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**FRATERNISING WITH THE ENEMY: A REASSESSMENT OF THE
'CONFLICT(S)' BETWEEN ENVIRONMENTAL GOVERNANCE AND IPRs**

(PAPER PERTAINING TO THE TOPIC: INFORMATION, KNOWLEDGE AND IPR
REGIMES FOR ENVIRONMENTAL GOVERNANCE)

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FRATERNISING WITH THE ENEMY: A REASSESSMENT OF THE 'CONFLICT(S)' BETWEEN ENVIRONMENTAL GOVERNANCE AND IPRs

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I. INTRODUCTION

An emergent consciousness of the damage rendered by the *laissez faire* principle of economic growth which has left the world grappling with problems such as biodiversity loss, climate change and desertification, has stirred the international community into undertaking numerous national and global initiatives aimed at creating durable frameworks for the protection of the environment which underscore the appreciation of the fact that the environment cannot be viewed as a mere accessory to profit. The primary concern which needed to be addressed was, to regulate the trade off between economic development and the preservation of the environment. The threshold limits and allowable modes for commercial exploitation of the environment needed to be identified and imbued into the politico- legal framework of each nation. Thus a plethora of values, norms, institutions and processes, both state and non-state-based which made stipulations for the entitlements to use or benefit from natural resources, and to control their exploitation or protection were evolved. Collectively, these stipulations came to be denoted by the phrase *environmental governance*.¹

The task of structuring environmental policy proved to be a daunting one. Environmental processes are governed by laws of nature that are not amenable to conventional bargaining within the domestic or international policy-making process. Additionally, policy-makers had to struggle, from the outset, with the issue of "scientific uncertainty" as well as incompatibilities between the ethical and political ramifications of the precautionary principle. Many of the complexities are a consequence of the myriad of interrelated functional, political, and legal aspects of the environmental issues.² It was soon realized that environmental protection needs to be both dynamic and integrative in nature and is intrinsically

¹ Richardson, Benjamin J., *The Ties that Bind: Indigenous Peoples and Environmental Governance*(September 3, 2008). *Indigenous Peoples and the Law: Comparative and Critical Perspectives*, 2009 Available at SSRN: <http://ssrn.com/abstract=1262781>

² *Emerging forces in environmental governance* Edited by Norichika Kanie and Peter M. Haas, United Nations University Press. , 2004

connected to the development of the country. This was the idea of sustainable development which marked a significant stage in the development of international policies in environmental protection. The notions of integration and interrelationship lie at the very foundation of this concept and are often described as being “fundamental” to its existence. It reflects the fact that the interpenetration of the concepts and principles in the three pillars of international environmental law, international human rights law and international economic law has made boundaries between them increasingly redundant.³

This integral relationship between environment and development was reaffirmed at the highest political level at the United Nations Conference on Environment and Development (UNCED) in 1992. There was also optimism that the Rio Declaration on Environment and Development which embodied the goal to establish a new and equitable global partnership.⁴ The over-arching principle of ‘Common but Differentiated Responsibility’ is embodied in the Rio Declaration’s Principle 7:

“States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.”

However, these pioneering efforts were soon riddled with complications. At present, the integration of environment in development has not occurred as anticipated. The environment has deteriorated further in terms of biodiversity loss, water crises, global warming, hazardous technologies and worsening desertification. Income inequities between the rich and poor have accelerated, between North and South and within countries. Unsustainable consumption continues, and is even spreading geographically. Financial aid flows have decreased, instead of significantly increasing as promised at Rio. Transfer of environmentally sound technology on special and preferential terms has not taken

³ Sébastien Jodoin DRAFT WORKING PAPER The Principle of Integration and Interrelationship in Relation to Human Rights and Social, Economic and Environmental Objectives A Legal Working Paper in the CISDL “Recent Developments in International Law Related to Sustainable Development” Series1 OPEN DRAFT FOR REVIEW; source: http://www.cisd.org/pdf/sdl/SDL_Integration.pdf, accessed on 30.8.2008

⁴ INTERNATIONAL ENVIRONMENTAL GOVERNANCE: SOME ISSUES FROM A DEVELOPING COUNTRY PERSPECTIVE Working Paper by Third World Network September 2001; source: <http://www.twinside.org.sg/title/ieg.htm>, accessed on 11.8.2008

place, and instead the WTO's⁵ TRIPS⁶ Agreement has facilitated IPR regimes of a higher standard in developing countries, making it more costly to transfer environmentally sound technology, whilst the process of "biopiracy" (patenting by Northern corporations and institutions of biological resources and traditional knowledge originating in the South) continues unabated, if not worsened.⁷

Therefore post Rio there has been a shift towards evolving *sui generis* paradigms which are tailored to meet the typical problems faced by particular environments rather than nebulous international norms which failed to catalyze any significant change in the rate of environmental degradation. Moreover there has been growing appreciation for the value of cultural diversity and an acknowledgment of the relationship between biological and cultural diversity, recognition of distinctive cultural traditions as the basis for *alternative forms of sustainable development*, and a revitalization of interest in cultural rights in the human rights arena.⁸ Many countries are beginning to appreciate and endorse the need to integrate better three dimensions of sustainable development: the environmental, social, and economic dimensions of development.

The development of new principles informed by the Traditional Environmental Knowledge (TEK), which broadly encompasses the traditions and customary usages of the biological resources of a particular ecosystem as evolved by its local inhabitants, came to be viewed as one of the alternatives to umbrella legislations evolved by the legislature. This would instill a semblance of environmental democracy within the ambit of environmental protection. The United Nations' pioneering report, *Our Common Future*, proclaimed that: 'these [local] communities are the repositories of vast accumulations of traditional knowledge and experience, [and] larger society ... could learn a great deal from their traditional skills in sustainably managing very complex ecological systems'.⁹

The protection of (TEK) is a complex area of emerging law that has attracted a great deal of academic attention and controversy. At first blush, the IPR regime is often viewed as the polemic opposite of the principles embodied by TEK and presents a complex challenge with reference to the objective of

⁵ World Trade Organization

⁶ Agreement on Trade Related Aspects of Intellectual Property Rights

⁷ Ibid.

⁸ Rosemary J. Coombe, PROTECTING TRADITIONAL ENVIRONMENTAL KNOWLEDGE AND NEW SOCIAL MOVEMENTS IN THE AMERICAS: INTELLECTUAL PROPERTY, HUMAN RIGHT, OR CLAIMS TO AN ALTERNATIVE FORM OF SUSTAINABLE DEVELOPMENT?, 17 Fla. J. Int'l L. 115 at p. 135

⁹ Ibid. at p. 192

biodiversity preservation. The reason for this outlook can be attributed to the fact that IPRs have been instrumental in the commercializing of biological/genetic resources as is evident from the significant increase in patented genetic resources in the past two decades and have largely aided bioprospecting MNCs in misappropriating Traditional Knowledge associated with these sources without any benefits flowing to the indigenous people.

The authors are of the view that this is a superficial understanding of the relationship between IPRs and the environment and seek to explore the possibility of an IPR based legal paradigm which can be utilized for the protection of TK. Firstly, this paper attempts to outline the significance of TK as an alternate mode of sustainable development and then reviews the international efforts at protecting this knowledge. Further it interrogates the legal matrix of IPR laws in the context of protecting TK and fostering socio economic growth in the developing world. The objective of this enquiry is to evolve a pragmatic model of benefit sharing which would adequately compensate the holders of TK and create a leeway for the dissemination of knowledge and innovation which is the primary objective of the IPR regime. The utility of Geographical indications (GI) are of particular interest and have been discussed within the framework of such a three tier system proposed by the authors.

II. TRADITIONAL KNOWLEDGE AS A TOOL FOR SUSTAINABLE DEVELOPMENT

"We have had songs, customs, traditional knowledge and so on for hundreds of years. There was no doubt as to who originally owned them – they were originally owned by one person, who later passed them on to his or her clan. There were clear customary laws regarding the right to use the songs and the knowledge. There was no problem in the past. Why are there problems now? We should begin with communities, and see how they protected their cultural expressions and knowledge. Then we should use the same customary tools or tools adapted from them".¹⁰

Berkes defines TEK as 'experience acquired over thousands of years of direct human contact with the environment'.¹¹ Further, McGregor catalogues three sources of TEK: 'traditional knowledge' (TK)

¹⁰ INTELLECTUAL PROPERTY NEEDS AND EXPECTATIONS OF TRADITIONAL KNOWLEDGE HOLDERS, WIPO Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge (1998-1999), Geneva, April, 2001.

¹¹ SEE F BERKES, SACRED ECOLOGY: TRADITIONAL ECOLOGICAL KNOWLEDGE AND RESOURCE MANAGEMENT (TAYLOR AND FRANCIS, 1999).

(passed from generation through elders, rituals, initiation and storytelling); 'empirical knowledge' (gained from observation); and 'revealed knowledge' (acquired through spiritual origins and recognized as a gift).¹² Initial definitional approaches relied on the notion of 'indigenous' knowledge focusing on 'indigenous peoples' as stake holders, rather on the process of generating knowledge itself. However at the very roots of these concepts, it seems difficult to define exactly what 'indigenous' people are.¹³ Another definitional problem arises from the fact that indigenous people tend to regard landscapes, i.e., their territories and cultural heritage,¹⁴ as inherently cultural creations in which their intellectual creations are inseparably embedded.¹⁵ Such different notions leads to a conflict wherein the definitional ambit. We agree with the views proposed by Professor Dutfield, wherein traditional knowledge tends to be holistic while western science tends to be a reductionism.¹⁶

¹² D McGregor, 'Coming Full Circle: Indigenous Knowledge, Environment and Our Future' (2004) 28 *American Indian Quarterly* 385, 388. See also RG Kuhn and F Duerden, 'A Review of Traditional Environmental Knowledge: An Interdisciplinary Canadian Perspective' (1996) 16(1) *Culture* 71, 73.

¹³ For a comprehensive overview on the status of 'indigenous people' in international law, see Kingsbury, 'Indigenous Peoples in International Law: A Constructivist Approach to the Asian Controversy', [1998] *AJIL* 92, 414-47. 'Indigenous knowledge' is understood in two ways. First, it is used to describe knowledge held and used by communities, peoples and nations that are "indigenous". The notion "indigenous peoples" has been the subject of considerable discussion and study. The description of the concept "indigenous" in the Study of the Problem of Discrimination against Indigenous Populations, prepared by Special Rapporteur of the United Nations Sub-Commission on Prevention of Discrimination and Protection of Minorities, Mr. J. Martínez Cobo, is regarded as an acceptable working definition by many indigenous peoples and their representative organizations. The Study understands indigenous communities, peoples and nations as "those which, having a historical continuity with 'pre-invasion' and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those countries, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identities, as the basis of their continued existence as peoples, in accordance with their own cultural pattern, social institutions and legal systems".

