Journal of Contemporary Law and Society, *Volume 1, Issue 1, March 2024, pp. 18-26*

Technical Article
Online ISSN: 3139-1079
DOI: 10.18311/JCLS/2024/v1i1/46626

Online ISSN : XXXX-XXXX

Journal of Contemporary Law and Society

Contents available at: *www.informaticsjournals.co.in/index.php/jcls*

JCLS

Geographical Indication Protection of Traditional Knowledge in India: Legal and Policy Issues

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Abstract

With particular reference to Geographical Indications (GI), this research examines the possibility of preserving Traditional Knowledge (TK) and Traditional Cultural Expressions (TCE) under the prevailing Intellectual Property Law Regime. Additionally, it emphasizes how GIs are registered under Indian GI legislation, paying particular attention to ancestry knowledge. The limitations of GI protection concerning safeguarding TK/TCE in its entirety are also highlighted in the paper. The current legal system has always made it difficult to protect traditional knowledge, and this restriction has permanently harmed this body of knowledge. TK has been attempted to be preserved and protected through IPR, but this strategy has had very little success. A sui generis approach to TK protection remains in place due to TRIPS's complete lack of protection for TK. The proposed Protection of TK Bill, 2022 has drawn a lot of criticism, with one point of contention being the lack of conviction of between the protections afforded by Intellectual Property Rights (IPRs) and the use of Geographic Indications (GI) to preserve traditional knowledge. A sui generis approach to TK protection remains in place due to TRIPS's complete lack of protection for TK. In order to encourage indigenous and tribal peoples to investigate the limited potential of GI protection to their ancestral knowledge, this research paper lists some of the TK that has been protected under the GI Act in India. Additionally, it helps the legislature to reassess a few provisions of the 2022 Protection of the TK Bill.

Keywords: Geographical Indications, Traditional Cultural Expression, Traditional Knowledge, TRIPS

1.0 Introduction

Over the past century, there has been an unparalleled global loss of native and customary knowledge. The abandonment of moral principles that were common in customary behaviour has disastrous effects on the environment. There are only 10% of large ocean fish left as per a 2003 report that was published in the journal Nature. (Wilson, D.C. 2009). It is yet unknown how much more has been lost over the next 20 years. In less than 50 years, 60% of the wildlife has disappeared. Moreover, freshwater species have suffered terrible outcomes. Between 1970 and 2012, 81% of freshwater species became extinct. Since 1900, 64% of global wetlands have disappeared (World Economic Forum, 2018).

The last repositories of ancestor and traditional knowledge, including the ethos and ethics that supported the integrity of nature and allowed life on Earth, have been tribal and indigenous peoples. With the rapid advancement of modern science, we have entered a technologically advanced era devoid of ethical principles for sustainable coexistence. The information previously mentioned attests to this technologically advanced era. It's not that the call for the preservation of traditional standards has gone unheard in recent years. However, this undermining is still evident in the Forest Charter of 1217 and the non-acceptance of the Havana Charter of 1948 (Kayman M.A 2018).

Tribal and indigenous groups have been crucial in maintaining and carrying on their customs and

ancestors' traditions. However, the recent era of neo-colonialism in conjunction with the colonization era has produced a political structure that aims to eradicate traditional practices in general and ancestral knowledge in particular. In their Convention (ILO) 107, the International Labour Organization weakened the rights of tribal and indigenous peoples to self-determination and a homogeneous way of life while promoting the idea of integration with the mainstream. The emergence of compulsory formal education and affirmative action policies among tribal peoples has caused instability in the vitally important homogeneous existence of these groups. This risky action had the much-expected result that ILO Convention 169 acknowledged the error made in ILO C-107. In numerous jurisdictions, the harm has already been done. Some nations that never ratified ILO C 169, such as India, are still experiencing the daily loss of traditional knowledge (Shambhu Prasad Chakrabarty *et al*, 2022).

One of the twelve mega biosphere countries of the globe is India (Ahamed, S. n.d.). India is a recognized hub for crop diversity and the custodian of numerous wild crop varieties. Due to its unique species and habitats and abundant natural resources, India possesses a wealth of customary knowledge regarding the characteristics and relevance of these biological resources. Native and neighbouring populations are found in most biologically diverse and rich regions. For them, this natural setting is both a part of their culture and way of life. Native Americans are a storehouse of traditional knowledge about the atmosphere and renewable use. To achieve sustained growth, TK is a necessary component. This is an asset forever that is easily obtained, making it susceptible to theft. Most frequently, it is transmitted orally from generation to generation.

