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The Estey Centre Journal of **International Law and Trade Policy**

Law and Policy on Intellectual Property, Traditional Knowledge and Development: Legally Protecting Creativity and Collective Rights in Traditional Knowledge Based Agricultural Products through Geographical Indications

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Geographical indications emerged on the international scene at the centre of three highly debated subjects: intellectual property, international trade and agricultural policy. This article discusses the use of geographical indications in the protection of traditional knowledge-based agricultural products in the international intellectual property framework, and assesses the challenges and opportunities geographical indications present with respect to efforts to cater to the needs of indigenous people and local communities. The discussion begins with a succinct overview of the definitional aspects of geographical indications, traditional knowledge and traditional knowledge-based agricultural products. In an attempt to locate the issue of geographical indications in the current intellectual property landscape, the article examines their regulation in international and national legal frameworks, and critically appraises the attendant controversies in international negotiations. The article then broaches issues to do with the link between geographical indications and traditional knowledge, and examines the cultural, economic and environmental issues in policy debates surrounding the applicability of geographical indications to traditional knowledge-based agricultural products.

Keywords: agricultural products, geographical indications, traditional knowledge, TRIPS, WTO

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1. Introduction

In the wake of its emergence on the international scene, the world's major international intellectual property tool – the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) – has evoked anger and dismay among indigenous people and local communities, mainly in the developing countries. Beyond the burden of setting up institutions that they previously did not have, the TRIPS expects developing countries to devote their meagre resources to the revision and introduction of legislation that provides for criminal sanctions against violations of intellectual property rights, the administration of such legislation and the enforcement of border measures.¹ The fact that most of these countries are importers of most of the intellectual property-bound products in question has resulted in high outflows of foreign currency – adding to the pressures related to the costs of compliance and making it difficult for them to satisfy the health needs of their citizens, provide educational materials and cope with the soaring price of agricultural inputs.

Despite the onerous requirements, the TRIPS Agreement does not address the concerns of the majority of the countries that are obligated to comply with it. The manner in which traditional knowledge (TK) is treated in the agreement demonstrates how the global intellectual property (IP) regime addresses the concerns of developing countries and the interests of their component indigenous peoples and local communities.² Generally, the relationship between TK and the IP regime incorporated in the TRIPS remains vexed due mainly to the theoretical shortcomings of the latter to accommodate the epistemological underpinnings of the former. The TRIPS requires WTO members to protect TK to the extent that such knowledge fits within the forms of intellectual property protection that the agreement recognizes.³ The problem is that these forms of intellectual property protection tools – while they have proved instrumental to owners of technological and biotechnological knowledge and skill – do not fit well with TK and, thus, have only facilitated its misappropriation and abuse.⁴

TK plays a pivotal role in the livelihood of a large segment of the world's population in many ways.⁵ The lack of protection has resulted in the unprecedented erosion of the other most important asset in most developing countries – biodiversity. The 1992 Convention on Biological Diversity (CBD) as well as subsequent agreements have widely recognized the important role of traditional knowledge systems and practices in protecting the environment and conserving biodiversity. As a result, efforts to find modes of protecting traditional knowledge have surfaced in various forums of international and national law-making, as well as in the works of public-interest groups and academicians. These efforts stem from diverse

philosophical roots, and thus the approaches adopted and the methods proposed take varied forms. As such, the extent and mode of protection they offer as well as their effectiveness are varied.

In the efforts to protect TK through the realm of intellectual property – one of the proposed methods to protect TK – the modes of protection under consideration in the various forums usually take either of the following two forms: the protection for exploitation of TK through the use of new-fangled or extant intellectual property rights, or the protection against exploitation of this knowledge by preventing its misappropriation through the use of a similar intellectual property regime. The former is referred to as positive protection, while the latter is considered defensive protection.

The positive protection approach to TK responds to the needs of indigenous peoples and local communities who want to benefit from the commercialization of their knowledge. This system aspires to create an entitlement system through mechanisms such as *sui generis* legislation, contractual agreements and/or the use of existing intellectual property systems of protection that enable indigenous peoples and local communities to protect and promote their knowledge.

On the other hand, the defensive protection approach to TK responds to the needs of indigenous people and local communities who may want the preservation of cultural heritage as an end in itself, the identification and protection of TK as an element of promoting the preservation of biodiversity and the sustainable use of biological resources, and its protection in a human rights context.⁶ These groups and communities may be more concerned with the cultural, social and psychological harm caused by the unauthorized use of their TK by outsiders than with economic implications.⁷

However, the distinctions between defensive and positive intellectual property protections are not watertight. The protection of TK for the purpose of exploitation by its holders also entails the protection of such knowledge against misappropriation by “outsiders.”⁸

With respect to positive protection, many developing-country producers have now realized that the fruits of their “inventions” may earn them a fair share of the market.⁹ This realization has coincided with the increasing awareness that rendering the knowledge bearer attentive to the value of his/her knowledge will encourage the holders to appreciate TK as “continuous and additive innovation” and thus a resource that further develops their culture.¹⁰ Geographical indications (GIs) are touted as having the potential to offer advantages to developing-country agricultural producers along these lines.

GIs emerged on the international scene at the centre of three highly debated subjects: intellectual property, international trade and agricultural policy. This article examines the significance of GIs in the protection of traditional knowledge-based agricultural products (TKBAPs) in the international intellectual property framework, and assesses the challenges and opportunities they present with respect to efforts to cater to the needs of indigenous people and local communities.¹¹ The following section provides a succinct overview of the definitional aspects of GIs, TK and TKBAPs. Section three examines the regulation of GIs in the various legal frameworks. In an attempt to locate the issue of GIs in the current intellectual property landscape, the article investigates their treatment in international and national legal frameworks, and critically appraises the attendant controversies in international negotiations.

In the rest of the article, I broach the emerging issues to do with the link between GIs and traditional knowledge and appraise the suitability of GIs to serve as modalities for protecting traditional knowledge-based agricultural products. Examined are the cultural, economic and environmental issues in the policy debates surrounding the applicability of GIs to TKBAPs. Finally, I draw conclusions regarding the circumstances under which GIs may be employed to serve the purposes sought in the context of TKBAPs.

2. Definition of Terms

2.1 Traditional Knowledge and Traditional Knowledge-Based Agricultural Products

The term “traditional knowledge” refers to a concept difficult to define and to distinguish from other knowledge.¹² Although the literature refers to this category of knowledge as “traditional knowledge,” “indigenous knowledge,” “local knowledge,” “folk knowledge” and “community knowledge” interchangeably, I prefer to use the term “traditional knowledge” in this project to avoid the technical ambiguities associated with the other terms.¹³ The conceptual bounds of “indigenous knowledge” appear to be less inclusive, due mainly to the narrow understanding of the term “indigenous people” in the current international law arena.¹⁴

The TRIPS Agreement is the major instrument that provides IP-based protection of modern knowledge through patents, trademarks, copyrights, industrial designs and geographical indications.¹⁵ TRIPS does not protect TK, because TK does not fit the legal criteria for “knowledge and innovations” that form the basis for protection under modern intellectual property law. These criteria are based on a distinction between the intangible aspect of knowledge that yields “innovation” and the product to which the

knowledge is applied. While it is widely acknowledged that the modern economic system is knowledge based, indigenous people and local communities have been considered resource based.¹⁶ Accordingly, the extant intellectual property regimes aspire to protect “unique knowledge but not unique resources and raw materials.”¹⁷

Although the above distinction occupies a highly specialized niche in the Western tradition, it is alien to communities outside this tradition.¹⁸ The distinction between the material – in most cases a biological resource – and its intangible aspect is blurred in the context of indigenous people and local communities and, as such, is held to be not only “inappropriate” but also “denaturaliz[ing of] traditional knowledge,” resulting in the “loss of control by indigenous peoples over the product of their intellectual effort, or over the biological resources to which it is related.”¹⁹

In this article, I prefer to use a definition of TK that provides for the indivisibility of traditional knowledge. The definition by the African Group in its submission to the World Intellectual Property Organization (WIPO) is closer to the understanding of the concept in this article:

knowledge which is held by members of a distinct culture and/or sometimes acquired by means of inquiry peculiar to that culture, and concerning the culture itself or the local environment in which it exists. TK is thus the totality of all knowledge and practices, whether explicit or implicit, used in the management of socio-economic and ecological facets of life.²⁰

This definition covers the widest possible scope of traditional knowledge, above and beyond any of the terms used to refer to it. It accurately refers to not only “knowledge,” but also “practices” of people who are members of a distinct culture. By locating the existence of the “knowledge” and “practices” within the “socio-economic and ecological facets of life” of the members of the community, the definition encompasses a wide range of knowledge across a spectrum from agricultural knowledge to ecological knowledge; medicinal knowledge; knowledge relating to medicines and remedies; knowledge of plant genetic resources; and traditional cultural expressions. As such, it provides the theoretical prism through which various components of such knowledge may be better understood. In this scenario, the phrase “traditional knowledge-based agricultural products” (TKBAPs) refers to the resources of indigenous people and local communities engaged in agricultural production who utilize traditional means of production. Agricultural products are defined as “the products of the soil, *of stock-farming and of fisheries and products of first-stage processing* directly related to these products.”²¹

2.2 Geographical Indications

Simply understood, GIs are signs used in connection with goods in order to indicate their geographical origin. Although they are part of one of the oldest intellectual property regimes addressed by the earlier international intellectual property treaties – the Paris Convention of 1883 – the literary landscape relating to GIs is heavily overcast by differences in the understanding of their nature. GIs are closely interrelated with and seemingly identical to two other varieties of intellectual property recognized in the earliest international treaties: “appellations of origin” (AOs) and “indications of source.”²²

Art. 2 of the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration defines AO as “the geographical name of a country, region, or locality, which serves to designate a good originating therein, the quality and characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors.”²³ The Lisbon Agreement also defines “country of origin” as “the country whose name or the country in which is situated the region or locality whose name constitutes the appellation of origin which has given the good its reputation for the quality and characteristic.”²⁴ According to these definitions, an AO should always be a name which designates a country, region or locality. Also, it is fundamental that a good bearing the name exhibits quality and characteristics attributable to the designated area of geographical origin. Thus, an AO designates a given quality and characteristic of a good originating from a certain geographical origin, as exemplified by goods such as Champagne wine and Roquefort cheese, produced in the French districts of Champagne and Roquefort and known for their sparkling and taste/texture qualities respectively.

“Indications of source” are characterized by a link between the “indication” and the “geographical origin” of the product, which may be a certain country or a place in a country.²⁵ Such indications are also referred to as “country of origin” indications. The indication in an “indication of source” need not necessarily be a geographical name. Words or phrases that directly indicate geographical origin, or phrases, symbols or iconic emblems indirectly associated with the area of geographical origin, may constitute indications of source.²⁶ Unlike AO, an indication of source need not represent a particularly distinctive or renowned quality associated with the product’s origin – although both designations refer to geographical locations.²⁷

The TRIPS Agreement is the first multilateral agreement to have introduced the concept of “geographical indications” in a groundbreaking manner.²⁸ Art. 22.1 of the agreement provides the most extensive definition of GIs: “... indications which identify a good as originating in the territory of a Member, or a region or locality in

that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.”

GIs are similar to AOs in that both associate the quality of a good with a geographical location identified by an indication. Scope-wise, GIs are wider than “appellations of origin” because GIs are not restricted to the names of geographical locations. Other indirect references to geographical locations such as pictorial symbols may also be included under the definition of GIs, as long as they can identify a good with “a given quality, reputation or other characteristic” as originating in a territory, region or locality in the territory. For example, GIs include the use of the Eiffel Tower or the Statue of Liberty to represent France or the United States – or a place or territory in France or the United States – in association with a good.

Unlike in the case of AOs, with GIs each one of the factors – “quality,” “reputation” or “other characteristic” – is on its own an adequate condition for the grant of protection, because the list in the definition of GIs under the TRIPS Agreement is in the alternative, as opposed to the cumulative listing in the earlier Lisbon Agreement.²⁹ The recognition of “reputation” as an independent, protectable subject in the TRIPS gives a clue to the question as to whether a GI merely denotes only a geographical location – “the sign the product points to in the eyes of the consumer” – or its connotation as well – “the penumbra of associations and qualities that ...[could be] ‘usurped’, ‘appropriated’, ‘diluted’ or ‘imitated’.”³⁰ It is also noted that the distinction between the denotation and connotation of GIs in this manner reveals the dichotomy in the understanding of GIs as “protection against misleading use of GIs in the consumer’s interest, and a form of absolute protection as a collective right defended against all usurpation and evocation” respectively.³¹

WIPO has indicated that “reputation” with respect to GIs is mainly related to the history and historical origin of the product, an attribute more attuned to products of traditional knowledge.³² For GIs such as “Basmati rice,” for example, the quality of the rice from the region denoted is closely connected to the reputation of the product connoted by the symbolic name. As such, the protection extends not only to the term “Basmati” as denoted in reference to the region of Punjab, but also to the reputation of the product that the term connotes – the traditional method of production developed over time, and the cultural aspects of the product. This distinction is significant in that the content of the rights in the latter exhibits “many of the hallmarks of a property right,” while the former grants a “mere right of action for misrepresentation – easily justified in terms of honest trade and consumer protection.”³³

“Reputation” in the protection of GIs may arise not necessarily from “physical characteristics emanating from climate or soil quality” of the product but from other

factors in the geographical origin such as “local inventiveness.”³⁴ Such factors must contribute to the distinctiveness of the product, i.e., its capacity to distinguish itself from other products, and the reputation must be assessed, *inter alia*, from the consumer’s perception of the indication.³⁵ Although assessment of the reputation may differ depending on the systems and the products, and can be made on a local, national or international basis, WIPO suggested that a local reputation be sufficient for protection to be granted.³⁶

Even when the characteristic of the product is not related to the “quality” or “reputation,” GIs protect the “other characteristics” of the good. “Other characteristic” refers to any element that contributes to the typicality of the product. Natural and human factors are the most frequently used factors in determining the typicality of the product – as affirmed by WIPO.³⁷ Natural factors are the physical attributes of the soil, weather, geographical location and the like, as represented by the French conception of “terroir.” It is noted that recognition of human factors in this respect makes it possible to protect products whose unique quality derives from traditional knowledge.³⁸

Therefore, the scope of GIs as recognized by the TRIPS Agreement extends beyond a mere designation of quality. In the discussion of the subject in the international intellectual property agreements, the literature often uses the term “geographical indications” to refer to “appellations of origin” and “indications of source,” and vice-versa. In such cases, WIPO has indicated that “the rights and obligations flowing from those instruments exist only in relation to the category of ‘geographical indication’ to which the instrument in question refers.”³⁹ It is important to draw a distinction within the context of the international agreement that is under consideration.⁴⁰

For the purposes of this article, geographical indications are understood within the scope and the meaning accorded to them by the TRIPS Agreement. GIs are understood in this article in such a wide scope in order to encompass the “reputation” and “other characteristics” of the goods resulting from human contribution in a geographical origin. As will be indicated below, the expansive feature of GIs under the TRIPS is an important factor that makes GIs conducive tools for the protection of TKBAPs. Before proceeding further on the link between GIs and TKBAPs, the regulation of these forms of intellectual property rights (IPRs) in international and national frameworks will first be examined, and aspects of the debate currently reigning in the TRIPS negotiations on GIs analysed.