¹⁴ The term "heritage" appears within the context of, for example, the "heritage of indigenous peoples". WIPO understands "heritage of indigenous peoples" (and other peoples) to refer broadly to the items described in paragraphs 11 and 12 of the Draft Principles and Guidelines for the Protection of the Heritage of Indigenous People, 1995, elaborated by the Special Rapporteur of the Sub-Commission on the Prevention of Discrimination and Protection of Minorities, (now, Sub-Commission on the Promotion and Protection of Human Rights) Dr. Erica Irene Daes. This document is currently under revision. However, paragraph 12 currently provides that:

"The heritage of indigenous peoples includes all moveable cultural property as defined by the relevant conventions of UNESCO; all kinds of literary and artistic works such as music, dance, song, ceremonies, symbols and designs, narratives and poetry; all kinds of scientific, agricultural, technical and ecological knowledge, including cultigens, medicines and the rational use of flora and fauna; human remains; immovable cultural property such as sacred sites, sites of historical significance, and burials; and documentation of indigenous peoples' heritage on film, photographs, videotape or audiotape."

¹⁵ See Sanders, 'Indigenous Peoples: issues of definition', 1999 *Journal of Cultural Property*, 4-13

¹⁶ See, Dutfield, 'The Public and Private Domains', 275 et seq. for a decided critic Agarwal, 'Indigenous and scientific knowledge: Some critical thoughts', [1995] *Indigenous Knowledge and Development Monitor* 3, 3-6.

Broadly speaking TK denotes harmonious principles of biodiversity usage and conservation which its inhabitants evolve through ethno-botanical interactions with the components of the ecosystem.¹⁷ The changing social environment alters its form and content thus subjecting it to a continuous process of verification and adaptation. What makes traditional knowledge 'traditional' is not its antiquity, but the way it is acquired and used.¹⁸ In other words, the social process of learning and sharing knowledge which is unique in each culture lies at the very heart of traditionality.¹⁹ The *Global Knowledge Conference in 1997* emphasized the urgent need to preserve and exchange traditional knowledge and encourage its role and national development.²⁰ The holders of traditional knowledge are communities which have successfully adapted to demographic, economic and technological changes, maintaining and innovating robust systems of environmental management can prove invaluable in evolving the type of multidisciplinary and assimilative objectives which sustainable development seeks to realize as it is primarily an integrationist principle. For instance the utilization of trans-generational traditional modes of farming can serve a crucial role in evolving sustainable farming methods to bring about global food security.²¹

In historical terms, the need to integrate social and economic development and environmental norms and policies was initially acknowledged in a number of soft law instruments. The 1972 *Stockholm*

¹⁷ Traditional knowledge commonly refers to knowledge associated with the environment rather than knowledge related to, for example, artworks, handicrafts and other cultural works and expressions (which tend to be considered as elements of folklore). According to one expert, traditional knowledge (or what she calls "traditional environmental knowledge") is 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. See, Johnson, M. (1992), "Research on traditional environmental knowledge: its development and its role", in M. Johnson (ed.), *Lore: Capturing Traditional Environmental Knowledge*, Ottawa: IDRC, at 3-4. According to Michael Blakeney, "Traditional Knowledge" . . . accommodates the concerns of those observers who criticize the narrowness of "folklore". However, it significantly changes the discourse. Folklore was typically discussed in copyright, or copyright-plus terms. Traditional knowledge would be broad enough to embrace traditional knowledge of plants and animals in medical treatment and as food, for example. In this circumstance the discourse would shift from the environs of copyright to those of patent law and biodiversity rights.' See also, Blakeney, M. (1999), "What is traditional knowledge? why should it be protected? who should protect it? for whom?: understanding the value chain", 3 WIPO Doc. WIPO/IPTK/RT/99/3, available at http://www.wipo.int/eng/meetings/1999/folklore/index_rt.htm.

¹⁸ See Dutfield, '*TRIPS-Related Aspects of Traditional Knowledge*', [2001] Case W. Res. J. Int'l L. Vol. 33, 240; Dutfield, '*The Public and Private Domains*', *Science Communication*, Vol. 21, No.3, March 2000, 277.

¹⁹ Sanders, '*Indigenous Peoples: issues of definition*', 1999 *Journal of Cultural Property*, 4-13

²⁰ Agarwal, '*Indigenous and scientific knowledge: Some critical thoughts*', [1995] *Indigenous Knowledge and Development Monitor* 3, 3-6. See also, Sahai, '*Protection of Indigenous Knowledge and Possible methods of sharing Benefits with Local Communities*', Background Paper, prepared for the Multi-shareholder Dialogue on Trade, Intellectual Property and Generic Resources in Asia, BRAC Center for Development Management, Rajendrapur, Bangladesh, 19-21 April, 2002, p.1.

²¹ Gurdial Singh Nijar, *In Defense of Local Community Knowledge and Biodiversity: A Conceptual Framework and the Essential Elements of a Rights Regime* (1996), pp. 22-24.

Declaration,²² first alluded to the importance of interdependence, if not integration of environmental protection and socio-economic development in the following words: *The extent to which the developing [State] Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed [State] Parties of their commitments under this Convention relating to financial resources, technical assistance and technology transfer. The fact that sustainable economic and social development and eradication of poverty are the first and overriding priorities of the developing [State] Parties will be taken fully into account, giving due consideration to the need for the protection of human health and the environment. (Emphasis added)*²³

A generation later, the principle of integration would be further elaborated upon in the 1992 *Rio Declaration*²⁴ and in *Agenda 21*, 39 as well as in the 2002 *Johannesburg Declaration*²⁵ and *Johannesburg Plan of Implementation (JPOI)*.²⁶ Indeed, while the Brundtland Commission defines sustainable development as that “*which meets the needs of the present generation without compromising the ability of the future generations to meet theirs,*” it does not refer to environmental protection. Moreover, development cannot be deemed to be sustainable if it does not include some measure of concern over environmental degradation.

The International Court of Justice highlighted this point in the Case Concerning the *Gabčíkovo-Nagymaros Project*.²⁷ The Court declared that the “*need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development.*”²⁸

²² Stockholm Declaration of the United Nations Conference on the Human Environment, 16 June 1972, UN Doc. A/CONF.48/14/Rev.1, 11 I.L.M. 1461 (1972) [Stockholm Declaration].

²³ *Ibid.*, Principle 13(4).

²⁴ UN Doc. A/CONF.151/26 (vol. I); 31 ILM 874 (1992)

²⁵ See *Johannesburg Declaration on Sustainable Development*, in Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 Aug–4 Sept. 2002, A/CONF.199/20 (New York: United Nations, 2002), Art. 5. [herein after, ‘Johannesburg Declaration’].

²⁶ See *Johannesburg Plan of Implementation*, Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 4 September 2002, UN Doc. A/CONF.199/20 at para. 2 [JPOI].

²⁷ Case Concerning the *Gabčíkovo-Nagymaros Project (Hungary v. Slovakia)* [1997] ICJ Rep. 78 140 [Gabčíkovo-Nagymaros].

²⁸ *Ibid.* at para 140.

Cordonier Segger and Khalfan define sustainable development law as a “*corpus of international legal principles and treaties which address the areas of intersection between international economic law, international environmental law and international social law aiming toward development that can last.*”²⁹

An initiative worth commenting on in this regard is the Centre for Indigenous Environmental Resources (CIER), in Canada. Established in 1994, CIER illustrates the new generation of Indigenous organizations fashioning environmental governance. Using grass-roots approaches, it advises and facilitates communities’ involvement in the environmental planning and management. For instance, CIER has initiated projects for ‘*identifying economic, environmental, social, and cultural solutions and options for First Nations to better adapt to climate change*’.³⁰

Apart from aiding in preservation there has been a growing realization that TK is the intangible component of the biological/genetic resources of a particular area and has the potential of being translated into commercial benefits by providing leads for development of useful products and processes. Indeed, “*bioprospecting*”³¹ has proved lucrative to a number of pharmaceutical firms which utilize TK in order to screen active components for new drugs and accounts for a very large volume of the profits earned by the pharmaceutical and cosmetics industry. In fact TK has become a tremendous factor for the development of the various fields involved from apparel³² to traditional medicine and healing knowledge,³³ and agriculture systems conserving biodiversity and protecting the environment.³⁴ The area of TK with the most potential is that of traditional medicines, which serve as one of the important constituents in preserving the health needs of nearly 80% of the population in developing

²⁹ M.C. Cordonier Segger & A. Khalfan, *Sustainable Development Law: Principles, Practices & Prospects* (Oxford: Oxford University Press, 2004) at 103.

³⁰ Centre for Indigenous Environmental Resources, can be accessed from <http://www.cier.ca/taking-action-onclimate-change>.

³¹ Bioprospecting is the collection of biological material and the analysis of its material properties, or its molecular, biochemical or genetic content, for the purpose of developing a commercial product. Bio-prospecting policy excludes the later steps in the chain of product development, ‘*Bioprospecting: Harnessing Benefits for New Zealand*’ (Source:http://www.med.govt.nz/templates/ContentTopicSummary___28014.aspx)

³² Ibid

³³ See Blakeney, ‘Communal Intellectual Property Rights of Indigenous Peoples in Cultural Expressions’. *Journal of World Intellectual Property*, Vol. 1, No. 1, November 1998, p. 985 et seq.

³⁴ Barsh, ‘The Epistemology of Traditional Healing Systems’, *Human Organizations*, Vol. 56, No. 1, 1997, 28. See also, Blackney, ‘Bioprospecting and the Protection of Traditional Medical Knowledge of Indigenous Peoples: An Austrian Perspective,’ [1997] 6 EIPR 298.

countries. At present the world has seen the West gunning hard for Oriental medical remedies, thus an increased role of TK in this industry can be expected.³⁵

Ironically, most of the world's biodiversity-rich countries are developing countries such as India³⁶. These nations should have been in a strong position to benefit substantially by trading in such bio-resources and the associated TK. However, less than 0.001% of profits from drugs developed from TK accrue to these nations.³⁷ This state of affairs is condoned by the conventional IPR³⁸ regime which grants to the pharmaceutical company, an exclusive patent over the usage of the TK. Thus, the collective knowledge of societies is appropriated and becomes the proprietary knowledge for the commercial benefit of a few. This phenomenon has been broadly described as "biopiracy"³⁹. The demand for IPR protection to TK and the necessity of prior consent before it is applied for commercial purposes has been underscored by countries like India and Brazil in the international fora. In such a case, the community suffers for they fail to enjoy the benefits which arise out of such commercialization. Thus, a scope has opened for debates to stall such misuse.⁴⁰ Also have opened a scope to bring within its ambit 'expressions of culture' representing functional traditions than from being mere souvenirs of the past.⁴¹ Thus the WIPO has chalked out distinct fold-step which needs to be afforded due consideration:

- concern about the loss of traditional culture with the youth being reluctant to carry on with past traditions
- concern about the lack of respect for traditional knowledge and holders of traditional knowledge

³⁵ Sahai, 'Protection of Indigenous Knowledge and Possible methods of sharing Benefits with Local Communities', Background Paper, prepared for the Multi-shareholder Dialogue on Trade, Intellectual Property and Generic Resources in Asia, BRAC Center for Development Management, Rajendrapur, Bangladesh, 19-21 April, 2002, p.1.