Traditional knowledge is the knowledge that people in indigenous societies have accumulated over time from one or more cultures, based on experience and adaptation to the home ethnicity and climate, and constantly influenced by the advancements and customs of each generation. The vast body of knowledge known as Traditional Knowledge (TK) encompasses a wide range of properties, including the properties of plants, animals, minerals, and soils; combinations of organic and inorganic materials; medical knowledge; and folklore expressed through crafts, music, dance, poetry, stories, and artwork. Traditional knowledge also protects all intellectual creations made by ancestors and progressively improved by succeeding generations in a traditional society, including science, technology, ecology, medicine, agriculture, and biodiversity. TK is used to maintain the necessary genetic capital for the community's continuous survival as well as the population and its culture. Through the establishment of the conventional IPR framework or a contemporary sui generis mechanism, such as the rights of the group or the rights of group land, the need for the effective defence of information has grown. Encouragement of societies to use conventional perception for advancement and development is also necessary (T. Cottier *et al*, 2004).

The commercial model of private IP safeguard became prevalent and enforceable in budding and slightest developed countries as a result of the World Trade Organization and the WPO (World Intellectual Property Organization) flourishing in their respective wings and leading to the adoption of TRIPs. But this system's fatal flaw was that it "undermined traditional knowledge as a form of IPR (Shambhu Prasad Chakrabarty *et al,* 2022).

2.0 Meaning and Characteristics of Traditional Knowledge

Indigenous and local communities worldwide possess knowledge, innovations, and practices that are referred to as traditional knowledge. It is passed down orally from generation to generation and is developed from experience accumulated over centuries and tailored to the home atmosphere and culture. It usually belongs to the community and is expressed through stories, songs, folklore, proverbs, cultural values, beliefs, rituals, local languages, and agricultural practices, such as the emergence of new plant and animal species. Since it has been carried on, vocal, bop, coated, sliced, tuned, and executed for millennia, it is sometimes mentioned as verbal custom. Most customary knowledge is applied, especially in areas like horticulture, forestry, fisheries, agriculture, health, and general environmental management.

The import of customary knowledge is becoming increasingly recognized. Modern industry and agriculture, in adding up to those who depends on it in their day by day lives, value this knowledge. Customary knowledge is the basis of many commonly used products, including cosmetics, health care products, and plant-based medications. Handicrafts and agricultural and non-wood forest products are examples of other such valuable

products. Sustainable development can benefit greatly from the application of customary knowledge. The great majority of the world's genetic resources are found in the regions where the majority of native and home communities are located. For thousands of years, a large number of them have sustainably produced and utilized biodiversity. It has been demonstrated that some of their methods improve and encourage biodiversity locally and support the upkeep of thriving ecosystems.

Beyond their function as managers of natural resources, home-grown and neighboring communities make significant contributions to biodiversity preservation and supportable use. Their abilities and methods offer the world community important information and a practical framework for biodiversity policy. Furthermore, indigenous and local communities have the greatest direct involvement in conservation and sustainable use because they are on-site communities with in-depth knowledge of the surrounding environments.

The Parties to the Convention on Biological Diversity are taking into consideration particular laws, policies, and programs to encourage and safeguard and value of traditional knowledge, as well as to make sure that homely and native communities receive a pale and reasonable share the benefits resulting from the use their knowledge. They recognize the critical knowledge to the Convention's objectives. The parties are dedicated to ensure that neighboring and native communities are effectively involved in all issues that affect them. They have set up a voluntary fund to help representatives of the neighboring and native communities take part in Convention meetings and procedures in order to streamline this process (Convention on Biological Diversity, 1992).

Traditional Knowledge (TK) is fundamentally oriented or based in culture; it is an essential part of the social group's cultural identity and is passed down through the generations. A broad definition of "traditional knowledge" includes works of literature, art, or science based on tradition; presentation; innovation; methodical finding; drawing; mark, name, and sign; undisclosed information; and any other works of literature, art, or science based on tradition that are the product of intellectual activity. The World Intellectual Property Office (WIPO) defines traditional knowledge as indigenous knowledge pertaining to areas such as agriculture, medicine, biodiversity, and folklore expressed through music, dance, song, handicrafts, designs, stories, and artwork.

