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Protection for Indigenous Peoples and Their Traditional Knowledge: Would a Registry System Reduce the Misappropriation of Traditional Knowledge?

I. INTRODUCTION

Is there a need to develop a registry system to help reduce the misappropriation of traditional knowledge and to protect the intellectual property rights of indigenous peoples? Intellectual property rights are an important economic factor in industrialized nations, but a majority of the world's population lives in less developed countries where intellectual property rights are not regarded as a critical component for economic development.¹ These less developed countries typically do not have an intellectual property system, or if they do, the intellectual property rights provided by the system are not enforced.²

Intellectual property issues can relate to traditional knowledge in all of the conventional branches of intellectual property law, including copyrights, trademarks, trade secrets, and patents. "In many cases, [traditional knowledge] holders do not separate 'artistic' from 'useful' aspects of their intellectual creations and innovations; rather, both emanate from a single belief system which is expressed in daily life and ritual."³ These intellectual property rights, and in particular, patent rights, which are the subject of this Comment, are more fundamental to Western concepts of prosperity and international trade.⁴

One of the most glaring conflicts between developed and nondeveloped countries over intellectual property involves the misappropriation of traditional knowledge.⁵ As an example, consider ancient herbal remedies that are identified by Western scientists and find "their way into high-priced western pharmaceuticals without the

1. *See Imitation v Inspiration*, THE ECONOMIST, Sept. 14, 2002, at 13.

2. *Id.*

3. Someshwar Singh, *Traditional Knowledge Under Commercial Blanket*, Third World Network, at <http://www.twinside.org.sg/title/blanket-cn.htm> (Nov. 4, 1999). The Third World Network's home page can be viewed at <http://www.twinside.org.sg/> (last visited Oct. 31, 2003). "The Third World Network is an independent non-profit international network of organizations and individuals involved in issues relating to development, the Third World and North-South issues." *Id.* One relevant topic available for review on the Web page is "Biodiversity, Access, Indigenous Knowledge, and Intellectual Property Rights."

4. *Imitation v Inspiration*, *supra* note 1, at 13.

5. *Patently Problematic*, THE ECONOMIST, Sept. 14, 2002, at 76.

consent of, or compensation to, the people who have used them for generations.”⁶ The financial incentives to exploit traditional knowledge are high. “[I]n 1995 the estimated market value of pharmaceutical derivatives from indigenous peoples’ traditional medicine was \$43 billion world wide [sic].”⁷

Recommendations have been made to create a registry system to catalog this traditional knowledge to provide a resource for patent examiners around the world to consult in order to help them identify traditional knowledge.⁸ Once identified, if what was attempted to be patented was the same as the traditional knowledge in the registry, the examiner would find the patent unpatentable based on a lack of novelty. Understandably, patent examiners have little way of knowing if a patent application includes a supposed invention that has actually been used and known for decades by tribal communities in another country.⁹ A counterargument to the need for a registry system is that while the patented products may be similar to the traditional knowledge products and in fact may have been inspired by the traditional knowledge, the patented products themselves are sufficiently different, and therefore meet the novelty requirement.¹⁰

This Comment will examine the current state of traditional knowledge and will analyze what is being done to reduce the misappropriation of traditional knowledge from indigenous peoples. Part II will provide a history and background of traditional knowledge. This section will also help to identify the link between traditional knowledge and intellectual property. Part III will look at the current status of intellectual property protection for traditional knowledge, and it will also look at alternative ideas to help reduce the misappropriation of traditional knowledge. Part IV will look at the feasibility of a registry system for traditional knowledge and will provide arguments in favor of and against such a system. Finally, Part V will provide a brief conclusion.

6. *Id.*

7. Singh, *supra* note 3.

8. See *Patently Problematic*, *supra* note 5, at 76. India has already created a database of traditional knowledge and strongly encourages other countries to do so as well. *Id.* India also feels that it should be mandatory that patent examiners around the world consult these databases. *Id.*

9. *Id.*

10. See Gillian N. Rattray, *The Enola Bean Patent Controversy: Biopiracy, Novelty and Fish-and-Chips*, 2002 DUKE L. & TECH. REV. 8, ¶ 14 (June 2002).