³⁷ SHAID ALIKHAN AND RAGHUNATH MASHELKAR, INTELLECTUAL PROPERTY AND COMPETITIVE STRATEGIES IN THE 21ST CENTURY Kluwer Law International . 2004 , at 65

³⁸ Intellectual Property Rights

³⁹ *IPR Commission Report on Developing Countries*.
(Source: http://www.iprcommission.org/papers/pdfs/final_report/Ch4final.pdf)

⁴⁰ Such pressure has led, for example, to the creation of an Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore in WIPO. The protection of traditional knowledge and folklore is also being discussed within the framework of the CBD and in other international organizations such as UNCTAD, WHO, FAO and UNESCO.⁶ In addition, the Doha WTO Ministerial Declaration highlighted

⁴¹ Example ayurveda

- concern about the misappropriation of traditional knowledge or indulgence in acts derogatory to the principle of benefit sharing
- lack of recognition of the need to preserve and promote the further use of traditional knowledge.⁴²

This discussion evidences that TK represents a unique and rare opportunity for a developing country like India to buttress technological and infrastructural handicaps in integrating trade policy, environmental protection and human rights commitments. But the first step in this direction has to be the appropriate protection of this knowledge from misappropriation and suitable benefits for the holders of TK who are often economically vulnerable groups. Consequently demands for an effective protection of Traditional Knowledge, either through the application of the conventional intellectual property right system or by means of new *sui generis* rights such as Traditional Resource Rights and Community Intellectual Rights has arisen.⁴³ These concerns need to be addressed in a swift and pragmatic manner by the law making and enforcement agencies.

III. PROTECTION TO TK IN THE INTERNATIONAL ARENA

Legal recognition of the need to protect TEK is found in many sources. The major impetus for protection was originally provided by global environmental treaties such as the Convention to Combat Desertification⁴⁴ and the Convention on Biological Diversity (CBD). Since these treaties were ratified, many states have introduced national legislation to implement their provisions. Even the Paris

⁴² Traditional Knowledge and Geographical Indications ; source: http://www.iprcommission.org/papers/pdfs/final_report/Ch4final.pdf, accessed on 3.9.2008 Further the International Labor Organization too adopted several declarations in this effect. Convention No. 169 may have relevance for the protection of TK of indigenous peoples to the extent that it identifies the rights of those peoples to “the full realization of the social, economic and cultural rights [...] with respect for their social and cultural identity, their customs and traditions and their institutions.” (Article 2.2(b)).

⁴³ See supra note 3. The Australian Federal Court in the case, *Milpururru and others v. Indofurn Pty Ltd and others* [(1995) 30 IPR 209] has considered the relevance of customary Aboriginal laws and practices in a case of copyright infringement. Although the Court found that it was not able to “recognize the infringement of ownership rights of the kind which reside under Aboriginal law in the traditional owners of the dreaming stories and the imagery such as that used in the artworks of the present applicants,” it did take into account the harm suffered by the aboriginal artists in their cultural environment when considering damages. Whilst such decisions give some degree of recognition to customary laws, they obviously do not go as far as some would like. Often greater protection is called for as well. See, Minutes of the Commission on Intellectual Property Rights Workshop on Traditional Knowledge, 24 January 2002. [Source: <http://www.iprcommission.org>]

⁴⁴ Convention to Combat Desertification, art. 18.2, U.N. GAOR, 47th Sess., Supp. No. 49, U.N. Doc. A/47/49, Vol. 1, 137 (1994). Parties shall: protect, promote and use . . . relevant traditional and local technology, knowledge, know-how and practices, and . . . ensure that such technology, knowledge, know-how and practices are adequately protected and that local populations benefit directly, and on an equitable basis and as mutually agreed, from any commercial utilization of them and from any technological development derived there from.

Convention for the Protection of Industrial Property states that '*industrial property shall be understood in the broadest sense and shall apply not only to industry and commerce proper, but likewise agriculture and extractive industries and to all manufactured or natural products, for examples, wines, grain, tobacco leaf, fruit, cattle, minerals, mineral water, beer, flowers, and flour.*'⁴⁵ Clearly the scope of this provision is a matter of ongoing negotiation and controversy but there is no reason to decide that it cannot incorporate TEK *a priori*. Several governments have required that traditional knowledge be considered in environmental impact assessments and For example, the United States directs its international financial institutions to promote respect and protection for '*territorial rights, traditional economies, cultural integrity, traditional knowledge, and human rights of indigenous peoples.*'⁴⁶

Means of protecting TEK were widely discussed in a number of fora, and the World Intellectual Property Organization (WIPO) Global Issues Division took it upon itself (with the participation of interested stakeholders and a number of global fact-finding missions) to research the prospects and shortcomings of intellectual property models as well as the elements necessary for *sui generis regimes of protection*.⁴⁷

The *Convention on Biodiversity* (CBD) to which India is a signatory recognizes the sovereign right of countries of origin over their genetic and biological diversity resource and stipulates the sharing of benefits flowing from its commercial utilization⁴⁸ with the holders of TK.⁴⁹ There is as yet no proper

⁴⁵ Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, art. 1(3), 21 U.S.T. 1583, 828 U.N.T.S. 305, (1979), revised Sept. 28, 1979.

⁴⁶ 22 U.S.C. 262p-4o.

⁴⁷ As Graham Dutfield recounts, in early 1998 WIPO established a new unit called the Global Intellectual Property Issues Division to identify and respond to new challenges posed by globalization and rapid technological change and to identify potential new beneficiaries for intellectual property rights including indigenous peoples and so-called traditional communities and to address issues relating to traditional knowledge and folklore. The Division embarked on nine fact-finding missions in its first two years and turned to consider other issues such as the potential for protection of traditional knowledge through customary law. In 2000, the state members of WIPO agreed to establish the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore and that body has been meeting regularly since the spring 2001. See Graham Dutfield, TRIPS-Related Aspects of Traditional Knowledge, 33 Case W. Res. J. Int'l L. 233, 266-68 (2001); Silke Von Lewinski, Traditional Knowledge and Folklore - A New Topic in the International Arena, in Intellectual Property Law: Articles on the Legal Protection of Cultural Expressions and Indigenous Knowledge 186 (F.W. Grosheide & J.J. Brinkhof eds., 2002); WIPO Intergovernmental Committee: Documentation Center, available at <http://www.wipo.int/tk/en/igc/documents/> (last visited Mar. 10, 2005).

⁴⁸ *Global Economic Prospects and the Developing Countries 2002: Making Trade Work for the World's Poor*, World Bank, Washington DC, pp. 143-4. (Source: <http://www.worldbank.org/prospects/gep2002/full.htm>)

resolution at the international level of how these will be implemented in view of the fact that TRIPS makes no mention of IPR protection with regard to the abovementioned stipulations.⁵⁰

IV. IPRs AS POSSIBLE TOOLS FOR TK PROTECTION

It is often argued that IPRs and TK are polemic conceptions as the former views ownership of intellectual property governed by individual rights attached to it, conferring exclusive rights to those who make novel innovation on such property. In contradistinction TK is a “cumulative innovation”, the ownership of which is attributed to the whole community rather than identifiable individuals. Often TK usages are inherited through generations and do not meet the “novelty” standards of IPR protection. The authors however wish to deconstruct the rationale of IPRs in a manner which evidences that, albeit the divergence in their approaches of rendering protection, the nature and function of TK and IPRs are based on principles of social good and the fostering of innovation, and this intersection between the two can be utilized in protecting TK. The integration must begin by a conceptualizing of TK as part of the “knowledge capital” which is an intangible factor of protection apart from land, labor and capital. The significance of the knowledge capital in contemporary economies and the role of the IPR regime in utilizing this capital needs to be comprehended before TK protection models can be evolved and thus it would be prudent to make a brief reference to the scope of this concept.

The globalization of the economy has been fueled by developments in information technologies that enable information to flow instantaneously to control the production, distribution, and circulation of goods. In a succinct discussion of informational capital, Arun Kundnani explains that all forms of cultural content can be compressed and made available through digital communications networks that create a

⁴⁹ Pires de Carvalho, N. (2000) ‘Requiring Disclosure of the Origin of Genetic Resources and Prior Informed Consent in Patent Applications without Infringing the Trips Agreement: The Problem and the Solution’, *Washington University Journal of Law and Policy*, vol. 2, pp.371-401. Source: <http://www.law.wustl.edu/Journal/2/p371carvalho.pdf>. See also, *Precision Instrument Mfg. Co v Auto. Maint. Mach. Co.* 324 US 806 (1945). Refer case, *Keystone Driller Co. v. General Excavator Co.*, 290 U.S. 240, 245 (1933) quoting *Deweese v. Reinhard*, 165 U.S. 386, 390 (1887). The same can be followed under Art. 19 of Doha Conventions.

⁵⁰ Article 8(j) provides that the knowledge, innovations and practices of indigenous and local communities relevant to biodiversity conservation and utilization should be respected, preserved and maintained. It further obliges Contracting Parties to promote the wider application of such traditional knowledge with the approval and involvement of the holders and to encourage the equitable sharing of the benefits arising from the utilization of the knowledge. Article 15(6), 15(7), 16, 19(1), and 19(2), advocate fair and equitable benefit-sharing arrangements between the providers and users of relevant resources.

world market conceived of as a unified information system.⁵¹ IPRs enable the informational and symbolic goods that "flow" through these networks (films, music, programming, databases, software, etc.) to yield a continuing stream of royalties or subscription fees. Meanwhile, industries in other sectors remain competitive via investment in the symbolic components of goods - design and branding, for instance. The capacity to respond to market knowledge with new forms of symbolic distinction is now an indicator of competitiveness. Trademarks assume greater importance. Technological advances in DNA sequencing have also turned many elements of nature into informational goods; material resources become genetic resources from which information can be extracted and owned under patent.⁵² Thus it is contended that although stimulating innovation and protecting investment has become the dominant ideological rationale for IPRs, there are other values embedded within "IP" regimes.

