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THE GLOBAL PROTECTION OF TRADITIONAL KNOWLEDGE: SEARCHING FOR THE MINIMUM CONSENSUS

AMAN GEBRU

ABSTRACT

The protection of traditional knowledge (TK) – the know-how, skills, innovations and practices of indigenous peoples and local communities has been a subject of heated debate in many international forums. TK has proved to be useful as an input in modern industries. For instance, pharmaceutical companies have used medicinal TK to develop drugs more quickly. Despite its value, TK faces an alarming rate of loss and there are many initiatives that attempt to preserve it for posterity. However, almost every major issue on TK protection is contentious, including whether international TK protection is necessary or if domestic legislation alone would suffice to preserve the knowledge from loss. Many countries in the Global-South who tend to hold the lion's share of TK have enacted a domestic TK protection regime, while most countries in the Global-North, in which most firm that use TK reside, have little TK protection. Following from this state of affairs, there is a considerable gap in negotiating positions; and the most advanced instrument on TK protection (the Draft Articles on TK protection) is far from becoming a guideline, let alone a binding treaty.

This paper argues that negotiators should seek the minimum consensus among like-minded countries to develop a binding international instrument for TK protection and leave the rest of the issues to be addressed through domestic legislation. There is a need to strike a balance between providing flexibilities for domestic jurisdictions to craft domestic laws based on its context, and ensuring that there is sufficient international obligation that would encourage the preservation and dissemination of TK. Such a framework should begin with the minimum consensus among key stakeholders including source communities/countries and countries in which major TK users reside. The paper proposes the adoption of five key articles that any international TK protection regime should adopt. These are: 1) a provision defining TK and the general subject matter that should be subject to protection; 2) an article requiring the establishment of domestic frameworks that would encourage the codification and disclosure of TK through databases/registries; 3) an article setting out enforcement measures; 4) provisions on national treatment and MFN treatment; and 5) a provision on the relationship of the instrument to other international agreements. Since many jurisdictions seem to accept such requirements, the international TK protection regime should adopt these provisions and allow policy makers to adopt a fitting domestic framework for their jurisdictions.

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I. INTRODUCTION

Consider the following scenario. A local community of hunters in a remote desert in Southern Africa uses parts of a certain plant to help them suppress their appetite. They chew on the roots of the plant which makes them feel full and they can walk for long distances in search of wild animals to hunt. An anthropologist researching communities in the area hears this practice from one of the members of the community. She decides to document the practice by interviewing the elders who know most about the practice. She then takes some samples of the plant back to her university in the US. She gives the samples and her notes to a scientist who works for a big multinational company that produces weight loss products. After years of research the scientist manages to extract the active ingredient found in the plant. He then convinces his employer to apply for a patent over the appetite suppressant qualities of the active ingredient and to start the regulatory approval process for the weight loss drug. The company is granted a patent and begins the regulatory approval process. When the patenting of the active ingredient is disclosed to the public, many activists for indigenous rights protest against the lack of recognition for the contribution of the local community. The company argues it has no legal obligation to recognize the community's contribution. However, the activists manage to organize a successful campaign which pressures the company to recognize the local community as the source of the knowledge and promises to share 5% of the profits from the sale of the weight loss product.¹

The above story sounds familiar to anyone who follows discussions surrounding bio-piracy – the patenting of inventions that are based on traditional knowledge without the consent or knowledge of the source community. Traditional knowledge (“TK”) – the know-how, skills, innovations and practices of indigenous peoples and local communities has been the subject of heated debate on the international stage.²

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¹ For a detailed historical account of five major examples from Africa, See ABENA DOVE AGYEPOMA OSSEO-ASARE, *BITTER ROOTS: THE SEARCH FOR HEALING PLANTS IN AFRICA* (2014).

² A detailed analysis of the debate surrounding the definition of the term ‘traditional knowledge’ and other key terms is outside the scope of this paper. However, it is essential to note here that the definition of key terms in the literature is highly controversial. Some indigenous peoples and local communities disagree with the definitions, and consider the process by which outsiders define terms as a continuation of the oppression and dominance of colonial powers. Some scholars prefer to adopt

The term 'indigenous peoples' refers to communities living in countries where settler communities reside, and the term 'local communities' is used to refer to communities that reside in countries from which colonizing powers have left, but in which the community is still secluded from the mainstream society.³ In the international debate, the term protection is used two ways. In the defensive sense, protection is used to mean the disclosure of TK to invalidate claims of intellectual property ownership by outsiders through unauthorized means. In the positive sense, protection means the granting of positive rights to source communities to control the use of their TK by outsiders.

The use of TK by outsiders created a clash of world views in which users (which include for profit firms, research institutions and individuals) access TK without the consent or knowledge of source communities. TK proved to be valuable for outsiders when used as an input in modern industries.⁴ A good example is the use of traditional medicinal knowledge in the modern drug discovery process. Since traditional medicinal knowledge ("TMK") seems to be the most commonly used knowledge in the discussion around TK protection, this paper will focus on such type of knowledge. However, the discussions will have implications for other types of traditional knowledge.⁵

In one research, the use of TMK increased the chances of getting a preliminary hit⁶ in plant screening from 6% to 25%.⁷ Another research revealed the predictive role that TMK plays in drug discovery.⁸ However, there is little in the way of a legal obligation or business practice that requires firms to recognize the contribution of TK in the drug discovery process. Despite this value, TK is being lost at an alarming rate. For instance, research by Victoria Reyes-Garcia and her colleagues revealed that,

a broad definition that takes the cultural and environmental context of traditional knowledge when defining the term. The definition adopted in this paper is a narrow one. This is done in order to provide a detailed analysis of a concise area and because the narrow definition seems to be the one adopted in many of the international deliberations taking place on TK protection.

³ For a detailed discussion of the debates around definitions related to TK, see Chidi Oguamanam, *International Law and Indigenous Knowledge: Intellectual Property, Plant Biodiversity, and Traditional Medicine*, (2nd ed., 2006) at 3 & 23.

⁴ TK is useful independently. Members of the source community use this knowledge in their daily lives and customary rules and practices govern the use of such knowledge. This, however, is not the focus of this paper. The paper will focus on the use of TK as an input in modern industries, which at times results in creating tension between the source community and users, making it a complex relationship for governance.

⁵ The literature informally divides TK into different fields including traditional medicinal knowledge (TMK), traditional agricultural knowledge (TAK), and traditional ecological/environmental knowledge (TEK).

⁶ "Preliminary hit" is the compound that is selected from a large number of compounds as a result of its phenotype or process which is relevant for the disease being researched. The compound would still have to go through validation and other tests in the drug discovery process. Benoit Deprez & Rebecca Deprez-Poulain (Guest Editor: Benoit Deprez and Rebecca Deprez-Poulain), *Hit-to-Lead: Driving Forces for the Medicinal Chemist*, 4:6 CURR. TOP MED. CHEM. i (2004); Rebecca Deprez-Poulain & Benoit Deprez, *Facts, figures and trends in lead generation*, 4:6 CURR. TOP MED. CHEM. 569 (2004).

⁷ Michael Balick, *Ethnobotany and the identification of therapeutic agents from the rainforest*, D J CHADWICK & J MARSH, EDS, *BIOACT COMPD PLANTS*, 22 (1990).

⁸ C Haris Salsis-Lagoudakis et al, *Phylogenies Reveal Predictive Power of Traditional Medicine in Bioprospecting*, 109:39 PROC. NATL. ACAD. SCI. 15835 (2012).

between the years 2000 – 2009, the loss of TK related to the use of plants among Tsimane` Amerindians (an Amazonian community) ranged “from 9% (for the female subsample) to 26% (for the subsample of people living close to towns).”⁹ The researchers identified that TK loss is higher in communities living closer to cities than in remote villages. Given this dramatic rate of TK loss, many experts have called for the establishment of a legal regime to save TK from loss and to regulate its use by outsiders. There is a diversity of views in how to regulate the use of TK and the debate is as divided as it has ever been. The rationales for TK protection and domestic frameworks are outside the purview of this paper. However, an organizing principle seems to be the need to save TK from the alarming rate of loss it is faced with. As argued elsewhere, the need to encourage the codification and disclosure of TK should be a core goal for any TK protection regime.¹⁰ Legal frameworks should be established with the goal of encouraging public/private investment in the codification and disclosure of TK. This would save TK from loss and it would help in facilitating the relationship between source communities and TK users. While this paper does not restate the arguments here, it does consider the codification and disclosure of TK as one of the key factors in its analysis.

This paper is interested in examining international TK protection. In this context, one of the key debates is whether there is a need for an international legal framework for TK protection, or if it is sufficient for interested countries to enact domestic legislation protecting TK. While the consensus seems to be that some sort of international protection is necessary, experts disagree on what form this international approach should take. Thus, this paper will begin by considering whether domestic TK protection would suffice to properly regulate the use and dissemination of TK, or if an international mechanism is needed. It outlines domestic measures that could be adopted to mitigate some of the challenges that the TK protection could face in the absence of international protection, but it acknowledges the need for an international framework to fully realize the global welfare-improving potential of TK.

This paper analyzes the international instruments and institutions discussing TK protection - the World Intellectual Property Organization (“WIPO”), the Convention on Biological Diversity (“CBD”) and the World Trade Organization (“WTO”). Following these introductory sections, this paper will examine, in detail, the deliberation of the Draft Articles for TK protection at the WIPO’s Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (“IGC”). The Draft Articles document reflects an advanced discussion of TK protection, and it is unique in expressly encouraging TK codification. Four key issues of contention that delegates have continued to debate will be examined in this regard.

Noting the stalled process of deliberations on the Draft Articles instrument, the paper then examines the minimum substantive standards that should be adopted at the international level to facilitate the cross-border use of TK. In this context, a few promising proposals that could provide an efficient international protection for TK are analyzed. The ‘disclosure of origin’ requirement received special attention in recent

⁹ Victoria Reyes-García et al, *Evidence of Traditional Knowledge Loss Among a Contemporary Indigenous Society*, 34:4 EVOL. HUM BEHAV. OFF J HUM BEHAV. EVOL. SOC. 249 (2013).

¹⁰ See generally, Aman Gebru, *International Intellectual Property Law and the Protection of Traditional Knowledge: From Cultural Conservation to Knowledge Codification*, 15 ASPER. REV INT. BUS TRADE LAW (2015).

deliberations on international TK protection, including at the WIPO IGC. The requirement obligates patent applicants to disclose the origin of TK used in the process of developing a claimed invention. Another promising proposal is the international recognition of national laws. This proposal will also have significant implications for solving some of the challenges that domestic systems will face. The paper concludes with a discussion of the potentials and challenges of using Free Trade Agreements (“FTAs”) to establish international norms for TK protection.

II. IS INTERNATIONAL PROTECTION NECESSARY?

TK is a global public good that crosses local and national borders. It is a non-excludable good in that those who invest in the codification and disclosure of TK would have a hard time excluding users to have not paid to access it. Therefore, there is a risk of extra-territorial free-riding, i.e. there is a risk that firms in countries that do not have domestic TK protection systems could use the TK codified in a jurisdiction that provides protection. If country A established a TK protection mechanism and as a result, a robust TK database, firms in country B, a jurisdiction that does not recognize TK protection, could access the TK database in country A without being bound by country A’s protection mechanism. This may discourage country B and other jurisdictions from adopting TK protection mechanisms in order to allow firms in their jurisdictions to free-ride on TK codification in country A. Firms in country B, which will not have to share profits with TK holders, would have the advantage of low production cost over firms in country A, which has to share profits. This may discourage country A from adopting a TK protection mechanism in the first place. This risk of extra-territorial free-riding brings up the question of whether there is a need for international protection or if domestic protection would suffice to provide an effective TK protection. The implication of territoriality of rights is consequential because of the non-excludable nature of TK and the fact that it does not require an advanced level of expertise to copy or to understand the knowledge.

One way to respond to the risk of extra-territorial free-riding is to argue that if the major users of TK adopt the proposed *sui generis*¹¹ system, there could be sufficient incentive to codify and disclose the knowledge, even if not all countries in the world adopt it. If most developed countries in which most users of TK reside adopt the proposed *sui generis* framework within their domestic systems, the need for international protection will be reduced. Researchers and firms in developed countries could be required to abide by domestic rules if they use TK from abroad. Domestic laws could also be recognized in international instruments (a proposal discussed later in this paper). If TK holders (or their licensees) can recoup their investments on TK codification and disclosure from the jurisdictions that provide protection, they might continue to invest in such endeavors despite the lack of protection in some countries.

¹¹ The term ‘*sui generis*’ is a Latin term meaning “of its own kind”. “The term is used in intellectual-property law to describe a regime designed to protect rights that fall outside the traditional patent, trademark, copyright, and trade-secret doctrines.” *Sui generis*, BLACK’S LAW DICTIONARY (10th ed. 2014).

However, most key jurisdictions in the Global North, including those with considerable indigenous populations, have not adopted a TK protection mechanism. Almost all domestic legislation¹² and all regional frameworks¹³ on the TK protection are in countries and regions that seem to be net exporters of TK and genetic resources. Furthermore, such response to extra-territorial free-riding may not adequately address the situation described above where firms in countries that do not protect TK could have an advantage over firms in countries that do protect it. This risk might convince countries to avoid protecting TK, ultimately challenging the effectiveness of the regime.

Another way to respond to the problem of free-riding on the international stage is to either make the codified TK confidential or defer its public disclosure. Making codified TK confidential for a limited amount of time would give applicants in the *sui generis* system lead time that could support them in recouping the investments they make in codifying and disclosing TK. Competing firms in other countries would not be able to free-ride on the knowledge for at least some period of time. This delayed access might, in turn, encourage countries to establish TK protection mechanisms in order to gain preferred access to it. It should be noted here that countries that have many indigenous peoples and local communities would have an incentive to establish a system of protection for self-serving reasons.

There are current practices of deferred disclosure upon which such claims could be based. Under the patent laws of some developed countries, patent applications are not disclosed to the public immediately. For instance, in the US and Canada, patent applications are published to the public 18 months after the application date.¹⁴ Within this confidentiality period, the patent application and documents submitted with the application are not accessible to the general public. In the wider academic research community, although the priority is to make research reports freely accessible, there is the culture of putting embargoes on research reports in exceptional circumstances.¹⁵ The purpose of deferred disclosure seems to be to protect the inventor or author of the knowledge from unfair competition with others who might use the disclosed knowledge. A similar argument for deferred disclosure can be made in the case of TK disclosure.

If confidentiality and deferred disclosure mechanisms are adopted, at least some of the risks associated with extra-territorial free-riding will be addressed. The competition to get preferred access to TK could be sufficient incentive to induce

¹² WIPO LEX SEARCH (QUERY: TRADITIONAL KNOWLEDGE (TK), http://www.wipo.int/wipolex/en/results.jsp?countries=&cat_id=18 (A search query for “Traditional Knowledge” in the WIPO Lex (a search engine for relevant legislations) lists domestic legislations relevant for TK).

¹³ Regional initiatives related to TK include the Andean Community, the African Union and the Association of Southeast Asian Nations. Chidi Oguamanam, *Intellectual Property in Global Governance: A Development Question*, Routledge Research in Intellectual Property, New York, USA: Routledge, 161 (2012).

¹⁴ For the US see 35 U.S.C. 122 (2017); for Canada see *An Act Respecting Patents of Invention*, RSC 1985 C P-4 (2017).

¹⁵ Office of the Governing Council, *University of Toronto Publication Policy*, UNIVERSITY OF TORONTO (2007) (In addition to some restrictions on publications by faculty and staff, graduate student are also able to put a temporary embargoes to restrict a library from putting a copy of their thesis in its database).

countries to provide protection. However, such approach is not the optimal mechanism because it will restrict the dissemination of valuable knowledge. Additionally, given the ‘global public good’ nature of TK and its cross-border use, the territoriality of any proposed TK protection could seriously undercut its effectiveness.¹⁶ While countries of the Global South hold the lion’s share of TK and related genetic resources, the Global North is where the intellectual and financial capacity to exploit such resources resides. Thus, there are major contributions that an international system of TK protection could make.

In a workshop organized by the United Nations Conference on Trade and Development (“UNCTAD”) and the Commonwealth Secretariat on national systems of protection, delegates from various countries highlighted the need for an international system of protection.¹⁷ Some of the more important reasons cited for the need to establish international protection include the need to have domestic legislation of one country implemented in another; the need to respond to restrictions that states face from Article 27.3(b) of the TRIPs article;¹⁸ the need to stop the patenting of traditional knowledge sourced from a foreign jurisdiction; and the challenges of the monitoring and enforcement of violations in foreign countries.¹⁹

In addition to the reasons highlighted by country representatives, scholars have attempted to extrapolate the challenges of international protection from failed past experience and the concerns of stakeholders. Intuitively, it seems to make sense that relationships between actors located in different corners of the world that cross various jurisdictions be governed by a supra-national mechanism. As rightly noted by Jane Anderson, an international protection mechanism could function as an “overarching authoritative framework for negotiations”²⁰ for parties involved in the use of TK in a modern industry. This may include a supra-national dispute settlement mechanism in order to avoid the influence of politics on the relationship between stakeholders. The unequal power that exists among countries and between TK users and knowledge holding communities²¹ is another key reason for the establishment of an international mechanism on which such relationships could be built.

Currently, there are different international instruments and organizations relating to the protection of TK. However, they have yet to provide clear and holistic

¹⁶ Petra Ebermann, *Patents as Protection of Traditional Medical Knowledge? A Law and Economics Approach*, EUROPEAN STUDIES IN LAW AND ECONOMICS, 174 (2012).

¹⁷ United National Conference on Trade and Development, *Report of the UNCTAD-Commonwealth Secretariat 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*, NEW YORK AND GENEVA: UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT AND THE COMMONWEALTH SECRETARIAT, 19 (2005).

