases* (International Program on Traditional Ecological Knowledge : International Development Research Centre. 1993). He mentioned that "Traditional Ecological Knowledge (TEK) refers

'traditional environment knowledge',[19] 'indigenous knowledge'[20] are some of the varied terms used by scholars and interested parties in connection with TK.

The factionalism over the terms is even more complex when debates shift to the issue of what the most appropriate definition of TK would be. And what does TK actually mean? At the international level, we have observed that some binding instruments tried to identify the scope of the issues of TK in the context of their competence.[21] Also following the identified mandate of the IGC, on the definition of the subject matter,[22] different proposals in a broad

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to the knowledge base acquired by indigenous and local peoples over many hundreds of years through direct contact with the environment. It includes an intimate and detailed knowledge of plants, animals, and natural phenomena, the development and use of appropriate technologies for hunting, fishing, trapping, agriculture, and forestry, and a holistic knowledge, or "world view" which parallels the scientific discipline of ecology."

[18] See MARTIN KHOR, *Intellectual Property, Biodiversity and Sustainable Development: Resolving the Difficult Issues* (Zed Books Ltd. 2002).

[19] MARTHA JOHNSON, et al., *Lore capturing traditional environmental knowledge*, Dene Cultural Institute ; International Development Research Centre (1992), available (last visited

[20] See LADISLAUS SEMALI & JOE L. KINCHELOE, *What is indigenous knowledge? : voices from the academy* (Falmer Press. 1999)., in the opinion of the editors indigenous knowledge reflects the dynamic way in which the residents of an area have come to understand themselves in relationship to their natural environment and how they organize that folk knowledge of flora and fauna, cultural beliefs, and history to enhance their lives.

[21] These instruments are including:

- Article 8(j) of convention on biological diversity adopted on June 5, 1992:

knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity;

- Art 9.2(a), International Treaty on Plant Genetic Resources for Food and Agriculture adopted on November 3, 2001, the Thirty-first Session of the Conference of the Food and Agriculture Organization of the United Nations ("FAO"): traditional knowledge relevant to plant genetic resources for food and agriculture;

- Articles 16(g), 17(1)(c), 18(2) and 19(1)(e) of international convention to combat desertification in countries experiencing serious drought and/or desertification, particularly in Africa adopted in Paris on 17 June 1994 refers to terms "local and traditional knowledge", "traditional and local knowledge, know-how and practices", "relevant traditional and local technology, knowledge, know-how and practices" and "traditional methods of agriculture" which all of them are described in narrow sense in relation of knowledge of indigenous and local communities. available at: http://www.unccd.int/en/about-the-convention/Pages/About-the-Convention.aspx

[22] See document WO/GA/40/7 [16] available at: http://www.wipo.int/edocs/mdocs/govbody/en/wo_ga_40/wo_ga_40_7.pdf

and/or narrow sense were made by the different interested parties during the IGC negotiations. Some define TK in a very general and comprehensive way to include as far as possible the subject matters which might fit within the scopes of TK and TCEs, to ensure that all type of TK could enjoy proper protection. Taking this approach, TK as a broad description of issues includes the intellectual and intangible cultural heritage, practices and knowledge of local communities and indigenous peoples:

> Traditional knowledge is 'knowledge'[23] that is dynamic and evolving, resulting from intellectual activities which is passed on from generation to generation and includes but is not limited to know-how, skills, innovations, practices, processes and learning and teaching, that subsist in codified, oral or other forms of knowledge systems. Traditional knowledge also includes knowledge that is associated with biodiversity, traditional lifestyles and natural resources.[24]

In contrast, an effort has been made to adopt a narrow sense to provide a more accurate definition which would prevent conflict among the definitions or scopes of protected subject matters:

> For the purposes of this instrument, the term 'traditional knowledge' refers to the know-how, skills, innovations, practices, teachings and learning, resulting from intellectual activity and developed within a traditional context.[25]

Section 2 of Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore Adopted by the Diplomatic Conference of ARIPO at Swakopmund (Namibia) on August 9, 2010,

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[23] Emphasize added by authors

[24] See document WO/GA/40/7, Option 2 of Article 1 "Subject Matter of Protection" of the Draft Articles on Traditional Knowledge as Prepared at IGC 19 (July 18 to 22, 2011)", as incorporated in document "Matters Concerning the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC)"