II. TRADITIONAL KNOWLEDGE AND ITS USEFULNESS

Traditional knowledge is a broad concept. In the context of this Comment, traditional knowledge can be thought of as knowledge of plants and animals and how these plants and animals can be utilized in medical treatments and as a source of food or nourishment.¹¹ This traditional knowledge is accumulated through generations of indigenous peoples and over many centuries. Martha Johnson of the Dene Cultural Institute¹² in Canada has defined traditional knowledge as “a body of knowledge built by a group of people through generations living in close contact with nature. It includes a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use”¹³ It is this deep understanding of the plants and animals and how these resources are used that creates such an interest from others who do not have this knowledge. Studies of indigenous communities have provided “ample evidence that the protection of traditional ecological knowledge will provide significant environmental benefits as well as possible commercial applications.”¹⁴

A. Origins of Traditional Knowledge

A common misconception for those first encountering the term “traditional knowledge” is that it “implies any or all of such notions as ‘time-honoured’, [sic] ‘historical’, [sic] ‘inflexible’ and ‘static’. [sic]”¹⁵ On the contrary, traditional knowledge can be thought of more in terms of “traditional innovations,” which some may say is an oxymoron.¹⁶ But in

11. Singh, *supra* note 3.

12. The Dene Cultural Institute’s home page can be viewed at <http://www.deneculture.org> (last visited Oct. 31, 2003).

13. Graham Dutfield, *The Public and Private Domains: Intellectual Property Rights in Traditional Ecological Knowledge*, Oxford Intellectual Property Research Centre, Electronic Journal of Intellectual Property Rights, (Mar. 1999), at <http://www.oiprc.ox.ac.uk/EJWP0399.html> (citation omitted).

14. *Id.*

Much of the world’s crop diversity is in the custody of farmers who follow age-old farming and land use practices that conserve biodiversity and provide other local benefits, such as: the promotion of diet diversity, income generation, production stability, minimization of risk, reduced insect and disease incident, efficient use of labour, intensification of production with limited resources, and maximization of returns under low levels of technology.

Id.

15. *Id.*

16. *Id.*

reality, traditional knowledge is constantly evolving, and even today innovations are made to aspects of traditional knowledge that are affected by the environment in which indigenous peoples live.

Another common misconception surrounding traditional knowledge and indigenous peoples is the idea that ownership and intellectual property rights are concepts that indigenous peoples and traditional societies are not familiar with.¹⁷ According to a Canadian indigenous peoples organization:

Indigenous peoples possess their own locally-specific systems of jurisprudence with respect to the classification of different types of knowledge, proper procedures for acquiring and sharing knowledge, and the rights and responsibilities which attach to possessing knowledge, all of which are embedded uniquely in each culture and its language Being locally specific, these systems display a far greater diversity than those that are available to protect the valuable intangibles of industrial firms.¹⁸

From this, it appears that it would be incorrect to assume that protection of valuable intangibles in the form of patents, trademarks, and copyrights is an entirely unfamiliar concept to indigenous peoples.¹⁹ An Indian ecologist, Madhav Gadgil,²⁰ contends that intellectual property rights “date right from the hunter-gathering stage. The way in which these [intellectual property rights] were enforced is analogous to the institutions of ‘trade secrets’ of today.”²¹

After the “hunter-gathering stage” came the Colonial period. Non-native settlers had different ideas about the protection of indigenous peoples’ valuables. Sparsely populated “wildernesses” were essentially considered vacant lands, where settlers devised their own legal systems based on “the land of nobody” doctrine.²² According to this doctrine, “open access is the rule for land, traditional knowledge and resources, whereas enclosure is the rule as soon as these are proved to have economic value.”²³ One study suggests that indigenous peoples were duped with the introduction of centralized government.²⁴ “Unlike armed

17. *Id.*

18. Dutfield, *supra* note 13.

19. *Id.*

20. Madhav Gadgil has a personal home page. It can be viewed at <http://ces.iisc.ernet.in/hpg/cesmg/> (last visited Oct. 31, 2003).