In fact, IPRs are clearly identified as cultural rights rather than property or economic rights within the international human rights framework.⁵³ Their capacities are in no way exhausted by or limited to their predominant role in protecting corporate market shares. They may allow us to protect traditional production systems, prevent commercial misrepresentation, keep valuable secrets, recognize non-pecuniary interests in works, respect public sensibilities, and enable the valuation of local distinctions. This (possibly endangered) 'counter-current' in IPRs has still untapped potential for the creation of new forms of IP that may ironically 'de-fetishize'⁵⁴ commodities or enable communities to refuse the logic of the commodity form altogether. We stress that the use of 'culture as a resource'⁵⁵ is a strategy fraught

⁵¹ Arun Kundnani, *Where Do You Want to Go Today? The Rise of Information Capital*, 40 *Race & Class* 49, 51-52 (1998); see Wendy A. Adams, *Intellectual Property Infringement in Global Networks: The Implications of Protection Ahead of the Curve*, 10 *Int'l J.L. Info. & Tech.* 71, 73 (2002) (describing how "new technologies ... permit and in some cases encourage an increasing percentage of goods to be constituted as digital products and disseminated through virtual channels inherently global in nature") (citation omitted).

⁵² Rosemary J. Coombe, Steven Schnoor & Mohsen Ahmed, *DISTRIBUTIVE JUSTICE AND INTELLECTUAL PROPERTY: Bearing Cultural Distinction: Informational Capitalism and New Expectations for Intellectual Property.*, 40 *U.C. Davis L. Rev.* 891

⁵³ See U.N. Econ. & Soc. Council [ECOSOC], Sub-Committee on Prevention of Discrimination & Prot. of Minorities, Report of the Sub-Commission on Prevention of Discrimination and Protection of Minorities on Its Forty-Sixth Session, art. 29, U.N. Doc. E/CN.4/Sub.2/1994/56 (Oct. 28, 1994) (prepared by Osman El-Hajje) ("Indigenous peoples are entitled to the recognition of the full ownership, control and protection of their cultural and intellectual property.").

⁵⁴ As Karl Marx observed, an important consequence of the emergence of industrial production was the elevation of the value of the commodity and the reduction of the value of workers' labor; hence the concept "commodity fetishism." Ascribing value to the means, location, or method of production would challenge this process of fetishization by urging consumers to purchase products that reflect the social lives of the producers; hence the term "de-fetishization." See Anne Meneley, 'Extra Virgin Olive Oil and Slow Food', 46 *Anthropologica* 165, 173 (2004).

⁵⁵ George Yudice argues that "culture-as-resource is much more than commodity; it is the lynchpin of a new epistemic framework in which ideology and much of what Foucault called disciplinary society ... are absorbed into an economic or

with political dangers as well as social and economic possibility. Nevertheless, these dangers may be avoided if we insist that the exercise of IPRs, considered as cultural rights, entails respect for the full range of human rights norms.

For example, the drive to represent local people's knowledge, practices, and traditional cultural expressions as innovative works, integrally related to a traditional lifestyle and deserving of sui generis IP-like rights, asserts new claims of authorship for communities. Rural communities, indigenous peoples, subsistence farmers, forest dwellers, healers, and other marginalized groups now struggle to prevent local knowledge and resources from being reduced to mere data for the information-intensive industries of the new economy.⁵⁶ They do so increasingly by representing their traditions as sources of innovation, describing their ecosystems as inscribed environments or cultural landscapes, or insisting that their cultural distinctions be recognized as sources of value.⁵⁷

In this manner Positions of historical and contemporary disadvantage may thereby be transformed into places of competitive advantage. IPRs - particularly trademarks, appellations of origin, certification, and collective marks - may be used to link goods and services to their places of origin, the conditions under which they are produced, or the very identity of their producers. Such strategies may empower local communities - they may engender creative activity, revitalize traditions, and sustain or enhance local livelihoods. Further more, these new forms of symbolic capital accumulation, need to be evaluated as forms of emerging governance subject to requirements of transparency, accountability, and democratic values with respect to participation, and equality of opportunity for the TK holders to benefit from this knowledge. A critical part of the recognition and protection of community rights over their knowledge and bio-resources is ensuring that decisions concerning access and use are made by communities – through their Prior Informed Consent.

ecological rationality, such that management, conservation, access, distribution, and investment - in 'culture' and the outcomes thereof - take priority." George Yudice, *The Expediency of Culture: Uses of Culture in the Global Era 1* (2003).

⁵⁶ See, Olufunmilayo B. Arewa, *TRIPS and Traditional Knowledge: Local Communities, Local Knowledge, and Global Intellectual Property Frameworks*, 10 Marq. Intell. Prop. L. Rev. 155, 170-78 (2006) (detailing several instances of corporate appropriation of traditional knowledge).

⁵⁷ See, Lorie Graham & Stephen McJohn, *Indigenous Peoples and Intellectual Property*, 19 Wash. U. J.L. & Pol'y 313, 317-18 (2005) (relating how folklore and expressions of indigenous music "are often not protected by copyright" except when they are fixed in "a modern recording" or "a new book" even if they contain only "minimal new elements"). See generally Peter Drahos, *Intellectual Property Rights in the Knowledge Economy*, in *Handbook on the Knowledge Economy* 139, 145-46 (David Rooney ed., 2005), available at <http://cgkd.anu.edu.au/menus/PDFs/Rooney%20Chapter%2011.pdf> (critiquing many foundational economic principles underpinning pro-IP rhetoric and suggesting that excessive IP protection in fact stifles rather than promotes intellectual innovation).

It has been observed that an increasing number of patents on TK-based products are filed each year, which grant private monopoly rights over community resources. This is partly driven by the WTO-TRIPs agreement (1994) which requires upgrading of patent and plant variety protection in developing countries, but does not require protection of informal TK. It is also due to the spread of US-style IPR standards (TRIPs-PLUS) through Free Trade Agreements and political deals, linked to the growth in power of the life science industry in the last few years.

Thus, here is a pressing need to expand the scope of a hitherto underutilized form of IPR protection i.e. Geographical Indications (GIs) which have largely been limited to distinct high-end agricultural goods, most notably wines and spirits. The authors are of the view that the protection afforded through Geographical indications has not been completely explored.⁵⁸ TRIPs define geographical indication as *'a good 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.'*⁵⁹ It is contended that in principle GIs can protect TK as well, as GIs primarily seek to protect the quality and nature of substances and products which are specific and typical to a particular ecosystem. This protection can be expanded to include the distinctive products associated with a given environment as it is evolved and preserved by the local communities in the form of traditional knowledge and practices. In this regard, many developing countries want to embrace the possibility of having goods produced in traditional ways specific to an area or region internationally recognized as global brands, so that they too can compete in this field. India, for example, is aggressively marketing 'traditional knowledge' products such as tea, silk, sarees, and various handicrafts.⁶⁰ In Europe, GIs continue to proliferate. Recently, Italian associations of Parma ham producers successfully sued the

⁵⁸ Agreement on Trade Related Aspects of Intellectual Property Rights, (TRIPs) defines Geographical indication as *"a good 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."*

⁵⁹ Article 22(1) of the World Trade Organization's (WTO) 1995 Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs) as "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 geographic origin." See also, Sc. 2 of Geographical Indications of Goods Act, 1999 (Indian Legislation), See also, TRIPs Agreement, Pt. II, § 3 at Arts. 22-24. It is the role and prerogative of law and policies to protect and preserve the indigeneity of the products in the manner as has been protected in the US for 'Florida' oranges, 'Idaho' potatoes; 'Washington State' apples,⁵⁹ and 'Napa' wine. STATEMENT OF, JON W. DUDAS, DEPUTY UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DEPUTY DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, BEFORE THE COMMITTEE ON AGRICULTURE, U.S. HOUSE OF REPRESENTATIVES, JULY 22, 2003.

⁶⁰ See Mysore Silk to Become a Global Brand, Deccan Herald (Bangalore, India), Aug. 18, 2004, available at <http://www.deccanherald.com/deccanherald/aug182004/i4.asp>.

British supermarket chain 'Asda' for slicing and packaging Parma ham outside of the Parma region, thus damaging the ham's characteristics. According to the European Court of Justice, '*Maintaining the quality and reputation of ... Parma ham justifies the rule that the product must be ... sliced and packaged in the region of production.*'⁶¹

Further the protection afforded by GIs need to be expanded, they should do more than simply signify the origin of the good; they should 'guarantee [the] quality and distinctiveness [of the product as] derived from a combination of unique regional, environmental, and human influences, such as climate, soil, subsoil, plants, and special methods of production particularly traditional, collectively observed farming and processing techniques.'⁶² Further, if local practices can be shown to give the product its distinctive characteristics, rights to exclusively use a GI may provide producers of goods with a lucrative form of market distinction.⁶³

Significantly, indigenous representatives at international meetings insist that customary law provides a viable basis for new rights regimes to protect and recognize their TEK for most purposes. WIPO⁶⁴ nominally supports the need to acknowledge and strengthen customary law as a source for the management and protection of TEK. There is as yet no proper resolution at the international level of how these will be implemented in view of the fact that TRIPS makes no mention of IPR protection with regard to the abovementioned stipulations.⁶⁵

⁶¹ Press Release, European Court of Justice, Judgments of the Court of Justice in Cases C-469/00 and C-108/01 (May 20, 2003), available at <http://curia.europa.eu/en/actu/communiqués/cp03/aff/cp0342en>

⁶² Kevin M. Murphy, Note and Comment, Conflict, Confusion, and Bias Under TRIPS Articles 22-24, 19 Am. U. Int'l L. Rev. 1181, 1185 (2004).

⁶³ See Irene Calboli, The First Ten Years of the TRIPS Agreement: Expanding the Protection of Geographical Indications of Origin Under TRIPS: Old Debate or New Opportunity?, 10 Marq. Intell. Prop. L. Rev. 181, 200 (2006) (arguing for "reasonable expansion" of current protection offered by GIs so as to encourage greater economic development and national unity).

⁶⁴ World Intellectual Property Organization

⁶⁵ Article 8(j) provides that the knowledge, innovations and practices of indigenous and local communities relevant to biodiversity conservation and utilization should be respected, preserved and maintained. It further obliges Contracting Parties to promote the wider application of such traditional knowledge with the approval and involvement of the holders and to encourage the equitable sharing of the benefits arising from the utilization of the knowledge. Article 15(6), 15(7), 16, 19(1), and 19(2), advocate fair and equitable benefit-sharing arrangements between the providers and users of relevant resources.