3. The Regulation of Geographical Indications

Generally, the protection of GIs in national and international frameworks has two major facets. First, protection in the case of GIs is understood as the right to prevent unauthorized persons from using GIs, either for goods that do not originate from the geographical place indicated or for goods that do not comply with the prescribed quality standards.⁴¹ The second facet relates to protecting GIs against becoming generic expressions,⁴² commonly referred to as genericide. Genericide is a phenomenon by which “a mark used as indication that was once highly valuable and unquestionably protectable loses its status and value and, consequently, its protection.”⁴³

3.1 *The International Protection of Geographical Indications*

Whether a GI is a generic term and void of any protection is, in the absence of an international agreement, usually determined by national legislation.⁴⁴ Accordingly, a GI protected in one country may be considered generic in another. As a result, this aspect of protection of GIs has been dealt with in the earlier international agreements on intellectual property – currently administered by WIPO – and lies at the centre of the discussions and negotiations under the current TRIPS framework in the WTO.

3.1.1 Geographical Indications in the World Trade Organization Framework and the Ongoing Negotiations

The negotiation process for the protection of GIs during the drafting of the TRIPS has generated heated arguments between the proponents for strong protection – mainly the EU – and other countries that have opted for flexible standards. In the negotiations leading up to the conclusion of the TRIPS Agreement, the EU and the United States introduced divergent treaty texts.⁴⁵ Reflecting the historical experience of national lawmaking in Europe,⁴⁶ the EU recommended the protection of all “geographical indications, including appellations of origin” through specific GI provisions to the extent that protection is accorded in the country of origin.⁴⁷ This proposal was to be applied to all goods including goods of the vine.

The United States proposed to protect GIs “that certify regional origin by providing for their registration as certification or collective marks [through the trademark regime and thus without a need for specific GI regime].”⁴⁸ In contrast, a group of developing countries led by Brazil and India called on countries “... to provide protection for geographical indications including appellations of origin against any use which is likely to confuse or mislead the public as to the true origin of the good.”⁴⁹

A compromise between these proposals was finally presented by the then GATT director Arthur Dunkel on 20 December 1991.⁵⁰ Incorporating this version of the text, section three of the TRIPS expressly protects GIs. As a result, the agreement now provides two levels of GI protection: basic protection that sets the minimum standard of common application to all goods (Art. 22), and an additional level of protection applicable to wines and spirits only (Art. 23). Also, the agreement provided the mandate for the continuation of negotiations on the establishment of a multilateral system of notification and registration of GIs (Art. 23 (4)).

The present discussion and negotiations in the WTO regarding GIs involve two issues that stem from the TRIPS Agreement's initial treatment of GIs. The first relates to the agenda of extending the "additional protection" accorded to wines and spirits to other agricultural goods. The second relates to the establishment of a multilateral GI registration system in the WTO to ensure better protection.

On the agenda of extending the protection TRIPS provides for wines and spirits to other goods beyond wines and spirits, the debate in the WTO is effectively polarised between two camps which do not fall along the traditional WTO lines of developing countries and developed countries.⁵¹ On the one hand are the EC and its supporters, who are seeking to achieve broad protection for a wide range of GIs for agricultural and other goods, while another group of members, led by the United States, are opposed to extending additional protection for other goods beyond wines and spirits.⁵² Consensus is not expected shortly, as the EC, together with India, Thailand, Turkey and Switzerland, has been in disagreement with the Cairns Group (mainly the United States, Argentina, Canada and Australia), who consider enhanced GI protection of agricultural goods another form of agricultural protectionism.⁵³

Despite the recognition that protection of GIs remains an "outstanding implementation issue"⁵⁴ of the Doha Round of negotiations, the final "July Package" did not include the agenda of extending GI protection to goods other than wines and spirits.⁵⁵ Some WTO members have even questioned whether the Doha declaration offers a sufficient negotiating mandate for extending the enhanced protection of GIs to other goods.⁵⁶ For example, the United States argued that the current WTO rules sufficiently protect GIs, and amending the rules to extend GI protection to goods other than wines and spirits and establishing a multilateral GI registry "may impose significant new costs on WTO Members, especially developing and least developed Members, which will far outweigh any potential benefits."⁵⁷ Contrary to its response to the concerns of developing countries regarding the implementation cost of the other IPR regimes contained in the TRIPS, the United States wielded the argument of

economic efficiency to resist the pressure for the extension of GI protection to agricultural products other than wines and spirits.

Regarding the establishment of the multilateral registry, negotiations were started soon after the conclusion of the TRIPS. The agenda has also been part of the Doha declaration. The Cairns Group did not question the negotiation mandate for the establishment of the multilateral registry system, as Art. 23(4) of the TRIPS clearly provides for the “establishment of a multilateral system of notification and registration of GIs for wines eligible for protection in those Members participating in the system.” However, consensus has not yet been achieved, as the Cairns Group insisted on a voluntary system of registration that includes wines and spirits only, while the EU and its supporters sought to include agricultural goods in a non-voluntary registration system among participants in the system.⁵⁸

Despite setting out a framework of obligations to protect GIs, the TRIPS Agreement does not prescribe a particular legal means to carry out the obligations. Thus, members are at their discretion to choose the particular legal means to provide for the protection of GIs. GIs are protected through a wide range of concepts in different jurisdictions, including *sui generis* laws that protect GIs, trademark laws that take the form of collective marks or certification marks, the common law rule of passing off, unfair competition laws, consumer protection legislation and special laws that recognize individual GIs.⁵⁹

A lot of the controversy in the WTO arises from these differences – in approach – over protecting GIs. This in turn reflects the difference in outlook – mainly between the United States and the EU – towards GIs. This difference lies at the root of trade disputes brought to WTO dispute settlement panels and the controversies in the currently stalled Doha negotiations.⁶⁰

3.2 National Systems of Protecting Geographical Indications

Differences in the form and substance of GI protection have long been a transatlantic trade irritant.⁶¹ The EU countries have protected GIs for a long time through a sophisticated system of *sui generis* GIs that incorporate stringent criteria. The United States, however, does not see the need for a *sui generis* legislation to protect GIs, as it regulates and protects them through its existing trademark regime. This difference has been a source of conflict in bilateral talks as well as recent negotiations and disputes in the WTO.

The transatlantic difference has wider implications, as GI regulations in the EU and the United States affect all exporters of goods that are subject to the protection. The difference will have particular implications for developing countries due to the

increasing recognition of the significance of these forms of IPR regulation for protection of traditional knowledge-based agricultural products – as will be indicated later in this article.⁶²

3.2.1 The EU System of Geographical Indications

The EU system of GIs evolved from traditions of the individual wine-producing members, mainly France. The practice of protecting GIs in France dates back to the 1800s – when Napoleon III established the Grand Crus of the Bordeaux area.⁶³ Initially, the protection was applied to wines, but it later evolved to include other goods with a specific brand name tied to a traditional area of production.

As part of the single economic unit that it aspired to build among its members, the EU effected a unitary system of GI protection throughout its members. The GI system introduced in 1992 allows three different forms of protection: Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and Traditional Specialty Guaranteed (TSG). The first two categories of protection are established by Council Regulation 2081/92, which was later replaced by Regulation 510/2006, while TSGs are protected by Regulation 2082/92, replaced by Regulation 509/2006.⁶⁴

PDO is defined under Art. 2.1 (a) of the EU Regulation 510/2006 as follows:

- the name of a region, a specific place or, in exceptional cases, a country, used to describe an agricultural good or a foodstuff:
 - originating in that region, specific place or country,
 - the quality or characteristics of which are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors, and
 - the production, processing and preparation of which takes place in the defined geographical area.

It can be observed that PDO is defined in a slightly different but essentially similar manner to AO, in that the indication has to be the name of “a region, a specific place or, in exceptional cases, a country” from which the good originates. In addition, there has to be a “quality or characteristic” of the good due “exclusively or essentially” to a defined geographical environment. Also, a good under PDO has to be produced, processed and prepared within the designated geographical area.

Similarly, Art. 2.1 (b) of the same regulation defines PGI. The link between the good and the attribute of the good seems loose in the case of PGI, because unlike PDO, which requires that the “quality or characteristic” of the good be “essentially or exclusively” due to the geographical origin, the requirement in PGI is that the good “possesses a specific quality, reputation or other characteristics attributable” to the

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geographical origin.⁶⁵ This distinction is more pronounced in the requirement that the “production, processing and preparation” of the good in the case of a PDO must take place in the defined geographical area, while in the case of a PGI “production and/or processing and/or preparation of” the good may take place in the area designated by the geographical name. Thus, a good which is produced in a designated geographical area but processed in another geographical area may be protected under PGI while the same good will not get PDO protection.

Also, while PDO protects agricultural goods or foodstuffs with “quality or characteristics” due to a geographical origin, PGI protects agricultural goods or foodstuffs that possess “... reputation or other characteristics attributable [not essentially or exclusively due to]” the geographical origin. In this regard, PGI has an expansive scope similar to the GI concept introduced by the TRIPS Agreement. Unlike GIs, however, PGIs may not be designated by indications other than geographical names.

The EU Regulation 509/2006 protects the third type of GI: TSG. Art. 2.1 (c) of the regulation defines TSG as “a traditional agricultural good or foodstuff recognised by the Community for its specific character through its registration under this regulation.” It further clarifies each element of the TSG, defining the term “traditional” as “proven usage on the Community market for a time period showing transmission between generations.” “Specific character” is defined as “the characteristic or set of characteristics which distinguishes an agricultural good or a foodstuff clearly from other similar goods or foodstuffs of the same category.”⁶⁶ The “characteristic or set of characteristics” is described as relating to “the good’s intrinsic features such as its physical, chemical, microbiological or organoleptic features, or to the good’s production method or to specific conditions that pertain during its production.”⁶⁷

Unlike the criteria for PGI and PDO, the specific character that a good possesses in TSG is derived not from the geographical origin but from the “traditional raw materials or ... a traditional composition or a mode of production and/or processing reflecting a traditional type of production and/or processing.”⁶⁸ However, geographical terms may be registered as TSGs under the conditions laid out in Art. 4.2–4.3, and without prejudice to the protection of PDO and PGI.⁶⁹ Thus, TSG is not employed to refer to geographical origin but rather to highlight the traditional character of a good – in either the composition or the means of production.

The EU protects wines, spirits and mineral waters through separate legislation.⁷⁰ The EU law also provides for the possibility of registering a GI as a collective mark under both the Community’s Trademark Regulation and the national laws of member

states, as long as there is no pre-existing protection for a given GI.⁷¹ However, EU law prohibits the registration of trademarks that conflict with registered GIs, unless the trademark obtained *bona fide* protection in an EU member state prior to registration of a conflicting GI, or prior to January 1, 1996.⁷²

3.2.2 Geographical Indications in the U.S. Legal Framework

The United States protects GIs in a fundamentally different manner from the EU. Policy wise, the United States does not consider GIs a separate class of intellectual property, and thus it does not have legislation especially targeted at protecting GIs. It protects GIs through specific categories of the trademark regime: certification marks, collective marks and, in some cases, ordinary trademarks.

GIs are protected through certification marks and collective marks in the United States as an exception to the general rule that individual trademarks must not be geographically descriptive without a showing of acquired distinctiveness. According to the U.S. Trademark Act, a certification mark is “any word, name, symbol, or device used by a party or parties ... to certify regional or other origin, material, mode of manufacture, quality, accuracy, or other characteristics of ... [the] goods or services or the work or labor on the goods or services ... performed by members of a union or other organization.”⁷³ Thus, certification marks may indicate any of the following three attributes of a good: 1) regional or other origin; 2) material, mode of manufacture, quality, accuracy or other characteristics of the good/service; or 3) the performance of the work or labour on the good/service by a member of a union or other organization. Certification marks protect GIs when the marks used certify “regional ... or other origin.”

Certification marks are distinguished from ordinary trademarks in many respects. In the case of a certification mark, the owner controls use of the mark, but he does not use it. The owner can not be a producer of the goods on which the mark is used. Unlike ordinary trademarks, certification marks do not indicate a commercial source, nor do they distinguish the goods and services of one person from those of another person. The owner of the mark is obliged to certify all goods or services that meet the standards he set so that consumers will be assured of the specified quality or characteristic of the goods or services. When the certification mark is employed to protect GI, such a standard specifies that the good or service originates from a specific “regional ... origin.”

A collective mark is defined as “a trademark used by the members of a cooperative, an association, or other collective group or organization.”⁷⁴ A collective mark is owned by a collective body, such as an agricultural cooperative, of the sellers of a good and serves to indicate that the person who uses the collective mark is a

member of that collectivity.⁷⁵ The collective organization holds the title to the collectively used mark for the benefit of all members of the group, and thus no member can own the mark.⁷⁶ In the case of collective trademarks that protect GIs, membership in the association that is the owner of the collective mark is, generally speaking, subject to compliance with rules to do with the geographical area of production of the goods on which the collective mark is used.

Also, the United States protects a GI as a trademark if a geographical sign is used in such a way as to identify the source of the good/service, and, over time, consumers start to recognize it as identifying a particular company or manufacturer or group of producers in a geographical region.⁷⁷ In these circumstances, a GI is protected as an exception to the general rule in trademark law – that geographical terms or signs are not registerable as trademarks if they are geographically descriptive or geographically misdescriptive of the origin of the goods. If, through continuous usage, consumers have come to associate the geographical name with a particular manufacturer, the geographical name has acquired a “secondary meaning” in addition to the primary meaning of denoting the geographical place, and thus “acquired distinctiveness.” In such a case, the GI may be registered as a trademark.