It is possible that the steps leading to the development of TK were not formally recorded in the same manner as a lot of scientific and technological data. The apparent lack of structure in the generation of traditional knowledge does not lessen its cultural or technologically beneficial value.

Concerns regarding the acceptance of traditional knowledge as prior art have been voiced recently. When compared to the pertinent prior art, patents have been granted for inventions related to TK that did not meet the conditions of innovation and creative step. During the review of the patent application, the patent-granting authority was unable to recognize the traditional knowledge that made up this prior art. The entire corpus of information that was generally recognized to the community prior to the filing date of an application for a specific industrial property title, primarily patents, utility models, and industrial designs, is referred to as "prior art." Finding prior art is essential to the substantive review of applications for these titles because it establishes requirements like inventive step and novelty by contrasting the claimed subject matter with pertinent prior art. Pharmaceutical patents, for instance, were issued and then had to be revoked when their invention was found to be relevant prior art when compared to conventional medical practices. US on Use of Turmeric in injury curing, published March 28, 1995, are a well-known example (Vijendra Jain, 2008).

3.0 Characteristics of Traditional Knowledge

To design the most effective kind of protection system for TK, it is important to first understand the unique qualities of TK. To this end, an explanation of the unique features of TK will be aided by a comparison between TK and contemporary science.

3.1 TK was Created Collaboratively and Holistically

Science interprets phenomena using an abstract conceptual framework. The description of phenomena usually follows a methodical scientific deductive process and can be quantified through experiments. Scientific investigations always entail a reduction process in order to determine the conceptual relationships of complex phenomena of the

world. Standardizing and ignoring, to the greatest extent feasible, all other factors that the researcher is not interested in will make it simpler to determine the cause and effect between any given set of factors. It is unavoidable for the research process to be somewhat simplistic even though ecology is the science of the complex interactions between living and non-living elements of the entire ecosystem.

Conversely, local communities and indigenous peoples have accumulated a wealth of knowledge through centuries of interaction with their surroundings, which they use in their daily lives. This kind of knowledge is holistic in nature and cannot be broken down from an epistemological perspective. For instance, a festival marking the start of the hunting season following the taboo month ought to steer clear of the animal's breeding season, as this type of traditional knowledge ensures sustainable hunting. TK is a way of expressing phenomena. TK uses repeated verification of an idea that an individual or group of individuals deduces from facts, as opposed to step-by-step deduction.

But TK is not always a product of group effort. It is also feasible to create on your own. Modern science and technology, on the other hand, do not preclude group creation for innovations; however, typically, only a small, specific group of trained individuals own the technology.

3.2 Generation-to-generation Oral Transfer of Traditional Knowledge

Indigenous people have historically not used writing systems. They used body language or oral communication to pass along knowledge. Conversely, scientific knowledge is transmitted through written documents and publications; a teacher only speeds up this process through oral means

Not all TK, though, are devoid of written records. For instance, TK on Chinese and Indian traditional medicine was spread through the distribution of classics on the subject. Both types of medicine are regarded by WIPO as model forms of TK. Indigenous peoples can now transmit their knowledge, both old and new, by writing it down.

3.3 TK is Flexible and could Alter as a Result of Modifications to the Social Milieu

Traditional knowledge is not limited to knowledge from the past; it also refers to the "traditional" approach to acquiring this knowledge. Since TK is a result of human interaction with the environment, environmental changes cause TK to be dynamic rather than static. Since the environment used to change so gradually in the past, TK also changed gradually and continuously.

Technology and science are changing more quickly than TK, and they do so on a regular basis. This does not imply, however, that modern "TK" is not innovating at a rapid pace. Indigenous people and tribal members can now quickly share new ideas. However, TK changes are usually not revolutionary unless they are impacted by external factors. An excellent way to understand the nature of Traditional Chinese Medicine is to look at how the ideas of the five elements and the principles of Yin and Yang from the Chin and Han Dynasties have persisted into modern times.

3.4 Often, the Innovator is Difficult to Identify

Without keeping a written record, TK is accumulated by many people as a collective creation. As such, the innovators are frequently difficult to identify. In contrast, modern technology typically has written records and emphasizes how important it is to identify the original creator. However, because indigenous people can now quickly invent some TK, their innovator is typically identifiable.