V. BENEFIT SHARING INITIATIVES

Many indigenous peoples understand how to use intellectual property protections for particular purposes that protect their goods in the market, preclude misrepresentations of indigenous origin, and maintain desired forms of secrecy and confidentiality.⁶⁶ Moreover, the practices through which misappropriations of TEK have been permitted with respect to granting patents are under heightened scrutiny and proposals for changes to the dominant system to prevent abuse are multiplying.⁶⁷ Examples are emerging which illustrate how the current intellectual property system can be utilized to commercialize traditional knowledge or prevent its misuse. For example, Aboriginal and Torres Strait Islander artists in Australia have obtained a national certification trademark. Like any other trademark, this certification mark or Label of Authenticity is intended to help promote the marketing of their art and cultural products and deter the sale of products falsely claiming to be of Aboriginal origin.⁶⁸

In recent surveys of the existing protection of traditional knowledge and folklore,⁶⁹ a number of countries have provided further examples of how IP tools have been utilized to promote traditional knowledge and folklore. These include the use of copyright protection in Canada to protect tradition-based creations including masks, totem poles and sound recordings of Aboriginal artists; the use of industrial designs to protect the external appearance of articles such as head dresses and carpets in Kazakhstan and the use of geographical indications to protect traditional products such as liquors, sauces and teas in Venezuela and Vietnam. The ability to extend the life of trademarks indefinitely and the possibility of collective ownership of such rights suggest that they may be especially suitable for protecting traditional knowledge. This is also the case with geographical indications, which may be used

⁶⁶ Robert C. Ulin, *Globalization and Alternative Localities*, 46 *Anthropologica* 153, 156-62 (2004).

⁶⁷ This phenomenon is not limited to IPRs and trade law, but also appears to be engendered by environmental law and policy. See Marybeth L. Martello & Sheila Jasanoff, *Introduction to Earthly Politics: Local and Global in Environmental Governance* 3-25 (Sheila Jasanoff & Marybeth L. Martello eds., 2004).

⁶⁸ *Recognizing Aboriginal and Torres Strait Islanders' Rights*, (source: http://www.austlii.edu.au/au/orgs/car/recognising_rights/pg5.htm; accessed on 15.8.2008)

⁶⁹ WIPO uses the term "expressions of folklore" in the sense in which it is used in the WIPO-UNESCO Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and other Prejudicial Actions, 1982 (the "Model Provisions"). Section 2 of the Model Provisions provides that "expressions of folklore" are understood as productions consisting of characteristic elements of the traditional artistic heritage developed and maintained by a community in the country or by individuals reflecting the traditional artistic expectations of such a community.

to protect traditional products or crafts if particular characteristics of such products can be attributed to a particular geographical origin. .

Two benefit sharing models which are of particular relevance to this paper are elaborated below. The first arrangement is regarding the *Hoodia* which has been used to stave off thirst and hunger by the San tribe of the Kalahari Desert. Eventually, Pfizer acquired the rights to develop and market it as a potential slimming drug and cure for obesity. ⁷⁰The San people launched legal action on the grounds of failure to comply with the rules of CBD which requires the prior informed consent of original discoverers and users. Eventually, a landmark agreement according to which the San would receive a share of any future royalties settled the dispute. The importance of intellectual property in securing future benefits appears to have been recognized by all parties including the San. ⁷¹

The TBGRI (Tropical Botanic Garden Research Institute) – KANI ⁷²model was an attempt by the TBGRI to develop a unique mechanism to share 50 per cent of the commercial benefits of the energizing drug Jeevani, with the Kani tribe who had supplied the TK which led to its discovery, an Indian process patent was obtained by the TBGRI and the development of the drug was licensed for seven years. However in 2006 the American Great Earth Companies acquired patent rights over Jeevani making it available in the West as an energizer, 'anti-stress' adaptive, and immune system supporter.

Thus, through collaborative models, IPR fosters dissemination of TK by providing values to specific properties of plants and replicating them in laboratory settings so they can serve wider public good. It would also foster technological innovation and preservation of this knowledge by integrating it in the economic time space. However, suitable safeguards need to be formulated to ensure that the models are not usurped due to loopholes in the scope of protection granted under the IPR regime. Additionally, the CBD process to negotiate an international regime on Access and Benefit-Sharing and TK protection needs to be broadened to enable representatives of indigenous and local communities to participate fully in the decision-making process. Similarly, such participation needs to be made a priority in WIPO's work to develop policy guidance for TK protection. Policy makers should recognize that an effective

⁷⁰ SHAID ALIKHAN AND RAGHUNATH MASHELKAR, INTELLECTUAL PROPERTY AND COMPETITIVE STRATEGIES IN THE 21ST CENTURY Kluwer Law International . 2004 , at 42-47

⁷¹ Ibid.

⁷² *Value addition to local tribal Kani Knowledge: WIPO Case study* (Source: www.iimahd.ernet.in/publications/data/2002-08-02AnilKGupta.pdf) accessed on 24.8.2008

policy cannot be developed without the active involvement of indigenous representatives, whose expertise is as important as that of IPR lawyers. TK owes its existence to communities and to no-one else. Decisions about its use should be therefore be made by indigenous peoples.⁷³

VI. THE INDIAN SCENARIO

The protection of traditional knowledge has derived force from the CBD.⁷⁴ In other words, such a convention seeks hard to protect the rights afforded to indigenous communities, wherein “the appropriation of the knowledge and genetic resources of farming and indigenous communities by individuals or institutions seeking exclusive monopoly control (usually patents or plant breeders' rights) over these resources and Knowledge,” thereby breaching the antitrust laws which have duly afforded recognition by the international community. Such patents include those which are either not provided apt recognition as prior art, or have not received prior knowledge.⁷⁵

In pursuance to the CBD, India's *Biological Diversity Act, 2002* provides for the establishment of a three tiered Biological Authority which would act as vigilante in ensuring that there is no free riding on TK by foreign collaboratives which are subject to the scrutiny and consent of this authority. Section 10

⁷³ Draft United Nations Declaration on the Rights of Indigenous Peoples, adopted by the Sub-Commission on Prevention of Discrimination and Protection of Minorities, in 1994, Article 29 of the Draft Declaration states: “*Indigenous peoples are entitled to the recognition of the full ownership, control and protection of their cultural and Intellectual Property. They have the right to special measures to control, develop and protect their sciences, technologies and cultural manifestations, including human and other genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs and visual and performing arts.*”

⁷⁴ The Convention, which was agreed in 1992, seeks to promote the conservation of biodiversity and the equitable sharing of benefits arising out of the utilization of genetic resources. [CBD Article 1] It asserts the sovereign rights of nations over their national resources, and their right to determine access according to national legislation with the aim of facilitating the sustainable use of these resources, promoting access and their common use. It notes that access to genetic resources should be on the basis of prior informed consent, and on mutually agreed terms that provide fair and equitable sharing of the results of R&D and the benefits of commercialization and utilization.[CBD Article 15] It also calls for the fair and equitable sharing of the benefits derived from the use of traditional knowledge. Article 8j of CDB provides that “Members should respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices”.

⁷⁵ The International Convention on the Protection of New Varieties of Plants, 1991, administered by the International Union for the Protection of Plant Varieties (UPOV), establishes international standards for plant variety protection by plant breeders' rights. The TRIPS Agreement contains one reference to plant varieties in Article 27.3(b). The relevant portion states:

“...Members (of the WTO) shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof...”.

As mentioned above, Article 27.3(b) was subject to a review four years after the date of entry into force of the WTO Agreement, that is, in 1999. The review was commenced at the first meeting of the TRIPS Council in 1999, and is still ongoing.

(contents of specification) of the Patents Act 1970 as amended by the Patents Second Amendment Act (2002) provides that the applicant must disclose the source and geographical origin of any biological material deposited in lieu of a description. Also Section 25 (opposition to grant of patent) as amended allows for opposition to be filed on the ground that “the complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention”. *Country/Countries of origin:* Specify the country/countries that harbor the biological source/s in natural or naturalized conditions. Several proposals suggest using some cutoff date in the history, such as 1500 AD, to determine prior natural geographical distribution of organisms.

The legislation contains the following important clauses relating to IPRs and benefit-sharing:

- (i) People’s knowledge shall be registered at local, state and national levels and protected with the help of a *sui generis* system of IPRs [article 14]. This provision presumably refers to information yet undisclosed. Besides, institutions of self-governance – from village-level upwards – have been entrusted with the responsibility of chronicling biodiversity resources, people’s knowledge, and conservation efforts [article 11]; presumably to define the extent of public-domain resources.
- (ii) Any person applying for IPRs in India or abroad, relating to biological resources occurring in and/or accessed from India, must obtain prior permission of and abide by the benefit-sharing conditions imposed by the national authority [article 17].
- (iii) The national authority, if necessary shall oppose worldwide the IPRs granted in relation to biological resources or knowledge derived from India [article 8(iv)].
- (iv) No foreign agency can access biological resources occurring in India and related knowledge without the prior-informed consent of the national authority [article 15].
- (v) In cases where a person or a group of persons exclusively contribute to the resource or knowledge, they shall directly share the royalty resulting from its subsequent commercialization. Otherwise, such share of benefits shall be deposited in a national biodiversity fund [article 16].
- (vi) The national biodiversity fund would be primarily used to reward people for their conservation efforts and knowledge [article 21]. Although the basis for making such awards is not specified in the act, the periodic documentation of resources, knowledge, and conservation practices by the village-level management councils, envisaged in article 11, may offer an accountable and transparent foundation. These are indeed positive provisions. However, to operationalize these provisions, the proposed PVP Act and the

amendments to Patent Act must play a supportive role. To enhance the complementarity among these three acts, we suggest below a series of measures.

It must be recalled, that trademarks and geographical indications can only prevent the use of the protected marks or indications; they do not protect the knowledge, or the technologies embracing that knowledge, as such. A significant challenge in protecting traditional knowledge is that its nature such that more of it is transmitted orally than written down. This poses particular problems when parties not authorized by the holder of that knowledge seek to obtain IPRs over it. In the absence of any accessible written record, a patent examiner in another country is unable to access documentation that would challenge the novelty or inventiveness of an application based on traditional knowledge. The only option for an aggrieved party, be it the holders of the knowledge, or someone representing them, is to challenge the patent during the granting process or after grant, where national laws permit. For instance, this is what the Indian Government achieved in the *Turmeric case*⁷⁶ wherein a US Patent on "use of turmeric in wound healing" was successfully challenged by the Indian Council of Scientific and Industrial Research (CSIR) on the contention that this usage was a prior art published in ancient Indian texts. In contrast, the "*Battle for Basmati*"⁷⁷ proved to be a disappointment for India, wherein a patent seeking a monopoly over various rice lines resembling basmati was upheld in the US.