¹⁸ Article 27.3 (b) of the TRIPs agreement requires that jurisdictions bound by the TRIPs agreement must provide protection for some life forms “either by patents or by an effective sui generis system.” Delegates at the UNCTAD-Commonwealth Secretariat workshop felt that, while the exclusion of all life forms would have been an effective tool to stop bio piracy, because Article 273 (b) requires such protection for some life forms member countries did not have the flexibility to ban patents on life forms. *See id.*

¹⁹ *Id.*

²⁰ Jane Anderson, *Indigenous/Traditional Knowledge and Intellectual Property*, Issue Paper, CENTER FOR THE STUDY OF THE PUBLIC DOMAIN, DUKE UNIVERSITY SCHOOL OF LAW, 36 (2010).

²¹ Oguamanam, *supra* note 3, at 165.

protection.²² While most of the instruments have no express statement on TK codification and disclosure, some of them consider TK codification to be a key part of the attempt to provide TK protection. The most promising and comprehensive attempt to protect TK is taking place in a committee of the WIPO. The 'Draft Articles on the protection of traditional knowledge,' the most advanced instrument on TK protection, is being negotiated at the WIPO. Although TK codification is not a prerequisite for protection, the need to encourage TK codification has been highlighted in this framework and delegates seems to have reached a consensus on the matter. Before examining the Draft Articles, the following section outlines the various international dialogues on TK protection, including a general overview of the process at the WIPO.

III. THE PROTECTION OF TK UNDER INTERNATIONAL LAW

Traditional knowledge lies at the intersection of multiple issues of international governance and is, therefore, being discussed in multiple forums.²³ It involves global public health issues because a considerable portion of the world's population relies on TK and its exploitation could impact the health of a significant portion of the world's population.²⁴ A considerable proportion of drugs are produced from genetic resources so TK discussions have implications for both biodiversity conservation and environmental protection.²⁵ The uses of TK in internationally traded drugs have given rise to discussion in trade and development circles. Given the historical and continuing oppression of indigenous peoples and local communities, the issue also touches on the field of human rights. Advancements in biotechnology and other technological areas, the international pressure for the conservation of biodiversity, movements for the recognition of indigenous peoples and local communities all have contributed to the current state of affairs.²⁶ While the CBD and WTO deliberations do not specifically refer to TK codification or disclosure, the WIPO IGC facilitated substantial discussion focusing on the need to save TK from loss through documentation. Thus, while the discussion in Section 3.1- 3.4 is intended to introduce the core forums for TK protection, the implication of WIPO's work related to TK codification and disclosure will be examined in Section IV of this paper.

²² Miriam Latorre Quinn, *Protection for Indigenous Knowledge: An International Law Analysis*, 14 ST THOMAS LAW REV. 287, 307 (2001).

²³ UNCTAD, *Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices (TD/BCOM.1/EM.13/2)*, UNCTAD, 6 (2000).

²⁴ See generally D S Fabricant & N R Farnsworth, *The value of plants used in traditional medicine for drug discovery*, 109: SUPPL 1 ENVIRON HEALTH PERSPECT 69 (2001).

²⁵ See generally TIMOTHY R TOMLINSON & OLAYIWOLA AKERELE, EDS, *MEDICINAL PLANTS: THEIR ROLE IN HEALTH AND BIODIVERSITY* (University of Pennsylvania Press, 1998).

²⁶ World Intellectual Property Organization, *Background Brief No. 2 - WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore*, WORLD INTELLECTUAL PROPERTY ORGANIZATION at 2.

A. World Intellectual Property Organization (WIPO)

International discussions related to TK began in the 1960s when countries in the Global South began calling for the recognition of the contributions of traditional cultural expressions.²⁷ This movement managed to produce the WIPO-UNESCO (United Nations Educational, Scientific and Cultural Organization) Model Provisions for National Laws on the Protection of Expressions of Folklore against Illicit Exploitation and other Forms of Prejudicial Action in 1982.²⁸ The model provision allowed countries interested in protecting folklore to voluntarily use the Model Provisions in crafting domestic legislation. In addition to the Model Provisions, the movement to protect folklore managed to have the rights of performers of folklore recognized in the 1996 WIPO Performances and Phonograms Treaty.²⁹

However, these early discussions of the protection of folklore focused on cultural expressions and not traditional knowledge *stricto sensu* as defined in the introduction section of this paper. International discussions on the protection of TK *stricto sensu* began as part of the movement for biodiversity conservation and were affected by technological advances, especially in the biotechnology field.³⁰ A key instrument in this initiative is the Convention on Biological Diversity discussed in the next section.

The work of the WIPO on the intellectual property issues in genetic resources and traditional knowledge began in the late 1990s.³¹ In preparation for the Patent Cooperation Treaty (2000), member states of the WIPO brought the issue to the Standing Committee on Patents and gave their first mandate for the organization to take up issues related to TK in 1998.³² WIPO undertook nine fact-finding missions throughout 1998 and 1999.³³ This became an attempt to collect first-hand accounts of the “intellectual property needs and expectations of knowledge holders” and included consultation with indigenous peoples and local communities, governments, industry representatives and civil societies in several countries.³⁴ Among other things, the fact-finding mission report highlighted the need to reform existing intellectual property laws and to work on creating new legal tools for TK protection.³⁵

As a result of discussions that took place around the Patent Cooperation Treaty, member states agreed upon a need for a permanent forum to discuss issues related to genetic resources (GR), traditional knowledge (TK) and traditional cultural expressions (TCEs).³⁶ This brought together WIPO’s past work on folklore along with the related issues of GR and TK. Thus, the establishment of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge

²⁷ *Id.* at 1.

²⁸ *Id.*

²⁹ See article 2 and footnote 13 *WIPO Performances and Phonograms Treaty*, WORLD INTELLECTUAL PROPERTY ORGANIZATION (20 Dec. 1996).

³⁰ World Intellectual Property Organization, *supra* note 26, at 1.

³¹ *Id.* at 3.

³² *Id.* at 2.

³³ World Intellectual Property Organization, *Intellectual Property Needs and Expectations of Traditional Knowledge Holders*, Mission Report (Geneva, 2001).

³⁴ *Id.* at 7.

³⁵ *Id.* at 8 Executive Summary.

³⁶ World Intellectual Property Organization, *supra* note 26, at 2.

and Folklore (IGC) occurred in September 2000. The three key features that gave rise to the IGC have been summarized as follows:

... First, it was established to address three new themes that shared certain distinct features: GRs, TK and TCEs were simultaneously regarded as the “common heritage of humanity” and as intellectual valuables requiring appropriate forms of IP protection. Second, GRs, TK and TCEs were seen as the intellectual assets of new key players in IP policy-making, namely developing countries and indigenous and local communities. Third, and more broadly, the IGC was conceived as part of a larger and structured endeavor by WIPO to move towards a modern, responsive IP system that could embrace non-Western forms of creativity and innovation, be comprehensive in terms of beneficiaries, and be fully consistent with developmental and environmental goals.³⁷

Although other forums have held discussions on TK protection, the IGC has been the key international forum in this regard.

The early years of the IGC (2000 – 2004) were focused on the defensive protection of TK.³⁸ After almost a decade of deliberations, member states of the WIPO decided in 2009 that the IGC should begin working towards one or more international instruments that would govern the issues of GR, TK, and Folklore.³⁹ Deliberations at the committee have at times been highly contentious. For instance, the IGC mandate failed to be renewed in the fall of 2014.⁴⁰ However, the committee’s mandate renewed in 2015 and it continues hosting the most advanced discussions on the protection of traditional knowledge.⁴¹

Various groups of like-minded countries emerged during the process of the IGC negotiations. A general categorization of these groups shows that most developing countries (especially those with a high concentration of biodiversity and indigenous communities) strongly advocate the international protection of TK while most developed countries prefer to maintain the status quo. Insightful linguistic anthropological research into the IGC negotiation has been conducted by Stefan Groth.⁴² After observing the IGC deliberations and personally conversing with delegates personally on informal occasions, Groth confirms the general divide in positions between the developing and developed countries. He clusters the member country delegates at the IGC into ‘stalling delegates’ and ‘speeding up’ delegates to

³⁷ *Id.*

³⁸ Defensive protection of TK is the attempt to stop users of TK from claiming IP rights by producing evidence of the existence and/or use of TK.

³⁹ STEFAN GROTH, *NEGOTIATING TRADITION: THE PRAGMATICS OF INTERNATIONAL DELIBERATIONS ON CULTURAL PROPERTY* (Universitätsverlag Göttingen, 2012).

⁴⁰ Catherine Saez, “US Proposes Suspension of WIPO TK Committee; Switzerland and Others Counter”, online: *Intellect Prop Watch* <<http://www.ip-watch.org/2015/09/11/us-proposes-suspension-of-wipo-tk-committee-switzerland-and-others-counter/>>.

⁴¹ *Id.*

⁴² STEFAN GROTH, *NEGOTIATING TRADITION: THE PRAGMATICS OF INTERNATIONAL DELIBERATIONS ON CULTURAL PROPERTY* (Universitätsverlag Göttingen, 2012).

describe the general orientation of the delegates participating in the negotiation.⁴³ The various groups of like-minded countries include, among others, the African Group, GRULAC (Latin American and Caribbean Group), the Asian Group, Group B (US, JAPAN, New Zealand, EU, and Australia), the Central European and Baltic States, and Central Asian and East European Countries. As can be observed from negotiation texts, developing countries with significant biodiversity resources and traditional knowledge, and those in which a considerable number of local communities reside (especially Brazil, India, Peru and some African countries) are strong *demandeurs*⁴⁴ of TK protection.

However, Groth acknowledges that the clustering of ‘stalling’ delegates and ‘speeding up’ delegates is “an abstraction to characterize far more complex and multilayered processes.”⁴⁵ He reveals that some developed countries may actually be willing to agree to some form of international TK protection, while still other developing countries may be adopting politically strategic positions by supporting like-minded countries in order to use the political capital gained from such support in other international forums.⁴⁶ Furthermore, the *demandeurs* of TK protection are diverse and include developing country governments, indigenous peoples, local communities, NGOs, researchers, international and regional organizations. This diversity results in a diversity of perspectives on and approaches to TK protection. The lack of a consensus among even the *demandeurs* of TK protection contributed to the slow progress of the IGC.⁴⁷

Despite the contentious deliberations, the IGC produced an important document on TK protection – The Protection of Traditional Knowledge: Draft Articles [Draft

⁴³ *Id.* at 42–44.

⁴⁴ Developing countries and countries that are rich in biodiversity are usually the actors calling for legal protection for traditional knowledge and genetic resources. Therefore the term ‘demandeurs’ is used in the negotiations at the WIPO – IGC to refer to this loose group of countries. See DANIEL F. ROBINSON, AHMED ABDEL-LATIF, AND PEDRO ROFFE, PROTECTING TRADITIONAL KNOWLEDGE: THE WIPO INTERGOVERNMENTAL COMMITTEE ON INTELLECTUAL PROPERTY AND GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE, 347 (2017).

⁴⁵ *Id.* at 44.

⁴⁶ *Id.*; Groth gives the following example to show how countries support like-minded states in politically strategic ways. “To give an example, Egypt has a notably strong voice in WIPO IGC negotiations on traditional knowledge and folklore. Yet, in private conversation, one high-ranking Egyptian delegate made clear to me that his country has no interest in the protection of TK or TCEs whatsoever – it is not on the domestic agenda, nor does it play a big role in diplomacy. Yet, in negotiations, the Egyptian delegate makes drastic statements and demands, increasing the pressure on the stalling delegations as much as possible. The delegate explained this position by noting that Egypt regards the current UN system as unbalanced and disadvantageous to developing countries. So to increase the pressure on industrialized nations, negotiation tokens from WIPO’s IGC are used to try to bring about changes in the UN system, including in neighboring fora like the WTO or CBD.”

⁴⁷ The lack of consensus among the advocates of TK protection negatively impacted the IGC process, and this became confirmed by delegates involved in the deliberations of the IGC in presentations made at a workshop organized by the International Law Research Program at the Center for International Governance Innovation on May 14, 2015 in Toronto, Canada. CIGI ILRP Consultation Workshop, *Emerging International Law Issues Related to Biodiversity, Traditional Knowledge & Cultural Expression: From Community Knowledge to a Knowledge Community*, available at <https://www.cigionline.org/events/cigi-ilrp-consultation-workshop-emerging-international-law-issues-related-biodiversity-tradit> (last visited Sep. 8, 2017).

Articles] – which distills the deliberations of delegates over the past several years.⁴⁸ There are numerous brackets in the document showing terms on which delegates could not agree.⁴⁹ Since these brackets are used with respect to numerous key features, future prospects for the Draft Articles are highly unpredictable. Considerable work needs to be done before an international instrument on which member states can agree on is produced. Because of the high importance of this forum to the discussion in this paper, the key issues of contention in the Draft Articles and their potential to save TK from an alarming rate of loss is discussed in Section 4 below.

B. Convention on Biological Diversity (CBD)

The protection of traditional knowledge in general (differentiated from cultural expression) began as part of a larger discussion on the conservation of biodiversity resources. The Convention on Biological Diversity (CBD) is one of the first international conventions to mention traditional knowledge.⁵⁰ It is, in fact, the only binding international treaty to expressly call for the protection of such knowledge.⁵¹ However, the CBD has general statements that are aspirational rather than being enforceable on their own.

The global nature of the values of biodiversity and its alarming rate of loss spurred talks and galvanized states to collaborate in the effort to find a global solution. Work on the Convention began in 1988 when the UNEP's (United Nations Environmental Program) Ad Hoc Working Group of Experts on Biological Diversity first established.⁵² As a result of the work of the Ad Hoc Working Group, which included technical (legal) and political negotiations, the Convention opened for signature at the 1992 Rio "Earth Summit" (UN Conference on Environment and Development) and entered into force in 1993.⁵³

The Convention currently has 196 parties⁵⁴ and is a key instrument in the movement for the protection of TK.⁵⁵ Before the CBD, biodiversity resources were considered to belong to humankind in general. However, this position became considered to be one of the causes for the alarming rate of biodiversity and TK loss. Thus, the CBD signaled a change in perspective from one considering biodiversity and related TK to be a 'common heritage of mankind' to one considering it to be something over which source countries have rights.⁵⁶ In recognizing these rights, the preamble

⁴⁸ STAFF OF WORLD INTELL. PROP. ORG. GENERAL ASSEMBLY, 21ST IGC, THE PROTECTION OF TRADITIONAL KNOWLEDGE: DRAFT ARTICLES (WO/GA/40/7).

⁴⁹ *See generally id.*

⁵⁰ UNCTAD, *supra* note 23, at 6.

⁵¹ *Id.*

⁵² For historical account of the Convention including the various meetings and related documents *see* Secretariat of the Convention on Biological Diversity, *History of the Convention*, CONVENTION ON BIOLOGICAL DIVERSITY, <https://www.cbd.int/history/> (last visited Sep. 7, 2017).

⁵³ *Id.*

⁵⁴ Notably, the United States of America has not ratified it.

⁵⁵ *See generally* CONVENTION ON BIOLOGICAL DIVERSITY, LIST OF PARTIES, <https://www.cbd.int/information/parties.shtml> (last visited Sep. 7, 2017).

⁵⁶ *See Chapter 2 The Convention on Biological Diversity*, CONVENTION ON BIOLOGICAL DIVERSITY (Sep. 7, 2017, 2:27 PM), <https://www.cbd.int/gbo1/chap-02.shtml>.

states that the “conservation of biological diversity is a common *concern* of humankind”⁵⁷ displaying the change in terminology. (Emphasis added).

Despite the near universal acceptance of the core mission of conserving biodiversity, the details of the Convention and its implementation have proved contentious. As a result, the rights and obligations recognized in the Convention are general and vague. For the purposes of TK protection, the key sections of the CBD include Articles 8(j), 10 (c), 15 and 18 (4).⁵⁸

These provisions are more aspirational than substantive in that they use qualified language including the phrases “as far as possible and as appropriate” and “subject to national legislation.”⁵⁹ Besides, the CBD does not expressly call for the protection of TK. The most functional of these provisions is Article 8 (j)⁶⁰ which states:

Each Contracting Party shall, as far as possible and as appropriate: ...

(j) Subject to its national legislation, 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.⁶¹

The numerous conditions in the provision show its limitations and its vagueness. The provision reflects some advances since it could be used to create a legal mechanism through which knowledge holder communities and countries could share the benefits arising from the use of their knowledge and resources. However, it permits “backward, exploitive, and even abusive regimes to continue their practices under the banner of ‘national legislation.’”⁶² The need to respond to the local context through diverse national legislation is undeniable in every international regime. However, Article 8 (j) seems completely dependent on the unilateral initiative of member states and on whether they prefer to provide TK protection. The consensus after the signature of the CBD is that it does not go far enough in calling for TK protection.⁶³

⁵⁷ *Id.* at Chapter 2 *The Convention on Biological Diversity*, at The Objectives and Approach of the Convention.

⁵⁸ See *Handbook of The Convention of Biological Diversity Including its Cartagena Protocol on Biosafety*, CONVENTION OF BIOLOGICAL DIVERSITY 3 (Sep. 7, 2017), <https://www.cbd.int/doc/handbook/cbd-hb-all-en.pdf>.

⁵⁹ *Id.* at 11, 94.

⁶⁰ John Mugabe, *Intellectual Property and Traditional Knowledge: An Exploration in International Policy Disclosure*, INTELLECT PROP HUM RIGHTS PANEL DISCUSS COMMEN. 50TH ANNIV. UDHR, 116 (1998).

⁶¹ *Handbook of The Convention of Biological Diversity Including its Cartagena Protocol on Biosafety*, at 138.

⁶² Curtis M Horton, *Protecting Biodiversity and Cultural Diversity under Intellectual Property Law: Toward a New International System*, 10 J ENVIRON. LAW LITIG. 1, 24 (1995).

⁶³ Mugabe, *supra* note 60, at 117.

The other relevant provisions, Articles 10 (c), 15 and 18 (4), are also highly qualified.⁶⁴ A combined reading of the articles provides a general obligation for cooperation in the promotion and conservation of biodiversity and the ability of states to craft systems for the sharing of benefits arising from the use of such biodiversity resources and knowledge. All these vague and general obligations are subject to the existence of national legislation.