The U.S. system of protecting GIs is generally found in other common law jurisdictions too. Canada and Australia protect GIs mainly through certification and collective marks. Also, protection is offered in some cases through rules that deal with unfair competition and the common law rule of passing off.⁷⁸

4. The Attraction of Geographical Indications for Developing Countries

As far as GIs are concerned, developing countries have long sought the amendment of the Paris Convention to require the cancellation of registration of a mark, and the prohibition of the use of a mark, “if the mark contains a GI of a country from which the associated goods do not originate and similar goods are now or later produced in the named geographical region.”⁷⁹ This amendment was suggested because “the developed countries have already secured protection for their GIs to aid in their export trade, and, at the same time, have permitted the geographical names of developing countries to become registered as marks, thus effectively frustrating the use by developing countries of their geographical names.”⁸⁰ In this context, the interest of developing countries with respect to GIs has traditionally been for the primacy of GIs over trademarks in order to prevent the establishment in developed countries of trademark rights to geographical names associated with places where distinctive biodiversity resources in the South are cultivated, which in effect hinders the export of goods from developing countries to larger markets.⁸¹

In the latest development regarding GIs in the Doha negotiations, the major proponents of GIs – the EU and Switzerland – have managed to link the GI registry issue, which there is a clear mandate to negotiate, with two other hot-button intellectual property issues in the WTO: an amendment to the TRIPS Agreement that would require disclosure of origin on genetic materials used in patent applications, and the extension of the high-level protection enjoyed by GIs for wines and spirits to GIs for other goods.⁸² In support of its proposal, the EU pointed to India as an example of a country that is in favour of GI protection because its economy is based upon its distinct culture, which it also exports in the form of saris (traditional dress worn primarily by Hindu women), specialty teas (Darjeeling, Assam) and rice varieties (such as Basmati).⁸³ This may signal a strategic move by the EU to join hands with the developing-country members' agenda of protecting TK through a disclosure-of-origin requirement for patent applications.⁸⁴

The developing countries have shown keen interest in the subject of GIs in recent years.⁸⁵ GIs have been touted by some developing countries and public interest bodies acting on their behalf as useful for the protection of traditional knowledge-based goods of indigenous people and local communities. Some developing countries have increasingly shown interest in GIs as instruments that may contribute to remunerative marketing of agricultural production based upon traditional cultivation methods.⁸⁶ In a wave of interest, many developing countries – among others, Chile, Brazil, Argentina, India, Malaysia, Singapore, Thailand, Jordan and Egypt – adopted a *sui generis* system of GI legislation between 1996 and 2004 alone. In WIPO's review of the existing protection of traditional knowledge, Venezuela and Vietnam reported having protected traditional knowledge through GIs.⁸⁷ Other countries, such as India and Pakistan, have registered GI protections for diverse goods of immense export value, after widely publicized disputes involving Darjeeling tea, Basmati rice and Jasmine rice.⁸⁸

An increasing number of academicians and organizations are actively pushing the agenda toward better protection of GIs at the international, regional and national levels as a means of protecting traditional knowledge.⁸⁹ For example, Terri Janke, the indigenous solicitor has noted that “given that indigenous peoples' cultural expression reflects their belonging to land and territories, this may allow some scope for indigenous people to use geographical indications for their clan names, and language words for regions.”⁹⁰ Along the same lines, Zografos has contended that geographical indications can be a viable alternative for the protection of traditional cultural expressions.⁹¹ Sherman and Wiseman also argued that “the regimes used to protect

geographical indications could be used as a model for a *sui generis* scheme to protect indigenous knowledge.”⁹²

The foregoing discussion indicates the increasing interest in GIs in the quest for modalities for protection of TK. Unlike the other proposals for TK protection,⁹³ however, the promise of GIs has not been well explored to date. In the following pages, I broach issues to do with the links between IPRs and TK in general and examine the opportunities GIs may present for protecting traditional knowledge.

5. The Suitability of Geographical Indications to Protect Traditional Knowledge

A number of reasons suggest the suitability of GIs to protect TKBAPs. First, GIs – uniquely among IP regimes – are based upon collective traditions and a collective decision-making process.⁹⁴ Most existing forms of IP protection do not protect TK because the TRIPS and the notions of intellectual property incorporated therein recognize that “intellectual property rights are private rights.”⁹⁵ A GI applies to an indefinite number of producers that live and produce in a geographical location that gives rise to a quality or reputation identified by the GI.⁹⁶ Of the extant IP regimes, only GIs – and in some circumstances trademarks – reward goodwill and reputation created or built up by a group of producers over many years or even centuries.⁹⁷ These types of intellectual property protection reward producers who are members of an established group or community and who adhere to traditional practices belonging to the culture of that community or group.⁹⁸ In the case of GIs, cooperative bodies and associations composed of a group of individual producers, a family, a partnership, a corporation, a voluntary association or a municipal corporation establish, monitor and modify over time the rules governing production.⁹⁹ A producer who qualifies for GI protection does not have an unqualified monopoly over the GI right, unlike other forms of IP rights where the owner acquires the exclusive right over the term during which the protection is valid. If the producer’s practices fall below the defined standards, which are usually set by an association of producers in the region, the producer loses the right to use the GI.¹⁰⁰

Second, GIs most often relate to old knowledge, with its attendant cultural perceptions and ways.¹⁰¹ Most of the existing IP protections are unsuitable to protect TK-based products because the exclusive rights offered by those modernistic IP regimes are intended to benefit those who created new knowledge. GIs, on the other hand, do not reward “new inventions,” but rather the goodwill and reputation that producers who use traditional methods have created or built up in a geographical territory.¹⁰² It is noted that GIs protect and reward traditions while allowing evolution.¹⁰³

In this regard, the long-standing GI tradition in France is the best laboratory in which to test the congeniality of GIs with traditional knowledge. In France, “[w]hile production methods can evolve over time,” the system of GIs reflects a strong commitment to traditional practices growing out of “long periods of empirical experience and experimentation.”¹⁰⁴ The GI system is designed by “record[ing] and formaliz[ing]” such practices into rules; but even then the rules evolve as a result of the close and ongoing involvement of the producers themselves, for example, grape growers and winemakers.¹⁰⁵ In accord with indigenous people and local communities’ practices, GIs emphasize the bonds among culture, ancestral lands, resources and environment.¹⁰⁶ The French system of GIs constitutes a combination that encompasses the physical factors specific to the geographical location and “specific human factors that pertain to the product such as vinification procedure, pruning methods, maturation, and so on.”¹⁰⁷ As a French GI expert explained, “the notion involves the interaction between these natural and human factors, specific and peculiar to the locality, which produces the distinctive quality or character of [that region’s] product.”¹⁰⁸

Third, GIs last for as long as the rights holders maintain the collective tradition.¹⁰⁹ Also, within the scope of protection, GIs allow for production methods to change over time, as protection through GIs does not relate to one specific method of production of a given product.¹¹⁰ Thus, GIs reward goodwill and reputation created over many years or even centuries while allowing evolution – an attribute that makes them most suited for traditional knowledge.¹¹¹ GIs recognize the quality and reputation of cultivations by particular communities indefinitely, and prohibit others from free-riding on that reputation – as long as natural and cultural characteristics in the relevant place of cultivation are maintained.

Also, GIs “lack the typical private-property characteristic of being freely transferable.”¹¹² In this context, GIs are beneficial in particular because the rights they confer relate to the geographical area where the product originated and they do not depend on a specific rights holder. GIs do not imply monopoly control over the knowledge embedded in the indication; rather, they simply limit the number of people who can benefit from accumulated knowledge typical to a specific locality.¹¹³ They are not freely transferable from one owner to another, and they emphasize the relationships between human cultures and their local land and environment.¹¹⁴ These characteristics make GIs better suited to protect a TK system that can no longer be assigned to a specific rights holder because it has been in the public domain for so long and, as such, may not even be covered by any of the *sui generis* systems, as, for example, in the case of kava.¹¹⁵

For these reasons, GIs have the potential to empower local communities to continue marketing their products without fearing displacement by global mass production.¹¹⁶ In most cases, GIs prohibit third parties from appropriating the fruits of human labour, thereby making it possible to deter free-riding and to combat counterfeiting and piracy within a market economy.¹¹⁷ In addition, GIs can create economic rewards for producers who use traditional methods developed and maintained in a designated region where the product has been traditionally produced.¹¹⁸

5.1 What Benefits Do Geographical Indications Offer to Traditional Knowledge–Based Agricultural Producers?

While most proposed systems aspire to protect TK by establishing defensive intellectual property regimes, GIs provide the opportunity for an affirmative intellectual property policy that enables TK holders to participate proactively in the global agricultural market. The most important promise GIs may offer to indigenous people and local communities relates to their potential to recognize and reward producers for their age-long cultural contribution to livelihood, conservation, lateral learning and social networking by adding premium value to their products. Therefore, a carefully designed GI-based protection of TKBAPs may – while protecting the constitutive cultural element of their knowledge – produce economic rewards for indigenous peoples and local communities. GIs would play an instrumental role in development-oriented initiatives among local communities, in accord with the increasingly strong links between “culture” and “development” in the contemporary understanding. The UN World Commission on Culture and Development has made it abundantly clear that the concepts of culture and development are inextricably intertwined in any society.¹¹⁹

The major reason for the formation of the strong link between culture and development is the fact that, since the 1990s, development has been understood in the broad terms of expanding human capabilities.¹²⁰ Following Amartya Sen’s work on capacities and entitlements, development has been understood as capacitation.¹²¹ In this view the point of development, above all, is that it be enabling.¹²² “The enlargement of people’s choices” is the core definition of development in the Human Development Reports of United Nations Development Program (UNDP).¹²³ Amartya Sen noted that “life is more than making a living, economic development is in the end about enjoying life.”¹²⁴ In this understanding, development is measured based on “the capacity for many freedoms ... which range from basic needs, such as the right to life and health, to more expansive freedoms of movement, creative work, and

participation in social, economic, and cultural institutions.”¹²⁵ Along the same lines, UNESCO’s focus on “capacity building” consists of “providing people with the skills and abilities for critical reception, assessment and use of information in their professional and personal lives.” In this scenario, IP policy making should enable indigenous people and local communities to “recognize and market their own knowledge production ... so that they need ‘not be seen primarily as passive recipients of the benefits of cunning development programs.’”¹²⁶ As Sunder observed, economic remuneration for cultural production in this manner will be “an important source of revenue and stimulus for development in the Knowledge Age.”¹²⁷

In this line, Sunder argues that the Indian GI Act “recognizes ... ‘with adequate social opportunities, individuals can effectively shape their own destiny and help each other’,”¹²⁸ and in providing such opportunities, GIs “[empower] local communities, which can continue to commercialize their products without fearing displacement by global mass production.”¹²⁹ The income that would flow from protecting the TK component of agricultural products through the use of GIs may be one of the few resources that would have the potential to provide the greater choices that Amartya Sen shows to be a key factor in poverty alleviation.¹³⁰ Thus, GIs may be employed in the design of IP policy that responds to the call to WIPO “that intellectual property be approached in the context of broader societal interests and development-related concerns [accommodated in the framework of the cultural economy]”¹³¹ and, as Sunder notes, “not just from the narrow lens of economic incentives for innovation [but rather to achieve just and attractive culture].”¹³²

GIs create niche markets for local communities’ reputable products and prohibit others from free-riding on that reputation. By doing so, GIs may contribute to the recognition of the cultural contributions and creativity of TK holders, which in turn would help in the preservation and the making of culture. The examination of GIs’ contribution to development in this manner involves, among others, the examination of two main spheres: the effect of GIs in the economic sphere, and their effect with regard to environmental quality and biodiversity sustenance.

5.1.1 The Economic Benefits of GIs

As a study by the United Nations Conference on Trade and Development clearly recognizes,

geographical indications reward producers that invest in building the reputation of a product. They are designed to reward goodwill and reputation created or built up by a producer or a group of producers over many years or even centuries. They reward producers that maintain a traditional high standard of quality, while at the same time allowing flexibility for innovation and improvement in the context of that tradition.¹³³

The reward that GIs may offer to producers arises from the “substance of the concept” of GIs, which is “to demonstrate a link between the origin of the product to which it is applied and a given quality, reputation or other characteristic that the product derives from that origin.”¹³⁴ GIs carry additional information about the product, such as a traditional production method.¹³⁵ GIs signify added value and specific qualities of a product from a region by enabling producers to differentiate their products based on criteria attractive to consumers, such as the sustainability or traditional nature of production. Consumers are now looking for quality products – in other words, authentic products with a solid tradition behind them – and they are influenced by their social conscience when choosing products.¹³⁶ As Addor and Grazioli accurately pointed out, social consumers have found new purchasing criteria and have become more demanding due to the ongoing biotechnology-led transformation of the agri-food industry, which weakens the products’ land-based association, and in light of “problems such as the ‘mad cow’ disease, as well as the burgeoning movements toward socially just trade, labour and environmental standards.”¹³⁷ Given their focus on heritage, locality and “placeness,” GIs have the potential to increase the price of tradition-based, reputable products, shunning the despatializing and homogenizing characteristics of contemporary globalization in the agri-food sector.¹³⁸

In addition to signifying quality and reputation, GIs also help to halt the appropriation by outsiders of traditional knowledge-based goods that have significant market value – a concern that resonates strongly in an increasingly globalized world.¹³⁹ This sort of appropriation is illustrated by a recent dispute involving Basmati – the Indian traditional rice product. A Texas-based multinational company, RiceTec acquired a patent right that includes exclusive marketing of this rice under the brands Taxmati, Kasmati and Jasmati.¹⁴⁰ As Blakeney pointed out, the resolution of this dispute would have been simpler had a GI regime been in place in the countries in which protection for these brands was sought.¹⁴¹ Similar traditional knowledge-based agricultural products that could be protected by GIs and have been involved similar disputes due to the establishment of IP rights in general by outsiders include Indian Neem, South Pacific Kava, South African Rooibos Tea, Mexican Enola Beans, Peruvian Yacon, Andean Nuna Beans, Amazonian Ayahausca and Bolivian Quinoa.¹⁴²

GIs are especially important to communities engaged in traditional agricultural practices, as they provide value when they protect the common reputation of farmers who strive to improve the quality of their products.¹⁴³ The potential of GIs for rural development has been fully recognized by the EU, which links GIs directly to certification of quality and indirectly to rural development and increasing farmer

incomes.¹⁴⁴ Laying groundwork for the principle of the protection of provenance as a means of protecting rural development, EC Regulation 510/2006 stated, “the promotion of products having certain characteristics could be of considerable benefit to the rural economy, in particular to less-favoured or remote areas, by improving the incomes of farmers and by retaining the rural population in these areas”¹⁴⁵ European Commission officials, such as the Commissioner responsible for Agriculture, Rural Development and Fisheries, cited rural development as one of the contributions of GIs:

Several studies have shown that they [GIs] have an important role to play in the regeneration of the countryside since they ensure that agri-foodstuffs are produced in such a way that conserves local plant varieties, rewards local people, supports rural diversity and social cohesion, and promotes new job opportunities in production, processing and other related services. The needs of today’s population are met, while natural resources and traditional skills are safeguarded for generations to come.¹⁴⁶

GIs contribute to rural development due mainly to the presence of economic actors – the TK component – in the same territory, which guarantees that socio/economic benefits brought by the GI will be captured locally.¹⁴⁷

5.1.2 Aspects of Environmental Protection and Biodiversity Sustenance

The standards put forth for products qualifying for GI protection ensure the sustainable use of biodiversity resources. These standards are based on traditional production practices which are of a moral, ethically based, spiritual, intuitive and holistic nature and are created through a continuous process of devising strategies for survival and group identity in the region.¹⁴⁸ These standards internalize “sustainability” criteria that allow for continued production over time and thus have relatively low environmental impact and preserve biodiversity.¹⁴⁹

The language of Art. 8(j) of the 1992 Convention on Biological Diversity (CBD), which refers to “practices” that embody “traditional lifestyles” and that are relevant with respect to sustaining biodiversity, reflects elements common to GIs. As such, GIs may contribute to the implementation of the ecological values recognized by the convention. As Downes and Laird observe, the references under Art. 8(j) to “promoting” wider use, and “encouraging” benefit sharing, suggest that this article is intended to cover measures, such as market incentives, that influence the behaviour of civil society – GIs being important policy instruments to implement such measures.¹⁵⁰

During the initial period of its introduction, the CBD proposed various strategies mostly aimed at implementing GI policy under the presumption that improved income

for indigenous people and local communities through market incentives will ensure *in situ* conservation of the resources. For example, in an attempt to reward TK owners, the successive Conferences of Parties proposed that applicants for patent protection be required to disclose the origin of the resources utilized and that the prior informed consent of the community be secured or TK holders be given the right to challenge patents that utilize traditional knowledge, through access and benefit-sharing arrangements.¹⁵¹ Thus, the CBD implements its goal of conserving biodiversity by incentivizing TK owners through benefits derived from patent rights established by third parties on their biodiversity resources.¹⁵² The “access” aspect of the CBD’s “access and benefit-sharing” strategy entirely focuses on securing access to biodiversity resources and the accompanying TK for private third parties and, in turn, benefiting the TK owners from the proceeds of patents established by the third parties. Thus, the CBD is premised on classical economic assumptions regarding the nature of conservation and the preferability of private property regimes to systems of common property.¹⁵³ As such, it aspires to achieve the goal of protecting biodiversity through a “contractual bilateral market form of regulation.”¹⁵⁴ This may somehow respond to the quest for fair and equitable sharing of the benefits of the resources but would lead to the commercialization of biodiversity and its eventual dissipation by market forces.¹⁵⁵ As such, this strategy does not protect biodiversity resources and may not be in the best interest of indigenous people and local communities.¹⁵⁶

Premised on an identical rationale, some environmental advocates have called for – and some countries have acted upon – the enforcement of “marks of authenticity,”¹⁵⁷ “ecolabels”¹⁵⁸ or “green marketing”¹⁵⁹ of products so that indigenous people and local communities would, incentivized by market gains for their products, be engaged in traditional practices. In these cases, successful marketing may increase demand for the products to the extent that existing resource management systems are put under pressure. This may result in the over exploitation of the resources and, consequently, the damaging of the ecosystem.

For example, the growth in foreign demand for the kava plant has led some farmers and harvesters in the South Pacific region to shift away from traditional methods – which frequently involve multicropping and a waiting period for the kava to reach a certain age and size – to more destructive techniques.¹⁶⁰ The increasing exploitation of the plant has provoked the harvesting of immature kava, thus not only jeopardizing the quality of the medicinal product but also reducing its resource base.¹⁶¹ Such marketing strategies may thus lead to the eventual destruction of biological resources through the displacement of habitat by cultivated areas or the intensification of cultivation techniques, which may result in soil erosion and water

pollution. The introduction of GIs would have facilitated the recognition and standardization of traditional cultivation methods, which would have ensured that TK holders would acquire market share for their products without the probability that marketing success would conflict with conservation of biodiversity. Thus, the successful implementation of GIs incentivizes the conservation of biodiversity resources as proposed by the CBD, albeit with a different approach than the one taken by the CBD.

As previously stated, GIs reject the notion of private property rights and are built upon collective traditions and a collective decision-making process. The economic benefits of GIs extend to all individuals and groups in the community who subscribe to the traditional practices belonging to the culture of that community. In this regard, GIs serve as a factor of “mobilisation” for local communities.¹⁶² It is a widely held view that the mobilisation of local communities is essential in achieving the sustainable management of local resources.¹⁶³ Recognizing and protecting TK in agricultural production through the use of GIs will be important in biodiversity-rich countries where sustainable and unsustainable uses of biological resources are in competition because local people need economic incentives to select the first. The involvement and mobilisation of local communities in support of sustainable agricultural production increasingly depends on – in the context of global mass production – the existence of appropriate incentives.¹⁶⁴ GIs provide the incentive needed to engage in the sustainable utilization of biodiversity resources.

The promise of incentive that GIs offer for the sustainable use of biodiversity is not identical to the romantic narrative of “reward to spur innovation” that the utilitarian theorists of intellectual property advocate.¹⁶⁵ As indicated above, GIs will empower indigenous people and local communities to control market forces and prevent cultural appropriation by outsiders. Therefore, GIs may play a key role as a valorisation strategy which serves as incentive towards the enhancement of public goods (localness, tradition, quality, safety, biodiversity conservation, respect for the environment), creating opportunities for rural communities to undertake corresponding practices as a means of subsistence.¹⁶⁶ GIs thus enable TK holders to engage in an agricultural practice that yields multifunctional values beyond the acknowledged primary purpose: the supply of food, fibre and industrial products.¹⁶⁷

The FAO Committee on Commodity Problems’ Intergovernmental Group has summarized the positive effects of properly managed GIs as

helping producers obtain premium prices for their products; providing guarantees to consumers regarding product quality; developing the rural economy; protecting local knowledge and strengthening local traditions; ... other wider economic and social benefits, ... for example reduction of

rural to urban migration, and the protection of rural environments and ecologies.¹⁶⁸

Generally, GIs bear advantages that make them attractive tools to farmers engaged in traditional knowledge-based agricultural practice. That GIs have a promising economic value is best demonstrated by the success story behind the Australian wine industry, which, within a short period of adopting GIs, acquired a huge share of the market that had previously been dominated by the French wine makers.¹⁶⁹ GIs have been an integral part of EU farm policy, and so far in the system they have fared well in protecting TK through the rewards they bring to their owners.

5.2 Limitations and Conditions of GIs in Protecting Traditional Knowledge-Based Agricultural Products

The EU's experience with GIs is immensely important to the building of successful GI strategies amongst agricultural producers in the other parts of the world; however, the potential instrumentality of GIs for the protection of TK in developing countries should be examined in light of the specific circumstances of producers in these countries. Notable differences exist between developing-country producers and EU producers, and these differences could make it difficult to argue that GIs will necessarily benefit developing-country producers just because they have been proven to do so in the EU. In this context, I examine the limitations of assigning GIs the role of protecting traditional knowledge, and the conditions under which GIs may function well in the biodiversity-rich countries of the South.

5.2.1 The Geographical Limitations of Geographical Indications

One of the foremost limitations of GIs in protecting TK arises from the geographical restriction they impose on the goods the protection covers. The definitional provision of the Lisbon Agreement provides that to qualify for protection, the “quality and characteristics” of the product should be “due exclusively or essentially to the geographical environment, with its inherent natural and human factors.”¹⁷⁰ Under the TRIPS Agreement too, the dual requirements that “indications identify a good as originating in the territory” and that the “quality, reputation or other characteristic of the good is essentially attributable to its geographical origin” require a qualitative link between the product and the geographical environment in which it is found.¹⁷¹ Due to the strong link between the product and the geographical place identified, the contemporary legal atmosphere does not allow the licensing of GIs even if similar goods are manufactured outside the designated territory.¹⁷²

Relating to the geographical limitation, some writers also refute the suitability of GIs to protect TK on the grounds that “GI protection is of assistance only where the

knowledge is associated with a defined geographical area.”¹⁷³ Accordingly, “if the knowledge is scattered ..., a GI cannot be used.”¹⁷⁴ This view takes a narrow understanding of the origin requirement for GIs as a single criterion of geographical attachment of a good to a place.

The total reliance on geographical locations for GI protection takes a narrow understanding of factors that give rise to the specific quality of the product, such as the link of “culture to land.”¹⁷⁵ This link, which may have existed at the start of the manufacture of a good, may subsequently have been stretched to the point that its existence is difficult to prove.¹⁷⁶ Members of a traditional community may manufacture the GI goods in a different geographical setting due to the availability of transport, electricity, financial services and other facilities in a particular geographical setting other than the original place, but still stick to the traditional standards of production that became the basis for GI protection.

Moreover, traditions in manufacture and skilled staff can be shifted from one geographical area to another, in particular in view of the increasing mobility of human resources in all parts of the world.¹⁷⁷ As Soam notes, “it is a widely accepted fact that whenever people go to other places they bring along some product (such as sweets, textiles, handicrafts, artifacts, etc.) that has a specific reputation due to its association with its place of origin.”¹⁷⁸ Due to the geographical limitation of GI protection, it is argued that related cultural practices and traditional methods of production may not be protected in the case of ex situ manufacture of an agricultural product by people who have migrated from one place to another.¹⁷⁹

The exclusive emphasis on geographical territory as a basis of protection has probably to do with the age-long conception of AOs, which protect a product whose “quality and characteristics” are due “exclusively or essentially to the geographical environment, with its inherent natural and human factors.” As indicated in the discussion of the definitional aspects of AOs and GIs, AOs protect goods that acquired a particular “quality and characteristic” on account of the physical factors in a geographical location. GIs, as a concept that the TRIPS introduced “in a groundbreaking manner,” have an expansive scope that includes GIs that can also “highlight specific qualities of a product which are due to human factors that can be found in the place of origin of the products, such as specific manufacturing skills and traditions.”¹⁸⁰ Thus, a GI protection can exist on the presence of purely human factors in a geographical origin – when these factors contribute to a given “reputation or other characteristic” of the good. With this understanding of GIs, where their protection is not exclusively limited to goods with “a given quality, reputation or other

characteristic” from climatic, ecological and cultural factors affixed in the geographical setting, the geographical restriction of the protection is not warranted.

As a result, in the case of ex situ–manufactured GI goods whose “quality and characteristics” do not arise from the physical factors affixed to a geographical territory, indigenous people and local communities ought to be allowed to control the production of their goods and earn royalties through licensing. Licensing is defined as “the grant of permission by the owner of the IPRs to another person or legal entity to perform one or more of the acts which are covered by the exclusive rights.”¹⁸¹ It is a mode of assigning rights to information covered by the IP protection. Licensing will enable traditional knowledge owners to protect the traditional methods of production and related cultural practices by assigning rights associated with their GI in the relevant circumstance of ex situ manufacture by third parties. In this way, indigenous people and local communities may get the rewards for their continuous creations and ensure the perpetuity of their cultural practices and traditions through the conditions set out in the written document by which the license is granted.

The assignability of the rights to information – through licensing – distinguishes all IP protections from other forms of protection for intellectual creations, such as farmers’ rights, access legislation and cultural heritage laws.¹⁸² Nothing justifies the exclusion of traditional knowledge–protection tools from assignability through licensing while the protective tools of its epistemological counterpart – Western scientific knowledge – are assignable in all of the forms (patents, copyrights and trademarks).

Also, there are precedents where products registered for AO have been licensed by the AO rights owners – proof that the quality, reputation or special character of at least some products is not therefore exclusively or essentially attributable to the physical character of the geographical environment, but also to human intervention through traditional knowledge–based production methods. Moran gives the example of *Bleu de Bresse* cheese, where the French owners of the AO rights sold a *licence* agreement to New Zealand.¹⁸³ In this agreement, technical aspects of production are under the control of the cheese-makers from France, and the product comes out under a label that is similar to that of the French cheese but that notes the different country of origin.¹⁸⁴ During the time since this arrangement was made it has been argued that cheeses produced through such an arrangement are unsuitable for appellations of origin.¹⁸⁵ As an expansive regime introduced by the TRIPS, however, the protection of GIs can now be made operational through legislation devised in a manner that allows the licensing of ex situ manufacture in the case of certain categories of GIs, for example in cases similar to *Bleu de Bresse* cheese.

The EU GI regime protects products whose “specific character” is not attributable to the geographical factors of a specific origin through the traditional specialty guaranteed (TSG) modality. As indicated above, the EU’s PDO and PGI systems protect different types of goods based on the level of attachment that the good has to its geographical territory. As recently pointed out in the Czech Presidency High Level Conference on the Future of Agricultural Product Quality Policy, there has been strong interest in TSGs from the EU new member states due to “historical factors – forced immigration and standardization after the second world war.”¹⁸⁶ Developing countries should adopt stratified GI regimes that will allow them to choose the appropriate modalities for specific products on a case by case basis. Thus, developing countries may devise TSG-type variations of GIs to rectify some of the shortcomings related to geographical restrictions.

In practical terms, a WIPO study noted that the wording dealing with requirement of origin in some countries states only general requirements that the product must be made in the indicated place or that the producer must be located in that area.¹⁸⁷ More specific requirements have also been reported, for example,¹⁸⁸

- requirements that all stages of production (raw material, processing and preparation) must occur in the designated area;
- requirements that the raw material (e.g., grapes) must have originated in the area in question (except in some cases of tolerance concerning a small proportion from another area);
- requirements that the stage of production which gives a product its distinctive character must occur in the area (e.g., for spirits);
- requirements that at least one of the stages of production must occur in the area.

This variation among requirements evidences that there are no hard and fast rules on the geographical restriction of GIs. The rules are malleable enough to allow adaptability in specific circumstances. Therefore, geographical limitations should not deter the effectiveness of GIs in the relevant circumstances.