In order to prevent this community knowledge to become subject to private monopoly, the *Traditional Knowledge Resource Classification* has been developed by India. It is expected to facilitate the digitization of traditional knowledge⁷⁸ and act as a Meta library to provide language independent storage of digitized information⁷⁹ relating to non patent literature thus providing a means of ensuring

⁷⁶ Sumathi Subbiah, ' *Reaping What They Sow: The Basmati Rice Controversy and Strategies for Protecting Traditional Knowledge*' 27 B.C. Int'l & Comp. L. Rev. 529

⁷⁷ See *Ibid.*

⁷⁸ Such an idea was proclaimed in the first session of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, held in Geneva, April 30-May 3, 2001. [WIPO/GRTKF/IC/1/13], paragraph 128.

⁷⁹ The International Bureau of WIPO proposed for the enactment of a compilation which could serve as a basis for the systematic and balanced development of guide contractual practices, guidelines and model intellectual property clauses which would reflect the operational principles agreed and identified by Committee members. (See WIPO Doc. WIPO/GRTKF/IC/2/3, paragraphs 131 to 134.) In addition to this, the Delegation of Australia also proposed with support of a document entitled "*Proposal for the Compilation of Contractual Terms for Access to Genetic Resources and Benefit-Sharing*," (WIPO/GRTKF/IC/2/12), which called for the provisions of a database for building a knowledge capital for the same, as proposed in a "*Summary Checklist of Key Contractual Intellectual Property Terms on Access to Genetic Resources and Benefit Sharing*," with gaining due force in (WIPO/GRTKF/IC/3/3).

non-innovative patents are not granted.⁸⁰ However is required an international collaborative structure needs to be evolved to safeguard the same.⁸¹ This database can also be the “information pool” from which the indigenous population can be allowed to derive royalties and other economic benefits.

This project was the brainchild of the Indian National Institute of Science Communication (NISCOM) and the Department of Indian System of Medicine and Homoeopathy (ISM&H) which collaborated to establish a Traditional Knowledge Digital Library (TKDL). The TKDL project is initially targeting Ayurveda (a traditional Indian system of medicine), and proposes to document the knowledge available in public domain (the existing Ayurveda Literature), in digitized format. Information from about 35,000 Slokas (Versus & Prose) and formulations will be inputted on a database, and it is expected that the web site will have approximately 140,000 Ayurveda pages. The data was to be made available in several international languages (English, Spanish, German, French, Japanese and Hindi). The Traditional Knowledge Resource Classification (TKRC) is an innovative, structured classification system that has been designed to facilitate the systematic arrangement, dissemination and retrieval of the information in the traditional knowledge DL. The TKRC is based on the International Patent Classification system (IPC), with the information classified under section, class, subclass, group and subgroup for the convenience of its use by the international patent examiners. But it provides greater definition of traditional knowledge information by expanding one IPC group (i.e. AK61K35/78 related to medicinal plants) into about 5000 subgroups.⁸²

The TKDL will give legitimacy to existing traditional knowledge, and by ensuring ease of retrieval of traditional knowledge-related information by patent examiners will hopefully prevent the granting of patents, such as the turmeric and neem cases discussed above which claim subject matter already in the public domain. Work on such libraries is also being pursued in WIPO where a specialized Task

⁸⁰ At the second session of the Committee, held in Geneva from December 10 to 14, 2001, the Committee considered a document entitled “*Operational Principles for Intellectual Property Clauses of Contractual Agreements Concerning Access to Genetic Resources and Benefit-Sharing*” (WIPO/GRTKF/IC/2/3).

⁸¹ Additional protection is accorded by Section 10 (contents of specification) of the Patents Act 1970 as amended by the *Patents Second Amendment Act (2002)* provides that the applicant must disclose the source and geographical origin of any biological material deposited in lieu of a description. Also Section 25 allows for opposition to be filed on the ground of failure to meet this provision. Failing to comply with such requirements can also have implications under the common law doctrines of inequitable conduct or unclean hands; the same has been recognized by the American Judiciary. The US Supreme Court has noted also that “A court of equity acts only when and as conscience commands; and if the conduct of the plaintiff be offensive to the dictates of natural justice, then, whatever may be the rights he possesses, and whatever use he may make of them in a court of law, he will be held remediless in a court of equity”.

⁸² *Supra* note 39

Force including representatives from China, India, the USPTO⁸³, and the EPO⁸⁴ are involved. The greater documentation of traditional knowledge may not only be of value in preventing the granting of unwarranted patents but also, more importantly, it may contribute to the preservation, promotion and possible exploitation of traditional knowledge. In this respect it is crucial that the documentation process does not prejudice possible IPRs in the material being documented. India's National Innovation Foundation provides an example of an attempt to address these issues; in general the following steps should be taken to effectively utilize this digital library:

- Digital libraries of traditional knowledge should, as soon as it is practical, be incorporated into the minimum search documentation lists of patent offices therefore ensuring that the data contained within them will be considered during the processing of patent applications.
- Holders of the traditional knowledge should play a crucial role in deciding whether such knowledge is included in any databases and should also benefit from any commercial exploitation of the information.
- The principle of equity dictates that a person should not be able to benefit from an IP right based on genetic resources or associated knowledge acquired in contravention of any legislation governing access to that material.
- In such cases the burden should generally lie with the complainant to prove that the IP holder has acted improperly. However, a precursor for any action is knowledge of the wrong. It is to assist in this respect that we believe that a disclosure requirement of the type discussed above is necessary.

Further the patents of biological sources must be open to public scrutiny. In such a case, when the patent claims are laid open, any concerned agency or individual may submit evidence pertaining to the prior existence of this knowledge in the literature or databases, including in the village documents and the registration proposed under the Biological Diversity legislation.⁸⁵ In case such claims are sustained, the IPR applicant should not only share benefits with respect to the use of prior knowledge but also pay a penalty for the future to duly acknowledge it. For providing an effective opposition, it would be necessary for the people to register their knowledge fully or at least as claims. The proposed registration and documentation system under the Biological Diversity Act must permit full as well as

⁸³ United States Patent and Trademark Office

⁸⁴ European Patent Office

⁸⁵ The best expression of this term in the international context is probably provided by Article 2 of the Convention on Biological Diversity, 1992 (the CBD), which defines the term as the “*variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.*”

partial disclosures. It is equally necessary to collate this information in the form of searchable computerized databases. The Biological Diversity Act, Patent Act and Plant Varieties Protection Act must require the respective authorities to conduct a thorough search of such databases to examine the claims of novelty made in IPR applications.⁸⁶ *These measures should form the basic first tier of protection of traditional knowledge.*

The second tier of protection should be through the active utilization of Geographical Indications as enunciated earlier. Indeed, a violation of the *Geographical Indications Act, 1999* was one of the grounds for challenging the basmati patent.⁸⁷ WIPO agrees that GI protection afforded to developing countries cause a comparative advantage in agricultural products and processed foods and beverages incurring economic gains.⁸⁸ India had also witnessed 'free-riding'⁸⁹ of the Darjeeling tea⁹⁰ and the 'Basmati rice'⁹¹ in the recent times. The passing of the Geographical Indications of Goods Act, 1999 (hereafter 'the

⁸⁶ In World Intellectual Property Organization (2000), "Matters concerning intellectual property and genetic resources, traditional knowledge and folklore. Document prepared by the Secretariat" [WO/GA/26/6].

⁸⁷ GIs need not always be geographical names (such as, name of a town, a region or a country) to designate the origin of the goods to which they are associated, but may consist of symbols as well, if such symbols are capable of indicating the origin of the goods concerned without literally naming the place of their origins. See *Das, Kasturi, 'Protection of India's Geographical Indications: An overview of Indian legislation and the TRIPPS scenario'*, the author comments, 'one such indication is 'Basmati' for particular varieties of fragrant rice produced in India and Pakistan. 'Basmati' is not a geographical name. But if it is perceived by the public as an indication of rice originating from India and Pakistan, and if such rice derives its quality, reputation or other characteristics from that particular geographical region then 'Basmati' can very well qualify to be a GI. Generally, there are different categories of protection through, (a) laws focusing on business practices; (b) trademark laws and (c) special means of protection, all of which may also coexist. For instance, the USA has measures as described earlier in categories (a) and (b) while the European countries follow regulations of type (c) especially for foodstuffs, wines and spirits. WTO (2004), 'World Trade Report 2004: Exploring the Linkage between the Domestic Policy Environment and International Trade', p. 72. For instance, the USA has measures as described earlier in categories (a) and (b) while the European countries follow regulations of type (c) especially for foodstuffs, wines and spirits. Correa, Carlos M. (2002), 'Protection Of Geographical Indications In Caricom Countries', September, p. 6.

⁸⁸ *"Global Economic Prospects and the Developing Countries 2002: Making Trade Work for the World's Poor"*, World Bank, Washington DC, pp. 143-4.
Source: <http://www.worldbank.org/prospects/gep2002/full.htm>

⁸⁹ See, *Das Kasturi*, For instance, in France, a food company called *Establisements Haudecoeur La Courneuve* had been granted two French trademarks using the word 'Basmati': "Riz Long Basmati" and "Riz Long Basmati Riz du Monde". (Source: www.economicstimes.com/040798/04econ5.htm). To site another example, *Penguin Natural Foods, Inc.*, a small California-based company, had been found to advertise the rice grown by them as: "[a]n extremely slender, long grained rice known for its perfumed taste and aroma. Chosen for its excellent quality, our Basmati rice is grown in Texas and is available as a white or brown rice." (Found at www.penguinfoods.com/n_rice.html).

⁹⁰ See, *Tea Board of India v. The Republic of Tea* (US TTAB Opposition No. 91118587; 23 August 2006, at 12. In this case, *Darjeeling Nouveau* unsuccessfully argued that the Darjeeling designation had become generic in the US and therefore could be used.

⁹¹ See the Case Study on Basmati in *Downes, David R. and Sarah A. Laird* (1999), 'Innovative Mechanisms for Sharing Benefits of Biodiversity and Related Knowledge: Case Studies on Geographical Indications and Trademarks'; Prepared for UNCTAD Biotrade Initiative, See also, *Das, Kasturi*,

Act'), was rooted as much to India's obligations under the TRIPS Agreement as it was to the lessons of exploitation of Indian GIs internationally, necessitating better protection at the domestic level. The Act therefore has elements of

- (a) Consumer Protection to safeguard the trust bestowed by the markets
- (b) Prevention of Unfair Competition through the Protection of Certification Marks and of Geographical Indications or Appellations of Origin⁹² at both national and world levels.⁹³

Prior to the enactment of the Act, the prevention of misuse of GIs were founded on the consumer protection acts,⁹⁴ the passing-off actions in courts and through certification marks⁹⁵. But the scenario has changed after the enactment of the Act, in many ways,⁹⁶ bringing about substantial alignment with the TRIPS agreement despite in certain cases going beyond it.