3.5 Certain Local Residents share TK

A closed society frequently produces and maintains its own TK. The spread of traditional knowledge is uneven and restricted. It is possible for one person, a small group of people, or even an entire community to share TK. Generally speaking, indigenous people do not view private property in the same way as members of the general public. On the other hand, modern technology spreads widely and methodically, and mainstream culture accepts science by giving individual rights to the people who develop technology through the intellectual property system.

4.0 Significance of Protection of Traditional Knowledge

The word "protection" has been defined in various ways, which helps explain why the rationale for protection

is not always clear. When this term is used concerning Intellectual Property Rights (IPRs), protection usually refers to keeping third parties from using the IP in an unauthorized way. Some see protection as a tool to shield traditional knowledge from activities that could weaken it or negatively impact the lives or cultures of the societies that developed and applied it. Nonetheless, the following are the main justifications for TK protection:

Equity

The underlying belief in several TK security instruments is predicated on the consideration of equity. The current system of requisition and reparation does not adequately recognise or compensate for the value that TK creates. Thus, it would be crucial to safeguard TK to bring justice to largely unjustified and unfair relationships. Plant-inherited assets provide an example of this reasoning in action. Plants have inherited resources that orthodox farmers both use and preserve. The use of inherited plant assets for planting, seed processing, and ongoing selection of farmer-specific varieties preserves and increases their value. These farmers usually exchange messages with one another over the fence through barter or trade, which helps their varieties spread and become more abundant. The main argument of this assessment is that traditional and local farmers do not receive compensation for the value they provide, nor are they given the opportunity to share in the profits, since breeders and seed companies do not charge a fee for the samples they receive.

Preservation

The importance of this information for preservation is the subject of the second part of the TK security argument. Consequently, preserving biological diversity in agricultural systems adds value to the global community. IPRs can be used to generate income to keep running operations that would otherwise have to be stopped. For instance, there might be a serious loss of biodiversity if traditional farmers stopped using and breeding farmers' varieties because they could earn more money by planting modern varieties that produce higher yields. According to this plan, TK safety contributes to society's larger goals of food security, sustainable agriculture, and environmental preservation.

Preventing Bio Piracy

In certain situations, the security of TK seeks to guarantee benefit sharing and prevent the unlawful taking (or "bio-piracy") of conventional knowledge. For instance, the Government of India has proposed that a clause stating that patents that conflict with Article 15 of the CBD should not be added to the TRIPS Agreement to harmonize it with the CBD. It is possible to stop patents covering TK from being granted unnecessarily by improving the data that patent offices have access to for the assessment of novelty and creative solutions.

Encouraging Use and Development

One important goal in and of itself is to encourage the application of traditional knowledge. The "wider application" of TK necessitates endorsement due to its security. Preserving Traditional Knowledge (TK) from theft and misappropriation, or providing compensation to TK holders, may be viewed as essential foundations to encourage the broader application of this data. TK may be preserved from loss and destruction primarily to foster growth. TK is a source that is not fully utilized in the establishment procedure. Legal security can aid in taking advantage of the opportunities presented by TK-based goods and services. Additionally, traditional knowledge can be a crucial tool for fostering local innovation, which is necessary for the reconstruction of local cultures(Riya Riya, 2020).

Insufficiency of the Legal System in Addressing the Issue of Protection of Traditional Knowledge

The devolution, encroachment, bio-prospecting rush, lack of proper legal framework, and conflicting systems that characterize conventional information render it extremely susceptible to biopiracy. Conventional knowledge is typically associated with usual reserves and is always an ineffable part of such a natural reserve. TK can be turned into a profit by providing a procedure or indication for developing beneficial methods and courses for the advantage of humans. A portion of the profits made from such TK should go to the originators or possessors of such TK. certain nations possess comprehensive legislation safeguarding this type of information, while other nations maintain that their accessible intellectual property rights

laws protect such knowledge. India is currently working on creating a *sui generis* statute to defend such traditional knowledge, but as of yet, none exists.

Neem

For more than a century, this well-known Indian tree has been used as a biological pesticide and medicinal. Manuscripts from the ancient Indian Ayurvedic tradition mention the neem tree and its therapeutic benefits. The European Patent Office (EPO) revoked the patent number 436257 that it had previously granted to W.R. Grace, a global company, and the United States of America for the neem tree insecticide that was extracted from the seed. "Despite the long history of neem, emulsions and solutions based on neem have recently been the subject of over 12 US patents."