[25] *Ibid*, Option 1 Article 1

separated the issues of TK and TCEs into two different sections and following the narrow sense of definitions provides that:

> '[t]raditional knowledge' shall refer to any 'knowledge'[26] originating from a local or traditional community that is the result of intellectual activity and insight in a traditional context, including know-how, skills, innovations, practices and learning, where the knowledge is embodied in the traditional lifestyle of a community, or contained in the codified knowledge systems passed on from one generation to another. The term shall not be limited to a specific technical field, and may include agricultural, environmental or medical knowledge, and knowledge associated with genetic resources.[27]

In both these approaches to definitions, TK is assumed as 'knowledge', which means TK is supposed to be subject matter of protection and naturally it is taken to refer in general to the content or substance of knowledge resulting from intellectual activity in a traditional context. This makes it more problematic to respond to the legal ambiguities if the protection systems need a more precise definition or a very general description, which may provide insufficient clarity on protectable subject matters. This caused the problem of definition to become one of the most contentious topics during the negotiations, as the delegation of the EU attached great importance to reaching an agreement on the definition of TK[28] and many delegations delivered the same idea as the EU,[29] while other delegations made an effort to establish the broad and extended definition of TK.[30] Some scholars believe, however, that "no single definition would fully do justice to the diverse forms of knowledge

[26] Emphasize added by authors

[27] Available at http://www.aripo.org/images/Swakopmund_Protocol.pdf (last visit 15 August, 2012)

[28] See IGC draft report, document WIPO/GRTKF/IC/21/7 PROV. 2 [29]

[29] *Ibid* [27]-[67]

[30] *Ibid*

that are held by traditional communities".[31] It seems that to reach a comprehensive agreement which would meet the expectations of different stakeholders, while there are no rules for the definition of TK, would be excessively complicated. We therefore agree with Taubman's opinion that: "the problem for TK protection may not be the definition of TK as such, nor indeed the definition of rights attached to TK, but rather greater clarity about the objectives of protection."[32] A definition may then follow accordingly. The international community needs to create a new methodology to produce acceptable rules on indicating the objective of TK protection and the impact of definition on effective protection of its expressions. Here, the question will be whether international community should describe TK as a subject matter of protection or adopt a totally different approach to establish TK as a new regime with the aim to protect all manifestations that could meet the settled criteria for protection eligibility.

Returning to the wording of the declaration, it avoided giving definitions of TK and TCEs and instead of focusing on definitions, it tried to offer a new area which could provide the necessary ability to indigenous people to maintain, control, protect and develop their IPRs on manifestations of TK and TCEs. Using the term 'their intellectual property', the declaration calls for a new system for protection of those manifestations. This of course is not a new approach. Conventional international classified IPRs regimes, such as the Bern Convention for the Protection of Literary and Artistic Works, which was first adopted in 1886, and the TRIPs Agreement adopted in 1995, do not provide a proper definition of copyright. Instead, Article 1 of the Bern Convention determines what constitutes copyrightable works and Article 2(1), provides a non-exhaustive list of works that must be protected by copyright. Taking the same approach, the Paris Convention for the Protection of Industrial Property,

[31] FREDERICK M. ABBOTT, et al., *International intellectual property in an integrated world economy* (Wolters Kluwer 2nd. ed. 2011). 659

[32] See ANTONY TAUBMAN, above n 13

adopted in 1883, focused on what patentability criteria are. The TRIPS Agreement in particular defined the area of trademarks and of geographical indications which are protectable subject matters. Adopting such an attitude means there is no need to discuss the fog of definition, but instead to focus on those criteria and manifestations of TK which could be the subject matters of a favourable protection system. Also, we can discuss here the direct effect on classification of TK; if its expressions are seen as subject matters of traditional classified IPRs or if they need to be protected under a *sui-generis* or a new TK regime because of their special features and needs.