First, the definition. clause of the Act,⁹⁷ has expanded the TRIPS definition⁹⁸ to the effect that, 'any name which is not the name of a country, region or locality of that country shall also be considered as the GI if it relates to a specific geographical area and is used upon or in relation to particular goods

⁹² Sc. 22(4), *ibid.*, At the same time the law have been liberal and leading to individualization of justice. See also, See Downes, David R. and Sarah A. Laird (1999), Innovative Mechanisms for Sharing Benefits of Biodiversity and Related Knowledge: Case Studies on Geographical Indications and Trademarks, paper prepared for the UNCTAD Biotrade Initiative, p.6, See also, See Addor, Felix and Alexandra Grazioli (2002), 'Geographical Indications beyond Wines and Spirits: A Roadmap for a Better Protection for Geographical Indications in the WTO TRIPS Agreement', in 'The Journal of World Intellectual Property', Vol. 5, No. 6, November, p. 874.

⁹³ See, Das, Kasturi, 'Now that the GI Act has been operationalised, the onus is on the legitimate users of each and every prospective geographical denomination of the country to capitalize on this legal armour to ensure the 'absolute' level of protection for their respective GIs without any further delay.' See also, Art. 24.9 of the TRIPS Agreement.

⁹⁴ The principal legislation in the field of consumer protection are the following: (a) The Consumer Protection Act of 1986, and (b) Sections 36-A to 36-E of the Monopolies and Restrictive Trade Practice (MRTP) Act, 1969. The said sections in the latter Act pertain to unfair trade practices and were inserted into the MRTP Act by an Amendment Act in 1984, with effect from August 1, 1984.

⁹⁵Here "Certification trade mark" means a mark capable of distinguishing the goods or services in connection with which it is used in the course of trade which are certified by the proprietor of the mark in respect of origin, material, mode of manufacture of the goods or performance of services, quality, accuracy or other characteristics from goods or services not so certified and registrable as such. "Certification trade marks" are registrable under the Trade Marks Act of India. Where the certification mark indicates geographical origin, it is more akin to an appellation of origin.

⁹⁶ Thus sanctions have been imposed by law (Sc. 38), ranging injunctions preventing the unauthorized use (Sc. 39-42), payment of damages and fines and in serious cases, imprisonment and forfeiture of the goods (Sc. 43 & 44), according to the procedure established by law. Yet the rule of natural justice and fair hearing would prevail always. Applications and reasons provided should always be in writing to show transparency and impartiality (Sc. 50).

⁹⁷ Section 2(1)(e) of the Indian GI Act

⁹⁸ Section 3 of Part II of TRIPS begins by defining GIs in Article 22.1

originating from that country, region or locality, as the case may be' and clarified that not only the goods could be, 'natural, agricultural or manufactured in nature,'⁹⁹ but also 'goods of handicraft or of industry and food stuff as well,'¹⁰⁰ so long as they contained 'inherent natural and human factors'¹⁰¹. It also brought about certain additional conditions¹⁰² with respect to 'manufactured goods.'

Secondly, obligations under Art.22.2 of TRIPS has been fulfilled by Section 21(1)(a) of the Act, which provides the proprietor and authorized users of a registered GI with the right to prevent any infringement of the GI concerned¹⁰³; "infringement", as included in Section 22(1) of the Act perfectly complies with Article 22 of TRIPS and Art. 10bis of the Paris Convention.¹⁰⁴

Thirdly, Section. 25(a) of the Act brings about alignment with Article 22.3 of TRIPS¹⁰⁵ by invalidating registration of a trademark, containing a GI with respect to goods not originating in the territory purported, as it could mislead the public regarding the true place of origin of the product..¹⁰⁶

⁹⁹ Explanation under Sc. 2 of the Act.

¹⁰⁰ Section 2(1)(f) of the Act

¹⁰¹ Section 11(2)(a) of the Act

¹⁰² Explanations in Sc. 2 of the Act

¹⁰³ Section 22(1) of the Act states that:

Subject to the other provisions of this Act, the registration of a geographical indication shall, if valid, give,- to the registered proprietor of the geographical indication and the authorised user or users thereof the right to obtain relief in respect of infringement of the geographical indication in the manner provided by this Act;

¹⁰⁴ Article 10bis of Paris Convention has the following provisions:

(a) The countries of the Union are bound to assure to nationals of such countries effective protection against unfair competition; any act of competition contrary to honest practices in industrial or commercial matters constitutes an act of unfair competition.

(b) The following in particular shall be prohibited:

- (i) All acts of such a nature as to create confusion by any means whatever with the establishment, the goods, or the industrial or commercial activities, of a competitor;
- (ii) False allegations in the course of trade of such a nature as to discredit the establishment, the goods, or the industrial or commercial activities, of a competitor;
- (iii) Indications or allegations, the use of which in the course of trade is liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose, or the quantity, of the goods.

¹⁰⁵ Article 22.3 of TRIPS:

A Member shall, ex officio if its legislation so permits or at the request of an interested party, refuse or invalidate the registration of a trademark which contains or consists of a geographical indication with respect to goods not originating in the territory indicated, if use of the indication in the trademark for such goods in that Member is of such a nature as to mislead the public as to the true place of origin.

¹⁰⁶ Section 25 of the GI Act:

Notwithstanding anything contained in the Trade Marks Act, 1999, the Registrar of Trade Marks referred to in Section 3 of that Act, shall, suo motu or at the request of an interested party, refuse or invalidate the registrations of a trade mark which-

Fourthly, Article 22.4 of TRIPS extends the protection in the preceding paragraphs (of Article 22) to a GI, which, although literally true as to the territory, region or locality in which the goods originate, falsely represents to the public that the goods originate in another territory.¹⁰⁷ A similar provision dealing with such 'homonymous' GIs¹⁰⁸ may be found in Section 9 of the GI Act.

Finally, the Act¹⁰⁹ is broader in scope, having extended higher level of protection to not only 'wines and spirits'¹¹⁰ but also to other goods at the discretion of the Central Government, showing the wide ambit of jurisdiction and facets of liberalization.¹¹¹ The establishment of a national system of protection, thereby

(a) contains or consists of a geographical indication with respect to the goods or class or classes of goods not originating in the territory of a country, or a region or locality in that territory which such geographical indication indicates, if use of such geographical indications in the trade mark for such goods, is of such a nature as to confuse or mislead the persons as to the true place of origin of such goods or class or classes of goods...

¹⁰⁷ This kind of problem may arise in the case of former colonies. For instance, if French national emigrated to another country and founded a village or town, they may have given it the name of their village or region of origin, which may be famous for a special kind of cheese. In such a case, if the "second" village produced cheese under its name it could (depending on the circumstances of each case, of course) falsely represent the origin of the cheese. (See Gervais, Daniel (1998), 'The TRIPS Agreement: Drafting History and Analysis', Sweet & Maxwell, London, p. 128).

¹⁰⁸ Homonymous GIs are two geographical names, which are spelled and pronounced alike, but which designate the geographical origin of products stemming from different countries. For instance, 'Rioja' is the name of a region in Spain as well as a region in Argentina and the designation is used on wines produced in both countries. (See Addor and Grazioli (2002), p. 879)

¹⁰⁹ Sc. 2 of Indian GI Act.

¹¹⁰ Section 22 (2) of the GI Act:

The Central Government may, if it thinks necessary so to do for providing additional protection to certain goods or classes of goods under sub-section (3), by notification in the Official Gazette, specify such goods or class or classes of goods, for the purposes of such protection.

Section 22(3):

Any person who is not an authorised user of a geographical indication registered under this Act in respect of the goods or any class or classes of goods notified under sub-section (2), uses any other geographical indication to such goods or class or classes of goods not originating in the place indicated by such other geographical indication or uses such other geographical indication to such goods or class or classes of goods even indicating true origin of such goods or uses such other geographical indication to such goods or class or classes of goods in translation of the true place of origin or accompanied by expression such as "kind", "style", "imitation", or the like expression, shall infringe such registered geographical indication.

¹¹¹ The following sections are mentioned to elucidate my observation:

1. Sc. 55 of the act harps on the fact that if the actions are taken on good faith then such actions would be protected according to the procedure established by law.
2. Sc. 40 of the act displays leniency on persons who have used false geographical indications but have proved beyond reasonable doubt that, he had taken all reasonable precaution against committing an offence against the mentioned section, provided all information regarding the goods that he obtained and his punishment would also be reduced.
3. Sc. 63 provides for the passing of the indications to the successor of a party duly registered, after his death
4. Sc. 70 which empowers that Register who need not present the Register during the cases, and depended only at his discretion.

securing 'absolute' protection for the GIs in India, is an achievement of sorts. Some of the Indian GIs of origin, namely, 'Darjeeling Tea'¹¹², 'Pochampally art'¹¹³.

However several problems persist:

1. The costs involved in such actions, especially enforcement would impose extra financial and administrative burden on developing countries.¹¹⁴
2. Resources may need to be deployed to ensure that the required quality or other characteristics of the product covered by the geographical indication are developed and maintained.¹¹⁵
3. In order to offset these WIPO has proposed that contracts related to the genetic resources and any associated traditional knowledge should now embrace Sui *generic* notions.¹¹⁶
4. Further, it would be prudent for developing countries to restrain affording patent protection to all living varieties of plants and animals.¹¹⁷ For instance an EC Directive¹¹⁸ has made provisions for excluding certain groups of inventions¹¹⁹ from patent protection.

¹¹² Chhetri, Vivek (2004), 'Chastity belt for Darjeeling tea- Central move to protect India's unique produce against fake onslaught', The Telegraph, Calcutta, November 3.

¹¹³ The Hindu Business Line (2004), 'Tirupati laddu, Nagpur orange to get protection from copycats', December 19.