21. Dutfield, *supra* note 13.

22. *Id.*

23. *Id.*

24. Singh, *supra* note 3. “A case-study of Philippines, prepared by Mr. David Daoas, Chairperson of the country’s National Commission on Indigenous Peoples . . . recounts the

invasion, centralized government is totally a new concept to indigenous peoples. A foreign invasion which [sic] amassed indigenous peoples' wealth not with the use of arms but with legalities."²⁵

B. Connections Between Traditional Knowledge and Intellectual Property

Research has shown that some indigenous and local communities developed their own forms of protection for traditional knowledge under customary law.²⁶ In 1999, a federation of Indigenous Peoples groups made the following statement in response to a review of Article 27(3) of the Trade-Related Aspects of Intellectual Property Rights Agreement ("TRIPs"):

Humankind is part of Mother Nature, we have created nothing and so we can in no way claim to be owners of what does not belong to us. But time and again, Western legal property regimes have been imposed on us, contradicting our own cosmology and values... [and Article 27(3)] will further denigrate and undermine our rights to our cultural and intellectual heritage, our plant, animal, and even human genetic resources and discriminate against our indigenous ways of thinking and behaving.²⁷

This assertion differentiates "private proprietary rights [from] indigenous knowledge and cultural heritage [that] collectively and accretionally evolve[] through generations.... The inherent conflict between these two knowledge systems and the manner in which they are protected and used will cause further disintegration of our communal values and practices."²⁸

Less developed countries and their indigenous residents criticize Western patent laws, contending that, over time, the laws prevent access to life-saving drugs because of their higher costs and that the laws allow foreigners to raid local biodiversity and traditional knowledge without asking for permission or paying reasonable compensation.²⁹

many threats posed to traditional systems that sustained health care, environment, agriculture, arts, music and dance." *Id.*

25. *Id.* (internal quotations omitted).

26. *See id.*

27. *Id.*

28. *Id.* (internal quotations omitted).

29. *Imitation v Inspiration*, *supra* note 1, at 13.

C. Patent Protection for Traditional Knowledge

Patents are awarded as incentives to inventors to reveal to the public the details of their inventions in exchange for a limited monopoly to make, use, and sell the invention, which in turn encourages innovation and growth.³⁰ The Western view is that "patents help to foster growth in poor places, since they stimulate domestic innovation, boost foreign investment and improve access to new technologies."³¹ But this view is not shared by all nations. The governments of many developing nations argue that the Western ideal of intellectual property achieves the opposite results; patent protection brings many additional costs and few additional benefits.³²

As the number of granted patents that are based on the biological and agricultural traditional knowledge of indigenous peoples increase, the question that surfaces is whether a corporation can take the traditional knowledge and practices used by indigenous peoples and convert them into a patent for the corporation's benefit.³³ The consequences of patenting traditional knowledge may have unforeseen effects. As an example, if a particular hardy strain of seed is patented, "[f]armers may be unable to grow the crops they have grown for generations without first paying royalties to patent holders."³⁴ Not all countries recognize patents on agricultural products, thereby enabling farmers to avoid paying royalties.³⁵ However, international trade agreements threaten how individual countries approach patent protection and could change the practice of farming globally.³⁶

Currently there are few benefits for the indigenous holders of traditional knowledge after this knowledge is acquired and patented. Very few indigenous peoples are paid for their traditional knowledge, nor are they typically paid any profits from the patents that are based on their traditional knowledge.³⁷ Until this misappropriation of traditional knowledge without providing adequate benefits to the indigenous holders is curbed, the common view in most developing nations is that the Western patent system "is best suited to reward those with deep

30. See *Patently Problematic*, *supra* note 5, at 75.

31. *Imitation v Inspiration*, *supra* note 1, at 13.

32. *Id.*

33. Rattray, *supra* note 10, at ¶ 12.

34. *Id.* "Agriculture is the primary source of employment and livelihood for 3 out of 4 people in poor countries." *Id.* (citation omitted).

35. *Id.*

36. *Id.*

37. *Id.* at ¶ 13.

pockets, searching the world for genetic wealth.”³⁸

Although this is the common view, it is not the only view. There are companies that have built processing facilities in third world countries, which in turn have contributed to the local economy in the form of jobs and economic stimulation.³⁹ Although this is a step in the right direction, one can argue that providing jobs or economic stimulation to a village does not bridge the gap between the benefits to the patent holders and the lack of benefits to the traditional knowledge holders.⁴⁰ This commonly brings up the additional argument surrounding necessity: “Is it necessary to compensate the original holders of the [traditional] knowledge?”⁴¹ Many who are in favor of freely patenting traditional knowledge argue that traditional knowledge holders are without the adequate resources or capabilities necessary to develop marketable and potentially lifesaving products; therefore, traditional knowledge holders should not share equally in the profits.⁴²

These arguments raise the question of whether a patent is the most suitable mechanism for the protection of traditional knowledge.⁴³ Because some traditional knowledge cannot be accurately traced back to a specific group of indigenous peoples or geographic area, no identifiable group of peoples is available in which the rights to the traditional knowledge can be vested.⁴⁴ Even when an individual or a community can be identified, “there are practical obstacles which [sic] make patenting an unattractive option.”⁴⁵

38. See Rattray, *supra* note 10, at ¶ 12 (quoting *A Bean of a Different Color*, available at http://www.americanradioworks.org/features/food_politics/beans/5.html).