A more serious concern arises when the relevant knowledge is scattered across the national territories of two or more states. This problem was noted in a study which concluded that IP protection may not be feasible for some plant genetic resources and crops because one cannot properly trace their origins to a particular source.¹⁸⁹ Nevertheless, the same study confirmed that there are crops for which such determination is possible, “especially if the time-span under consideration for granting such rights is limited and accounts only for recent decades.”¹⁹⁰ Even in cases where a good which is a likely candidate for GI protection is found across the territories of two

or more states, the respective states have found ways to work together to allow joint registration of GI rights.¹⁹¹ The presence of a resource and the accompanying knowledge in two or more than two states that have a common interest to preserve these resources will not be a problem as such if they adopt GIs as part of an overall strategy to protect traditional knowledge. The establishment of a regional or sub-regional group of developing countries that could become a focal point for interagency review with respect to the integration into domestic law of existing and evolving international legal standards affecting innovation – as Maskus and Reichman suggest – may, for example, facilitate the coordinated implementation of GIs in these circumstances.¹⁹²

5.2.2 The Economics of Geographical Indications

Another major doubt as to the feasibility of GIs as a strategy to protect TKBAPs in developing countries arises from the cost and benefit analysis of the implementation of GIs. Some argue that a GI-based strategy may be an expensive endeavour for developing countries due to the administrative costs of GI registration and enforcement, the costs of maintaining “quality, reputation or characteristic” of the GI good, and the operative costs of marketing GI goods in the international market.

Under the TRIPS Agreement, the obligation of WTO members to protect a GI applies only if the GI is protected in the country of origin.¹⁹³ A country that adopts a GI system incurs administrative costs to establish a national system of legal and administrative frameworks for the registration and enforcement of GIs. Also, resources for the enforcement of sustainable and tradition-based production norms that gave rise to the required quality, reputation or other characteristics of the product covered by the GI are needed to protect the GI from genericide. It is argued that these costs might be prohibitively high for developing countries.¹⁹⁴

Indeed, the introduction of national IP legislation such as a GI registration system involves enforcement and administration costs. However, developing countries are required at any rate to introduce implementation frameworks for IPRs, a process that creates a very considerable burden, as most of them phase in the requirements of the TRIPS. The implementation costs related to mainstream IPRs included in the TRIPS were imposed on developing countries without any suggestion of the necessity to undertake financial or economic impact studies.¹⁹⁵ Ironically, the same group of countries who lobbied for strong domestic enforcement of IPRs by WTO members resist the extension of enhanced GI protection to products other than wines and spirits on the grounds that GIs cause costly administrative burdens for developing countries.¹⁹⁶ The implementation cost of GIs is not so much of a burden as the implementation costs of other IP regimes that are not to the benefit of most developing

countries. WIPO's effort to help countries re-orient national legal regimes in line with the TRIPS through its "Cooperation for Development Programme" should focus on IP regimes such as GIs that have real "development" implications.

Also, opponents of the extension of GIs have tended to exaggerate the cost of maintaining the "quality, reputation or other characteristics" of the good. Where TKBAP is concerned, the GI standards implemented to preserve the "quality, reputation or other characteristics" of a good are the traditional practices that have existed among the community for generations. GIs do not introduce new standards of production methods that involve intensive training and costly means of production – like the excessive environmental and sanitary standards that the industrialized countries frequently impose on developing countries' export goods. As such, the "quality, reputation or other characteristics" of a GI-protected good in a developing country may be maintained at no significant cost. Once the GI good has acquired its market price for the distinctive "quality, reputation or other characteristics," however, it is in the developing country's interest to invest in qualitative agricultural production to meet market demands through the provision of financial services as part of their development endeavour. This gives the development partners of developing countries a role to play in improving the life of the rural community.

Regarding the operative costs of GIs, it is argued that "GI is a capital intensive endeavour, requiring an elaborate structure for the control of market power to nurture, brand, and popularize susceptible local products to ensure their global reach and acceptability."¹⁹⁷ This view is premised on the notion that GIs are useful where consumers are willing to pay a premium on the market for products manufactured in the relevant region according to traditional methods in that region.¹⁹⁸ It is true that GIs provide value when they protect the common reputation of farmers who strive to improve the quality and reputation of their products to match buyers' preferences.¹⁹⁹ Faced with the mass production of agri-food resources that drives global food uniformity, consumers want more information about the origin of the imported product and how the imported product was produced.²⁰⁰ Therefore, GIs involve the transfer of information from producers to consumers about the favourable features of a good. This is achieved through brand management initiatives that involve strong promotion and marketing. Due to the long-standing tradition of AO product marketing, EU producers have developed sizable market share and brand recognition in the agri-food industry. Therefore, effective use of GIs will require developing-country producers to invest capital to break into the market that has already been controlled by EU producers.

However, this may not present a problem for developing-country producers in the immediate future, due mainly to the peculiar mode in which their products are made available to the market. The mode by which EU producers access the market is fundamentally different from that of producers in developing countries. For the most part, producers in the developing countries do not have direct access to the market. Their products usually pass through a long chain of wholesalers, importers, distributors, manufacturers and retailers before they reach consumers in the international market. In contrast, EU producers have niche markets which they access themselves without passing through such a complex supply chain. As Downes and Laird observe, GIs “show the greatest potential where traditional small-scale production is still present, on the supply side, and where end-use products are marketed directly to consumers ... as opposed to primary commodities that pass through many hands, and in some cases are heavily processed, before reaching the consumer as end products.”²⁰¹

Therefore, as they stand, GIs may not necessarily benefit developing-country producers on the same route as EU producers, which makes the argument about the cost of operation irrelevant, at least with respect to the majority of small farms and cooperatives in developing countries. A recent study conducted by the NGO Light Years IP reviews a number of TKBAPs from developing countries that are known worldwide for their reliably high quality within the industry but not by consumers.²⁰² As indicated above, the recognition of the TK component of GIs should make it possible to license their use to other parties in the industry who are aware of the quality, reputation and rich tradition behind the products they supply in the market. The establishment of GI systems in these countries gives developing-country producers bargaining power vis-à-vis wholesalers, importers, distributors, manufacturers and retailers in the determination of the prices for their high-quality products. The developing-country producers may be able to get improved income by controlling the price for their products – getting out of the commodity price determination.

Developing-country producers may also demand that wholesalers, importers, distributors, manufacturers and retailers of their products enter into licensing arrangements to take their GI-protected goods to market. Through such arrangements, the wholesalers, importers, distributors, manufacturers and retailers may be required to pay royalties for the GIs, either through commitments to establish service facilities such as farmer support centers, hospitals or schools in local communities, or direct payments to organizations, associations or government agencies who may allocate the funds in the manner they deem beneficial to society. However, financial gain from the

royalties may not necessarily be the object of the licensing. In some cases, the licensing may be offered royalty-free to the distributors, who, in return, would invest in brand management and would actively promote the GIs to consumers.²⁰³ Developing-country producers may, in this way, be able to make deals with the distributors of their products, who mostly have direct access to consumers and the necessary capital to invest in promoting and advertising a product “with a given quality, reputation or other characteristics,” to improve its price in the market. If so designed, GIs are the most convenient IP tools to serve indigenous people and local communities for a wide list of products the aforementioned study identified, such as Kenyan tea, Sudanese cotton, Namibian marula oil, Togolese black soap, Senegalese tuna, Tanzanian blackwood, Mozambican cashews, Ugandan vanilla, Madagascar cocoa, Malian mudcloth and Ethiopian leather.²⁰⁴

However, the benefit of GIs to developing-country producers is not necessarily acquired only through cooperation with the wholesalers, importers, distributors, manufacturers and retailers in the market. In some cases, GIs would serve as marks of authenticity to protect goods that originate from developing-country producers and that already have an established reputation among consumers. Some goods are sold on the international market under the same GI names the developing-country producers are known for, but they do not actually originate from those producers. For example, the region of “Antigua” in Guatemala produces some 6 million pounds of genuine “Antigua” coffee,²⁰⁵ yet some 50 million pounds of coffee are sold under the “Antigua” denomination around the world.²⁰⁶ Indian “Darjeeling tea” producers export 8.5 million kg of such tea, generating some 30 million euro for the region, yet some 30 million kg of tea are traded around the world under the denomination “Darjeeling.”²⁰⁷ The list goes on, including products as diverse as Indian Basmati rice, Namibian Devil’s Claw, South Pacific Kava, South African Rooibos, Andean Quinoa, the Neem tree and so on.²⁰⁸ In all these circumstances, the domestic exporters in the respective developing countries are in a strong position to invest in the promotion and advertisement of their products, to widen and control the market they have already acquired and to prevent the sale of counterfeits of their products. They only lack the legal means to control and protect their brands to prevent the displacement of their market share through the sale of counterfeit goods that free-ride on their reputation. GIs offer an effective remedy to rectify these problems and would enable the producers to acquire an improved income.

Finally, it is worth mentioning that the effectiveness of GIs depends on understanding and acting in accordance with their limitations. GIs are not ideal instruments to protect all forms of products of TK. GIs only respond to the needs of

communities that seek affirmative IP protection of their own for the products of their knowledge. As indicated in the discussion on their definitional aspects, GIs identify “goods.” As such, they are applicable to products of TK that are already on the market as commercial goods.

First, this immunises GIs from the criticism generally labelled against IPRs – that they may commodify the culture of indigenous peoples and eventually annihilate their traditions through market forces. They are ideal instruments to afford positive protection (as opposed to defensive protection) for TKBAPs that already are made commercially available.

Second, they do not protect some of the intangible forms of traditional knowledge, such as methods of medical treatment, techniques for dyeing cloth, folk music, and dances. GIs do not offer a perfect solution to the “scourge of biopiracy” in circumstances where the knowledge that gives rise to the qualitative attributes of the product is imitated and the product is marketed under a different name.²⁰⁹ Thus, GIs are best adopted as part of, or independent of, an overall defensive intellectual property strategy that limits patents related to TK on the various uses of biodiversity resources and prevents the misappropriation of intangible cultural heritage through inward-looking cultural protocols – as has been suggested in the WIPO global fact-finding mission report.²¹⁰

6. Conclusion

The need to protect and recognize TK has increasingly become a critical issue of global concern. Considerable differences exist, however, as to the nature and scope of protection and the extent to which the issue may be addressed in the respective institutions entrusted with the task. There are divergent views on whether to extend the family of intellectual property to include traditional knowledge and on whether the search for a regime of TK protection should aim for a single regime to cover all types of traditional knowledge or a set of different, specific regimes, each adapted to the nature of the subject matter to be protected.²¹¹

The search for an appropriate modality of protecting TK transcends a single model, as the needs and expectations of traditional communities differ. Depending on the purpose and the context in which their knowledge is practised, it may be difficult to find a single strategy best suited to the practices and values of traditional communities.

The industrial countries have managed to protect diverse forms of intellectual production through different layers of IP framework. The globally entrenched, modern IP regimes offer different levels of protection to different types of Western knowledge.

In the wake of technological revolution, for example, the industrial countries managed to expand the existing IP framework to fit different forms of computer-related inventions: patents for some categories of software inventions; copyrights for computer databases and expression of algorithm formulae; domain names in the case of web servers and networks.

Likewise, the frontiers of “invention” in the field of TK exist in varied forms. The search for an appropriate modality of traditional knowledge protection should involve identifying different regimes based on the nature and use of the knowledge in the respective category. In the context of commercially available TKBAPs, this is best achieved through the re-examination of the suitability of the established knowledge-protection tools to the needs of indigenous people and local communities.

In this regard, GIs present a unique opportunity for an affirmative protection of TKBAP that will empower the owners to participate in the global market and acquire an added price for their contribution to the development or improvement of plant varieties and for their commercially valuable information. The developing countries should take a proactive role in adopting GIs suited to the circumstances of their agricultural production, and in exploiting the flexibility inherent in the system. However, the recognition of the intellectual contributions of the farming community should involve the reforming of the system to allow GI owners to license the distribution of their goods – as do any other intellectual property owners. This is essential and appropriate in circumstances where the physical characteristics of the geographical environment do not factor in the “quality, reputation or other characteristics” of the good. This would give developing countries the opportunity to evaluate the benefits and costs of GIs as part of their economic development endeavour in the long term.

While this paper focuses on the potential of GIs – market-related instruments – to afford protection to the commercially available products of TK holders, it also recognizes that other categories of biological resources and related products of TK may be inherently inappropriate subjects for market-related tools. The development of *sui generis* defensive intellectual property policy built upon the inward-looking cultural protocols that already exist within a community would, as suggested by many scholars and recently advanced by WIPO and the CBD, be a major complement in responding to the needs of indigenous peoples and local communities.

Endnotes

1. Agreement on Trade-Related Aspects of Intellectual Property Rights, 15 April 1994, 1869 U.N.T.S. 299: 33 I.L.M. 1197[TRIPS] at Arts. 41-61.
2. See definition of “traditional knowledge” *infra* note 12 and accompanying text. While the literature uses the terms “traditional knowledge,” “indigenous knowledge,” “local knowledge,” “folk knowledge,” “community knowledge” and “tribal knowledge” interchangeably, this article prefers “traditional knowledge” in order to avoid the technical ambiguities associated with other terms. For a detailed insight into the definitional problems associated with these terms and the conceptual bounds of the term “traditional knowledge,” see WIPO, *Traditional Knowledge – Operational Terms and Definitions* (Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Third Session, Geneva, June 13 To 21, 2002) WIPO/GRTKF/IC/3/9; Graham Dutfield, “TRIPS-Related Aspects of Traditional Knowledge” (2001) 33 *Case Western Reserve Journal of International Law* 233 at 240; Chidi Oguamanam, *International Law and Indigenous Knowledge: Intellectual Property, Plant Biodiversity, and Traditional Medicine* (Toronto: University of Toronto Press, 2006) at 21; Ikechi Mgbeoji, *Global Biopiracy: Patents, Plants, and Indigenous Knowledge* (Vancouver: UBC Press, 2005) at 10.
3. Laurence R. Helfer, “Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Lawmaking” (2004) 29 *Yale Journal of International Law* at nn. 120.
4. See the discussion on the “fitness question” of modern intellectual property rights and traditional knowledge in Chidi Oguamanam, “Localizing Intellectual Property in the Globalization Epoch: The Integration of Indigenous Knowledge” (2004) 11 *Indiana Journal of Global Legal Studies* 135 at 139 ff.
5. To read about “what justifies the enormous interest in and energy now being devoted to [traditional knowledge],” see Rosemary J. Coombe, “The Recognition of Indigenous Peoples’ and Community Traditional Knowledge in International Law” (2001) 14 *St. Thomas L. Rev.* 275.
6. WIPO, *Traditional Knowledge – Operational Terms and Definitions* (Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Third Session Geneva, June 13–21, 2002) at 2, online: WIPO
<http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_3/wipo_grtkf_ic_3_9.pdf>
7. Coenraad J. Visser, “Making Intellectual Property Laws Work for Traditional Knowledge” in J.M. Finger & Philip Schuler eds., *Poor People’s Knowledge: Promoting Intellectual Property in Developing Countries* (Washington: World Bank, 2004) at 212.
8. *Ibid.*
9. See for example Light Years IP, *IP in Action*, online:
<<http://www.lightyearsip.net/ipinaction.shtml>>.