On the positive side, the Convention is only a first move towards international dialogue on the protection of biodiversity and TK protection. It functions as a framework instrument which requires additional documents to be implemented. As one of the steps in elaborating on the CBD, working groups and meetings of the Conference of the Parties (COP) managed to produce two instruments: The Bonn Guidelines (2002)⁶⁵ and the Nagoya Protocol (2010).⁶⁶

The Bonn Guidelines (on access to genetic resources and the fair and equitable sharing of the benefits arising from their utilization) are an important step in clarifying the CBD. It is a voluntary system intended to support member countries in developing legislation and contractual regimes for access to benefit sharing from the use of genetic resources and TK.⁶⁷ The Access and Benefit Sharing (ABS) mechanism proved to be useful under the Guidelines.⁶⁸ Several member states, especially developing, and Least Developed Countries (LDCs), have used the system to establish national ABS mechanisms.⁶⁹

More importantly, for the purpose of this paper, the Guidelines fueled discussion on the requirement of disclosure of origin of source countries/communities in procedural and substantive patent law instruments. The disclosure of origin requirement applies if a patent applicant, directly or indirectly, used a genetic resource or TK in developing the invention being considered for a patent right.⁷⁰ The applicant will be required to disclose the source country or community and it is hoped that this mechanism would allow countries/communities to set conditions on accessing such resources.⁷¹ Following the inclusion of such a standard in the Bonn Guidelines, the government of Switzerland led a successful movement to include the requirement in the (procedural) Patent Cooperation Treaty and the (substantive) Patent Law Treaty.⁷² The creative solution of requiring patent applicants to disclose relevant TK related information, while not a comprehensive solution, is a key development in the international dialogue on TK protection.

At the 2004 Conference of the Parties (COP) meeting of the CBD, the Ad Hoc Open-ended Working Group on Access and Benefit-sharing mandated member states to work on an instrument that would elaborate on Articles 8(j) on TK, and Article 15

⁶⁴ CONVENTION OF BIOLOGICAL DIVERSITY, *supra* note 56.

⁶⁵ CONVENTION OF BIOLOGICAL DIVERSITY, *The Bonn Guidelines*, *supra* note 56.

⁶⁶ *The Nagoya Protocol on Access and Benefit Sharing of the Convention on Biodiversity*, Introduction (Oct. 2014).

⁶⁷ *The Bonn Guidelines*, *supra* note 65.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Handbook of The Convention of Biological Diversity*, at 209.

⁷¹ *Id.*

⁷² Oguamanam, *supra* note 3, at 160. It should be noted that this is one of the few cases in which a developed country has taken the lead in advocating for TK protection in an international forum.

on Access and Benefit-sharing.⁷³ On October 29, 2010, the resulting document, the Nagoya Protocol, became adopted, following six years of intense deliberations and came into force on October 12, 2014.⁷⁴ The purpose of the protocol is to provide legal certainty and clarity in implementing the CBD's third objective – access to genetic resources and the fair and equitable sharing of benefits arising from their utilization.⁷⁵ To make the Access and Benefit Sharing obligation effective, the protocol requires that signatories ensure the establishment of checkpoints as compliance measures and the availability of domestic remedies.⁷⁶

Several parts of the protocol were controversial including the binding nature of the protocol and its implication for TK protection in general.⁷⁷ The protocol will be binding on the states that have ratified it,⁷⁸ and this is one of the key improvements that the protocol has brought about. Other highlights include Global Clearing-House and Multilateral Access and Benefit Sharing mechanisms.⁷⁹ Although the protocols recognition of customary laws of indigenous people and local communities on biodiversity and TK is a step in the right direction, it subjects such laws to domestic laws of signatories.⁸⁰ The protocol also defers from other international instruments and deliberations which might reduce its capacity to address issues related to access and benefit-sharing processes.⁸¹ However, the protocol has only been in force for two years.⁸² Thus, analysis of its impact will have to be made at a later point once there is sufficient time for implementation. As the latest in the international attempt to protect genetic resources and TK, the success of the protocol will have a considerable impact on the realization of the potential that TK holds. Since most of the user countries have not yet ratified the protocol, there is much to be done before the objectives of the protocol will be met.

TK protection as an independent issue is a contentious topic in Nagoya Protocol deliberations.⁸³ Since the focus of the Convention and discussions has been the conservation of biodiversity resources, TK is discussed only in so far as it relates to this core objective. TK was not discussed as a standalone issue which seems to have been a result of the historical development of the CBD framework. The international discussion of TK protection as a standalone issue began at the WIPO, and the work of

⁷³ *The Nagoya Protocol* at 1.

⁷⁴ *Id.*

⁷⁵ *Nagoya Protocol*, *supra* note 66.

⁷⁶ *Id.* see art. 14, 17, 18.

⁷⁷ Linda Wallbott, Franziska Wolff & Justyna Pozarowska, *The Negotiations of the Nagoya Protocol: Issues, Coalitions and Process*, GLOB GOV GENET RESOUR ACCESS BENEFIT SHAR NAGOYA PROTOC, 33 (Great Britain: Routledge, 2014).

⁷⁸ There are currently 66 parties to the Protocol and 92 signatories. It is expected that all signatories will ratify the protocol. Secretariat of the Convention on Biological Diversity, *Parties to the Nagoya Protocol*, CONVENTION OF BIOLOGICAL DIVERSITY, <https://www.cbd.int/abs/nagoya-protocol/signatories/default.shtml>.

⁷⁹ See generally *Nagoya Protocol* at 8-11.

⁸⁰ Oguamanam, *supra* note 3, at 163.

⁸¹ See art. 4, *The Nagoya Protocol on Access and Benefit Sharing of the Convention on Biodiversity*, *supra* note 66; Oguamanam, *supra* note 3, at 163.

⁸² The Nagoya Protocol entered into force on 12 October 2014, which is 90 days after the 50th member state deposited its ratification. See Secretariat of the Convention on Biological Diversity, *The Nagoya Protocol: About the Nagoya Protocol*, <https://www.cbd.int/abs/about/default.shtml/>.

⁸³ *Nagoya Protocol*, *supra* note 81.

the WIPO and other international forums seems to have influenced the Nagoya Protocol negotiation process in reinforcing the need to protect TK.⁸⁴ The protocol requires the ‘prior informed consent’ (PIC) of knowledge providers before users access TK and a fair and equitable sharing of profits.⁸⁵ Most TK is based on plant genetic resources.⁸⁶ Given the broad scope of the phrase ‘associated with genetic resources,’ the Protocol covers most uses of TK.⁸⁷ The protocol also requires the fair and equitable sharing of benefits with source communities.⁸⁸

The Nagoya Protocol is an essential instrument supporting domestic protection mechanisms. The fact that the Nagoya Protocol, as a mandatory instrument, outlines the principles of PIC and the fair and equitable benefit sharing, makes it an indispensable tool for the prospecting right framework, a mechanism which considers these two principles to be a core part of the framework. Jurisdictions adopting domestic protection should use the PIC and fair and equitable benefit-sharing provisions of the Nagoya Protocol when crafting domestic laws.

To sum up, while the CBD is a key instrument for the TK protection discussion, it is a general statement that requires more detailed instruments for implementation. The Nagoya Protocol met some expectations and failed to meet others. The core successes of the protocol includes its reiteration of the principles enshrined in the CBD and Bonn Guidelines; its inclusion of advances made in supporting the recognition of the rights of knowledge holders and, more concretely, its establishment of compliance measures such as checkpoints which are essential for enforceable access and benefit sharing mechanisms.⁸⁹ The protocols shortcomings include its vagueness,⁹⁰ the fact that it subjects recognition of customary laws to the laws of domestic jurisdictions, and its express deference to other international instruments.⁹¹ The Bonn Guidelines and the Nagoya Protocol are essential concepts and strategies to support domestic legal frameworks. These instruments provide for the disclosure of origin requirements, the principles of PIC, and the fair and equitable sharing of benefits.

An important and contentious issue that the Protocol failed to address is the interplay between the CBD framework and the global protection of intellectual property covered under the WTO Trade-Related Aspects of Intellectual Property Rights (TRIPs) Agreement.⁹² Before discussing this ambiguity it is appropriate to examine the approach of the WTO-governed TRIPs agreement to the protection of TK.

⁸⁴ Oguamanam, *supra* note 3, at 163.

⁸⁵ *The Nagoya Protocol on Access and Benefit Sharing of the Convention on Biodiversity*, *supra* note 66 at, art. 5 (5).

⁸⁶ *Id.* at 3.

⁸⁷ *Id.*

⁸⁸ *Id.* at art. 5, 6, 7.

⁸⁹ Oguamanam, *supra* note 3, at 163.

⁹⁰ The International Center for Trade and Sustainable Development called the Protocol “a Masterpiece of Ambiguity.” See International Center for Trade and Sustainable Development, *CBD Clinches ABS Protocol in Nagoya*, ICTSD BIORES, <http://www.ictsd.org/bridges-news/biores/news/cbd-clinches-abs-protocol-in-nagoya>.

⁹¹ Oguamanam, *supra* note 3, at 163.

⁹² Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994) [hereinafter TRIPS Agreement].

The following section discusses TRIPs and how it relates to TK protection followed by a description of the tension between the CBD and the TRIPs regimes.

C. Trade-Related Intellectual Property Rights (TRIPs)

The Trade-Related Intellectual Property Rights (TRIPs) Agreement which forms part of the World Trade Organization (WTO) agreement is the instrument that outlines the intellectual property rights and obligations of member countries.⁹³ It represents the first time that an international treaty provided a “floor for protection in all major areas of [intellectual property rights] and a ceiling for anti-intellectual property right measures.”⁹⁴ The TRIPs agreement may be the most controversial area of the WTO system. One of the points of criticism is that it is seen by many as serving the interests of the Global North (or, particularly, IP exporting states) and limiting the policy space for countries in the Global South to consider local contexts.⁹⁵ This criticism is acutely evident in the global public health discussions and, more particularly, in the access to medicine debate.⁹⁶

TK, which is dominant in countries of the Global South, is not recognized under the TRIPs agreement. There is a “profound silence around the protection of indigenous and traditional knowledge” in the agreement.⁹⁷ It is arguable that TK protection established by a member state in its domestic legal system would be TRIPs-Plus (i.e. a right granted in addition to the baseline protection under the agreement) or outside of TRIPs.⁹⁸ If TK protection is TRIPs-Plus, member countries could establish protection under their domestic jurisdiction so long as such protection does not encroach on their TRIPs obligations. If, however, TK protection is outside the TRIPs agreement, then it does not need to be bound by some of the TRIPs terms such as national treatment.⁹⁹ The expressed wish of countries from the Global South includes TK protection as an integral part of the obligation under the TRIPs Agreement or agreements of similar scope. In response, developed countries seem to have engaged in a ‘regime-shifting’ strategy by remitting TK protection discussions to the WIPO.¹⁰⁰ If developing countries succeed in including TK protection under the TRIPs regime, the framework of protection would benefit from the strong WTO dispute settlement mechanism.

To this effect, some scholars have suggested ways in which the TRIPs agreement could be made to accommodate TK protection. For instance Silke von Lewinsky points

⁹³ TRIPs Agreement, art. 1.

⁹⁴ Horton, *supra* note 62, at 25.

⁹⁵ *Id.*

⁹⁶ See generally C M Correa, *Health and intellectual property rights*, 79:5 Bull World Health Organ. 381 (2001).

⁹⁷ Anderson, *supra* note 20, at 39.

⁹⁸ Susy Frankel, *Attempts to Protect Indigenous Culture through Free Trade Agreements*, Christoph B Garber, Karolina Kuprecht & Jessica C Lai, eds, INT TRADE INDIG CULT HERIT, 134 (2011).

⁹⁹ *Id.* at 134–135.

¹⁰⁰ GROTH, *supra* note 42, at 44; CHIDI OGUAMANAM, PRESSURING ‘SUSPECT ORTHODOXY’: TRADITIONAL KNOWLEDGE AND THE PATENT SYSTEM, 322 (Matthew Rimmer, ed, Edward Elgar Publishing 2016) (2016).

to Article 39 on ‘the protection of know-how’ as the most promising area for considering TK protection under TRIPs.¹⁰¹ Jane Anderson points to the protection of Geographical Indications as a feasible, though limited, route for deliberation on TK protection under TRIPs.¹⁰² However, the protection available under both proposals will be limited to the protection of TK meeting the strict requirements of patent laws such as novelty (newness) and inventive step (non-obviousness).¹⁰³ Most TK does not fulfill the core requirements of patent laws. Therefore, attempts to protect TK under TRIPs will require major reforms that would disrupt the IP system significantly.

In addition to scholarly attempts at interpreting the TRIPs agreement or reforming it, indigenous peoples and developing countries have been pushing for similar reform in diplomatic circles. For instance, a group of several indigenous peoples published the ‘Seattle Declaration’ at the 3rd WTO ministerial meeting in November, 1999 criticizing the TRIPs Agreement for, among other things, facilitating abuse of their knowledge and for failing to extend protection to TK.¹⁰⁴ The declaration criticized the WTO for recognizing only ‘western’ knowledge systems and called on the organization to stop the unauthorized patenting of TK and explore alternative ways of protecting it.¹⁰⁵ Despite these and many other attempts at interpreting the TRIPs agreement and calling for the inclusion of TK protection, the agreement as it stands does not provide TK protection.¹⁰⁶

Some member states of the WTO, mostly developing countries,¹⁰⁷ have added their voices to the TK protection movement and pushed for the discussion of the issue in the TRIPs system. A key issue which emerged from these discussions was the unresolved tension between the TRIPs agreement and the CBD.¹⁰⁸ While the CBD recognizes that some sort of TK protection is needed for conservation purposes, the TRIPs agreement is silent on the matter. At the face of it, there does not seem to be any conflict. The tension arises from the concern that TK protection could lead to a violation of the intellectual property rights protected under the TRIPs agreement.¹⁰⁹ It is not clear which instrument would trump in cases of such potential conflict. Beyond this particular tension, the general relationship between the two instruments continues to be unresolved.

¹⁰¹ SILKE VON LEWINSKI, *INDIGENOUS HERITAGE AND INTELLECTUAL PROPERTY: GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE*, 37 (2008).

¹⁰² Anderson, *supra* note 20, at 39.

¹⁰³ See 35 U.S.C. § 102; See also 35 U.S.C. § 103 (2017).

¹⁰⁴ Indigenous Environmental Network, *Indigenous People’s Seattle Declaration*, <http://www.ienearth.org/indigenous-peoples-seattle-declaration/>.

¹⁰⁵ See recommendation regarding TRIPs (3, c, d and f), *id.*

¹⁰⁶ Quinn, *supra* note 22, at 300.

¹⁰⁷ Most of the submissions made at the meetings of the Council for TRIPs were from developing countries and the Africa Group which tend to hold most of the world’s TK and genetic resources. For a list of submissions made by member countries, see the annex list B. Council for TRIPs, *The Protection of Traditional Knowledge and Folklore - Summary of Issues Raised and Points Made (IP/C/W/370/Rev.1)* (World Trade Organization, 2006).

¹⁰⁸ Anderson, *supra* note 20, at 39.

¹⁰⁹ A frequently discussed instance in which such conflict between the CBD and TRIPS might occur – the disclosure of origin requirement – is discussed towards the end of this sub-section. See discussion on the ‘disclosure of origin’ requirement.

An important development regarding the relationship between the two instruments is the Doha ministerial meeting held in November, 2001.¹¹⁰ The Committee on Trade and Environment held the first discussions on TK protection within the WTO framework in the context of reviewing TRIPs Article 27 (3) (b), which provides for the patentability of some life forms, and the relationship between the WTO and the CBD.¹¹¹ The declaration that emerged from the meeting (the Doha Declaration) called on the Council for TRIPs to “examine, inter alia, the relationship between the TRIPs Agreement and the Convention on Biological Diversity, the protection of traditional knowledge and folklore.”¹¹² The Doha Declaration also mandated the Committee on Trade and Environment (CTE) to discuss the relationship between TRIPs and the CBD. Both the Council and the Committee took up the matter and served as forums for deliberation on TK protection, among other issues. Generally, member countries of the WTO, most of which are also members of the CBD, agree to the two key principles under the latter: the prior informed consent,¹¹³ and access and benefit sharing¹¹⁴ principles. The high frequency with which these principles are used in international instruments arguably signals the fact that they may have achieved a status as a basic principle in international TK protection. However, members are in disagreement as to the means of attaining the objectives sought under such principles.¹¹⁵

There are diverse issues that may spark conflicts between the CBD and TRIPs when it comes to implementation. One core method of implementing the principles and objectives of the CBD is the requirement for patent applicants to disclose the origins of TK or genetic resources if the applicant used these resources in developing the invention being considered for a patent. However, the necessity and efficacy of this ‘disclosure of origin’ requirement is a subject of vigorous debate among member

¹¹⁰ See generally *Doha WTO Ministerial Declaration (WT/MIN(01)/DEC/1)*, https://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.htm (2001).

¹¹¹ LEWINSKI, *supra* note 101, at 38.

¹¹² See paragraph 19, *Doha WTO Ministerial Declaration (WT/MIN(01)/DEC/1)* (2001).

¹¹³ The WIPO provides the following explanation for the term Prior Informed Consent (PIC) which is at times referred to as Free and Prior Informed Consent (FPIC): “The purpose of the use of the adjective ‘free’ is to ensure that no coercion or manipulation is used in the course of negotiations, while inclusion of ‘prior’ acknowledges the importance of allowing time to indigenous [peoples] to fully review proposals respecting the time required for achieving consensus. It also anticipates the reality that decisions, especially those relating to major investments in development, are often taken in advance with indigenous peoples. The notion of ‘informed’ consent reflects the growing acceptance that environment and social impact assessment are a pre-requisite for any negotiation process and allow all parties to make balanced decisions.” See “Prior Informed Consent” in World Intellectual Property Organization, <http://www.wipo.int/tk/en/resources/glossary.html#38> (follow Glossary: Key terms related to intellectual property and genetic resources, traditional knowledge and traditional cultural expressions”).