39. *Id.* “While W.R. Grace was developing a pesticide derived from the Indian neem tree, the company locally built a plant and hired [sixty] Indians to work in it.” *Id.* at n.30 (citing Michael D. Lemonick, *Seeds of Conflict*, TIME, Sept. 25, 1995, at 50).

40. *Id.*

41. *Id.* at ¶ 14.

42. *See id.*

43. *See* Dutfield, *supra* note 13.

44. *Id.*

45. *Id.*

III. THE CURRENT STATUS OF TRADITIONAL KNOWLEDGE AND INTELLECTUAL PROPERTY PROTECTION

The Commission on Intellectual Property Rights⁴⁶ has set out detailed recommendations for developing countries on how they should fashion intellectual property rights to meet their individual conditions.⁴⁷ The message the Commission provided was both clear and controversial: “poor places should avoid committing themselves to rich-world systems of [intellectual property rights] protection unless such systems are beneficial to their needs. Nor should rich countries, which professed so much interest in ‘sustainable development[,]’ . . . push for anything stronger.”⁴⁸ Indigenous peoples around the globe have taken the position that protection of their traditional knowledge has become an issue of self-determination, although in the least fortunate countries, the indigenous peoples are in a poor position to attempt to control their own traditional knowledge.⁴⁹

Two common proposal themes have developed for improved protection of traditional knowledge.⁵⁰ One theme suggests that improvements be made to the private law rights of the custodians of traditional knowledge, including modifying the existing patent laws and creating *sui generis* traditional knowledge rights.⁵¹ The second theme suggests that the protection of traditional knowledge rights should be dealt with as a public law right, including the creation of a public protection authority and the empowerment of an indigenous peoples’ protection agency.⁵²

A number of commentators have voiced reservations regarding these proposals, questioning whether property concepts are cognizable in the traditional indigenous peoples’ law.⁵³

[I]ndigenous peoples do not view their heritage as property at all—that is something which has an owner and is used for the purpose of extracting economic benefits—but in terms of

46. The Commission on Intellectual Property Rights home page can be viewed at <http://www.iprcommission.org> (last visited Mar. 1, 2003). The British government created the Commission to investigate how intellectual property rights could better serve developing countries and their people.

47. *Patently Problematic*, *supra* note 5, at 75.

48. *Id.*

49. *See generally* Singh, *supra* note 3.

50. *See id.*

51. *Id.*

52. *Id.*

53. *Id.*

community and individual responsibility. Possessing a song, story, or medicinal knowledge carries with it certain responsibilities to show respect to and maintain a reciprocal relationship with the human beings, animals, plants and places which the song, story or medicine is connected. For indigenous peoples, heritage is a bundle of relationships rather than a bundle of economic rights.⁵⁴

The commentators who voice these reservations would appear to be on the side of the pharmaceutical and seed companies. These reservations, in effect:

seem to be saying that traditional knowledge is, by its very nature, a part of the public domain If traditional knowledge is not secret and is not even considered by the holders themselves to be anybody's legal property, then it is reasonable to assume that nobody's rights are being infringed by publishing this knowledge or commercially exploiting it.⁵⁵

There are countries that have not allowed these ideals to slow down their own development of protection mechanisms for their traditional knowledge and the biodiversity that sustains this knowledge. By enacting the Traditional Medical Wisdom Protection Bill, Thailand is one of the countries that was unwilling to succumb to the pressures of the large corporations and pharmaceutical companies.⁵⁶ Dr. Pennapa explained some of the general objectives of the Traditional Medical Wisdom Protection Bill:

When we speak of biodiversity resources, we know that it means a lot to the pharmaceutical and food industries. At the same time, we know that in tropical countries such as Thailand, more than 300 bio-species can be found in one square kilometre. Meanwhile, there are only [ten] to [thirty] species in one square kilometre in [W]estern countries If we give foreign countries free access, we will lose our natural resources and traditional knowledge⁵⁷

54. Singh, *supra* note 3.

55. *Id.*

56. See Tunya Sukpanich, *Protection of Traditional Thai Medicine*, BANGKOK POST, July 20, 1997.

57. *Id.* "The utilisation, preservation, moving, destroying, sales, exporting, processing, study and research of endangered species need permission." *Id.* (quoting Dr. Pennapa).