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10. Marion Panizzon, “Traditional Knowledge and Geographical Indications: Foundations, Interests and Negotiating Positions” Working Paper No. 2005/01, October 2006 at 15; see also Madhavi Sunder, “IP3” (2006) 59 *Stanford Law Review* 257.
 11. “Traditional knowledge” encompasses very different categories of knowledge, including agricultural knowledge; technical knowledge; ecological knowledge; medicinal knowledge; knowledge relating to medicines and remedies; knowledge on plant genetic resources; and traditional cultural expressions. See Coenraad J. Visser, “Making Intellectual Property Laws Work for Traditional Knowledge” in J.M. Finger & Philip Schuler eds., *Poor People’s Knowledge: Promoting Intellectual Property in Developing Countries* (Washington: World Bank, 2004) at 207. The inquiry in the paper is limited to the category of agricultural knowledge, ecological knowledge, medicinal knowledge, knowledge on genetic resources, and the practice of this category of knowledge, as it evolves to meet socio-economic and ecological challenges. Therefore, the term TKBAP is employed here to refer to traditional knowledge related to agricultural products (defined as “the variety and variability of animals, plants and micro-organisms which are necessary to sustain key functions of the agro-ecosystem”) see Geoff Tansey and Tasmin Rajotte, *The Future Control of Food: A Guide to International Negotiations and Rules on Intellectual Property, Biodiversity and Food Security* (Geneva: Earthscan/IDRC 2008) at 253.
 12. *United Nations Convention on Biological Diversity*, 5 June 1992, 30619 U.N.T.S. (entered into force 29 December 1993), Art. 8 (j). For the definitional difficulties involved with “traditional knowledge,” see WIPO, TK – Operational Terms and Definitions (Intergovernmental Committee on Intellectual Property and Genetic Resources, TK and Folklore, Third Session, Geneva, June 13–21, 2002) WIPO/GRTKF/IC/3/9; Graham Dutfield, “TRIPS-Related Aspects of Traditional Knowledge” (2001) 33 *Case Western Reserve Journal of International Law* 233 at 240.
 13. See Ikechi Mgbeoji, *Global Biopiracy: Patents, Plants, and Indigenous Knowledge* (Vancouver: UBC Press, 2005) at 10. Michael Blakeney, “The Protection of Traditional Cultural Expressions” online: EC-ASEAN Intellectual Property Rights Co-operation Programme <http://www.ecap-project.org/fileadmin/ecapII/pdf/en/activities/regional/aun_sept_07/traditional_cultural_expressions_word.pdf> at 2. See UNESCO, *Recommendation on the Safeguarding of Traditional Culture and Folklore* (adopted by the General Conference at its twenty-fifth session, Paris, 15 November 198), online: <http://portal.unesco.org/en/ev.php-URL_ID=13141&URL_DO=DO_TOPIC&URL_SECTION=201.html>; also, M. Blakeney, “Protecting Expressions of Australian Aboriginal Folklore under Copyright Law” (1995) 9 *E.I.P.R.* 442; Chengsi, “On the Copyright Protection of Folklore and Other Legislation in China” (1996) 3 *China Patents and Trade Marks* 91.
 14. For example, the United Nations Declaration on the Rights of Indigenous Peoples adopted by the General Assembly used the definition of “indigenous people” contained in the International Labour Organization Convention, despite the

- objections raised about the restrictiveness of the group of people included. See United Nations, *General Assembly Adopts Declaration on Rights of Indigenous Peoples*, 13 September 2007, online: <<http://www.un.org/News/Press/docs/2007/ga10612.doc.htm>>; see *Declaration on the Rights of Indigenous Peoples*, GA Res. A/61/295, 107th Plen. Mtg., (2007). The ILO Convention defines indigenous people as “those who have descended populations that inhabited a country at the time of conquest, colonization, or the establishment of present state boundaries, and who irrespective of their status, retain some or all of their own social, economic, cultural, and political institutions.” See International Labour Organization Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries, 7 June 1989, reprinted in (1989) 28 I.L.M.1382. This definition, simple as it may appear, overly restricts the group of people to be regarded “indigenous” by limiting the criteria for indigeneity to societies subdued by conquest and colonization. Also, the requirement for the retention of the social, economic, cultural and political institutions excludes “indigenous peoples and persons whose institutional bearing and identity were disrupted by colonialism and conquest.” See Chidi Oguamanam, *International Law and Indigenous Knowledge: Intellectual Property, Plant Biodiversity, and Traditional Medicine* (Toronto: University of Toronto Press, 2006) at 21. In such a narrow understanding of the term, “indigenous knowledge” is not necessarily traditional knowledge, as confirmed by WIPO. See WIPO, *Intellectual Property, TK and Genetic Resources: Policy Options for Developing Countries* (presented at International Conference on Intellectual Property, the Internet, Electronic Commerce and Traditional Knowledge, Sofia, May 29–31, 2001) at 5. See Chidi Oguamanam, “Localizing Intellectual Property in the Globalization Epoch: The Integration of Indigenous Knowledge” (2004) 11 *Indiana Journal of Global Legal Studies* 135 at nn 1.
15. *Agreement on Trade-Related Aspects of Intellectual Property Rights*, 15 April 1994, 1869 U.N.T.S. 299; 33 I.L.M. 1197[*TRIPS*].
 16. Graham Dutfield & Uma Suthersanen, *Global Intellectual Property Law: Commentary and Materials* (Cheltenham: Edward Elgar Publishing, 2008) at 327.
 17. R. Silva Repetto & M. Cavalcanti, “Art. 27.3(B): Related International Agreements (Part II).” In FAO, *Multilateral Trade Negotiations on Agriculture: A Resource Manual* (Rome: Food and Agriculture Organization of the United Nations, 2000), online: FAO <<http://www.fao.org/docrep/003/x7355e/x7355e06.htm>>
 18. See Angela R. Riley, “*Recovering Collectivity: Group Rights to Intellectual Property in Indigenous Communities*” (2000) 18 *Cardozo Arts & Ent. L.J.* 175.
 19. L.M. Hurtado, *Acceso a los Recursos de la biodiversidad Pueblos Indigenas* (Edmunds Institute, 1999) cited in Brendan Tobin, “Redefining Perspectives in the Search for Protection of Traditional Knowledge: A Case Study from Peru” (2001) 10:1 *R.E.C.I.E.L.* at 54.
 20. WIPO, *Proposal Presented by the African Group to the First Meeting of the Intergovernmental Committee on Intellectual Property and Genetic Resources, TK and Folklore* (Intergovernmental Committee on Intellectual Property and

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- Genetic Resources, TK and Folklore, First Session, Geneva, April 30–May 3, 2001) at paras 1.2-1.3.
21. *The Treaty Establishing the European Economic Community* (EEC) (Rome, 1957) (entered into force 1 January 1958) at Art. 38.1. This definition is more or less consistent with the definition of “agricultural products” in Article 2 and Annex I of the WTO Agreement on Agriculture, which defines “agricultural products” as products in Chapters 01 to 24 of the Harmonized System, less fish and fish products (Chapter 3), together with certain products in Chapters 29, 33, 35, 38, 41, 43, 50, 51, 52 and 53. *The Agreement on Agriculture*, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Legal Instruments – Results of the Uruguay Round vol. 31, available at http://wto.org/english/docs_e/legal_e/legal_e.htm; The “harmonized system” is the international standard that was created and is administered by the Brussels-based World Customs Organization. It is a numeric language for reporting goods to customs and other government agencies that is used by more than 180 countries worldwide, and for almost 100 percent of international trade. See <http://www.wcoomd.org/home.htm>.
 22. The term “appellations of origin” was first introduced in the Paris Convention for the Protection of Industrial Property. See *The Paris Convention for the Protection of Industrial Property*, 1883, as revised in Stockholm on July 14, 1967, reprinted in 21 U.S.T. 1583, 828 U.N.T.S. 305 [Paris Convention].
 23. *The Lisbon Agreement for the Protection of Appellations of Origin and Their International Registration*, 31 Oct. 1958, as last revised 1 Jan. 1994, at Art. 2 (1), online: <<http://www.wipo.int/clea/docs/en/wo/wo012en.htm>> (last visited Aug. 1, 2004) [Lisbon Agreement].
 24. *Ibid.* at Art. 2 (2).
 25. *The Madrid Agreement for the Repression of False or Deceptive Indications of Source of Goods*, 14 Apr. 1891, 828 U.N.T.S. 389, online: WIPO <<http://www.wipo.int/treaties/en/ip/madrid/index.html>> at Art. 1 (1); see Dwijen Rangnekar, *Geographical Indications: A Review of Proposals at the TRIPS Council*, UNCTAD/ICTSD Capacity Building Project on Intellectual Property Rights and Sustainable Development, June 2002, at 9.
 26. *Ibid.*
 27. Lori E. Simon, “Appellations of Origins: The Continuing Controversy” (1983-1984) 5 *Nw. J. Int'l L. & Bus.* 132, at 132.
 28. Daniel Gervais, 2d ed., *The TRIPS Agreement, Drafting History and Analysis* (London: Sweet and Maxwell, 2003) at 293.
 29. It is important to note that both AOs and GIs involve the protection of a reputation. (Though the definition of AO does not include “reputation” as a distinct, protectable subject matter, Art. 1(2) of the Lisbon Agreement makes a reference to “reputation.”) In the case of AOs, the reputation arises from the “quality and characteristic” that the product exhibits by virtue of its geographical origin and the consumer preference associated with it, as represented by the common law concept of “goodwill.” (Most in the common law jurisdiction protect AO through the law of passing off, which incorporates the element of shared

goodwill. See Daniel R. Bereskin, “Legal Protection of Geographical Indications in Canada” (paper presented at the Intellectual Property Institute of Canada’s Annual Meeting, Halifax, September 18, 2003). In the case of GIs, the reputation may not necessarily relate to the “quality” of the product. Reputation is protectable subject matter in the case of GIs, independently of the “quality” of a product. It is pointed out that the specific inclusion of “reputation” in Art. 22.1 of the TRIPS Agreement did not exist in the December 1990 draft presented to the Brussels Ministerial Conference; rather, the wording is found in the consolidated text that became the basis for the final agreement. See Review of Proposals, *supra* note 18 referring to MTN.GG/NG11/W/76, reprinted in Daniel Gervais, *The TRIPS Agreement: Drafting History and Analysis* (London: Sweet & Maxwell, 1998). It is to be noted that the wording of the TRIPS Agreement in this regard is consistent with and closely resembles the definition of GIs in the EC’s 1992 Regulation on Geographical Indications.

30. A. Taubman, “Thinking Locally, Acting Globally: How Trade Negotiations over Geographical Indications Improve Fair Trade Rules” (2008) *Intellectual Property Quarterly* 231 at 238.
31. *Ibid.* at 242.
32. WIPO, *Geographical Indications* (Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications, Tenth Session, Geneva, April 28–May 2, 2003) SCT/10/4 [Geographical Indications] at para 24.
33. William Albert Van Caenegem, “Registered Geographical Indications: Between Intellectual Property and Rural Policy”, Part I (2003) 6 *Journal of World Intellectual Property* 699 at 702.
34. Keith E. Maskus, “Observations on the Development Potential of Geographical Indications” (paper prepared for the U.N. Millennium Project Task Force on Trade, March 2003), online: <www.ycsg.yale.edu/documents/papers/Maskus.doc> [Observation] at 1.
35. WIPO, *Geographical Indications* (Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications, Tenth Session, Geneva, April 28 – May 2, 2003) SCT/10/4 [Geographical Indications] at paras 23-25.
36. *Ibid.* at para 26.
37. *Ibid.* at para 27-30.
38. Matthijs Geuze, “Protection of Geographical Indications – International Legal Framework” (presentation at National Roving Seminars on Geographical Indications, Chennai, January 29–30, 2009) at 14, online: WIPO <www.wipo.int/edocs/mdocs/geoind/en/wipo_geo_in_09/wipo_geo_in_09_geuze.ppt>.
39. WIPO, *Geographical Indications: Historical Background, Nature of Rights, Existing Systems for Protection and Obtaining Effective Protection in Other Countries* (Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications, 6th session, March 12–16, 2001) SCT/6/3 [Historical Background] at para 8.
40. *Ibid.*

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41. WIPO, *Intellectual Property Handbook: Policy, Law and Use* (2004) WIPO Publication No. 489 (E), online: <<http://www.wipo.int/export/sites/www/about-ip/en/iprm/pdf/ch2.pdf>> [WIPO Handbook] at para 2.727.
 42. *Ibid.* at 2.694.
 43. Deven R. Desai & Sandra L. Rierson, “Confronting the Genericism Conundrum” (2007) 28 *Cardozo Law Review* 1789 at 1790.
 44. WIPO Handbook, *supra* note 41 at 2.694.
 45. Communication, *European Community – Draft Agreement on Trade-Related Aspects of Intellectual Property Rights*, MTN.GNG/NG11/W/68 (Mar. 29, 1990), reprinted & Communication, *United States – Draft Agreement on the Trade-Related Aspects of Intellectual Property Rights*, MTN.GNG/NG11/W/70 (May 11, 1990); for a detailed discussion of the negotiating history of GIs in the TRIPS, see S. Escudero, *International Protection of Geographical Indications and Developing Countries*, South Center Trade Working Paper no. 10 (2001).
 46. Olufunmilayo B. Arewa, “TRIPS and Traditional Knowledge: Local Communities, Local Knowledge, and Global Intellectual Property Frameworks” (2006) 10 *Marquette Intellectual Property Law Review* 156 at 160.
 47. *Supra* note at 23.
 48. *Ibid.*
 49. Art. 9 of a Group of Developing Countries proposal, Document MTN.GNG/NG11/W/71 in *ibid.*
 50. *Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations*, 20 Dec.1991, MTN.TNC/W/FA.
 51. This is because the African states have been divided on the issue. See Catherine Grant, “Geographical Indications: Implications for Africa” (2005) 6 *Tralac Trade Brief* at 3.
 52. See *supra* note 27 at 6 ff.
 53. *Ibid.*
 54. WTO Ministerial Conference, *Ministerial Statement*, Fifth Session, Cancún, 10–14 September 2003, adopted 14 September 2003.
 55. The “July Package,” also referred to as “the General Council’s post-Cancún decision,” is a decision adopted by the General Council on 1 August 2004 to reformulate the Doha Round objectives in order to keep the Doha Development Round on track and to successfully wrap up the negotiations with an agreement by the end of 2005.
 56. Office of the United States Trade Representative (USTR), “U.S. and Other Trade Partners Present Positions and Proposals to Prevent Unauthorized Use of Geographic Names,” USTR Press Release 20 September 2002, online: <http://www.ustr.gov/Document_Library/Press_Releases/2002/September/US_Other_Trade_Partners_Present_Positions_Proposals_to_Prevent_Unauthorized_Use_of_Geographic_Names.html>
 57. *Ibid.*
 58. See Kasturi Das, “Protection of Geographical Indications: An Overview of Select Issues with Particular Reference to India” (Center on Trade & Development *Estey Centre Journal of International Law and Trade Policy*