¹¹⁴ Access and Benefit Sharing (ABS) is generally understood to mean access by users of genetic resources and traditional knowledge with the expectation of benefit sharing arising out of their utilization.

¹¹⁵ See paragraph 18 and the following, Pascal Lamy, *Issues Related to the Extension of the Protection of Geographical Indications Provided for in Article 23 of the TRIPs Agreement to Products other than Wines and Spirits and those Related to the Relationship between the TRIPs Agreement and the Convention on Biological Diversity*, (WT/GC/W/633 TN/C/W/61) (2011).

countries.¹¹⁶ A common objection to the adoption of the requirement is that it may hinder innovation because the process of disclosing all the origins of knowledge used in the inventive process may prove to be too cumbersome and may make such process more costly.

Mega diverse countries such as Brazil and India call for the amendment of the TRIPs Agreement to include a mandatory ‘disclosure of origin’ requirement for member states.¹¹⁷ Most developed countries have not been keen on amending the TRIPs agreement. For instance, the US as the most influential member of the WTO, objects to the TRIPs council’s jurisdiction over TK protection.¹¹⁸ The US, rather than making amendments to the TRIPs Agreement, prefers national legislative measures and allowing interested parties to enter into contractual relations on a case by case basis without additional legal regulation.¹¹⁹ Japan suggests the deliberation of such issues at the WIPO instead of the TRIPs forum.¹²⁰ There are outliers, however, as developed countries such as Norway¹²¹ and Switzerland¹²² have called for the establishment of the ‘disclosure of origin’ requirement within the TRIPs.¹²³ Although the position of countries on the establishment of the ‘disclosure of origin’ requirement does not rigidly correlate to their level of economic development, the general division on positions does reflect a North-South divide. However, a limited disclosure of origin requirement, the violations of which do not have severe implications for patent holders, seems to enjoy popular support.¹²⁴ Despite these vigorous deliberations in the past, the Doha round

¹¹⁶ World Trade Organization, *Article 27.3b, Traditional Knowledge, Biodiversity*, TRIPs: ISSUES, https://www.wto.org/english/tratop_e/trips_e/art27_3b_e.htm at 27; Lamy, *supra* note 115, Paragraph 18 and the following.

¹¹⁷ See generally Council for TRIPs, *Doha Work Program – Relationship Between the TRIPs Agreement and the Convention on Biological Diversity - Appropriate action to be taken/decided by the General Council on TRIPs & CBD - Communication from Brazil, China, Colombia, Cuba, Dominican Republic, Ecuador, India, Indonesia, Pakistan, Paraguay, Peru, South Africa, Tanzania, Thailand, Venezuela*, LDC GROUP AND ACP GROUP (WT/GC/W/590, TN/C/W/49) (2008); See also *id.*

¹¹⁸ Frankel, at 237.

¹¹⁹ Council for TRIPs, *Article 27.3(b), Relationship between the TRIPs Agreement and the CBD, and the Protection of Traditional Knowledge and Folklore - Communication by the United States*, at 3.

¹²⁰ See generally Council for TRIPs, *The Patent System and Genetic Resources - Communication from Japan* (IP/C/W/472) (2006).

¹²¹ See generally Council for TRIPs, *The Relationship between the TRIPs Agreement, The Convention on Biological Diversity and the Protection of Traditional Knowledge - Amending the TRIPs Agreement to Introduce an Obligation to Disclose the Origin of Genetic Resources and Traditional Knowledge in Patent Applications - Communication from Norway* (WT/GC/W/566, TN/C/W/42, IP/C/W/473) (2006).

¹²² See generally Council for TRIPs, *The Relationship between the TRIPs Agreement, The Convention on Biological Diversity (CBD) and the Protection of Traditional Knowledge and Folklore and the Review of Implementation of the TRIPs Agreement under Article 71.1 - Communication from Switzerland* (IP/C/W/446) (2005).

¹²³ Marion Panizzon & Thomas Cottier, *Traditional Knowledge and Geographical Indications: Foundations, Interests and Negotiating Positions*, in *Dev Ctries Doha Round WTO Decis-Mak Proced WTO Negot Trade Agric Goods Serv*, NCCR TRADE REGULATION WORKING PAPER NO 2005/01, 247 (2006).

¹²⁴ WTO Committee on Trade and Environment, *Environment: Issues - Intellectual property and the environment*, https://www.wto.org/english/tratop_e/envir_e/trips_e.html.

of deliberations on development issues, including TK protection, seems to have stalled.¹²⁵

To sum up the discussions on TK protection under TRIPs, even though the issue has been debated for well over a decade, a concrete outcome has yet to be achieved. The debate is between mega diverse countries who call for TK protection through amendments to the TRIPs Agreement, and some member countries (mostly developed countries) who object to such amendments and prefer either no amendments or less intrusive alternative measures. The current trend seems to be to discuss intellectual property issues related to TK protection under the WIPO framework. The TRIPs agreement as it stands does not extend protection to TK. As a result, proponents of TK protection might have missed a key opportunity to benefit from the effective implementation and enforcement mechanism of the WTO.

D. Other Forums

In contrast to the specific deliberations at the WTO, states have been more willing to include references to TK protection in other forums.¹²⁶ However, the common feature of these instruments is that they tend to be aspirational or general rather than providing rights and obligations that could be enforced. Many instruments have directly or indirectly called for TK protection.¹²⁷ Several United Nations agencies¹²⁸ and other international entities work on TK protection from the perspective of their core mandate. Most of these institutions collaborate on some aspect of their work with other entities working on TK protection.¹²⁹ As stated earlier, because of TK's relevance to biodiversity, biotechnology, food, agriculture and indigenous rights issues, many of the instruments that govern such issues internationally also touch on TK protection. Because of the diversity and high number of such initiatives, a detailed analysis of the TK protection within these forums is beyond the scope of this paper. However, a brief discussion of the work of the main international institutions and instruments which have implications for TK protection is provided below.

The Food and Agricultural Organization (FAO) is a key forum in which genetic resources and traditional agricultural knowledge have been discussed. The FAO administers the International Treaty on Plant Genetic Resources for Food and Agriculture (IT PGRFA)¹³⁰ became adopted at the organization's 31st session in November, 2001.¹³¹ The main success of the treaty is in establishing an innovative

¹²⁵ Oguamanam, *supra* note 3, at 322.

¹²⁶ See discussion in this section regarding the UN forums such as the Food and Agricultural Organization, and the World Health Organization.

¹²⁷ See discussion in this section regarding UN instruments including the examination of the International Treaty on Plant Genetic Resources for Food and Agriculture (IT PGRFA).

¹²⁸ For a list of the various UN agencies and projects on TK protection, see United Nations University - Institute for the Advanced Study of Sustainability, *Traditional Knowledge & the UN*, http://www.unutki.org/default.php?doc_id=23.

¹²⁹ *Id.*

¹³⁰ *The International Treaty on Plant Genetic Resources for Food and Agriculture*, UNFAO (3 November 2001).

¹³¹ *Id.*

Multilateral System of Access and Benefit Sharing¹³² which adopts a common pool framework that covers 64 of the most important crops for humankind (representing 80% of human consumption).¹³³ The system allows citizens of signatory countries to use the resources provided on the conditions that they use them for non-commercial purposes and that they do not acquire IP rights over such resources.¹³⁴ However, the IT PGRFA, similar to the CBD, has highly qualified language and frequently defers to national legislation.¹³⁵ As such, the progress on TK protection through these instruments is limited.

A more relevant UN agency for the purposes of traditional medicinal knowledge is the World Health Organization (WHO).¹³⁶ In December 2000, the organization discussed TK and IP issues at an Inter-Regional Workshop on Intellectual Property Rights in the Context of Traditional Medicine.¹³⁷ Member states made 11 core recommendations, the most important of which included the protection of TK (including through customary and *sui generis* means), the documentation of public domain traditional knowledge, the establishment and strengthening of national and regional approaches, and the creation of benefit sharing schemes.¹³⁸ Because of the space limitations, this paper will not discuss all international discussions on TK protection. However, it is worth mentioning that many other UN agencies have discussed TK protection in one form or another.

The cross-cutting nature of TK has resulted in the issue being discussed in many international forums where each has a particular area of focus. Such an approach, where each forum brings to bear its own expertise, may offer considerable advantages, especially when these forums collaborate with each other to avoid overlap. However, without a lead institution with clear authority, there is risk of a piecemeal approach to TK protection that fails to yield a comprehensive solution to the problems.¹³⁹ The WIPO seems to be assuming a lead role. The negotiations taking place at the WIPO-IGC focus on TK protection in an independent and holistic manner rather than focusing on any particular aspect of it.¹⁴⁰ Many states hope the draft articles being negotiated at the WIPO-IGC will result in an effective global mechanism that provides clear solutions unlike previous attempts at TK protection. The following section is devoted to examining the key features of the draft articles instrument.

¹³² See Part IV, Article 10 and the following, *id.*

¹³³ See Annex 1 of *id.*

¹³⁴ See CBD, Article 12.3.

¹³⁵ *The International Treaty* (2001).

¹³⁶ See generally WORLD HEALTH ORGANIZATION, <http://www.who.int/en/> (last visited Sep. 7, 2017).

¹³⁷ *Report of the Inter-regional Workshop on Intellectual Property Rights in the Context of Traditional Medicine*, Workshop report (New Delhi and Geneva: World Health Organization, 2001).

¹³⁸ See *id.* at 34-35.

¹³⁹ Sophia Twarog, *Preserving, Protecting and Promoting Traditional Knowledge: National Actions and International Dimensions*, Sophia Twarog & Promila Kapoor, eds. (2004) at 61.

¹⁴⁰ ROBINSON ET. AL., *supra* note 44, at 3.

IV. THE WIPO DRAFT ARTICLES AND THE 'INCENTIVE TO CODIFY'

The 'Protection of Traditional Knowledge: Draft Articles'¹⁴¹ - an instrument that WIPO IGC has been working on for a decade - is a highly contentious instrument. The contentions relate to both the general nature and purpose of the document and the details of almost all twelve provisions within it.¹⁴² The nature of the document will substantially change depending on which alternative wording or option is ultimately accepted under each provision.¹⁴³ Because of the tentative nature of most of the provisions, detailed analysis of the rights and obligations proposed in it is infeasible. Instead, what is provided below is a general discussion of key features of the instrument that creates fault lines in the deliberations at the WIPO IGC. Such discussions will focus on how these issues affect the codification and disclosure of traditional knowledge as developed.

The Draft Articles have three parts: The preamble/introduction, the policy objective, and the substantive and procedural provisions. A brief discussion of each section is provided below. An analysis of the key features that seem to create an unbridged gap will follow thereafter.

The preamble/introduction contains nine distinct but interrelated statements on TK protection listing the goals of the Draft Articles.¹⁴⁴ The section includes paragraphs on the recognition of the value of TK, the need to promote awareness of, and respect for, TK, the promotion of preservation of TK, the relationship between the Draft Articles and other international agreements and processes, the promotion of access to knowledge and safeguarding of the public domain, the documentation and conservation of TK, the promotion of innovation, the creation of new rules and principles, and the relationship of the framework with customary use.¹⁴⁵ Paragraph six of this section is particularly important for the purposes of this paper because it highlights the need for the documentation, conservation, and disclosure of TK. The paragraph states:

Document and conserve traditional knowledge

(vi) contribute to the **documentation and conservation** of traditional knowledge, encouraging traditional knowledge to be **disclosed**, learned and used in accordance with relevant customary practices, norms, laws, and/or understandings of traditional knowledge holders, including those customary

¹⁴¹ World Intellectual Property Organization, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, *The Protection of Traditional Knowledge: Draft Articles*, WIPO (2014) [hereafter Draft Articles] The latest version at the time of the writing of this paper was published on March 28, 2014 and thus the analysis discussed in this paper will be based on such version.

¹⁴² See generally *id.*

¹⁴³ For a more detailed discussion of the key elements of an earlier version of the Draft Articles see TOBIAS KIENE, *THE LEGAL PROTECTION OF TRADITIONAL KNOWLEDGE IN THE PHARMACEUTICAL FIELD: AN INTERCULTURAL PROBLEM ON THE INTERNATIONAL AGENDA* (Münster; New York, NY; München; Berlin: Waxmann Verlag GmbH, Germany, 2011).

¹⁴⁴ See *The Protection of Traditional Knowledge: Draft Articles*, WIPO (2013).

¹⁴⁵ See *id.*

practices, norms, laws and/or understandings that require **prior informed consent** or **approval and involvement** and **mutually agreed terms** before the traditional knowledge can be disclosed, learned or used by others;¹⁴⁶(Emphasis added).

Given that this is the only paragraph which does not have brackets, it seems that all members of the WIPO IGC agree with the need to document, conserve and disclose TK. It should be noted that the paragraph recognizes the basic standards of ‘prior informed consent,’ ‘approval and involvement,’ and ‘mutually agreed terms.’¹⁴⁷ Although these principles are being debated with regard to their specific application, their inclusion in many of the international instruments dealing with TK suggest that they have achieved a certain stature as accepted principles in the international deliberation of TK protection. It should be noted here that the documentation of TK is a new addition as a core goal of the Draft Articles. Previous versions of the Draft Articles do not mention the need to document or codify TK. As such, it could be thought of as a new consensus for advancing the goal of international TK protection.

The title of this first part – preamble/introduction – seems to be where we see our first sign of contention in the instrument. Since preambles are customary sections in documents of a strong legal nature, it seems that some members of the committee prefer to use the term ‘introduction’ which implies that the document provides little legal force behind it.¹⁴⁸ The contention does not stop with the title. Complete wording of three of the nine preamble/introductory statements is contested.¹⁴⁹ The paragraphs on the promotion of access to knowledge and the safeguarding of the public domain, and those on the provision of new rules and disciplines have been put in brackets to show that some prefer to delete the entire statement deleted from the instrument.¹⁵⁰ Some members have provided an alternative paragraph to the statement on the promotion of awareness and respect for TK.¹⁵¹

Additionally, key features of almost all paragraphs in this preamble/introductory section are also put in brackets because of disagreements on wordings.¹⁵² For instance, the first paragraph focusing on the recognition of the value of TK lists the several values that TK might have for society including intellectual, spiritual and social values.¹⁵³ However, it seems that members could not agree on the recognition of the economic/commercial values of TK as these terms have been put in brackets.

In contrast to the nine statements under the preamble/introduction, the policy objectives focus on two main issues: the granting of certain rights to knowledge holding communities and the prevention of the granting of erroneous patent rights over TK.¹⁵⁴ Despite their focus on these two issues, the statements in the policy objectives section are also filled with alternative statements.

¹⁴⁶ *Id.* at 2.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 2.

¹⁴⁹ *Id.*

¹⁵⁰ *See generally Draft Articles*, WIPO (2013).

¹⁵¹ *Id.*

¹⁵² *Id.*

¹⁵³ *Id.* at 2.

¹⁵⁴ *Id.* at 3-7.

The above section briefly discusses the first two sections of the Draft Articles: the preamble/introduction and the policy objectives. The following section will discuss the key issues that have created gaps between the negotiating positions of member countries, which in some instances have resulted in the creation of groupings of like-minded states. As stated above, while a detailed discussion of each article in the instrument is not feasible, an examination of the core issues that have stalled the Draft Articles deliberation seems useful at this point. It is the hope that such discussion will shed some light on the contents of the third section of the Draft Articles – the substantive and procedural provisions.¹⁵⁵

A. Key Issues of Contention

The key issues that have given rise to tension between the negotiating blocks may generally be grouped into four topics. These include: 1) the definition of TK, especially on whether it should be expanded to include traditional cultural expression or limited to traditional knowledge; 2) the legal nature of the Draft Articles (i.e. whether they should be a binding international instrument or some version of a soft law or guideline); 3) the recurring tension between inserting flexibilities in the instrument and attempting to make it effective and enforceable; and 4) the interaction between TK systems of protection and existing intellectual property laws; that is which should prevail in case of irreconcilable conflict.¹⁵⁶ These core issues, discussed in further detail below, have divided member countries of the WIPO IGC ever since details of the instrument began being discussed in this forum. While these issues have implications for many areas of the Draft Articles and TK protection, the analysis in this section focuses mainly on the effect of the issues on the encouragement of TK codification.

A rough grouping of the member countries on all sides of the debate shows divisions along levels of economic development. Developing countries which hold most TK generally tend to advocate stronger protection of TK while developed countries, in which most multinational corporations that use TK reside, tend to resist strong protection of TK.¹⁵⁷ This can be seen in the deliberations of the IGC and the positions that member countries take.¹⁵⁸ However, there are some outlier developed countries that defy such categorizations by taking a mid-way position. New Zealand, Australia, Norway and Switzerland seem to be members that tend to take such positions on some occasions.¹⁵⁹ Additionally, as explained earlier in Section III C., the divide in the IGC debate is more complex than just a simple grouping of countries divided based on their

¹⁵⁵ See *Draft Articles*, WIPO (2013) at 8-9

¹⁵⁶ See Center for International Environmental Law, *Infra* note 161.

¹⁵⁷ See generally Wallbot, *supra* note 77.

¹⁵⁸ *Id.*

¹⁵⁹ For instance, see comments made by delegations from New Zealand, Australia, Norway and Switzerland. *Circulation of Comments Received on Documents WIPO/GRTKF/IC/9/4 AND WIPO/GRTKF/IC/9/4* (WIPO/GRTKF/IC/10/INF/2) WORLD INTELLECTUAL PROPERTY OFFICE (2006); *The Protection of Traditional Knowledge: Addendum to Collation of Written Comments on the List of Issues* (WIPO/GRTKF/IC/11/5(a) Add.) WORLD INTELLECTUAL PROPERTY OFFICE, 3 Annex (2007). As highlighted earlier Norway and Switzerland have been leaders in the amendment of the Patent Cooperation Treaty and the International Patent Classification to include TK.

level of economic development.¹⁶⁰ It involves like-minded countries which have diverse interests within a broader agenda, and positions which are adopted as part of a broad political strategy that spans issues and international forums of deliberation.