The problem of adequate legal protection of TK

Protection in a legal context generally means; "defend something against harm",[33] or "to keep from being damaged, attacked, stolen, or injured".[34] Therefore, to redress such a harm or damage, protection mechanisms such as liability could be employed. "A liability regime is a 'use now pay later' system according to which use is allowed without the authorization of the right holders. But it is not free access because *ex post* compensation is still required".[35] However, we should keep in mind that "most legal uses of 'protection' are based on its ordinary language meaning"[36], and exclusive rights in IPRs go beyond liability. To address 'protection' of TK in the context of IPRs, the most important legal use could be: what IPRs system needs to be chosen to provide a proper effective and comprehensive platform to protect TK? In other words, although aspects of conservation, preservation and safeguarding of TK expressions are quite important, they are the expected

[33] Dictionary of law (2004)

[34] Company, Houghton Mifflin, above n 11

[35] J.H. Reichman, *Of Green Tulips and Legal Kudzu: Repackaging Rights in Sub patentable Innovation*, 53 VAND. L. REV. 1753 (2000) quoted in GRAEME DINWOODIE & ROCHELLE COOPER DREYFUSS, *WTO dispute resolution and the preservation of the public domain of science under international law, in* International public goods and transfer of technology under a globalized intellectual property regime (Keith E. Maskus & J. H. Reichman eds., 2005)

[36] Oran's dictionary of the law (2000)

outcomes of one suitable and appropriate IPR-protection regime *inter alia*, because "no form of legal protection system can replace the complex social and legal systems that sustain TK within the original communities".[37] In the IGC, debates referred to protection of TK against unauthorized use by other parties[38] and prevention of misappropriation of TK. Action against unauthorized use or prevention of misappropriation could be applied by two types of IPRs protection, namely 'positive protection' through recognizing and giving exclusive rights to TK holders; and 'defensive protection' by preventing IPRs rights from being granted to parties other than TK holders. WIPO explores two aspects of positive protection of TK by IPRs, one concerned with preventing unauthorized use and the other concerned with active exploitation of TK by the originating community itself.[39] Some researchers believe that such positive legal protection could consist either in the use of existing IPRs regimes and in the development of new *sui-generis* rights to TK.[40] "Defensive protection refers to a set of strategies to ensure that third parties do not gain illegitimate or unfounded IPRs over TK subject matter and related genetic resources."[41] For example in the patent regime, defensive protection includes measures to invalidate patents that illegitimately claim pre-existing TK as inventions but in order to fulfill this defensive function, there is a need to ensure that the information is available as prior art

[37] FREDERICK M. ABBOTT, et al.

[38] Overview of Activities and Outcomes of the Intergovernmental Committee (WIPO/GRTKF/IC/5/12), [20]

[39] *Ibid* [21]-[22].

[40] SUSETTE BIBER-KLEMM & THOMAS COTTIER, *Rights to plant genetic resources and traditional knowledge: basic issues and perspectives* (CABI. 2005).259. For more information see also THOMAS COTTIER & MARION PANIZZON, *Legal Perspectives on Traditional Knowledge: the Case for Intellectual Property Protection*, 7 Journal of International Economic Law (2004). And THOMAS COTTIER & MARION PANIZZON, *Legal perspectives on traditional knowledge: The case for intellectual property protection*, *in* International public goods and transfer of technology under a globalized intellectual property regime (Keith E. Maskus & J. H. Reichman eds., 2005) And ANTONY TAUBMAN, above n 13

[41] See above n 38 [28]

to search authorities in patent procedures and to patent examiners.[42] Although the classification of protection as a positive or a defensive function could help to assess the applicability of conventional IPRs including the laws of copyrights, patents, and trademarks to TK subject matters, it does not solve the problem of TK holders whose TK has traditional characteristics that may make it ineligible for protection under the most present IPRs regimes.[43] As a matter of fact, the concepts of positive and negative protection should be considered under the scope of IPRs regimes which are supposed to apply to TK subject matters. Naturally in such a scenario, positive and defensive protection mechanisms in regard to a new regime could be different from the protection under industrial property or copyrights-related regimes. In other words, if the international community institutes a new/s*ui-generis* protection regime to grant exclusive rights as positive protection to TK holders, the concept of defensive protection will change accordingly. Therefore, as a first step the international community needs to discuss classification of IPRs protection based on the regime structure and to identify:

- protectable TK subject matters under existing IPRs;
- TK as a *sui-generis*/new regime to protect its holders and manifestations.