A. TRIPs and the Convention on Biological Diversity

TRIPs and the Convention on Biological Diversity ("CBD")⁵⁸ are two international agreements that attempt to define the minimum legal protection of intellectual property for all countries that sign on to each agreement. Both of these agreements play an important role in the continued development of intellectual property rights and the effective protection for indigenous peoples and their traditional knowledge. Both of these agreements are discussed at length in numerous articles, and therefore, they are not discussed at length in this Comment; however, TRIPs and the CBD are briefly described below.

As part of a larger trade deal, countries that join the World Trade Organization ("WTO")⁵⁹ also become part of the TRIPs agreement.⁶⁰ There are currently 146 member countries of the WTO, including many developing countries.⁶¹ Being a member of the WTO and the TRIPs agreement poses both benefits and drawbacks for these developing countries. "[T]he purpose of the TRIPs Agreement was 'to establish minimum levels of [intellectual property rights] protection, not to specify contractual obligations governments were to impose regarding access to genetic materials in other countries' territory."⁶² Because of the TRIPs agreement, these "developing countries do not have the luxury to take their time [developing intellectual property rights] The world's poorest countries were given until 2006 to comply in full with the requirements of the treaty."⁶³ Although TRIPs provides a means for protection of intellectual property rights, it makes no mention of protection for traditional knowledge.⁶⁴

58. The CBD's home page can be viewed at <http://www.biodiv.org/default.asp> (last visited Oct. 31, 2003).

59. The World Trade Organization's home page can be viewed at <http://www.wto.org> (last visited Oct. 31, 2003). The Uruguay Round of trade negotiations took place from 1986 to 1994. In what is known as the Final Act of the 1986-1994 Uruguay Round of trade negotiations, the WTO was established and the General Agreement on Tariffs and Trade (GATT) was encompassed as part of the WTO agreements. See WTO, Legal Texts: The WTO Agreements, at http://www.wto.org/english/docs_e/legal_e/ursum_e.htm (last visited Oct. 31, 2003).

60. See *Patently Problematic*, *supra* note 5, at 75.

61. WTO's website, The Organization, Members and Observers, at http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm (last visited Oct. 31, 2003).

62. Nuno Pires de Carvalho, *Requiring Disclosure of the Origin of Genetic Resources and Prior Informed Consent in Patent Applications Without Interfering the TRIPs Agreement: The Problem and The Solution*, 2 WASH. U. J.L. & POL'Y 371, 391-92 (2000) (quoting WTO Doc. WT/CTE/M/16 (Dec. 19, 1997)).

63. *Patently Problematic*, *supra* note 5, at 75.

64. Gerald Bodeker, *Indigenous Medical Knowledge: The Law and Politics of*

The CBD acts as a mechanism for protection of traditional knowledge, biodiversity, and intellectual property rights in all member countries. The CBD was ratified in 1993 and “stipulates that if a country wants biological resources from another country, it can get them only with ‘prior informed consent.’ Community knowledge can be used by others only with the consent and involvement of the concerned community, and after entering into a benefit-sharing arrangement.”⁶⁵

Article 8(j) of the CBD requires the member countries to

respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote the wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, innovations and practices.⁶⁶

The CBD was the first international agreement to clearly express the global importance of both traditional practices and future innovations in biodiversity conservation and sustainable development.⁶⁷ The agreement also acknowledges the need to assure the protection of this traditional knowledge and future developments in biodiversity, either through intellectual property rights or other available options.⁶⁸

B. The “Requirement” Idea

The “Requirement” idea has received notice for its potential for traditional knowledge protection. The concept is based on the “the requirement that the origin of genetic resources and prior informed consent be disclosed in patent applications”⁶⁹ This Requirement would be beneficial to indigenous peoples when the invention to be patented closely bears a resemblance to their traditional knowledge. If the prior informed consent is lacking, then the patent may not be

Protection, Oxford Intellectual Property Research Centre, Electronic Journal of Intellectual Property Rights (Mar. 2000), at <http://www.oiprc.ox.ac.uk/EJWP0300.pdf> (last visited Oct. 31, 2003).