1. *Tensions in Defining TK*

Most indigenous peoples and local communities see TK as an integral part of their culture and identity. Representatives of indigenous groups who have attended the WIPO IGC process have noted this fact on several occasions.¹⁶¹ Their call is for TK protection to be discussed together with traditional cultural expressions and genetic resources.¹⁶² WIPO also recognizes the interconnectedness of these issues, and these issues were dealt with together at the beginning of the IGC process.¹⁶³ However, as deliberations progressed at the IGC, the committee began dealing with TK separate from traditional cultural expressions and genetic resources, while still recognizing their interconnected and holistic nature.¹⁶⁴ Currently, there are separate workshops, negotiations, and instruments for TK, traditional cultural expressions,¹⁶⁵ and genetic resources.¹⁶⁶

The Draft Articles document reflects this tension in defining TK. The ‘use of terms’ section of the Draft Articles, which provides definitions for key legal terms used in the instrument, adopts the following definition of TK:

Traditional knowledge [refers to]/[includes]/[means], for the purposes of this instrument, know-how, skills, innovations, practices, teachings and learnings of [indigenous [peoples] and [local communities]]/[or a state or states].

[Traditional knowledge may be associated, in particular, with fields such as agriculture, the environment, healthcare and indigenous and traditional medical knowledge, biodiversity, traditional lifestyles and natural resources and genetic resources, and know-how of traditional architecture and construction technologies.]¹⁶⁷

The first paragraph of this definition adopts a narrow scope and limits the definition to what is defined in this paper as TK. The second paragraph situates TK

¹⁶⁰ See generally Section III C., *infra*.

¹⁶¹ Center for International Environmental Law, *The Gap Between Indigenous People’s Demands and WIPO’s Framework on Traditional Knowledge* (2007) at 3.

¹⁶² *Id.* at 1-8.

¹⁶³ *Id.* at 12.

¹⁶⁴ KIENE, *supra* note 143, at 215.

¹⁶⁵ WIPO: *Traditional Cultural Expressions*, WORLD INTELLECT PROP ORGAN - INTERGOV. COMM. INTELLECT PROP GENET RESOUR. TRADIT. KNOWL. TRADIT. CUTURAL. EXPR., <http://www.wipo.int/tk/en/folklore/>.

¹⁶⁶ WIPO: *Genetic Resources*, WORLD INTELLECT PROP ORGAN - INTERGOV. COMM. INTELL. PROP. GENET. RESOUR. TRADIT. KNOWL. TRADIT. CUTURAL. EXPR., <http://www.wipo.int/tk/en/genetic/>.

¹⁶⁷ *Draft Articles*, WIPO (2013) at 10.

in a holistic manner as a concept interconnected with “traditional lifestyles” and “genetic resources”.¹⁶⁸ However, the second paragraph is fully placed in brackets which means member countries did not all agree that the second paragraph should be part of the definition of TK.¹⁶⁹ The link between TK and cultural expressions is also mentioned in Article 1.3 of the Draft Articles.¹⁷⁰ In outlining the subject matter of protection the Draft Articles acknowledge that TK is somehow linked to “the cultural [and/or] social identity and cultural heritage of indigenous [peoples] and local communities ...”¹⁷¹ While these disagreements may seem to be minor technicalities, the debate about the scope of TK remains as one of the key issues stalling the deliberation of the Draft Articles.

The tension over defining TK is related to the underlying differences in the world view of ‘modern societies,’ on the one hand, and indigenous peoples and local communities on the other. The tendency to divide TK from traditional cultural expressions seems to stem from two factors - existing practice and pragmatism. The preference for following existing practices in conventional intellectual property literature and legislation may be the first root cause. While traditional know-how relates to the subject matters of protection under patent law, traditional cultural expressions are more closely associated with literary and artistic expressions protected under copyright law. Consequently, members of the IGC may have chosen to be pragmatic and simply cluster the issues into a ‘western’ categorization of intellectual property.¹⁷²

Following the pragmatic route, the definition adopted in this paper is a narrow one and refers to the know-how, skills, practices and innovations of indigenous peoples and local communities. However, TK codification should be as holistic as possible. Holistic documentation covering the cultural context in which the TK was developed is more valuable to users because it can provide more informative ways of developing successful products. Holistic documentation may also serve to satisfy historical and anthropological interests in the TK and the surrounding cultural environment. This is not to argue that rights in TK should extend to the expressive elements of the codification. Even if TK is documented in a holistic manner within its cultural context, the features that would give rise to rights and responsibilities would be limited to the know-how that is used by outsiders. Therefore, while a narrow definition that refers to know-how, rather than cultural expressions, is preferred in this thesis, the actual codification does not need to exclude the cultural context in which TK is found.

2. *The Legal Nature of the Draft Articles*

The most contentious issue at the IGC seems to be the legal nature of the Draft Articles.¹⁷³ Member countries have been consistently divided on the question of

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² KIENE, *supra* note 143, at 240.

¹⁷³ *Id.* at 234–235.

whether the process should focus on establishing a legally binding international instrument or a non-binding document. The implication of this disagreement seems to be the major issue stalling the progress of deliberations at the IGC. The interests of member states with regard to what form the Draft Articles should take are widely diverse. For example, the United States consistently voices its objection to the establishment of a binding legal instrument preferring to leave the instrument as a suggestive document, while the European Union prefers to leave the option open for future decision making.¹⁷⁴ The delegations of Australia and New Zealand have proposed the adoption of guidelines that the latter calls a “menu of options approach.”¹⁷⁵ Developing countries such as India, Turkey, and Brazil, among others, and the African Group, argue that TK protection will not be effective without a binding international instrument.¹⁷⁶ Because member countries have yet to agree on what legal form the Draft Articles should take, the most recent version of the instrument does not reflect much progress since its earlier versions.

Several international instruments adopt general statements on the need to protect TK. The problem is not a lack of international documents providing aspirational statements and general principles. Rather, the lack of a clear and binding legal instrument seems to be what is missing. The gap in the positions of states and the resulting frustration with the lack of progress may be one of the causes of the protectionist trend that megadiverse countries are adopting. Thus, although limited in scope, some form of binding international instrument will be necessary if the global use of TK in modern industries is to achieve its full potential. The preamble/introductory statements and policy objectives are general areas where there is considerable consensus. Some form of minimum protection could be developed out of such provisions. Therefore, what is needed is a point of minimum consensus that would garner the support of the highest number of jurisdictions and still be able to provide enough protection to facilitate the codification and disclosure of TK.

As mentioned earlier, the need to document and conserve TK is one of the few uncontested preamble/introductory statements in the Draft Articles. As such, the need to incentivize the codification of TK could be used as an organizing principle for establishing minimum binding protection. The binding nature of TK protection could have significant implications for its effectiveness which, in turn, may be expected to impact the framework’s ability to create a sustainable system of codification and disclosure.

3. *Flexibilities vs. Effectiveness/Enforceability*

The other major point of contention evident in many documents of the IGC negotiations is the tension between flexibility and effectiveness. On the one hand,

¹⁷⁴ See generally statements made by the EU and USA *The Protection of Traditional Knowledge: Factual Extraction*, WORLD INTELLECTUAL PROPERTY OFFICE at 8–10.

¹⁷⁵ KIENE, *supra* note 143, at 235; It seems that the existence of a considerable and vocal indigenous peoples in Australia and New Zealand has succeeded in influencing the position of these governments at the IGC.

¹⁷⁶ See generally comments made by India, Brazil and the African Group *supra* note 107, at 84.

groups made up of developing states and indigenous peoples, and local communities are pushing for the establishment of some sort of clear and enforceable legal documents while, on the other hand, a group of developed countries advocates the need to preserve flexibilities.¹⁷⁷ The call for flexibilities includes arguments for the need to leave policy space for member countries to establish TK protection systems that respond to the unique features of their jurisdictions, national interests, and the socio-political climate. Actors calling for flexibilities also point to the scope of protected TK as an area requiring flexibility.

A close observer of the politics of international IP law¹⁷⁸ may find some irony in such statements as most of the countries that push for the establishment of flexibilities in international TK protection systems are the same actors who lead international efforts for the harmonization of stronger international IP laws. For instance, the United States is a leader in the international harmonization of intellectual property laws through both multilateral and bilateral agreements. However, the US delegation at the WIPO IGC consistently focuses on respect for “the important concepts of freedom of choice and flexibility for Member States addressing these issues and concerns.”¹⁷⁹ Similarly, the Canadian delegation commented that IGC’s work “would have to allow for maximum flexibility to take into account the diverse nature of Committee members’ present and future efforts ...”¹⁸⁰ This can be contrasted to the position of these countries on other international treaties in which international obligations limiting domestic policy space are accepted with much more enthusiasm.

This is not to say that calls for flexibilities are illegitimate. There is a genuine need to provide policy space for member countries to establish an appropriate TK protection system for their own jurisdictions based on their socio-political and economic realities. Given the diversity of stakeholders involved in the conservation and use of TK, and the different interests in this regard, it may be impossible, or at least premature, to establish a globally harmonized TK protection system. However, as is done in other areas of international law, in general, and international IP instruments in particular, the goal should be to balance flexibility with legal certainty and enforceability. In this sense, some level of protection that reflects the minimum consensus at the international level seems justifiable. This is especially necessary given the failure of general and vague statements in existing international instruments to address the problem of TK loss and ensure its sustained use.

If the goal is to make some progress at the international stage, the focus should be on addressing the common problem of the alarming rate of TK loss and the inefficiencies associated with using TK. In this regard, there is a general agreement on the need to halt the ‘misappropriation’ of TK and to stop the granting of non-

¹⁷⁷ See generally Wallbot, *supra* note 77.

¹⁷⁸ It should be noted that there is no single and organized body of ‘international intellectual property law.’ The term ‘international intellectual property law’ is used loosely and for the sake of convenience to refer to the body of laws that have direct implications for the regulation of the creation, use and distribution of inventions, and literary and artistic creations.

¹⁷⁹ *Draft Report (Second Draft) WIPO/GRTKF/IC/9/14 Prov 2.*, SECRETARIAT OF THE WORLD INTELLECTUAL PROPERTY OFFICE, ¶ 204 (2016).

¹⁸⁰ *Id.* ¶ 224.

innovative patents.¹⁸¹ A balance should be struck between providing flexibility for member countries to establish differing domestic laws, and the provision of some baseline protection ensuring legal certainty and enforceability. The uncertainty related to TK protection creates major transaction costs that discourage users from using TK in their research and development.¹⁸² If an international legal regime could provide some level of certainty and consistency, the incentivizing effect of legal intervention for the codification and disclosure of TK could be expected to increase.

4. *The Interactions Between TK Protection and Existing IP Law*

The relationship between the Draft Articles and existing international instruments, including IP laws, has been another issue upon which members of the IGC have not agreed. While some members of the IGC, including the European Union, push to make the Draft Articles consistent with existing international IP laws, other members, (mostly developing countries such as Brazil and India) and the African Group, argue that this would unfairly subordinate TK protection systems to existing systems of IP protection.¹⁸³ The Indian delegation noted that “the genesis of the [IGC] could be traced back to the shared understanding that the IP system should be supportive of the protection of TK and not run contrary to its objectives and principles.”¹⁸⁴ The Brazilian delegation added that existing IP rules are part of the problem as acts of bio-piracy use weaknesses in existing patent laws to misappropriate TK.¹⁸⁵ This gap in views has persisted to date and can be seen in the Draft Articles.¹⁸⁶

The fourth preamble/introductory provision in the most recent version of the Draft Articles states that the instrument should “take account of, and operate consistently with, other international and regional instruments and processes, in particular regimes that relate to intellectual property and access to and benefit sharing of genetic resources which are associated with that traditional knowledge.”¹⁸⁷ This paragraph is one of the two uncontested preamble/introductory statements. If the instrument is approved with such wording, the proposed system of TK protection may have to comply with existing IP laws inclusive of features that may undercut its core purpose. On the face of it, the last part of the provision calling for consistency with existing systems of “access to and benefit sharing of genetic resources” may seem to have some potential

¹⁸¹ *Compilation of Comments Received On the Second Draft of an Examination of Issues Relating to the Interrelation of Access to Genetic Resources and Disclosure Requirements in Intellectual Property Rights Applications Subsequent to an Ad hoc Intergovernmental Meeting on Genetic Resources and Disclosure Requirements (WIPO/IP/GR/05/INF/5)*, WORLD INTELLECTUAL PROPERTY OFFICE, 13 Annex (2005).

¹⁸² KIENE, *supra* note 143, at 242; Nuno Pires de Carvalho, *From the Shaman’s Hut to the Patent Office: A Road Under Construction*, BIODIVERS LAW INTELLECT PROP BIOTECHNOL TRADIT KNOWL, 246 (2007).

¹⁸³ *Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore: Seventh Session - Report (WIPO/GRTKF/IC/7/15)*, SECRETARIAT OF THE WORLD INTELLECTUAL PROPERTY OFFICE, ¶¶ 11, 15, 110, 120, 126 (2005).

¹⁸⁴ *Id.* ¶ 106.

¹⁸⁵ *Id.* ¶ 110.

¹⁸⁶ *See generally Draft Articles*, WIPO (2013).

¹⁸⁷ *Id.* at 2.

to save the Draft Articles from becoming subordinate to existing IP laws.¹⁸⁸ This is so because the phrase ‘access and benefit sharing’ mechanism seems to be a reference to the system established under the Convention on Biodiversity.¹⁸⁹ However, the CBD framework is limited in its ability to protect TK since the wording adopted in the framework is highly general and mostly aspirational. As a result, the preamble/introductory statement calling for consistency with existing laws will mainly refer to the strong IP rights that fail to protect TK. Consequently, this might further limit the potential of the Draft Articles to bring about effective TK protection framework by making them subordinate to existing laws.

The more substantive provision on the matter, Article 10 states: “[t]his instrument [should]/[shall] establish a *mutually supportive relationship* [between [intellectual property [patent] rights [directly based on] [involving] [the utilization of] traditional knowledge and with relevant [existing] international agreements and treaties.]”¹⁹⁰ (Emphasis added). The term ‘mutually supportive’ is unclear. It does not seem to make the Draft Articles subordinate to other instruments, but it also does not state that the instrument should trump other instruments in cases of conflict. In an international arena where most other relevant instruments, including the TRIPs Agreement, prohibit signatories from agreeing to conflicting obligations in other instruments, the neutrality of the Draft Articles may ultimately result in their subordination to other instruments.

The relationship of the Draft Articles to other instruments may affect the incentive of knowledge holding communities to codify and disclose their TK. This is because existing IP laws could be used against the interest of knowledge holding communities. For instance, there is no binding international patent instrument requiring the disclosure of TK used in the process of an invention. Users may obtain a patent on an invention based on TK. Thus, knowledge holder communities may hesitate to codify and disclose their knowledge if documentation means easy access to outsiders who may receive exclusive rights over such knowledge.

To summarize the points made in this section, the Draft Articles are replete with contentious alternative wordings that make detailed analysis of the provisions contained in it infeasible at this time. The nature of the Draft Articles will change drastically depending upon which wordings are accepted in its final version. Instead of a detailed analysis of the instrument, the above section examined the key issues of contention followed by an investigation of the implications for the codification and disclosure of TK. The section argued that a legally binding international instrument with a considerable level of certainty is needed in order to encourage the codification and disclosure of TK. Such an instrument will be capable of building confidence among knowledge-holder communities in that they will have a say in what happens to their knowledge once it is codified and disclosed.

Now that the Draft Articles and their implications for codification and disclosure of TK have been analyzed, the following section will proceed to use the need to encourage TK codification and disclosure as an organizing principle (a minimum consensus) to investigate the concepts and approaches that need to be adopted to provide sufficient international protection for TK. The section will also comment on

¹⁸⁸ *Id.*

¹⁸⁹ *Id.*

¹⁹⁰ *Id.* at 25.

attempts by developing countries to establish TK protection through Free Trade Agreements (FTAs).

V. TRENDS AND SCENARIOS: A MINIMUM INTERNATIONAL CONSENSUS

The above sections have shown the diverse levels of interests in protecting TK and the varied methods that stakeholders have adopted to achieve such goal. Thus, the purpose of this section is to examine what concepts could garner a sufficient level of consensus needed to provide an effective protection of TK that would encourage its codification and disclosure. As such, the discussion will focus on a few of the many innovative approaches and tools proposed by scholars.

This paper began by addressing the problem of extra-territorial free-riding that may arise from the territoriality of domestic rights in TK. The risk identified became that some countries which are net importers of TK might decline to establish any kind of TK protection system, domestically, in order to make use of TK disclosed as a result of protection provided in another jurisdiction. While there may be domestic measures, such as confidentiality and deferred disclosure, which can increase the effectiveness of the proposed system, the full potential of the proposed framework will only be realized if there is some form of international framework that can facilitate the use of TK in modern industries. The sub-sections below analyze some of the approaches that states might take at the international level to establish an effective framework.

A. Minimum Substantive Protection

As the key issues of contention at the WIPO IGC discussed in the previous sections have shown, a major fault line in the deliberations is the question of which issues to address through international mechanisms and which to leave for domestic legal systems. The significant gap between the positions of groups of member states implies that the IGC process is far from creating a substantive international treaty. The potential solution seems to lie in an approach balanced between providing sufficient flexibilities to national legal systems to define what form TK protection will take within their jurisdictions, and reducing the negative effects of the territoriality of such systems.