- Working Paper 8, 2007); M. Echols, “Geographical Indications for Foods, TRIPS and the Doha Development Agenda” (2003) 47:2 *Journal of African Law*.
59. WIPO, “About Geographical Indications: How Are Geographical Indications Protected?” online:
WIPO <http://wipo.int/geo_indications/en/about.html#protec>.
 60. WTO, *Protection of Trademarks and Geographical Indications for Agricultural Goods and Foodstuffs* (Complaints by the United States and Australia) WTO Doc. WT/DS174R WT/DS290R (15 March 2005) (Panel Report).
 61. Tim Josling, “The War on Terroir: Geographical Indications as a Transatlantic Trade Conflict” (2006) 57 *Journal of Agricultural Economics* 337–363 at 338.
 62. See also *supra* note 58.
 63. According to the EU’s memo titled “Why Do Geographical Indications Matter to Us?” GIs were used in ancient Egypt by brickmakers to indicate the origin-related resistance of bricks and stones with which pyramids were made. Geographical indications were also used as signs of quality in ancient Greece, an illustration being Thasian wine (from the island of Thasos, Macedonia region, Greece), which commanded a price premium of 20 drachmas for 20 litres. Presently used GIs such as Parmigiano or Comté date from the 13th century. European Commission, “Intellectual Property: Why Do Geographical Indications Matter to Us?” Trade Issues (30 July 2003), online:
< http://ec.europa.eu/trade/issues/sectoral/intell_property/argu_en.htm>. Also, Hayes J. Dermot, Sergio H. Lence & Bruce Babcock, “Geographic Indications and Farmer-Owned Brands: Why Do the US and EU Disagree?” (2005) 4:2 *Eurochoices* 28 at 30.
 64. EU, Council Regulation (EC) 2081/92 of 14 July 1992 On the Protection of Geographical Indications and Designations of Origin for Agricultural Goods and Foodstuffs, [1992] O.J. (L 208), *superseded by* Council Regulation (EC) 510/2006 of 20 March 2006 on the Protection of Geographical Indications and Designations of Origin for Agricultural Goods and Foodstuffs, [2006] O.J. (L 93/12); Council Regulation (EC) 2082/92 of 14 July 1992 on Certificates of Specific Character for Agricultural Goods and Foodstuffs, [1992] O.J. (L 208), *superseded by* Council Regulation (EC) No 509/2006 of 20 March 2006 on Agricultural Goods and Foodstuffs as Traditional Specialities Guaranteed, [2006] O.J. (L 93/1).
 65. “Council Regulation” No 510/2006, *ibid.* at Art. 2 .1 (b) [*Emphasis added*].
 66. “Council Regulation” (EC) No 509/2006 *supra* note 64 at Art 2.1 (a) & (b).
 67. *Ibid.* at Art 2.2.
 68. *Ibid.* at Art 4.1–Art. 4.2.
 69. *Ibid.* at Art 5.1
 70. Council Regulation 1493/99 as amended by Commission Regulation 753/2002 brings together a number of earlier regulations on the protection of wines and covers the protection of geographical indications and traditional terms, Commission Regulation (EC) No 753/2002, 2002 O.J. (L 118) 1, at Arts. 28–33, 14–18; Council Regulation 1493/1999 on the Organisation of the Market in Wine, 1999 O.J. (L 179) 1, Arts. 50–53, 27–29. For spirits, Council Regulation

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- 1576/89(EC), 1989 O.J. (L 160) 1, and mineral waters under Council Directive 80/777(EC), 1980 O.J. (L 229) 1, amended by Council Directive 96/70, 1996 O.J. (L 299) 26 (EC).
71. Council Regulation 40/94 on the Community Trade Mark, 1994 O.J. (L 11) 1 (EC) at Art. 66–69.
 72. Council Regulation 510/2006, 2006 O.J. (L 93) at Art. 14 (2).
 73. § 45 (15 U.S.C. § 1127) (2008).
 74. § 45 (15 U.S.C. § 1127) (2008).
 75. WIPO, *Introduction to Geographical Indications and Recent International Developments in the World Intellectual Property Organization* (Symposium on the International Protection of Geographical Indications organized by WIPO and the National Directorate for Industrial Property, Ministry of Industry, Energy and Mining of Uruguay, Montevideo, November 28–29, 2001) [Recent International] at 10.
 76. United States Patent and Trademark Office, *Geographical Indication Protection in the United States*, at 3, online: USPTO <http://www.uspto.gov/web/offices/dcom/olia/globalip/pdf/gi_system.pdf>
 77. *Ibid.* at 5.
 78. See the protection of GIs in Canada in *supra* note 29; also, see different methods of protecting GIs in different legal systems in Historical Background, *supra* note 39.
 79. Walter R. Brookhart et al., *Current International Legal Aspects of Licensing and Intellectual Property* (Chicago: American Bar Association, 1980) at 19.
 80. *Ibid.*
 81. Walter R. Brookhart et al., *Current International Legal Aspects of Licensing and Intellectual Property* (Chicago, American Bar Association, 1980) at 11.
 82. See WTO, Communication from Albania, Brazil, China, Colombia, Ecuador, the European Communities, Iceland, India, Indonesia, the Kyrgyz Republic, Liechtenstein, the Former Yugoslav Republic of Macedonia, Pakistan, Peru, Sri Lanka, Switzerland, Thailand, Turkey, the ACP Group and the African Group, *Draft Modalities for TRIPS Related Issues*, TN/C/W/52 (19 July 2008).
 83. European Commission, *External Trade, Intellectual Property, TRIPs and Geographical Indications: EU Submits Three Communications on Geographical Indications, Brussels*, 24 June 2002, online: http://europa.eu.int/comm/trade/issues/sectoral/intell_property/wto_nego/intel4.htm; also cited in *supra* note 89 at 29.
 84. See Kaitlin Mara, “WTO: Progress on IP at Last; Consensus Still Uncertain” *Intellectual Property Watch* (5 December 2008), online: <<http://www.ip-watch.org/weblog/2008/12/05/wto-progress-on-ip-at-last-though-consensus-elusive/>>
 85. See, e.g., intervention by the delegate from Thailand, WTO, Council for TRIPS, Minutes of Meeting, 5 February 2003, WTO Doc. IP/C/M/38 at 41: “Extension was important because GIs were often related to culture and ancestors’ traditional knowledge”; and intervention by the delegate from India, WTO, Council for

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- TRIPS, Minutes of Meeting, 10 September 2002, WTO Doc. IP/C/M/36/Add. 1 at 10, relating to the role of GI extension in the protection of the cultural heritage of developing countries. It is also pointed out that most of the third parties in the EC-GIs panel proceedings were developing countries. Panel Report, European Communities – Protection of Trademarks and Geographical Indications for Agricultural Goods and Foodstuffs (EC-GIs) (15 March 2005) WTO Documents WT/DS174R WT/DS290R. See Tomer Broude, “Taking ‘Trade and Culture’ Seriously: Geographical Indications and Cultural Protection in WTO Law” (2005) 26 *University of Pennsylvania Journal of International Economic Law* at 6 ff.
86. See *supra* note 27 at 26.
87. According to the report, “Cocuy the Pecaya,” a liquor made from agave, in Venezuela, and “PhuQuoc” fish, soya sauce and “Shan Tuyet Moc Chau,” a variety of tea, in Vietnam, are protected as geographical indications. See WIPO, *Review of Existing Intellectual Property Protection of Traditional Knowledge*, WIPO/GRTKF/IC/3/7 (Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Third Session, Geneva, June 13–21, 2002).
88. See Teshager Dagne, “The Application of Intellectual Property Rights to Biodiversity Resources: A Technique for the Less Economically Developed Countries to Maintain Control over the Biodiversity Resources in Their Territories?” (2009) 17:1 *African Journal of International and Comparative Law* 150.
89. In recent times, there has been significant debate over “geographical indications” with respect to the WIPO development agenda. Also, see oriGIn, the first international network of GI producers, which now represents over one million producers of traditional products from more than 30 countries, <http://origin.technomind.be/>. Established under the umbrella of the Arab League in October 2008, the Arab Society for Geographical Indications (ASGI) has outlined its objectives: to “protect and promote Arab heritage and local products as well as [encourage] Arab countries to develop GI laws and regulations, and [join] international treaties related to geographical indications and [update] and [modernise] the existing geographical indications laws in the Arab countries.” <http://www.ip-watch.org/weblog/2008/10/27/new-arab-group-aims-at-protecting-local-products-with-geographical-origins/>. Research projects financed by the EU and Switzerland have as their purpose to “strengthen international research on geographical indications”: the DOLPHINS (Development of Origin Labelled Product Humanity, Innovation and Sustainability) & Siner-GI (Strengthening International Research on Geographical Indications) <http://www.origin-food.org/2005/index.php?r=1&Largeur=1280&Hauteur=800>.
90. Terri Janke, *Minding Culture: Case Studies on Intellectual Property and Traditional Cultural Expressions*, (Geneva: World Intellectual Property Organization, 2003) at 36, online: <<http://www.wipo.int/tk/en/studies/cultural/minding-culture/studies/finalstudy.pdf>>.
91. Daphne Zografos, “Can Geographical Indications Be a Viable Alternative for the Protection of Traditional Cultural Expressions?” in Fiona Macmillan and Kathy

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- Bowrey eds., 3 *New Directions in Copyright Law*, (Cheltenham: Edward Elgar, 2006) at 55.
92. Brad Sherman & Leanne Wiseman, “Towards an Indigenous Public Domain?” in P. Bernt Hugenholtz and Lucie Guibault eds., *The Future of the Public Domain* (The Hague: Kluwer Law International, 2006) at 275.
93. See the various modalities for the protection of traditional knowledge in WIPO, *Intellectual Property, Traditional Knowledge and Genetic Resources Policy Options for Developing Countries* (Presented at the International Conference on Intellectual Property, the Internet, Electronic Commerce and Traditional Knowledge, Sofia, May 29–31, 2001).
94. See Shivani Singhal, “Geographical Indications and Traditional Knowledge” (2008) 11 *Journal of Intellectual Property Law & Practice* 732 at 733.
95. *Supra* note 1, preamble.
96. *Supra* note 27 at 349.
97. See David R. Downes, “How Intellectual Property Could Be a Tool to Protect Traditional Knowledge” (2000) 25 *Colum. J. Envtl. L.* 253 at 259.
98. Bernard O’Connor, *The Law of Geographical Indications* (London: Cameron May, 2004) at 374.
99. *Supra* note 94 at 737.
100. *Ibid.* citing Louis Lorvellec, “You’ve Got to Fight for Your Right to Party: A Response to Professor Jim Chen” (1996) 5 *Minnesota Journal of Global Trade* 65.
101. Stephen A. Hansen & Justin W. van Fleet, *A Handbook on Issues and Options for Traditional Knowledge Holders in Protecting Their Intellectual Property and Maintaining Biological Diversity* (Washington, DC: American Association for the Advancement of Science, 2003) at 201.
102. Thomas Cottier & Marion Panizzon, “Legal Perspectives on Traditional Knowledge: The Case for Intellectual Property Protection” (2004) 7 *J.I.E.L.* 371 at 380.
103. *Supra* note 97 at 10.
104. Warren Moran, “Rural Space as Intellectual Property” (1993) 12 *Political Geography* 263-277, quoted in *Ibid.*
105. *Ibid.*
106. David R. Downes & Sarah A. Laird, “Innovative Mechanisms for Sharing Benefits of Biodiversity and Related Knowledge: Case Studies on Geographical Indications and Trademarks” (paper prepared for UNCTAD Biotrade Initiative, 1999) at 11.
107. Jerome M.P.L. Agostini, Affidavit filed in *Institut National des Appellations D’Origine v. Vintners Int’l Co.*, 958 F.2d 1574 (Fed. Cir. 1992), quoted in *ibid.* at 11.
108. *Ibid.* at 11.
109. *Supra* note 97 at 269.
110. Philippe Cullet & Andrea Nascimento, “Geographical Indications” in S. Biber-Klemm and T. Cottier eds., *Rights to Plant Genetic Resources and Traditional*

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- Knowledge: Basic Issues and Perspectives* (London: CAB International, 2006) at page 252.
111. *Supra* note 97 at 11.
112. *Ibid.*
113. *Supra* note 10.
114. *Supra* note 97 at 269.
115. See *infra* note 147 and accompanying text; also *supra* note 27 at 32.
116. *Sunder* note 10 at 314.
117. Keith Eugene Maskus & Jerome H. Reichman, *International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime* (Cambridge: Cambridge University Press, 2005) at 579.
118. *Supra* note 27.
119. See UN-UNESCO *World Commission on Culture and Development, Our Creative Diversity* (Paris: United Nations, 1995).
120. Madhavi Sunder, “The Invention of Traditional Knowledge” UC Davis Legal Studies Research Paper Series Research Paper No. 75 (March 2006) at 26.
121. See Jan Nederveen Pieterse, *Development Theory: Deconstructions/Reconstructions* (London: Sage Publications Ltd., 2001) at 6.
122. *Ibid.*
123. *Ibid.*
124. Amartya Sen, “What’s the Use of Music? The Role of the Music Industry in Africa” (Prepared for the World Bank–Policy Sciences Center, Workshop on the Development of the Music Industry in Africa, Washington, D.C., June 20–21, 2000), online: <http://www.worldbank.org/research/trade/africa_music2.htm>.
125. *Supra* note 388 at 26.
126. *Ibid.* citing Amartya Sen, *Development as Freedom* (London: Alfred A. Knopf, 1999).
127. *Sunder, supra* note 10 at 323.
128. *Supra* note 120 at 28.
129. *Ibid.*
130. Amartya Sen, *Development as Freedom* (London: Alfred A. Knopf, 1999) at 133 ff.
131. WIPO GENERAL ASSEMBLY, “PROPOSAL BY ARGENTINA AND BRAZIL FOR THE ESTABLISHMENT OF A DEVELOPMENT AGENDA FOR WIPO” (THIRTY-FIRST (15TH EXTRAORDINARY) SESSION, SEPTEMBER 27 TO OCTOBER 5, 2004, GENEVA) AT PARA VI, ONLINE: WIPO www.wipo.int/edocs/mdocs/govbody/en/wo.../wo_ga_31_11.doc.
132. *Supra* note 120 at 7.
133. See *supra* note 97 at 6.
134. WIPO, *The Definition of Geographical Indications* (Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications, Ninth Session, Geneva, November 11–15, 2002) Sct/9/4[Definition] at para 4.