Turmeric

The University of Mississippi Medical Center was granted patent rights by the US PTO in 1993 to treat wounds by applying turmeric topically to patients suffering from them. Together with almost two dozen mentions, an application for a reexamination of the granted patent was filed, and the result was early success.

Rice

Another case that caused a lot of agitation involved a patent that the USPTO awarded to an American company named Rice Tec for "Basmati rice grains." Basmati rice is a fragrant variety of rice that is typically grown in Pakistan and India. A plethora of Intellectual Property (IP) issues, including those about trademarks and geographical indications were raised by the issuance of this patent. A re-examination request was filed with declarations from two scientists, several journals on Basmati rice, and research on rice conducted in India; one of these led the USPTO to conclude that the main claims made by Rice Tec were not clear.

Agreement and Benefit Sharing

The use of traditional knowledge does not occur without the consent of the indigenous peoples or societies who legally created it and manage it, nor does it involve a pale split of the earnings from its exploitation. How the current IPR system is being used: The first step should be to investigate the possibility of making more creative use of the fascinating IPR system to protect the tradition and knowledge of the neighbouring populace.

GI Protection of Traditional Knowledge in India

Traditional Knowledge (TK) about organic reserves is utilized in a variety of contexts, not just in rural, agrarian, or indigenous communities. The insistence on usual, herbal, and unrefined products is constantly rising in the contemporary world, particularly in city souks. The primary consumers of these possessions are the grassy drug, cosmetics, and private heed divisions. The burgeoning souk insists on organic possessions and related Traditional Knowledge (TK) may present fresh prospects for creating advantages and augmenting earnings for native populations. But this doesn't seem to be very close to being the case in the current reality. Globally, there are very few examples of small communities or possessors of traditional knowledge benefiting significantly from the commercial application of their expertise. Conversely, instances of biopiracy and the unauthorized use of traditional knowledge are increasing. Money-making consumers of heritable possessions and traditional knowledge are required by the Convention on Biological Diversity (1992) and the Nagoya Protocol (2010) to split the reimbursement they receive fairly and equitably. However, these agreements only apply to wealth composed after the CBD and the Nagoya Protocol came into effect; they do not accept rights over customary knowledge that has already been published or is "in the public domain." Therefore, a group of people stand to expand much additional by advertising bio-cultural products themselves, for full "benefit capture," rather than waiting for potential "benefit-sharing" by others.

Geographical indicators are becoming more and more well-liked throughout the world as a tool for the preservation and advancement of traditional knowledge. They can assist communities in creating and defending markets for their bio-cultural products. A geographical indication is a sign or indication that identifies the product's geographical origin and connects it to the fundamental characteristics derived from that location. An example of an agricultural product with a distinct flavor and red core is the Allahabad Surkha, a well-known and distinctive guava variety found in the Allahabad region of Uttar Pradesh, India. This is where the variety's name, "surkha," which means red, originates. This variety's distinct character traits are derived from the environments in which it is grown as well as particular attributes specific to this particular geography, such as soil, water, humidity, and temperature.

Many producers have profited from products marketed with a GI label, mostly in developed nations in Europe thus far. Some well-known examples of GIs are Harris Tweed, Champagne, Feta cheese, and Scotch whisky. Handicrafts, textiles, traditional foods, and medicines are examples of goods made locally by locals using indigenous resources and customary knowledge that may qualify for registration as geographical indications. In particular, for products that have gained goodwill due to their origins, an official indication of origin by a GI (and the associations that follow with a particular quality) can add or maintain market value in terms of premium prices or prices that are not available to similar competing products that are not distinguished by their source. Furthermore, it's imperative to protect bio-cultural products from unscrupulous business practices and free riders because some of them have significant commercial potential.

Given that both GIs and TK are location-specific and arise from the customs and culture of a community or region, they may also be a more suitable tool for TK protection than other IPR tools (Nair and Kumar 2005). Since traditional knowledge is primarily held collectively, GI provides collective rights, making it more appropriate for protecting and promoting TK than most intellectual property rights (Pant. R. 2015).