Consequently, the core question to respond to in terms of international protection would be, what sort of international protection could garner sufficient support among countries while also encouraging the documentation and disclosure of TK? In order to respond to this question, one may need to look to the development of a similar legal framework under international law – patent laws. The history of international patent law goes back more than a century and begins with the signing of the Paris Convention for the Protection of Industrial Property (the Paris Convention) in 1883.¹⁹¹

Until the enactment of the TRIPs agreement under the framework of the General Agreement on Tariffs and Trade (GATT), international IP law provided substantial

¹⁹¹ Paris Convention for the Protection of Industrial Property, (Mar. 1883) (1979) [Paris Convention].

flexibilities for domestic legal systems to enact domestic IP laws that would meet international standards.¹⁹² The Paris Convention focused on two core elements: 1) the establishment of substantive minima – minimum features of domestic legislations that member countries were required to enact, and 2) a requirement to provide the same type of protection to citizens and foreign national – national treatment.¹⁹³ The detailed definition and scope of protection were left to the domestic legal systems of member countries.¹⁹⁴ Under such a system, signatories were prohibited from discriminating against foreign rights holders based on their nationality.¹⁹⁵ However, they were required to provide IP protection to foreigners only if they provide the same rights to their citizens.¹⁹⁶

The TRIPs Agreement shifted this century old practice. Article 1 (3) of the TRIPs Agreement states that “Members shall accord the treatment provided for in this Agreement to the nationals of other Members.”¹⁹⁷ Thus, signatories are required to provide protection to nationals of other countries even if the member country did not provide such protection under its domestic law.¹⁹⁸ This is a drastic change to the international IP law framework. It is seen as the first major step towards the harmonization of IP laws at the international level.¹⁹⁹ Additionally, the TRIPs Agreement also requires compliance with most favored nation treatment (MFN).²⁰⁰ The MFN principle requires member states to give the same treatment it provides to nationals of its ‘most favored nation’ to all members of the WTO.²⁰¹ In the current international IP system, the requirements of national treatment and most favored nation treatment have been accepted as basic principles.²⁰²

Given this brief history of the evolution of international IP law, the development of international TK protection should also begin with basic principles on which most member states have reached consensus, instead of attempting to establish a globally harmonized substantive level of protection. The TRIPs Agreement came about through intense pressure from developed countries including, most notably, the United States.²⁰³ An international TK framework has not garnered the same type of support from influential states. In fact most developed countries are opposed to a binding substantive international treaty on TK.²⁰⁴ Current advocates of international TK protection may not be able to influence international fora without the support of more

¹⁹² Charles McManis, *Intellectual Property and International Mergers and Acquisitions*, 66 UNIVERSITY OF CINCINNATI LAW REVIEW 1283, 1286 (1998).

¹⁹³ Graeme B Dinwoodie, *The Architecture of the International Intellectual Property System*, 77 CHIC-KENT LAW REV. 993, 994–995 (2001).

¹⁹⁴ *Id.*

¹⁹⁵ Paris Convention, art. 2 (1).

¹⁹⁶ *Id.*

¹⁹⁷ *Agreement on Trade-Related Aspects of Intellectual Property Rights of the General Agreement on Tariffs and Trade*, TRIPs (15 April 1994).

¹⁹⁸ Jerome H Reichman, *Universal Minimum Standards of Intellectual Property Protection Under the TRIPs Component of the WTO Agreement*, 29 INT. LAWYER 345, 351 (1995).

¹⁹⁹ *Id.* at 383.

²⁰⁰ *Id.* at 348.

²⁰¹ TRIPs, *supra* note 197, at 322.

²⁰² Reichman, *supra* note 198, at 347.

²⁰³ Reichman, at 355.

²⁰⁴ *See generally* Wallbot, *supra* note 77.

developed countries. Thus, the most feasible path forward for the TK protection seems to be to begin from the minimum international consensus and to garner sufficient support from like-minded jurisdictions.

Since the basic principles of the national treatment and most favored nation treatment have become ubiquitous in international IP law, the use of such principles seems the logical starting point for the creation of an international TK protection framework. In fact, Article 11 of the Draft Articles requires national treatment.²⁰⁵ Surprisingly, Article 11 is also highly contested, with three different versions of the provision proposed.²⁰⁶ While two of the alternate provisions correspond to the basic principle of national treatment, the other is a clear statement allowing member states to provide “more extensive protection for their nationals” than to nationals of other member countries.²⁰⁷ It is not evident from the Draft Articles document how many countries are against the basic principle of national treatment. Therefore, it might be the case that most members agree to national treatment, but a few states objected to it, giving rise to a separate version. Despite the fact that the national treatment provision in the Draft Articles is contested, it seems to be one of the few provisions with the potential to be accepted by most member countries.

Given the diversity in interest among negotiators, a feasible path forward is for the Draft Articles to create a mandatory baseline protection made up of a few core provisions and principles based on the minimum consensus available within the IGC forum and to leave the details of the framework for domestic jurisdictions to address based on the socio-political and economic situations of the country. The preamble/introductory statements in the Draft Articles are a good place to start in creating consensus.²⁰⁸ As mentioned in the earlier section, the need to document and conserve TK is one of the few uncontested statements in the Draft Articles. As such, the international effort to set up an international treaty should focus on the need to encourage the codification and disclosure of TK as an organizing principle for the establishment of a framework. It is possible that most user countries might not agree to some of the principles and the scope of protection. In such a scenario, user countries could build pressure by establishing a united front of like-minded mega diverse states that proposes organized and strategic policies and negotiating positions.²⁰⁹

In terms of substantive provisions, the Draft Articles should include a few provisions that could encourage countries to provide effective TK protection within their jurisdictions. Given the purpose of these provisions, they will have to be

²⁰⁵ *Draft Articles*, at 26.

²⁰⁶ *See id.*

²⁰⁷ *Id.*

²⁰⁸ *See Draft Articles*, *supra* note 141, at 2.

²⁰⁹ Field and Fisher suggest that source countries of genetic resources and TK show a united front against user firms to avoid a “race to the bottom” scenario. The proposal made in this section is similar to Field and Fisher’s proposal but it is proposed in terms of the global politics and negotiation between source countries and user countries. MARTHA A FIELD & WILLIAM W FISHER, *LEGAL REFORM IN CENTRAL AMERICA: DISPUTE RESOLUTION AND PROPERTY SYSTEMS* 255 (Cambridge, Mass.: Distributed by Harvard University Press, 2001); A proposal for the need to create a biodiversity cartel was made by Vogel. This later proposal is similar to the one made in this section as it relates to global politics of using TK. *See generally* Joseph H Vogel, *From ‘the Tragedy of the Commons’ to the ‘Tragedy of the Common Place’: Analysis and Synthesis Through the Lens of Economic Theory*, *BIODIVERSITY LAW INTELLECT PROP BIOTECHNOL TRADIT KNOWL* (Charles McManis, ed.) (2007).

somewhat general. It is proposed that the Draft Articles include five provisions on the following issues: A provision defining TK and the general subject matter that should be subject to protection (currently included in Article 1 of the Draft Articles);²¹⁰ a new article requiring the establishment of domestic frameworks that would encourage the codification and disclosure of TK through databases/registries; an article setting out enforcement measures (Article 4);²¹¹ provisions on national treatment and MFN treatment (Article 11);²¹² and a provision on the relationship of the instrument to other international agreements (Article 10).²¹³

The instrument needs to define the subject matter of protection. This will be necessary if signatories are to be accountable for whether or not they have set up systems that would address the issue. Although most of the parties in the IGC negotiation agree that TK should include traditional know-how (as defined in this paper), there is debate about whether the definition should be broad and include concepts such as cultural expression.²¹⁴ The definition provided does not have to be a detailed and rigid one. A non-exhaustive list of subjects that should be included in the definition of TK may suffice. In addition to defining TK, the purpose of TK protection will have to be set out in the instrument. This paper argues that the purpose of TK protection should include the codification and disclosure of TK. The Draft Articles already have such a statement but expressed only as an aspirational/preamble term.²¹⁵ Given the need to craft guidance to domestic legal systems, the core purpose of protection may need to be explicitly stated in the body of the instrument.

The instrument will also have to require that there be some sort of effective enforcement measure that is not burdensome for knowledge holder communities or users. The details of the methods of enforcement to be adopted should be left for member countries to determine. There is a recent trend in which infringement of IP laws has been increasingly criminalized.²¹⁶ However, this trend is criticized because of the negative effect it might have on innovation and creativity.²¹⁷ Given the uncertainties involved in using TK in 'modern life,' the provision of criminal sanctions does not seem warranted.²¹⁸ The instrument could generally require that there be civil sanctions and provide policy space for countries to choose what measures to adopt in their domestic legal systems. These civil measures could include exclusive property rights requiring consent before access; a right of compensation; injunctive relief.

As discussed earlier, the principles of national treatment, and most favored national treatment, are basic principles in international IP law. These are also issues that can only be dealt with in an international forum.²¹⁹ Thus, they should be included

²¹⁰ See generally *Draft Articles*, at 10.

²¹¹ *Id.* at 15-16.

²¹² *Id.* at 26.

²¹³ *Id.* at 25; Carvalho proposes the establishment of only two provisions in an international TK instrument one that defines TK and another one that sets out enforcement mechanisms. Carvalho, *supra* note 182, at 265-266.

²¹⁴ See generally Wallbot, *supra* note 77.

²¹⁵ *Draft Articles*, at 2.

²¹⁶ See, e.g., Irina D Manta, *The Puzzle of Criminal Sanctions for Intellectual Property Infringement*, 24:2 HARV. J LAW TECHNOL. 469 (2011).

²¹⁷ *Id.*

²¹⁸ Carvalho, at 266.

²¹⁹ PAUL GOLDSTEIN AND MARKETA TRIMBLE, *INTERNATIONAL INTELLECTUAL PROPERTY LAW: CASES AND MATERIALS*, (4th ed. 2016).

in any international framework for TK protection. The instrument will also need to address what its relationship to existing and future international agreements should be. As highlighted earlier, this issue becomes contentious, and reaching a consensus might not be easy. However, it is an issue that needs to be addressed, and it has to be addressed in an international forum. A potential mid-way solution is for the instrument to take precedence in cases directly affecting TK protection and to defer to other instruments for issues that fall within that instruments core mandate. Potential conflicts between an international TK protection framework and other international instruments should not be overstated, however. Many potential conflicts could be resolved by interpreting instruments in light of the spirit of each legal framework. As a complementary measure, a dispute settlement mechanism could be established for the interpretation of conflicting provisions to address cases in which there are clear and unresolved conflicts.

B. The 'Disclosure of Origin' Requirement

After first being mentioned in the Andean Community Decisions no. 391 (1996) and 486 (2000), the 'disclosure of origin' requirement took center stage in the international deliberations on TK protection.²²⁰ The requirement began in discussions relating to genetic resources, but it has currently become one of the key topics discussed at the WIPO – IGC discussions in TK protection as well.²²¹ As stated earlier in this paper, the disclosure of origin requirement refers to the obligation that would be imposed on patent applicants to disclose the country of origin, or source of TK, or genetic resources used in the creating the invention.²²² In some jurisdictions, the requirement includes an obligation to produce evidence showing that the applicant has complied with the laws of countries of origin or source relating to access to TK and genetic resources.²²³ Advocates believe the disclosure of origin requirement will provide an efficient system to regulate the relationship between TK holders and users.²²⁴

The requirement has been adopted in many developing countries and some developed countries.²²⁵ Notably, the 1998 European Union Biotechnology Directive includes a voluntary system of disclosure of origin, in which patent applicants are encouraged, but not required, to disclose the origins of TK used in developing their invention.²²⁶ Furthermore, jurisdictions such as Belgium, Denmark, Germany,

²²⁰ *The Andean Pact, Decision 391 - Common Regime on Access to Genetic Resources*, (2 July 1996); *Andean Community, Decision No. 486 - Establishing the Common Industrial Property Regime*, (14 September 2000).

²²¹ *Id.*

²²² Jorge Cabrera Medaglia, *The Disclosure of Origin Requirement in Central America: Legal Texts, Practical Experience and Implementation Challenges*, Issue Paper No. 3, INTERNATIONAL CENTER FOR TRADE AND SUSTAINABLE DEVELOPMENT (ICTSD), 16 (2010).

²²³ *Id.* at 4-8.

²²⁴ *Id.*

²²⁵ World Intellectual Property Organization, *Disclosure Requirements Table*, Available at http://www.wipo.int/export/sites/www/tk/en/documents/pdf/genetic_resources_disclosure.pdf (2016).

²²⁶ Recital 27 of the directive states "Whereas if an invention is based on biological material of plant or animal origin or if it uses such material, the patent application should, where appropriate,

Sweden and Switzerland have adopted requirements for the disclosure of origin, while Norway has added the requirement of showing that Prior Informed Consent (PIC) under the law of the country of origin has been met.²²⁷ More recently, the EU has advocated the adoption of a mandatory disclosure of origin requirement.²²⁸ The Bonn Guidelines, discussed earlier, calls on countries to “take measures to encourage the disclosure of origin of genetic resources and of the origins of traditional knowledge.”²²⁹ Despite the popularity of the requirement among many countries, it remains contentious. Critics of the requirement cite several reasons for their objection including: the considerable burden that inventors will be required to bear, the risk that adding new conditions for patent rights may reduce the incentivizing effect of patent rights, and the lack of expertise of patent examiners and other issues related to feasibility.²³⁰ Proponents of the disclosure of origin requirement consider it to be part of a larger movement to make patent laws more responsive to the interests of developing countries and marginalized communities.²³¹

The ‘disclosure of origin’ discussions take place in many forums and particularly at the WIPO – IGC, CBD, and WTO meetings.²³² However, delegates have yet to agree on core questions, which include: Should the requirement be mandatory or voluntary? Should disclosure be limited to information on sources? Or should it include a requirement to prove Prior Informed Consent (PIC) and benefit sharing agreements? How should association between TK, genetic resources and the invention be determined? What should be the penalty for non-compliance?²³³ A mandatory disclosure requirement that includes the obligation to disclose PIC and benefit sharing agreements is advocated in this paper. A mandatory disclosure requirement is necessary because if patent applicants are allowed to disclose voluntarily the origin of TK, users that engage in intentional acts of bio piracy will not come forward and reveal their source of TK. A voluntary disclosure requirement, therefore, will have little effect in encouraging TK holders to invest in codification. Furthermore, a requirement that includes disclosure of PIC and benefit sharing will empower source countries and communities by giving them a much-needed bargaining power in their relationship with users. TK holders require some form of control over their codified TK. A

include information on the geographical origin of such material, if known; whereas this is without prejudice to the processing of patent applications or the validity of rights arising from granted patents;” *Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the Legal Protection of Biotechnological Inventions*, EU BIOTECHNOLOGY DIRECTIVE (30 July 1998).

²²⁷ Medaglia, *supra* note 222, at 3.

²²⁸ *Disclosure of Origin or Source of Genetic Resources and Associated Traditional Knowledge in Patent Applications*, at 6 Annex.

²²⁹ Secretariat of the Convention on Biological Diversity, *supra* note 52, at art. 16 (d, ii), 53 (b).

²³⁰ Alison L Hoare & Richard G Tarasofsky, *Asking and Telling: Can ‘Disclosure of Origin’ Requirements in Patent Applications Make a Difference?*, 10:2 J WORLD INTELLECT PROP 149, 148 & 151 (2007).

²³¹ *Id.* at 148.

²³² Margo Bagley, *Of disclosure ‘straws’ and IP system ‘camels’: Patents, innovation, and the disclosure of origin requirements*, in Daniel F. Robinson, Ahmed Abdel-Latif and Pedro Roffe, *PROTECTING TRADITIONAL KNOWLEDGE: THE WIPO INTERGOVERNMENTAL COMMITTEE OF INTELLECTUAL PROPERTY AND GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE*, at 87 (2017).

²³³ Medaglia, *supra* note 222, at 3.

disclosure requirement that includes evidence of PIC and benefit sharing would enable TK holders to assert such control.

In a research report on behalf of the United Nations Conference on Trade and Development (UNCTAD), Joshua Sarnoff and Carlos Correa provide a helpful commentary on what issues should trigger the obligation under the disclosure of origin requirement.²³⁴ They suggest the adoption of a broad substantive trigger which considers the “many types of inputs into the process of discovery of and application for the subject matter.”²³⁵ However, deciding which types of uses should trigger the disclosure of origin requirement is no easy task. A single invention could, and usually does, benefit from numerous pieces of information and it could rely on such information to varying degrees, which creates challenges for the enforcement of the disclosure of origin requirement. The EU’s position is that disclosure of TK should be required only when the patent applicant relied directly on such TK to develop the invention in question.²³⁶ However, excluding situations in which inventors rely on TK indirectly from the disclosure requirement, may discourage TK holders from investing in codification by excluding a considerable portion of the relationship between TK holders and users. A more robust tool may be the ‘substantial reliance’ test adopted by William Fisher, in which patent applicants will be required to disclose the origin of TK if they relied, to a substantial degree, on such resource in the inventive process.²³⁷ ‘Substantial reliance’ is, however, a vague term in itself and, as Fisher himself acknowledges, will have to be interpreted by courts through litigation.²³⁸

Sarnoff and Correa also provide some options for measures that could be adopted to incentivize compliance. These measures could be mixed to meet the policy objective of a particular jurisdiction. They include

- (a) Curable or incurable, temporary or permanent bars to the processing of applications;
- (b) Administrative fines, civil liability or criminal penalties;
- (c) Termination, or full or partial transfer of entitlements to apply for or own intellectual property;
- (d) Curable or incurable, temporary or permanent, full or partial unenforceability, revocation, narrowing of the subject matter, or invalidation of granted intellectual property;
- (e) Return or transfer of benefits received from intellectual property; and
- (f) Enforcement of existing or new obligations that provide for equitable benefit-sharing.²³⁹

The particular measure that should be adopted to encourage compliance should generally be left to countries to decide. Since remedies depend highly on the type of

²³⁴ Joshua D Sarnoff & Carlos M Correa, *Analysis of Options for Implementing Disclosure of Origin Requirements in Intellectual Property Applications*, New York and Geneva: United Nations Conference on Trade and Development, ix–xi (2006).

²³⁵ *Id.* at ix.

²³⁶ *Disclosure of Origin or Source of Genetic Resources and Associated Traditional Knowledge in Patent Applications* *supra* note 228, at 6 Annex.

²³⁷ William Fisher, *Two Thoughts About Traditional Knowledge*, 70 LAW CONTEMP. PROBL. 131, (2007).

²³⁸ *Id.* at 133.