The relations between TK and conventional IPRs have been controversial since the early IGC meetings. It raised the question whether conventional IPRs regimes like trademarks or geographical indications are capable of protecting subject matters of TK and the rights of its holders, and if regimes such as patent and plant variety rights might harm TK subject matters and their holders? Questions were also asked about the possibility of gaps existing in the IPRs protection mechanisms. To what extent might they be developed to

[42] SUSETTE BIBER-KLEMM & THOMAS COTTIER, above n 40

[43] Undisclosed information" considered in Article 39 of TRIPs agreement, as one of the IPRs regimes seems to be eligible to protect undisclosed TK.

address those gaps?[44] And what amendments are needed to prevent illegitimate and unlawful protection of parties other than TK custodians? Furthermore, how could the scope of third party acts which are excluded by the protection of existing IPRs be defined? For example, a compulsory disclosure of the origin of TK on patent application forms is one of the suggested mechanisms to avoid the false granting of patent rights.[45] The approach to create a linkage between TK and existing IPRs regimes does not seem to be efficient by it because such regimes are not designed in such a way as to cover TK holders' needs and expectations. Also, due to major differences between countries and their national legal systems in granting and regulating conventional IPRs, there is no harmonized framework to interact with TK. So, to increase impact of protection and enforce rights over TK in foreign jurisdictions, an international dimension with common principles and norms has to be established to drive national laws and policies in a harmonized way. In the light of these facts, developing countries tried to move TK beyond conventional IPRs and to maintain and develop a new regime over TK. Yet, in regard to the implementation general principles of IPRs such as territoriality, extensive flexibility could be present in interpretation and application of an

[44] See document WIPO/GRTKF/IC/13/5(b) which was prepared by the IGC Secretariat on gap analysis on the protection of TK and contains the following elements:

(a) obligations, provisions and possibilities that already exist at the international level to provide protection for TK;

(b) gaps that exist at the international level, illustrating those gaps, to the extent possible, with specific examples;

(c) considerations relevant to determining whether those gaps need to be addressed;

(d) options that exist or might be developed to address any identified gaps, including legal and other options, whether at the international, regional or national level;

[45] See document WIPO/GRTKF/IC/12/7 recognition of traditional knowledge (TK) within the patent system. This document focuses on one aspect only of the defensive protection of TK that of enhancing the examination of patent applications that are relevant to TK.

international protection regime on TK at the national level.[46] For example, the Swakopmund protocol allowed nationals to identify the terms related to TK:

> The specific choice of terms to denote the protected subject matter falling under traditional knowledge and expressions of folklore may be determined at the national level of a Contracting State.[47]

There are many controversial ideas in favor of a *sui generis* protection system for TK manifestations, but an impracticable protection framework without any strength to prevent misappropriation would be fruitless. So, to meet the objective of protection in the context of IPRs, indigenous people need a regime with specific norms and standards under core principles for protection of IPRs with the capability to extend protection from their community jurisdiction to the foreign jurisdiction. As Black's Law Dictionary defines 'Sui generis' is "[o]f its own kind or class"[48], TK because of its *sui-generis* features and quality should enjoy its own tailor-made IPRs.

The problem of classification public domain in the field of TK

Black's Law Dictionary defines the public domain as:

> [t]he universe of inventions and creative works that are not protected by intellectual property rights and are therefore available for anyone to use without charge.
> When copyright, trademark, patent, or trade-secret rights are lost or expire, the intellectual property they had protected becomes part of the public domain and can be appropriated by anyone without liability for infringement. [49]

In this definition the critical point is the loss and expiry of copyrights, trademarks, patents or trade-secret rights, which make IPRs a part of the public domain. So, public domain could consist of a wide variety of content.