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- 135.Dev Gangjee, “Quibbling Siblings: Conflicts between Trade Marks and GIs” (2007) 82 *Chicago-Kent Law Review* 1253 at 1257.
- 136.*Ibid.*
- 137.F. Addor & A. Grazioli, “Geographical Indications beyond Wines and Spirits – A Roadmap for a Better Protection for Geographical Indications in the WTO TRIPS Agreement” (2002) 5 *J. World Intellect. Property* 865 at 874; see also Gavin Fridell, *Fair Trade Coffee: The Prospects and Pitfalls of Market-Driven Social Justice* (Toronto: University of Toronto Press, 2007).
- 138.See Elizabeth Barham, “Localisation within Globalisation: Better Protecting Geographical Indications to Favour Sustainable Development” (Presentation on the 2004 Annual WTO Public Symposium: ORIGIN Round Table on Geographical Indications, 27 May 2004, Geneva).
- 139.Kal Raustiala & Stephen R. Munzer, “The Global Struggle over Geographic Indications” (2007) 18 *E.J.I.L.* 337 at 345.
- 140.See Jamil Uzma, “Biopiracy: The Patenting of Basmati by RiceTec,” publication of the Commission on Environmental, Economic and Social Policy – South Asia & Sustainable Policy Development Institute (October 8 1998), online: www.iucn.org/themes/ceesp/publications/art-mono/basmati.doc.
- 141.Michael Blakeney, “Proposals for the International Regulation of Geographical Indications” (2001) 4 *The Journal of World Intellectual Property* 629 at 647.
- 142.See *Supra* note 97 at 270 ff.
- 143.Dev Gangjee, “Quibbling Siblings: Conflicts between Trade Marks and GIs” (2007) 82 *Chicago-Kent Law Review* 1253 at 1257 ff.
- 144.*Ibid.* at 6.
- 145.Council Regulation 510/2006, 2006 O.J. (L 93) at preamble.
- 146.Franz Fischler, *Quality Food, CAP Reform and PDO/PGI*, SPEECH/04/183, Siena (17 April, 2004).
- 147.Mariano Riccheri et al., *Impacts of the IPRs Rules on Sustainable Development: Assessing the Applicability of Geographical Indications as a Means to Improve Environmental Quality in Affected Ecosystems and the Competitiveness of Agricultural Products*, IPDEV Project Coordinator Final Project Workpackage 3, online: http://ecologic.eu/download/projekte/1800-1849/1802/wp3_final_report.pdf at 10 ff.
- 148.*Supra* note 7 at 210.
- 149.*Supra* note 97 at 6.
- 150.*Ibid.* at 4–5.
- 151.To address the access and benefit-sharing agenda that the CBD considered important to conserve biodiversity, the fifth Conference of the Parties meeting established the Ad Hoc Open-ended Working Group on Access and Benefit-Sharing (WG-AB), which later developed the Bonn Guidelines on Access and Benefit-Sharing, adopted at the sixth COP meeting in 2002. See Conference of the Parties, “Access and benefit-sharing” in *Decisions Adopted by the Conference of the Parties to the Convention on Biological Diversity at its Fifth Meeting*, COP 5

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- Decision V/26 (Fifth Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity, 15–26 May 2000, *Nairobi*) at para. 11; Conference of the Parties, Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization COP 6 Decision VI/24 (Sixth Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity, the Hague, 7–19 April 2002).
152. The programs of the WG-AB are more concentrated on securing access and benefit-sharing agreements for patents that utilize traditional knowledge, unlike the agenda pursued by the CBD's Working Group to Protect Traditional Knowledge – which adopted *sui generis* protection of traditional knowledge mostly through inward-looking protocols of protecting traditional knowledge. See Ad Hoc Open-Ended Inter-Sessional Working Group on Article 8(J) and Related Provisions of the Convention on Biological Diversity, *Development of Elements of Sui Generis Systems for the Protection of Traditional Knowledge, Innovations and Practices to Identify Priority Elements* (Fifth Meeting, 15–19 October 2007, Montreal) UNEP/CBD/WG8J/5/6 20 September 2007 at para 4, online: <<http://www.cbd.int/doc/meetings/tk/wg8j-05/official/wg8j-05-06-en.pdf>>.
153. Noah Zerbe, “*Biodiversity, Ownership, and Indigenous Knowledge: Exploring Legal Frameworks for Community, Farmers, and Intellectual Property Rights in Africa*” (2005) 53 *Ecological Economics* 493 at 500; also, Ikechi Mgbeoji, *Patents and Plants: Rethinking the Role of International Law in Relation to the Appropriation of Traditional Knowledge of the Uses of Plants (TKUP)* (Dalhousie University, unpublished J.S.D. thesis, 2000).
154. *Ibid.*
155. See *supra* note 101 at 4 ff.
156. See Brendan Tobin, “Redefining Perspectives in the Search for Protection of Traditional Knowledge: A Case Study from Peru” (2001) 10:1 *RECIEL*.
157. Matthew Rimmer, “Australian Icons: Authenticity Marks and Identity Politics” (2004) 3 *Indigenous Law Journal* 139.
158. Niels Halberg et al. eds., *Global Development of Organic Agriculture* (Oxfordshire: CABI Publishing, 2006)
159. Stefano Pagiola et al., *Selling Forest Environmental Services* (London: Earthscan Publications, 2002).
160. *Supra* note 97 at 21.
161. *Supra* note 27 at 32.
162. *Supra* note 135 at 13.
163. *Supra* note 97 at 2 ff.
164. *Supra* note 135 at 13.
165. Contrary to the utilitarian emphasis on economic rewards to increase creation and invention, there are other incentives that encourage creation of knowledge, including honour and recognition, as evidenced and rewarded through publication, citation, academic tenure, prizes for academic achievement or demonstrations of skill in public competitions, and awards of government grants for research. Anil K. Gupta, “Accessing Biological Diversity and Associative Knowledge System:

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- Can Ethics Influence Equity?” cited in *supra* note 97 at 260. Indigenous people and local communities engage in the creation, preservation and transfer of knowledge in a continual manner as a means of survival and group identity, and not for the sake of financial gain by market forces.
166. *Supra* note 135 at 15.
167. See *supra* note 135.
168. FAO Committee on Commodity Problems, *Geographical Indications for Tea* (Intergovernmental Group on Tea, Eighteenth Session, Hangzhou, 14–16 May 2008) CCP:TE 08/5 at 2, online:
< <ftp://ftp.fao.org/docrep/fao/meeting/013/k2020E.pdf>>.
169. Tony Battaglene, *The Australian Wine Industry Position on Geographical Indications* (Presentation to the Worldwide Symposium on Geographical Indications Jointly Organized by The World Intellectual Property Organization and the Ministry of Productive Activities of Italy under the Patronage of the Ministry of Foreign Affairs of Italy, Parma, June 27–29, 2005).
170. *Supra* note 23 at Art. 2 (1).
171. *Supra* note 41 at para 2.727.
172. Irene Calboli, *Expanding the Protection of Geographical Indications of Origin under TRIPS: Old Debate or New Opportunity?* Marquette University Law School Legal Studies Research Paper NO. 06 - 19 (2006) at 187.
173. See, for example, *supra* note 97 at 737.
174. *Ibid.* at 733.
175. *Sunder, supra* note 10 at 302.
176. *Supra* note 38 at para. 2.727.
177. *Ibid.*
178. S.K. Soam, “Analysis of Prospective Geographical Indications in India” (2005) 8 J. World Intell. Prop. 679 quoted in Chidi Oguamanam, “Patents and Traditional Medicine: Digital Capture, Creative Legal Interventions, and the Dialectics of Knowledge Transformation” (2008) 15 Indiana Journal of Global Legal Studies 489 at 526.
179. See Chidi Oguamanam, “Patents and Traditional Medicine: Digital Capture, Creative Legal Interventions, and the Dialectics of Knowledge Transformation” (2008) 15 Indiana Journal of Global Legal Studies 489 at 526 [*Digital Capture*].
180. WIPO, *Geographical Indications*, online:
<http://www.wipo.int/sme/en/ip_business/collective_marks/geographical_indications.htm>
181. WIPO, *Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge 1998–1999* (2001) at 58, online: WIPO
<<http://www.wipo.int/export/sites/www/tk/en/tk/ffm/report/final/pdf/part1.pdf>> at 46.
182. *Supra* note 102 at 383.

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183. Warren Moran, “Rural Space as Intellectual Property” (1993) 12 *Political Geography* 263 in Hjalager Anne-Mette & Minh Greg Richards, *Tourism and Gastronomy* (London: Routledge, 2002) at 159.
184. *Supra* note 97 at 383, citing Moran *ibid*.
185. *Ibid*.
186. *Draft Conclusions of Workshop B: EU Quality Schemes* (Czech Presidency High Level Conference on the Future of Agricultural Product Quality Policy, Prague, 13 March 2009) at 4.
187. Definition, *supra* note 122 at para. 26.
188. *Ibid*.
189. The Crucible II Group, *Seeding Solutions* (Rome: IDRC, 2000).
190. *Supra* note 102 at 385.
191. For example, the archrival states India and Pakistan put aside their differences to register homonymous GIs over “Basmati rice” and “Punjabi lassi” both of which come from the Punjab State in India and the Punjab State in Pakistan. See Soam *supra* note 164 at 681.
192. Keith Eugene Maskus & Jerome H. Reichman, “The Globalization of Private Knowledge Goods and the Privatization of Global Public Goods” (2004) 7 *Journal of International Economic Law* 279 at 311.
193. *Supra* note 1 at Art. 24.9: “There shall be no obligation under this Agreement to protect geographical indications which are not or cease to be protected in their country of origin, or which have fallen into disuse in that country.”
194. Commission on Intellectual Prop. Rights, *Integrating Intellectual Property Rights and Development Policy* (2002) at 90, online:
< http://www.iprcommission.org/papers/pdfs/final_report/Ch4final.pdf> .
195. D. Vaver, *Intellectual Property Rights: Critical Concepts in Law* (New York: Routledge, 2006) at 330.
196. Of course, both proponents and opponents of the extension of GIs to agricultural products have sought to support their positions by referring to the positive or negative impact it would have on developing-country economies. ICTSD, “TRIPS: Members Still Split on Relationship with CBD; GI Talks Going Nowhere” (22 March 2006) 10:10 Bridges Weekly Trade News Digest at 6. It is well documented that the industrialized countries, led by the United States – which is now a strong opponent of the extension of GI protection beyond wines and spirits – were the actors behind the TRIPS Agreement, which set down rules on a wide range of intellectual property norms (patents, trademarks, copyright and industrial design) mirroring norms that had been accepted in their own domestic frameworks. GIs were included in the TRIPS as part of a compromise between the EU – which boasts a strong tradition of agricultural production – and the United States. See Daniel Gervais, “Intellectual Property, Trade & Development: The State of Play” (2005) 74 *Fordham L. Rev.* 508–510; Daniel Gervais, *The TRIPS Agreement, Drafting History and Analysis* (London: Sweet and Maxwell, 2003).
197. Oguamanam, *Digital Capture*, *supra* note 165 at 525.
198. *Supra* note 97 at 260.

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199. Stéphan Marette, “Can Foreign Producers Benefit from Geographical Indications under the New European Regulation?” (2009) 10 *Estey Centre Journal of International Law and Trade Policy* at 69.
200. *Ibid.*
201. *Supra* note 97.
202. Light Years IP, “Distinctive Values in African Exports: How Intellectual Property Can Raise Export Income and Alleviate Poverty” (2008), online: < http://www.lightyearsip.net/downloads/Distinctive_values_in_African_exports.pdf>.
203. For example, in an endeavour that involved a consortium of stakeholders representing farmers’ cooperatives, coffee exporters and government bodies, and with financial support from the U.K.’s Department for International Development, technical advice from a Washington-based NGO – Light Years IP – and legal assistance from a U.S. law firm – Arnold and Porter – the Ethiopian Intellectual Property Office (EIPO) registered trademarks over its indigenous coffee names. The EIPO licensed the coffee names to a number of distributors royalty free with a purpose to, in the words of the director, “enlist the big companies to do what we don’t have the skills or financial means for – that is, building recognition of our brands in international markets and so increasing long term demand for them.” See WIPO, “Making the Origin Count: Two Coffees” (2007) 5 *WIPO Magazine* at 2.
204. *Ibid.*
205. EC, *supra* note 63.
206. *Ibid.*
207. *Ibid.*
208. For a case study on suggestions for the creation of IP rights on South Pacific Kava, South African Rooibos, Andean Quinoa, Neem tree and Basmati rice, see *supra* note 97 at 18 ff.
209. See Ikechi Mgbeoji, “Patents and Traditional Knowledge of the Uses of Plants: Is a Communal Patent Regime Part of the Solution to the Scourge of Biopiracy?” (2001) 9 *Indiana Journal of Global Legal Studies* 163.
210. The 2001 WIPO global fact-finding mission report identified the IP needs and expectations of the holders of TK and cultural expressions and suggested that informal regimes and customary protocols may be utilized to protect traditional knowledge in various areas of traditional knowledge subject matter. See WIPO, *Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge 1998–1999* (2001) at 58, online: WIPO <<http://www.wipo.int/export/sites/www/tk/en/tk/ffm/report/final/pdf/part1.pdf>>.
211. See *supra* note 98 at 379.

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