65. Ashish Kothari, *Countering Biological Piracy*, THE HINDU, June 23, 2000, Editorial.

66. Dutfield, *supra* note 13 (citation omitted).

67. *Id.*

68. *Id.*

69. Pires de Carvalho, *supra* note 62, at 371. “The sort of care required from patent applicants would be reasonable under the circumstances. They would be required to indicate the origin of the resources that they knew or that they had a reason to know; this is a reasonable care standard.” *Id.* at 400.

granted.

This Requirement concept is based on the belief that one potential way to identify commercial exploitation of indigenous peoples' knowledge of the uses of plants and animals could be through a clear requirement to identify the genetic origin of the invention.⁷⁰ By itself, the genetic origin of an invention may not be important to a patent examiner. But, to the country supplying the genetic resources, this Requirement provides a possibility for detecting the potential for commercial gains for the patentee, and the ability to demand their share of the benefits.⁷¹

A notable limitation of the Requirement idea for protection of traditional knowledge is its exclusive application to the biotechnology field:

[T]he Requirement would apply exclusively to the biotechnology field and only when natural genetic resources, conserved *in situ*, are employed. When the active components are isolated from those resources or even when they are synthesized, the link between the invention and the resources may become too weak to be of any significance.⁷²

Even with this limitation for overall traditional knowledge protection, "the Requirement has been incorporated into two statutes: Andean Decision No. 391⁷³ of August 16, 1996, which establishes a Common Regime on Access to Genetic Resources; and the Biodiversity Law (No. 7788)⁷⁴ of Costa Rica enacted May 27, 1998."⁷⁵ Both of these statutes

70. *See id.* at 372.

71. *Id.*

72. *Id.* at 373 (emphasis in original).

The situation that arises from an invention derived from the use of genetic resources that have been illegally extracted from their *in situ* environment is similar to the situation of an invention that has been developed with the assistance of a stolen microscope. This event would infringe the common law but not patent law under article 27.1 of the TRIPs Agreement. In both situations inventors would still be entitled to the patent, provided the conditions of patentability were met. Nonetheless they would be subject to criminal and civil liability for stealing (both the genetic resources, depending on the existence of appropriate legislation, and the microscope) in the country from which the resources had been taken.

Id. at 379-80 (emphasis in original).

73. The complete Andean Decision No. 391 and the Common Regime on Access to Genetic Resources can be viewed on the SICE: Foreign Trade Information System home page at <http://www.sice.oas.org/trade/JUNAC/decisiones/DEC391e.asp> (last visited Oct. 31, 2003).

74. Complete text in PDF format of the Costa Rican Biodiversity Law No. 7788 can be viewed at <http://www.grain.org/docs/costarica-biodiversitylaw-1998-en.pdf> (last visited Oct. 31, 2003).

require patent applicants to provide the relevant patent office “with information concerning the origin of the genetic resource in question and some proof of prior informed consent from government authorities as well as traditional knowledge holders, whenever the resource will be obtained through their technical knowledge.”⁷⁶ The Requirement would dictate that a patent applicant receive the required authorizations from the appropriate stakeholders (governments, local authorities, and traditional knowledge holders), and then be granted the patent before having rights against potential infringers.⁷⁷

IV. CAN A TRADITIONAL KNOWLEDGE REGISTRY PROVIDE PROTECTION?

The concept of a registry of traditional knowledge is an alternative idea for the protection of indigenous peoples and their traditional knowledge rights. Awareness of the misappropriation of traditional knowledge is increasing, and there is debate over how to most effectively solve the problem.⁷⁸ As with any topic that has a global reach, including the global economy, profit-seeking multinational corporations, and indigenous peoples worldwide, there are competing arguments. Thoughts regarding a registry of traditional knowledge and the competing arguments are discussed below.

A. Arguments in Favor

The Society for Research and Initiatives for Sustainable Technologies and Institutions (“SRISTI”),⁷⁹ based in India, has already undertaken the task of database development for traditional knowledge and local innovation and has continued this development in close cooperation with local communities.⁸⁰ According to SRISTI’s Director,

75. Pires de Carvalho, *supra* note 62, at 375-76.

76. *Id.* at 376.

77. *Id.* at 399.