²³⁹ Sarnoff & Correa, *supra* note 234, at xi.

legal system and the overall legal environment in each jurisdiction, this is an issue better left to be addressed by each country. However, it may be helpful to provide some minimum requirements so that TK holders will have some remedy to leverage, which could encourage investment in TK codification and disclosure. This may be 'facultative' measures that could respond to the actions of the patent applicant and could include temporary suspension for simple violations to patent revocation for the most egregious violations.²⁴⁰ Given the comprehensive nature and effectiveness of the TRIPs Agreement, amendment of the instrument to include a mandatory disclosure of origin requirement would be the best tool to establish an effective international system of TK protection.²⁴¹

The disclosure of origin requirements fits well with the thesis that TK protection should focus on codification and disclosure. One of the key challenges in the disclosure of origin requirement is the costs associated with such obligation and the burden that it will create for both administrative agencies and patent applicants.²⁴² Codified and accessible TK can be expected to reduce such costs involved in disclosure given the systematic documentation of TK and the ease of access enabled by domestic legal protection. Furthermore, investments from the private sector are essential to complement other means of support for TK codification and disclosure. If the disclosure of origin requirement is adopted, private actors such as biopharmaceutical firms that anticipate using TK from a certain region would be incentivized to support TK codification and disclosure efforts. A mandatory disclosure requirement that includes a requirement providing that PIC and benefit sharing requirements have been met, will strongly encourage TK holders to invest in TK codification and disclosure. TK holders will have the confidence that they will be able to share in the profits that may result from use of their codified TK by outsiders.

In addition to the 'disclosure of origin' requirement, there has been a proposal to have international instruments recognize national laws of source countries in relation to TK.²⁴³ Because of the originality of the proposal, a detailed discussion of such proposal seems necessary. Although the proposal has not been included in the Draft Articles, if it is accepted into an international treaty, it has the potential to provide an effective solution to the challenges created by the territoriality of TK protection mechanisms, without disrupting the international IP system. The proposal is discussed further below.

C. International Recognition of National Laws

As highlighted in the previous sections, one of the core disputes on the international protection of TK is determining which issues to address through an international treaty and which to leave for domestic jurisdictions to address. William Fisher argues that an international regime is not the answer.²⁴⁴ He instead proposes

²⁴⁰ *Id.*

²⁴¹ Field & Fisher, *supra* note 209, at 256; Sarnoff & Correa, *supra* note 234, at v.

²⁴² Sarnoff & Correa, *supra* note 234, at xiii.

²⁴³ Fisher, *supra* note 237.

²⁴⁴ *See generally* Fisher, *supra* note 237.

the insertion of a simple but potentially effective provision to the TRIPs Agreement that would protect TK at the international level.²⁴⁵ Fisher proposes the insertion of the following provision to the TRIPs Agreement:

It shall be a defense to a claim of patent infringement that the inventor(s), in developing the protected product or process, relied substantially upon materials or knowledge taken from a member country in violation of that country's laws.²⁴⁶

The brilliance of such an insertion is in its effect of giving back the power of regulating the use of TK to the source country. Since most mega diverse countries (and those that are net exporters of TK) have either already created systems of protection for TK,²⁴⁷ or are in the process of doing so, the insertion of such a provision in the TRIPs agreement would cover most of the TK available globally. A common feature of these domestic laws in source countries is the requirement of the prior informed consent of a local government agency or knowledge holding community.²⁴⁸ Most of these laws also have requirements for benefit-sharing with source communities.²⁴⁹ Therefore, if the above provision is successfully inserted into the TRIPs agreement (or any other relevant agreement), it has the potential for addressing TK protection at the international level without the need for an independent agreement.

The other effective feature of this provision is that it would “give the local laws teeth, not by penalizing violations directly, but by exposing violators to the economically devastating sanction of the forfeiture of their own intellectual-property rights.”²⁵⁰ Under such a system, a patent right will not be invalidated for violating the domestic law of a country from the source of TK. The effect of the provision arises when a patent holder brings a patent infringement lawsuit against a defendant.²⁵¹ The defendant can show, as an affirmative defense, the patentee violated the domestic law of the country from which the patentee received TK, which directly or indirectly helped in the making of the invention.²⁵² The framework will use the considerable power of private incentives of defendants to make such a tool work effectively.

Fisher's proposal for amendment of the TRIPs agreement by inserting provisions that recognize domestic laws of source countries can be effective for TK protection. The risk of extra-territorial free-riding will be greatly reduced if domestic legal protection exists in source countries while such framework is recognized under an effective

²⁴⁵ *Id.*; Field & Fisher, *supra* note 209, at 256.

²⁴⁶ Fisher, *supra* note 237, at 132.

²⁴⁷ For an updated list of domestic legislations on traditional knowledge curated by WIPO, See Secretariat of the World Intellectual Property Organization, *Traditional Knowledge Laws*, TRADIT. KNOWL. TRADIT. CULT EXPR. GENET. RESOUR. LAWS, http://www.wipo.int/tk/en/databases/tklaws/search_result.jsp?subject=tk&issue=&country= (last visited Sep, 7, 2017); For analysis of existing TK protection in domestic legal systems, see Secretariat of the World Intellectual Property Organization, *Comparative Summary of Existing National Sui Generis Measures and Laws for the Protection of Traditional Knowledge* (2003).

²⁴⁸ World Intellectual Property Organization, Disclosure Requirements Table, *supra* note 225.

²⁴⁹ *Id.*

²⁵⁰ Fisher, *supra* note 237, at 133.

²⁵¹ *Id.*

²⁵² *Id.* at 132-133.

international instrument. Users will be required to comply with domestic frameworks in order to enforce their patents against potential infringers. The risk of losing the exclusivity of a patent right will encourage patent applicants to make sure that they have fulfilled the PIC and fair and equitable benefit-sharing requirements under the domestic system.

However, Fisher's proposal is not without its challenges. A key challenge relates to the burden of proof. How would one decide if a patent applicant accessed TK from a particular source community as opposed to developing it herself or accessing it from another source community? How will the patent applicant know if she can fend off claims from source communities from which she accessed their TK? This complicates Fisher's proposal which, on its face, looks easy to implement. Yet, while these challenging questions make the proposed solution complicated, they do not make it ineffective. Evidentiary standards that apply in these situations could be developed through the TRIPs dispute resolution mechanism.²⁵³

Nuno Pires de Carvalho proposed a framework that resembles the insertion that Fisher suggested.²⁵⁴ By citing US case law as an example, Carvalho identifies the application of the 'unclean hands doctrine'²⁵⁵ in patent law in which a patentee who has abused his/her IP right or who has been fraudulent cannot seek relief from a court or similar entity until such abuse or fraud is addressed.²⁵⁶ This doctrine resembles the disclosure of origin requirement discussed in the previous section. Carvalho argues that the concealment of the use of TK in the development of an invention in patent applications could be declared as an abuse of IP rights under an international treaty.²⁵⁷ The effect of a patent right obtained through unclean hands is the temporary suspension of the right of the patentee to seek redress against potential infringers. Once the patentee 'cleans' his/her hand by disclosing the origin of TK, he/she is able to bring lawsuits against infringers. Carvalho's proposal is made in the context of the defensive protection of TK.²⁵⁸ This application of the 'unclean hands' doctrine is similar to some of the forms in which the disclosure of origin requirement could be adopted. Carvalho's proposal would result in an effective positive protection if it also obligates patent applicants to fulfill PIC and benefit sharing obligations found in the laws of source countries.

If source countries adopt legislation that gives rights over TK, the adoption of the 'unclean hands doctrine' or the insertion of the provision proposed above by Fisher may be a good starting point from which to establish a workable global framework of TK protection. If a treaty recognizes positive rights of knowledge holder communities in

²⁵³ The author is grateful for comments from Rochelle Dreyfuss through which these questions were raised.

²⁵⁴ Nuno Pires de Carvalho, *Requiring Disclosure of the Origin of Genetic Resources and Prior Informed Consent in Patent Applications without Infringing the TRIPS Agreement: The Problem and the Solution*, 2 WASH UNIV. J LAW POLICY 375, 399–400 (2000).

²⁵⁵ For a general discussion of the unclean hands doctrine as it applies in IP law, see Daniel Markel, *Can Intellectual Property Law Regulate Behavior? A 'Modest Proposal' for Weakening Unclean Hands*, 113:6 HARV. LAW REV. 1503 (2000).

²⁵⁶ Carvalho, *supra* note 254, at 399–400.

²⁵⁷ Carvalho, *supra* note 182, at 256.

²⁵⁸ Defensive protection of TK is the prevention of users from receiving patent rights for inventions that have relied directly or indirectly on TK. It is contrasted to positive protection in which knowledge providers receive positive rights in their TK.

their codified TK, and a user violates such rights and later claims patent rights in a country that is a member of such treaty, then the patentee will be exposing the patent to an effective defense.

There are a few challenges that such frameworks may face. One challenge may be in convincing developed countries in which most users reside to agree to such a mechanism. If the amendment or insertion is made in the TRIPs Agreement as proposed by Fisher, then the full force of the TRIPs Agreement will enable the emergence of an effective TK protection system at the international level, with the WTO dispute settlement regime available to ensure compliance. Another challenge relates to the inability or resistance of domestic courts to interpret and apply the laws of another country. Imagine for instance the case where New Zealand had a TK protection regime for the Maori²⁵⁹ based on the government's understanding of the community. Under an international regime with a national treatment requirement, a community from another country is expected to have the same protection in New Zealand as the Maori. The San people in South Africa could claim rights in New Zealand. In this scenario, a court in New Zealand will have to understand the rules (formal or customary) under which the San people operate. Understandably, the court in New Zealand may not be comfortable in interpreting and applying the formal or customary rules of the San people.

However, this challenge is not unique to TK protection. The field of conflict of law deals with many areas of law in which domestic courts of one country are asked to interpret and apply the laws of another jurisdiction. Similarly, if source communities are able to make declarations regarding the rules under which they operate, and if source countries make their domestic legislations easily accessible, then the country applying the proposed standards could apply a 'conflict-of-laws' type of approach to address the challenge.

To sum up this section, there is a need for an international TK protection system to strike a balance between providing effective protection for TK with sufficient flexibility for signatories to define what form TK protection will take in their domestic jurisdictions. A combination of some substantive minima with the basic principles of national treatment and MFN treatment may be capable of establishing such balance. A key substantive minimum is the requirement of a disclosure of origin that includes the requirement of fulfilling PIC and benefit-sharing conditions of source countries. As a complementary measure, the recognition of domestic laws of source countries could be introduced in the TRIPs Agreement or another relevant international instrument in order to address the challenges of the territoriality of TK protection under domestic jurisdictions.

Now that the possible options for international TK protection have been analyzed, the following section will address the latest trend in international TK protection – bilateral investment treaties and free trade agreements. Following the general trend of countries utilizing bilateral and multilateral mechanisms rather than multilateral negotiation to address global trade, proponents of TK protection have attempted to insert provisions on TK protection into bilateral investment treaties and free trade agreements. The following section examines the impact of using such instruments to protect TK and its potential effect in encouraging the codification and disclosure of such knowledge.

²⁵⁹ The Māori are the indigenous Polynesian people of New Zealand.

D. Protection Through Free Trade Agreements (FTAs)

The latest development in the international movement to protect TK seems to lie in the realm of bilateral/multilateral investment treaties and free trade agreements.²⁶⁰ Global Affairs Canada²⁶¹ recently researched the recent trend of including TK related provisions (among others) in free trade agreements (FTAs).²⁶² This resulted in a report on nearly 70 FTAs signed between countries that may be expected to have such provisions in their FTAs.²⁶³ Close to half of the FTAs examined included provisions regarding TK while the rest made no mention of them.²⁶⁴ The FTAs that include TK provisions tend to be the most recent ones, a development which shows that the practice of inserting TK protection into FTAs is trending upwards.²⁶⁵ FTAs signed between 2013 and 2015 (the last year the study covered) are most likely to have TK provisions. The ‘non-exhaustive compendium’ of FTAs shows that most of these TK provisions are included in the intellectual property chapters of the agreements, while some are in the environmental chapter, in other chapters, in MOUs or letters of understanding.²⁶⁶

This trend seems to be an adoption of a similar trend in international IP law in which obligations under the TRIPs agreement have been expanded through FTAs. The trend in the use of FTAs seems to be a forum shifting strategy used by the US and EU to heighten intellectual property protection globally.²⁶⁷ Forum shifting (regime shifting) is a strategy in which a country or a group of like-minded countries changes the forum in which an issue is being considered, and where progress is not to its satisfaction, to one which it expects will fulfill their interests.²⁶⁸ The result of forum shifting in the IP realm is a TRIPs-plus regime in which many countries in the world now provide more protection than is required under the TRIPs Agreement.

Some scholars have criticized the use of FTAs to create an international norm. A core criticism is that FTAs are used by powerful countries to bypass multilateral negotiation forums in order to create global norms that most other countries would not accept.²⁶⁹ In multilateral negotiations, countries with less bargaining power can form a coalition of like-minded countries in order to challenge more powerful actors to

²⁶⁰ Frankel, *supra* note 98.

²⁶¹ Formerly ‘Foreign Affairs, Trade and Development Canada’.

²⁶² Global Affairs Canada, *Non-Exhaustive Compendium of the Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions Provisions found in Free Trade Agreements*. (Unpublished) (Copy with author).

²⁶³ *Id.*

²⁶⁴ *Id.*

²⁶⁵ *Id.*

²⁶⁶ *See generally id.*

²⁶⁷ *See generally* Susy Frankel, *Challenging Trips-Plus Agreements: The Potential Utility of Non-Violation Disputes*, 12:4 J INT. ECON LAW 1023 (2009).

²⁶⁸ JOHN BRAITHWAITE & PETER DRAHOS, EDS, *GLOBAL BUSINESS REGULATION* (New York: Cambridge University Press, 2000).

²⁶⁹ JAGDISH N BHAGWATI, *TERMITES IN THE TRADING SYSTEM: HOW PREFERENTIAL AGREEMENTS UNDERMINE FREE TRADE* 72 (New York: Oxford University Press, 2008); *See generally* PEDRO ROFFE & CHRISTOPH SPENNEMANN, *PREFERENTIAL TRADE AGREEMENTS AND INTELLECTUAL PROPERTY RIGHTS* (Mario Cimoli et al, eds, *Intellect Prop Rights Leg Econ Chall Dev.*, Oxford University Press, 2014); DANIEL J GERVAIS & SUSY FRANKEL, *ADVANCED INTRODUCTION TO INTERNATIONAL INTELLECTUAL PROPERTY* 128 (Edward Elgar Pub, 2015); Frankel, *supra* note 267, at 1039.

establish fair international standards acceptable by the majority of members. In bilateral and multilateral agreements, this power is greatly reduced, and developing countries usually end up giving in to the demands of more powerful states.²⁷⁰ Although it has been understood that forum shifting is a practice used by powerful states and most frequently by the US,²⁷¹ Laurence Helfer has argued that the advocates of international TK protection may have also used a forum shifting strategy in shifting, from TRIPs, to biodiversity and human rights forums in order to ensure the recognition of TK in international instruments.²⁷² By further moving TK protection discussions into FTAs, developing countries may be attempting to yet again shift regimes in order to create norms and principles that they have been advocated unsuccessfully in other forums. Given the increase in the use of FTAs to further trade and IP policy, the question remains if the *demandeurs* of international TK protection, which are usually countries with weaker bargaining power, can use FTAs to further their cause.

This is the question that Susy Frankel responds to in her 2012 publication, “Attempts to Protect Indigenous Culture through Free Trade Agreements.”²⁷³ Frankel finds that the *demandeurs* of international TK protection are not using FTAs to establish norms around TK protection. She finds, rather, that TK provisions in FTAs that have them “purport[ing] to reserve the right of the parties to protect [TK] or they have mere aspirational statements about the parties agreeing to discuss the protection of [TK].”²⁷⁴ Such vague and general terms will not be able to establish norms regarding the international protection of TK.²⁷⁵ To date, lead *demandeurs* of international TK protection such as India, South Africa, and Egypt have not included TK provisions in their FTAs.²⁷⁶

In some instances, the *demandeurs* of international TK protection actually agree to terms that undo the progress made on the IGC front by giving into the position of a more powerful party.²⁷⁷ The FTAs signed by Peru with other countries is a prime example of this.²⁷⁸ Among the countries included in the Global Affairs Canada research, Peru stood out as a leader in having TK provisions included in FTAs.²⁷⁹ In fact, Peru’s FTA with the European Free Trade Association has one of the strongest

²⁷⁰ See generally CARLOS MARÍA CORREA, *INTELLECTUAL PROPERTY RIGHTS, THE WTO AND DEVELOPING COUNTRIES: THE TRIPs AGREEMENT AND POLICY OPTIONS* 11-12 (Penang, Malaysia: Zed Books, 2000).

²⁷¹ BRAITHWAITE & DRAHOS, *supra* note 268, at 565.

²⁷² Helfer Laurence, *Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Law Making*, 29 YALE J INT. LAW 1, 46 & 55 (2004).

²⁷³ Frankel, *supra* note 98.

²⁷⁴ *Id.* at 127.

²⁷⁵ Hans Morten Haugen, *How Are Indigenous and Local Communities’ Rights Over Their Traditional Knowledge and Genetic Resources Protected in Current Free Trade Negotiations? Highlighting the Draft Trans-Pacific Partnership Agreement (TPPA)*, 17:3-4 J WORLD INTELLECT. PROP. 81, 91 (2014).

²⁷⁶ Global Affairs Canada, *supra* note 237; Email communication with Nadine Nickner, Senior Trade Policy Officer, Intellectual Property Trade Policy Division (TMI), Global Affairs Canada. Nadine Nickner, FOLLOW UP (2015).

²⁷⁷ Frankel, *supra* note 98, at 127.

²⁷⁸ See FTAs signed by Peru, Global Affairs Canada, *supra* note 262.