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[46] The territoriality is understood to mean that the grant of an IPR by a particular country has effect only within the territory of that country. For more information see FREDERICK M. ABBOTT, above n 31, 75

[47] Above n 27

[48] Black's Law Dictionary, Standard Ninth Edition (2009)

[49] *Ibid*

Graham Dutfield believes asserting a property right over knowledge is insufficient to prevent abuses even through a *sui-generis* system, when so much TK has already fallen into the public domain and can no longer be controlled by the original TK holders.[50] Dutfield's idea could be acceptable if we include public domain under the existing IPRs regimes, while Samuelson suggests that

> [t]here are actually thirteen public domains that can be categorized into one of three groups:
> (1) domains that focus upon the legal status of the content;
> (2) domains that focus upon the freedom to use content, even if it is protected by IPRs; and
> (3) domains that focus upon the accessibility of content."[51]

Keeping in mind the different faces of public domain, what happens if an international system for TK based on IPRs could be established? Is there any possibility for the international community to institute a tailor-made concept of public domain in the context of TK? In such a situation "the public domain could be reconstituted in a variety of ways: by modifying the definition of statutory subject matter, elevating the threshold for protection, adjusting the scope of rights, creating new exemptions, or imposing new types of relief."[52] As a historical review, the same approaches on what constitute public domain in different areas of IPRs regimes existed. The terms 'public domain' in the copyright regime, 'prior art' in the patent regime, and 'generic name' in relation to trademarks are clear examples of different concepts of public domain. For example when a mark becomes generic, it loses its capacity to be used to distinguish one trader's goods or services form those of another.[53] When a trademark is known as a designation to a genus or type of product

[50] See DINWOODIE & COOPER DREYFUSS, above n 35. 514

[51] Pamela Samuelson, *Enriching Discourse on Public Domains*, 55 DUKE L.J. 783-785 (2006), quoted in Miriam Bitton, 'Modernizing Copyright Law', "*Texas Intellectual Property Law Journal* (2011-2012) 69.

[52] See GRAEME DINWOODIE & ROCHELLE COOPER DREYFUSS, above n 35, 863

[53] See LIONEL BENTLY & BRAD SHERMAN, above n 12, 907-909

rather than a particular product from a certain source it is a generic mark and in the public domain. Therefore the public domain might be redefined in any possible international regime over TK**.** Such an approach was taken in establishing the UPOV regime on protection of new plant varieties. According to the UPOV Convention (Article 6 of the 1961/1972 and 1978 Acts, and Article 7 of the 1991 Act)[54], in order to satisfy the requirement of distinctness, a variety must be clearly distinguishable from any other variety whose existence is 'a matter of common knowledge'. The term 'a matter of common knowledge' in the UPOV system is a key aspect for determining whether a potential variety is, in fact, in the public domain. In accordance with UPOV documents:

> [s]pecific aspects which should be considered to establish common knowledge include, among others:
> (a) commercialization of propagating or harvested material of the variety, or publishing a detailed description;
> (b) the filing of an application for the grant of a breeder's right or for the entering of a variety in an official register of varieties, in any country, which is deemed to render that variety a matter of common knowledge from the date of the application, provided that the application leads to the grant of a breeder's right or to the entering of the variety in the official register of varieties, as the case may be;
> (c) existence of living plant material in publicly accessible plant collections.[55]

For TK, if its manifestations lose the condition for protection, it could enter the public domain. For example, Article 13 of the Swakopmund protocol on duration of protection of TK provides that:

> Traditional knowledge shall be protected for so long as the knowledge fulfills the protection criteria referred to under section 4, except that where traditional knowledge belongs exclusively to an individual, protection shall last for 25 years following the exploitation of knowledge beyond its traditional context by the individual.[56]

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[54] Available at: http://www.upov.int/upovlex/en/upov_convention.html

[55] See document tg/1/3 dated General Introduction to the Examination of Distinctness, Uniformity and Stability and The Development of Harmonized Descriptions of New Varieties of Plants; available at: http://www.upov.int/tgp/en

[56] See above n 27.

Conclusion

Protection of TK as an important property of indigenous peoples and farmers is an urgent and vital need for the communities concerned. Any protection regime should provide a comprehensive system capable of meeting the substantive expectations of TK holders on one side and which is consistent with the general principles and norms of international IPRs regimes. Classification of TK may reduce the conflict in the system and increase efficiency in the course of international IPRs system. Definition, protection system and public domain are some of the most important and controversial elements discussed in this paper. It is submitted to approach the problem not by seeking up front definitions of TK, but seeking to develop appropriate classifications based upon which a new international regime of protection could be developed and emerge in order to provide efficient protection of TK holders from one side and provide an access system to other beneficiaries.

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