78. See Dutfield, *supra* note 13.

79. The Society for Research and Initiatives for Sustainable Technologies and Institutions’ home page can be viewed at <http://www.sristi.org> (last visited Oct. 31, 2003).

80. See Dutfield, *supra* note 13. The United States Patent and Trademark Office (“USPTO”) has set up a database for Native American Tribal Insignia. Frequently asked questions regarding the database are available at <http://www.uspto.gov/web/offices/tac/tribalfaq.htm>. Morocco and some other countries have set up a folklore registry, with the registry being described as “this is our folklore, and if you want access to it within our country, you have to pay into a fund that goes to the Ministry of Culture and then goes to help preserve the culture . . .” Hugh C. Hansen (Facilitator), *Symposium: Global Intellectual Property Rights: Boundaries of Access and Enforcement:*

[A global registration] system would enable individual and collective innovators to receive acknowledgement and financial rewards for commercial applications of their knowledge, innovations and practices, make it possible to build links between small investors, entrepreneurs and innovators for mutual financial benefits, and in some cases enable individuals or communities to seek [intellectual property rights] protection in such forms as inventors certificates and petty patents.⁸¹

The Director also strongly recommends that access to these local innovation databases be provided to all national patent offices for the purpose of “carrying out prior art searches and examinations in order that patent applications which appropriate knowledge contained in these databases may be properly tested for novelty and inventive step.”⁸² This brings up the broader issue of access. On the one hand, if access to the database is limited, misappropriation of the traditional knowledge is limited, while on the other hand, if the general public has access to the database, challenges of misappropriation would certainly be more difficult.⁸³

An overarching theme surrounding arguments for a registry is the need to acknowledge and protect traditional knowledge from misappropriation. The identification and registration of traditional knowledge and its sources would allow for an opportunity to quantify the economic value of the knowledge.⁸⁴ The ability to view and act upon this information would in turn provide an opportunity to reward the traditional knowledge holders and benefit the world with new and beneficial products.⁸⁵

Panel II: The Law and Policy of Protecting Folklore, Traditional Knowledge, and Genetic Resources, 12 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 753, 791-92 (2001-2002).

81. Dutfield, *supra* note 13.

82. *Id.*

83. *See id.*

On the other hand, keeping database information out of the public domain could in some situations make it harder to challenge misappropriation than if such knowledge were made publicly available. For example, a company might acquire knowledge about a medicinal plant from an indigenous group and then patent this knowledge. Depending on how prior art and the public domain are interpreted in the legal jurisdiction where the patent is held, challenging the patent could be less effective because the knowledge had only been recorded in a private database and not made available to the public through publication.

Id. (internal quotations omitted).

84. *See* Chakravarthi Raghavan, *Protecting IPRs of Local & Indigenous Communities*, Third World Network, at <http://www.twinside.org.sg/title/local-cn.htm> (Oct. 12, 1999).

85. *See id.* Such ability would “enable them to earn the means to promote development and welfare in their communities.” *Id.*

B. Arguments Against

While there are many academics and development workers who have argued for the documentation and registration of traditional knowledge before it disappears, there are also those who feel that a registration or database system may actually cause more problems than it would cure.⁸⁶ Those not in favor of a registry system think that “[w]hile recording traditional knowledge before it falls out of use may often be the only way to prevent it from being lost completely[,] there are potential dangers with archiving traditional knowledge in national and international databases to the exclusion of locally-based initiatives.”⁸⁷

First, traditional knowledge is constantly developing. When this knowledge is documented and stored in a registry, “its relevance will diminish over time unless it is constantly updated.”⁸⁸ As described by Arun Agrawl, “divorced in archives from their cultural context, no knowledge can maintain its vitality or vigour.”⁸⁹ Second, the argument has been made that by focusing attention on creating a registry system for traditional knowledge, attention is averted away from the more important priority of protecting traditional knowledge in its natural setting, “which requires that urgent attention be given to the cultural, spiritual and physical well being of the knowledge holders and their communities.”⁹⁰ And third, “[d]ocumenting traditional knowledge is unethical and counter-productive if the intellectual property rights of the generators and holders of such knowledge are ignored by those doing the recording and if the archives are inaccessible to the communities providing the knowledge to the archives.”⁹¹

These arguments are legitimate concerns felt by a representative class of indigenous peoples. The Workshop on Traditional Knowledge and Biological Diversity,⁹² organized by the Secretariat of the Convention on Biological Diversity and attended by representatives of indigenous peoples, went to the extreme position of calling for a

86. See Dutfield, *supra* note 13.

87. *Id.*

88. *Id.*

89. *Id.* (internal quotations omitted).