Issues and Challenges in GI Protection of Traditional Knowledge (TK)

The application of Geographical indication to safeguard traditional knowledge has several constraints that prevent it from serving as a comprehensive tool for protection. One such limitation is that the Ayurvedic system of medicine lacks a specific geographical region to which it can be attributed, making it unsuitable for the use of geographical indications. The sole purpose of a geographical indication is to indicate the authentic origin of the product, and if that origin is not significant to the buyer, protecting the goods with a geographical indication is irrelevant. Hence, the quality must have a strong commercial standing to utilize geographical indication as a means of protection. Nevertheless, despite the advantages for the economy and the conservation of this knowledge, there are specific constraints to safeguarding traditional knowledge within the geographical indication system.

The granting of protection under GI is restricted to a specific product, but TK encompasses more than just physical goods originating from traditional knowledge. This encompasses rituals, legends, stories, songs, folklore, etc., which cannot be marketed as products originating from a particular geographic area.

GI just stops other products from being falsely and misleadingly marked as the source of their origin; it does not protect the product. For instance, Kashmir Pashmina, a type of spun cashmere, is a product protected by the GI. Action can be taken against an unregistered user of the GI who attempts to pass off another cashmere variety as Kashmir Pashmina. However, if someone uses the same ingredients and manufacturing techniques as Kashmir Pashmina and sells the finished product without mentioning that it is Kashmir Pashmina, it will be much harder to take legal action for violating GI rights because the person hasn't declared that his product is a registered GI even though he has used the knowledge that goes into making one.

It is not very useful to obtain GI protection for knowledge that would not be used commercially. As an illustration, consider Muga Silk from Assam, which was awarded a GI label due to its longevity and glossy, golden hue. Muga Silk had no registered users at least until 2012, despite being registered as a GI in 2006. Price increases for Muga silk resulted from the absence of registered producers. The labour-intensive nature of creating silk, its discerning market, and the fact that the weavers are from lower-class communities made it difficult for the Muga silk weavers to find a market for their now-expensive product, which discouraged them from producing it. Consequently, even though Muga silk was granted GI protection, the holders of this knowledge were prevented from using the registration for commercial purposes, which had the negative effect of lessening the protection of the weavers' traditional knowledge rather than increasing it (Michael Leslie Blakeney, 2009).

To date, no system for the protection of Traditional Knowledge (TK) has had its policy goals clearly defined and articulated by the Indian government. Measures to protect TK will continue to be misguided and unimaginative, and while they might help defuse short-term conflicts, they would be simply unfeasible in the long run in such a policy and legal vacuum.

These policies fail to acknowledge the basic contrast between intellectual property law and Traditional Knowledge (TK). While IP law is based on the idea of granting artists and creators monopoly rights to encourage

creative expression, TK is concerned with communal creations. The only way we can bring these two sets of interests together is by establishing a strong, unbiased framework that will allow us to work together to advance the objectives of both systems without compromising the core elements of either (Barooah, S. P. 2015).

5.0 Conclusion

The most focused protection for TK would, of course, come from the international adoption of a sui generis system that is required. Nevertheless, other forms of intellectual property protection must be used in its absence. The goals of TK protection and GIs protection are similar from a policy standpoint, even though the majority of the conversation to date has concentrated on the potential contribution of PVP and patent laws to TK protection.

The possibility of protecting TK, which is already in the public domain, is one of the benefits of GI protection. For instance, the USPTO granted a US patent to Natrol, Inc., a US-based company, for "kavatrol," a dietary supplement made primarily of kava that acts as a general relaxant (Downes and Laird, 1999). William Schwabe and Krewel-Werke, two German businesses, were granted a patent for Kava as a prescription medication to treat Alzheimer's disease, insomnia, and strokes. Panizzon (2006). L'Oréal holds a patent in France for using kava to treat hair loss, Panizzon, (2006). Since the marketing of these goods is based on their derivatives rather than the TK's patent protection, the plant itself.

It should always be remembered that GI laws only safeguard the designations attached to products. Knowledge itself is rarely protected by IP laws. Patent and trade secret laws are the exceptions to this. But giving a local community or individual TK holder the ability to bar others from using their designations without permission would not only improve the distribution of benefits from using that TK.

Lastly, the expansion of registered GIs' protection under TRIPS would also serve as a rationale for the agreement's implementation and a practical example for developing nations of the benefits of an international intellectual property regime (Michael Leslie Blakeney January, 2009).

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