²⁷⁹ *Id.*

requirements on disclosure of the origins of TK in patent applications.²⁸⁰ However, in the FTA Peru signed with the United States, the memorandum of understanding on TK states that the parties agree that TK protection “can be adequately addressed through contracts.”²⁸¹ This position is the same the United States took in discussions of TK protection through WTO’s TRIPs agreement.²⁸² Peru’s strong advocacy for TK protection, which is reflected in FTAs it has with other countries and in other international forums, is not reflected in its MOU with the US. This example of the Peru-USA FTA might be evidence of how weaker countries can be more disadvantaged under bilateral agreements than in multilateral settings.

However, what is more striking is that some FTAs between *demandeurs* of international TK protection have also failed to provide strong norm-setting provisions on TK protection.²⁸³ This is the case even if both sides of the FTA have commonalities in TK protection domestically.²⁸⁴ This is the case, for instance, with the Peru-China FTA.²⁸⁵ The wordings in these FTAs are aspirational or permissive at best. These scenarios speak to a missed opportunity that *demandeurs* of TK protection have to further entrench the international norms surrounding TK protection being developed at the IGC.²⁸⁶ Although limited in their impact, TK protection norms included in FTAs between *demandeurs* of TK protection, have the potential to influence multilateral deliberations.

1. *The Trans-Pacific Partnership Agreement*

The dynamics between countries with different bargaining power under FTAs can also be seen in the difference between one of the latest and most controversial agreements – the Trans-Pacific Partnership Agreement (TPP)²⁸⁷ and its precursor agreement, the Trans-Pacific Strategic Economic Partnership.²⁸⁸ The initial, signed agreement, the Trans-Pacific Strategic Economic Partnership, started between Brunei, Chile, Singapore and New Zealand. It included a permissive but clear statement on TK protection. The agreements under its Chapter 10, Article 10.3 states:

²⁸⁰ “The Parties, in accordance with their national laws, shall provide for administrative, civil or criminal sanctions if the inventor or the patent applicant wilfully make a wrongful or misleading declaration of the origin or source. The judge may order the publication of the ruling.” *Free Trade Agreement between the Republic of Peru and the European Free Trade Agreements (EFTA) States*, Art. 6.5 (6) (2010); Email communication with Nadine Nicker, Senior Trade Policy Officer, Intellectual Property Trade Policy Division (TMD), Global Affairs Canada. Nickner, *supra* note 276.

²⁸¹ *The United States - Peru Trade Promotion Agreement, Memorandum of Understanding Regarding Biodiversity and Traditional Knowledge* (2006).

²⁸² Frankel, *supra* note 98, at 128.

²⁸³ Many of the FTAs signed by Peru and India with other Asian and Latin American countries do not have TK protection at all. Some of the FTAs that have TK protection have general statements that are not able to qualify as norm-setting. Global Affairs Canada, *supra* note 262.

²⁸⁴ Frankel, *supra* note 98, at 129.

²⁸⁵ *Id.*

²⁸⁶ *Id.* at 133.

²⁸⁷ *Trans-Pacific Partnership Agreement* (2016). Member countries of the agreement are: Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, United States of America and Vietnam.

²⁸⁸ *Trans-Pacific Strategic Economic Partnership Agreement* (2005).

“Subject to each Party’s international obligations the Parties affirm that they may: ... (d) establish appropriate measures to protect traditional knowledge.”²⁸⁹ More important, the founding countries of the agreement included TK in their definition of “creative arts.”²⁹⁰ This may be an example of a ‘legal innovation’²⁹¹ in which countries favorable to TK protection are attempting to use FTAs to re-define key international IP terms in the absence of powerful states objecting to TK protection. Given this background, the changes in the later agreement – the Trans-Pacific Partnership (TPP), which includes more powerful states such as the US, Japan, Australia and Canada - shows a shift towards weaker and generalized statements on TK protection.²⁹²

The TPP addresses TK in two different chapters: its intellectual property chapter (Chapter 18) and environmental chapter (Chapter 20).²⁹³ It has been noted that the United States and Japan were against the inclusion of statements on TK protection under the IP chapter.²⁹⁴ This may arguably be a strategy used by the US and Japan (countries that are usually against strong TK protection) to avoid the inclusion of TK as intellectual property independent of genetic resources. TK relevant for the conservation of biodiversity and genetic resources is a subject covered under the CBD.²⁹⁵ The WIPO IGC forum deliberates on TK protection as a stand-alone issue. If, as the US and Japan wanted TK protection to become excluded from the IP chapter, TK would not be discussed as an independent intellectual property issue at the WIPO IGC. TK discussion would have been exclusively on TK that is relevant for biodiversity conservation, as is the case under the CBD framework. As discussed below, the final wording of the provisions of the IP chapter still avoids using the term TK independently.

The TPP Article 18.16 descriptively titled “Cooperation in the Area of Traditional Knowledge” has three sub-articles, two of which make very general statements about TK.²⁹⁶ The first sub-article states that signatories “recognise the relevance of intellectual property systems and traditional knowledge associated with genetic resources [...]” while the second sub-article states that “Parties shall endeavour to cooperate [...] to enhance the understanding of issues connected with traditional knowledge associated with genetic resources [...]”²⁹⁷ These provisions do not commit signatories to any particularly enforceable obligation, nor do they include any of the basic principles being discussed at the WIPO IGC. The basic principles of prior informed consent and access and benefit sharing have not been recognized. Despite the focus of the third sub-article on increasing the ‘quality of patent examination,’ it

²⁸⁹ *Id.* at Ch. 10, Art. 10.3 (d).

²⁹⁰ *See id.* at note accompanying Ch. 19, Art. 19.1 (3). It should be noted that the definition provided focuses on literary and artistic fields which are different from the definition of TK provided in this paper. However, given the interest of advocates of TK protection to define TK holistically, the definition used in this agreement may still apply to TK as defined in this paper.

²⁹¹ Ruth Okediji, *Legal Innovation in International Intellectual Property Relations: Revisiting Twenty-One Years of the TRIPS Agreement*, 36:1 UNIV. PA J INT. LAW 191, 195 (2014).

²⁹² *See Trans-Pacific Partnership Agreement*, *supra* note 287.

²⁹³ *See Id.* at Ch. 18 & Ch. 20.

²⁹⁴ Haugen, *supra* note 275, at 81.

²⁹⁵ *See generally* CONVENTION OF BIOLOGICAL DIVERSITY, *supra* note 56.

²⁹⁶ The third sub-article simply focuses on defensive protection of TK by increasing the quality of patent examinations through increased access to TK.

²⁹⁷ *See Trans-Pacific Partnership Agreement*, at Ch. 18, Art. 18.16.

does not require patent applicants to disclose information regarding any TK used in the development of the invention.²⁹⁸ The IP chapter has avoided mentioning all major principles being considered under international TK protection.²⁹⁹

In fact, given that TK is mentioned only as it relates to genetic resources, the provisions seem to refer to the general obligations under the CBD and completely neglect the IGC deliberations on TK protection independent of genetic resources. In addition to the weakness of these provisions, cooperation on any issue in the chapter is based on the “availability of resources, and on request, and on terms and conditions mutually agreed upon between the Parties involved.”³⁰⁰ Since the article on TK calls for ‘cooperation’ on the issue, all of the statements are conditional on this provision, further weakening any statement made about TK protection.

The TK discussions under the environmental section are similar to those in the IP chapter.³⁰¹ Article 20.13 of the chapter titled ‘Trade and Biodiversity’ mostly focuses on genetic resources.³⁰² Sub-article 3 of the same article states:

The Parties recognise the importance of **respecting, preserving and maintaining** knowledge and practices of indigenous and local communities embodying traditional lifestyles that contribute to the conservation and sustainable use of biological diversity.³⁰³ (Emphasis added).

The quoted text does not say anything about ‘protection’ of TK as parties only agreed to recognize the need to ‘respect, preserve and maintain’ TK. This provision is almost identical to Article 8(j) of the Convention on Biodiversity (CBD).³⁰⁴ However, the CBD provision goes on to state that the parties agree to promote access and benefit sharing with indigenous peoples and local communities while the TPP’s version has a much-weakened version of the commitment focusing only on genetic resources.³⁰⁵ Overall, the TK provisions in both the IP and environment chapters of the TPP do not contain any clear commitments or obligations. They also do not recognize the advanced deliberations at the WIPO IGC on TK protection as an independent subject matter.

The history of the negotiating dynamics of the TPP could be seen from leaked text of earlier versions of the TPP.³⁰⁶ Peru, Malaysia, Mexico and Brunei proposed strong

²⁹⁸ *Trans-Pacific Partnership Agreement*, at Ch. 18 (2016).

²⁹⁹ *See generally id.*

³⁰⁰ *Id.* at Ch. 18, Art. 18.17.

³⁰¹ *See Id.* at Ch. 20.

³⁰² *Id.* at Ch. 20, Art. 20.13.

³⁰³ *Id.*

³⁰⁴ *Handbook of The Convention on Biological Diversity*, *supra* note 56, at 138.

³⁰⁵ *Trans-Pacific Partnership Agreement*, at Ch. 20, Art. 20.13 (4) note 217; “The Parties recognize the importance of facilitating access to genetic resources within their respective national jurisdictions, consistent with each Party’s international obligations. The Parties further recognize that some Parties require, through national measures, prior informed consent to access such genetic resources in accordance with national measures and, where such access is granted, the establishment of mutually agreed terms, including with respect to sharing of benefits from the use of such genetic resources, between users and providers.” (Emphasis added).

³⁰⁶ *See WikiLeaks Release of Secret Trans-Pacific Partnership Agreement (TPP): Advanced Intellectual Property Chapter for All 12 Nations with Negotiating Positions*, WIKILEAKS, Art. QQ.E.23 (2013).

obligatory and detailed commitments in earlier versions of the TPP agreement, while countries such as New Zealand, Australia, and Canada have opposed the use of such terms and preferred more permissive statements.³⁰⁷ The general divide discussed in the earlier section between the positions of developing countries that hold considerable TK within their jurisdiction, and developed countries where most users reside, is seen in these negotiating documents. Given the highly qualified, non-obligatory and general statements on TK protection in the final text, it can be concluded that more powerful/developed countries have succeeded in restricting TK protection to a more aspirational and optional framework.

Although there have been several missed opportunities, analysis of the most recent FTAs shows that there might be an upward trend. Examination of a compendium of close to 70 FTAs prepared by Global Affairs Canada reveals that most of the leading countries that have pushed for TK protection globally have managed to insert TK related provisions into FTAs.³⁰⁸ This trend is seen especially in FTAs signed between 2013 and 2015, thus demonstrating a growing trend. For instance, the 2013 FTA between EU, Peru, and Colombia contains the most extensive commitment among the FTAs analyzed.³⁰⁹ While TK protection is discussed in both the environmental section and the intellectual property section, the provisions explicitly cite the rights and obligations of the parties to the CBD and other international forums. The provision's relatively strong statements on the basic principles of 'prior informed consent' and 'benefit sharing' have been discussed in other forums. On other more recent FTAs, China has shown increasing success in inserting TK provisions into its FTAs, including those with Switzerland³¹⁰ and South Korea (2015),³¹¹ which expressly recognizes the above mentioned basic principles.³¹² One conclusion that may be drawn from this trend may be that advocates of TK protection are finally realizing the potential of FTAs as norm-setting tools on a global level and have begun using them as such. However, since the practice is very recent, the actual impact of this trend remains uncertain.

A useful comparison to the TPP is an FTA, thought by many to be an alternative to the TPP – The Regional Comprehensive Economic Partnership (RCEP).³¹³ The

³⁰⁷ See *id.*; proposals and objections.

³⁰⁸ Global Affairs Canada, *supra* note 262.

³⁰⁹ *Trade Agreement between the European Union and its Member States, of the one part, and Colombia and Peru, of the other part*, at Art. 201 & 271 (2012).

³¹⁰ *Free Trade Agreement Between the Swiss Confederation and the People's Republic of China*, at Art. 11.9.

³¹¹ *Free Trade Agreement between the Government of the People's Republic of China and the Government of the Republic of Korea*, at Art. 15.17.

³¹² Notably, China's FTA with Australia (2015) (which was signed at the same time as its FTAs with Switzerland and South Korea) only has aspirational statements which shows that it is also finding it hard to negotiate the inclusion of strong TK protection norms in FTA agreements with an economically developed country. See *Free Trade Agreement Between the Government of Australia and the Government of the People's Republic of China*, at Art. 11.17.

³¹³ Regional Comprehensive Economic Partnership (RCEP), ASSOCIATION OF SOUTHEAST ASIAN NATIONS, available at http://asean.org/?static_post=rcep-regional-comprehensive-economic-partnership.

RCEP has 16 member countries including China, but excluding the US.³¹⁴ The leaked text of the IP chapter in the RCEP shows strong substantive provisions on TK protection.³¹⁵ Although the RCEP is still being negotiated, if the final text manages to include most parts of the current provisions, it will set a much stronger standard of TK protection than that set by the TPP.

To summarize the above discussion, although FTAs are not the ideal route to the creation of international norms, for one reason or another, there is a proliferation of such agreements. FTAs are being signed by states in varying stages of economic development. Each member of the WTO is thought to be a signatory to an average of 13 FTAs.³¹⁶ Given that they have become ubiquitous, the *demandeurs* of international TK protection should start using FTAs strategically to build norms around basic principles that signatories would accept.³¹⁷ A promising trend is that the general value of TK is increasingly being recognized in many instruments and forums.³¹⁸ Many FTA side letters (which are used as commitments between parties to continue deliberating on certain issues for the future), including some TPP side letters, deal with TK protection.³¹⁹ Perhaps this is the beginning of the development of global norms on TK protection through FTAs. Delegates should build on general points of agreement in order to reach acceptable solutions. As discussed above, the alarming rate of TK loss and the need to establish legal frameworks that encourage its codification and disclosure should be the organizing principles in such endeavor.

VI. CONCLUSION

The risk of extra-territorial free-riding suggests the need for an international TK protection mechanism. Although some domestic measures such as secrecy and deferred disclosure could mitigate the effect of free-riding, they limit the dissemination of TK resulting in inefficiencies. The full potential of the legal framework will be realized only when there is an international TK protection mechanism.

This paper examined the status quo in terms of relevant international fora that have implications for TK protection with emphasis on the WIPO, CBD and WTO. It also examined the most advanced instrument on TK protection – the Draft Articles of the WIPO IGC. Although international TK protection has been discussed for over a decade, a clear and enforceable regime of protection has yet to be achieved. International deliberations at the WIPO IGC are stalled because of the failure of

³¹⁴ Currently, the member countries of the RCEP are the 10 ASEAN countries and China, India, Australia, Japan, New Zealand and South Korea.

³¹⁵ See section 7 of the intellectual property chapter. *Regional Comprehensive Economic Partnership (RCEP) (Leaked IP Chapter)* (Knowledge Ecology International).

³¹⁶ Michael Trebilcock, *Between Theories of Trade and Development: The Future of the World Trading System*, 16:1 J WORLD INVEST. AMP. TRADE 122, 131 (2015).

³¹⁷ See generally Frankel, *supra* note 98.

³¹⁸ Haugen, *supra* note 275, at 92.

³¹⁹ See *Understanding Regarding Biodiversity and Traditional Knowledge (The Government of Canada and the Government of Malaysia)*; *Understanding Regarding Biodiversity and Traditional Knowledge (The Governments of Canada and of the Republic of Peru)*; *Bilateral Understanding between the U.S. and Peru on Biodiversity and Traditional Knowledge*; *Understanding Regarding Biodiversity and Traditional Knowledge (The Governments of New Zealand and the Republic of Peru)*, SIDE LETTERS OF THE TPP (2016).

delegates to agree on several key issues. These issues include the definition/scope of TK, the legal nature of the proposed instrument, the tension between providing flexibilities for domestic policy space and crafting an effective/enforceable system of protection, and the relationship between the proposed instrument and other international agreements. Negotiations are ongoing at the WIPO IGC despite these differences in negotiating positions.

The feasible way forward for international TK protection seems to lie in striking the right balance between providing flexibilities for domestic jurisdictions to craft domestic laws based on a country's needs and capabilities, and ensuring that there is a sufficient international obligation that would encourage the codification and disclosure of TK. Such a framework should begin with the minimum consensus among key stakeholders, including major source countries and jurisdictions in which most users interested in access to TK reside.

In order to guide the development of such consensus and to strike a balance between flexibility and enforceability, it is proposed that the Draft Articles include five provisions on the following issues: A provision defining TK and the general subject matter that should be subject to protection (currently included in Article 1 of the Draft Articles), a new article requiring the establishment of domestic frameworks that would encourage the codification and disclosure of TK through databases/registries, an article setting out enforcement measures (Article 4), provisions on national treatment and MFN treatment (Article 11), and a provision on the relationship of the instrument to other international agreements (Article 10). The international instrument should be limited to these few provisions and it should leave the details of the system for domestic laws.

While diplomatic negotiations are painfully slow, scholars have advanced several proposals that seek to provide innovative legal tools to protect TK. The paper has examined the feasibility of some of the most promising proposals. The establishment of a mandatory disclosure of origin requirement that includes obligations to disclose 'prior informed consent' and enforceable benefit sharing agreements will be a key legal tool to provide effective international TK protection. Additionally, the recognition of national legislation under international agreements seems to have potential for establishing an effective form of international protection if the relevant international agreements such as TRIPs are amended to include such provisions. The basic principles of national treatment and most favored nation treatment borrowed from international IP law are also needed in order to supplement minimum substantive protection.

Because of the lack of progress in multilateral regimes including that at the WIPO IGC, some *demandeurs* of international TK protection have begun using FTAs to further the international dialogue on TK protection. Although FTAs are not the ideal tool for establishing global norms, given that they are proliferating, countries advocating for TK protection should begin to use them strategically to establish global norms of TK protection. Although most *demandeurs* of TK protection do not have the bargaining power to influence more powerful countries, they could begin by inserting TK protection provisions into FTAs between two or more like-minded countries. In all of these efforts, it is suggested that the need to encourage the codification and disclosure of TK should be the organizing principle. Since this need has been endorsed in many instruments, including the WIPO Draft Articles, it should be possible to develop a global norm around such principles.