90. *Id.*

91. Dutfield, *supra* note 13. “It seems paradoxical but it is often the case that traditional knowledge is respected more than the people who generate and share it.” *Id.*

92. A working document describing the concerns of indigenous peoples on Article 8(j) and related CBD Articles can be viewed at <http://csf.colorado.edu/mail/elan/dec97/0022.html> (last visited Oct. 31, 2003).

suspension on the registering of traditional knowledge.⁹³ Observers in the United States have also expressed concern that a system for registering traditional knowledge may represent a violation of the TRIPs agreement and impede potential medical research.⁹⁴ Notably, the most uncomplicated argument against a registration system is that “[a]s long as the patent requirements of usefulness, novelty and inventive step are strictly upheld by patent offices there is no reason for the traditional communities to feel exploited since if their knowledge were simply copied there would be no invention to patent.”⁹⁵

V. CONCLUSION

In conclusion, it is evident that the traditional knowledge of indigenous peoples is being misappropriated to their detriment, to the detriment of the local communities, and to the detriment of the countries where important plant and animal resources can be found. If a registry system is to be implemented, it must “protect the rights of knowledge holders *for the public good*,” and it must allow for those who have created the useful knowledge to benefit from its economic value.⁹⁶

As a first attempt to protect against the misappropriation of traditional knowledge, it is critical that indigenous peoples’ own custom-based systems of intellectual property rights have protection that is respected and observed by others.⁹⁷ Not only would this allow indigenous peoples to best govern and protect their useful knowledge as they have done for generations, but it would also foster the continued development of potentially new and useful innovations. Without some form of protection, it is likely that most new and useful innovations will

93. See Dutfield, *supra* note 13. The Report of the Workshop on Traditional Knowledge and Biodiversity can be viewed at <http://www.biodiv.org/doc/meetings/tk/wstbd-01/official/wstbd-01-03-ed.pdf> (last visited Oct. 31, 2003). “The International Society for Ethnobiology [ISE] recently drafted a set of *Guidelines for Research, Collections, Databases and Publications*. According to these Guidelines no research, collection, database, or publication shall be undertaken without the prior informed consent of all potentially affected communities of indigenous peoples or traditional societies.” *Id.* (internal quotations omitted). A brief history of the formation of the ISE can be viewed at <http://guallart.dac.uga.edu/ISE/SocHis.html> (last visited Mar. 1, 2003). This site also provides links to numerous other traditional knowledge focused Web sites.

94. Sukpanich, *supra* note 56. This concern is based on a Thailand proposal that would only allow Thai entities to take advantage of the registration process. *Id.* But a supporter of the registry “pointed out that a country has a right to enact any law to protect her national interests and natural resources.” *Id.*

95. Dutfield, *supra* note 13.

96. *Id.* (emphasis in original).

97. See *id.*

either be kept secret or will be misappropriated without any benefit to the knowledge holder.

A registry system will provide additional protection to indigenous peoples and their traditional knowledge. Only a decade or two ago, the ability of an outsider to become aware of the uses of traditional knowledge and the resources used in the traditional knowledge was far more difficult than it is today. The world population is constantly growing and our ability to travel to and communicate with the remote corners of the world and its populations is becoming ever easier. Therefore, the ability to misappropriate the traditional knowledge found throughout the world is also becoming easier. Registering the traditional knowledge would not make it any more available for misappropriation than it already is today. The benefit of a traditional knowledge registry would come from the ability to better detect when outsiders are attempting to misappropriate traditional knowledge in the form of securing a patent grant.

One important caveat to the argument in support of a registry system (and the benefits it would provide to indigenous peoples) is the requirement that the indigenous peoples that the registry is designed to protect also believe in it. If a registry system would be implemented without the support of a majority of indigenous peoples, it would realistically benefit no one and could potentially add to the problem that it was meant to solve. The working document from the Workshop on Traditional Knowledge and Biological Diversity has identified that it may be the case that a representative group of indigenous peoples feel that a registry system would not provide the best solution to the protection of their traditional knowledge. The debate over the usefulness of a registry system remains open; most importantly, attempts are being made to solve the problem of traditional knowledge misappropriation and to satisfy the indigenous peoples, as well as the many other people who may benefit from its many uses.

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