¹¹⁴ Countries like Egypt and Paraguay, have already indicated that the additional protection for geographical indications for wines and spirits will be made available under their national laws for other products. (WTO Document No.IP/C/W/278/Add.1,(source: <http://docsonline.wto.org/DDFDocuments/t/ip/c/w278a1.doc>)

¹¹⁵ By way of example, the Lisbon Agreement, which is an international system of protection administered by WIPO for the protection of appellations of origin, was agreed in 1958. To date only 20 countries (seven of which are developed) have acceded to the agreement, and as of 1998, 766 appellations of origin are protected under the agreement, of which European countries hold 95%. Even taking into account the well documented weaknesses in the Lisbon Agreement, such as the lack of an appropriate exception for geographical indications that had become generic, that make it unattractive to both developed and developing countries alike, the level of interest, even for those developing countries who deemed it worthwhile to join, seems very limited. See, Blakeney, M. (2001) "*Geographical Indications and TRIPS*", QUNO Occasional Paper 8, Quaker United Nations Office, Geneva. (Source: <http://www.geneva.quno.info/new/doc/OP8%20Blakeney.pdf>)

¹¹⁷ A number of developing countries have also sought to limit further what constitutes a patentable invention, [Industrial Property Regime of the Andean Pact As allowed under TRIPS Articles 27(3)(b) and (a)], countries provides that the following shall not be considered as inventions:

'Any living thing, either complete or partial, as found in nature, natural biological processes, and biological material, as existing in nature, or able to be separated, including the genome or germ plasm of any living thing.' [Article 15(b) of Decision 486 of the Common Intellectual Property Regime of Andean Community. Source: <http://www.comunidadandina.org/ingles/treaties/dec/D486e.htm>, accessed on 18th March, 2008.]

Similar provisions can be found in the legislation of Brazil and Argentina. However, an exclusion of this type would be sustainable on the basis of the morality exception of Article 27.2 of TRIPS only if the prevention of the "commercial exploitation" of the invention denied a patent is deemed necessary.

¹¹⁸ See, Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions, *Official Journal L 213*, 30 July 1998, p.13-21. (Source: http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=31998L0044&model=guichett)

¹¹⁹ Articles 5 and 6 of the EU Biotechnology Directive (EU Directive 98/44) restricts patenting relating to human and animal genetic material.

5. Irregularities in TK usage can be offset by compulsory licensing and government interference.¹²⁰ For instance in the US, patent applications based on federally funded research¹²¹ have been granted on the premise of hastening innovation. Subsequently, most of the developed world has pursued similar policies¹²² India too has actively advocated in this regard, in 2001, India's principal scientific organisation, the Council of Scientific and Industrial Research was the second largest PCT applicant from developing country institutions.¹²³
6. The concept of *public-private partnerships* (PPP), can be utilized to reconcile interests of patent owners with the objective of making products available at affordable prices wherein rights to commercialize in developed world market may be assigned to a commercial partner in return for a royalty-free license to the developing world for the PPP entity.¹²⁴

Similar questions were deliberated upon in cases concerning, turmeric, neem, ayahuasca, and hoodia cactus, wherein the cases were deliberated upon the infringement of traditional knowledge. The courts in all cases have upheld such protests in the light of bio-piracy. Courts have opined that such protection is necessary to be afforded protection in the light of:¹²⁵

- Equity considerations – the custodians of traditional knowledge should receive fair compensation

¹²⁰ For example, the US has used compulsory licensing in more than 100 antitrust cases. Refer, Scherer, F.M. (2001) "*The Patent System and Innovation in Pharmaceuticals*", *Revue Internationale de Droit Economique*, (Special Edition, "Pharmaceutical Patents, Innovations and Public Health"), p.119. Brazil and other countries have provided, or are considering providing, that a compulsory licence can be granted in cases where the demand for the patented invention is being met essentially through importation. [Egypt draft law as notified to the WTO in document IP/C/W/278 (Source: <http://docsonline.wto.org/DDFDocuments/t/IP/C/W278.doc>); Jamaica's draft law as notified in IP/N/1/JAM/1 (Source: <http://docsonline.wto.org/DDFDocuments/t/IP/N/1JAM1.doc>).

¹²¹ In 2000 it was estimated that the gross royalty income for universities in the US amounted to \$678 million, and that over 3000 start-up companies had been formed since 1980. [Association of University Technology Managers (2002) "*AUTM Annual Survey FY 2000: Summary*", AUTM, Northbrook IL. (Source: <http://www.autm.net/surveys/2000/summarynoe.pdf>)]

¹²² For example, in China in 2000, universities and scientific research institutes accounted for 13.2% of domestic patent applications. [State Intellectual Property Office, China (2001) "*Annual Report 2000*", SIPO, and Beijing, p.29. (Source: http://www.sipo.gov.cn/sipo_English/gftx_e/ndbg_e/2000nb_e/nbbg_2000_e/12-1-b2-e.htm) And in May 2002, China announced that research institutes were to be encouraged to file patents relating to government-sponsored research. See also, "*Chinese Institutes can keep intellectual property*", Jia Hepeng, 21 May 2000. (Source: <http://www.scidev.net>)

¹²³ Of the top 30 applicants from developing countries to the PCT, eight were from university or public sector research institutes. (2001 application statistics, WIPO)

¹²⁴ Wheeler, C. & Berkley, S. (2001) "*Initial Lessons from public-private partnerships in drug and vaccine development*", *Bulletin of the World Health Organisation*, vol. 79:8. (Source: <http://www.who.int/bulletin/pdf/2001/issue8/vol79.no.8.728-734.pdf>)

¹²⁵ WIPO (1999) "*Intellectual Property Needs and Expectations of traditional knowledge Holders*", WIPO Report on Fact-Finding Missions 1998-1999, WIPO, Geneva (Publication Number 768E). Source: <http://www.wipo.int/globalissues/tk/report/final/index.html>

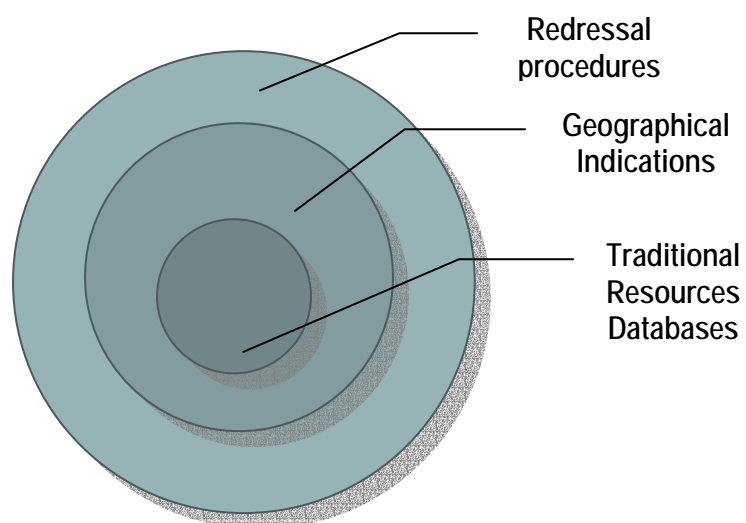
- Conservation concerns – the protection of traditional knowledge contributes to the wider objective of conserving the environment, bio-diversity and sustainable agricultural practices
- Preservation of traditional practices and culture – protection of traditional knowledge would be used to raise the profile of the knowledge and the people entrusted with it both within and outside communities
- Prevention of appropriation by unauthorized parties or avoiding “biopiracy”
- Promotion of its use and its importance to development.¹²⁶

Thus it is necessary for the courts to consider the aspect of community interest, and general notions of welfare and upholding public policy. True protection can be afforded with sufficient usage of international collaboration where in agencies work at tandem with a clear cut objective of achieving the goal of self-determination and stability, rather than affording a host of domestic solutions which would instead create unwanted confusion.

A requirement in all patent laws for the patent applicant to disclose the source of origin of the genetic resources and evidence of prior informed consent would, it is argued, increase transparency and, simply by providing information, assist in the enforcement of any access and benefit sharing agreements. It might also bring to light cases similar to the Hoodia example. One of the objectives for requiring disclosure of source of origin and prior informed consent is to encourage compliance with the access and benefit sharing principles of the CBD. However, other mechanisms and incentives exist which may address this objective. Failure to obtain authorization to access or use material may, for example, lead to court action under the doctrine of misappropriation or breach of contract. However such an act is time-consuming and costly, and of limited use for many holders of traditional knowledge. The stigma of being identified as a “bio-pirate” may also be a measure to prevent such irregularities. Known violators of the CBD may be denied future access to material. Such a sanction has already been considered in Bangladesh.

It is recommended that a world body, formulated using public international law principles be established, which would be imbued with universal jurisdiction to safeguard copyright infringements. Japan has already established such a unique redressal system with the arbitrage of experts. Singapore has established specialized courts having experts as adjudicators to look into such issues concerning environment. The advent of ‘the green bench’ having astute experts in know-how and technicalities

¹²⁶ In World Intellectual Property Organization (2000), “Matters concerning intellectual property and genetic resources, traditional knowledge and folklore. Document prepared by the Secretariat” [WO/GA/26/6]



need to be established to mitigate the problems faced. *This is the third tier of protection which should be afforded to TK*

Thus we have outlined our proposed three tier mechanism which should be set in motion to offset such obscure malpractices. Firstly, the scrutiny of an environmental database is deemed to be relevant.¹²⁷ Secondly protection needs to be extended according to territorial sovereignty and thirdly, the

segregation of the natural traits from the ambit of commercialization must be done through a robust redressal mechanism. Additionally, the government can scrutinize corporate activities through offices of the *ombudsmen*. This is necessary to stall irregularities which arise out of selfish competition.

Protecting TK in accordance with customary law implies recognition of community worldview where TK and bio-resources cannot be separated and both form part of their heritage. Therefore, indigenous peoples should be guaranteed prior informed consent for access to and use of their bio- resources as well as related TK. The consent forming process must be transparent in nature and the community should be empowered to refuse this access if it deems fit.

Benefit-sharing arrangements evolved within these tiers of protection would critically depend on our ability to link the innovation to its biological origin and to prior knowledge of its uses. *Material transfer agreement (MTA)*: It must be made mandatory that when a particular genetic resource is to be utilized by a company there needs to be a certifying authority or agency which would confirm that such access

¹²⁷ This data registration which we propose is similar to the register established to safeguard geographical indicators. Originally, the EC Draft Act, proposed establishment of an international register, presumably for all GIs. The EC proposal was that:

In order to facilitate the protection of geographical indications including appellations of origin, an international register for protected indications shall be established. In appropriate cases the use of documents certifying the right to use the relevant geographical indication should be provided for.

However the final draft laws were restricted to wines. [Art. 23.4 of TRIPS]. Later, the provision was extended to spirits as well in the Singapore Ministerial Declaration. [See WTO Document IP/C/8 of 6 November 1996, paragraph 34.] Since then the provisions relating to this aspect of patent laws have grown rapidly with significant changes, with the coming up of new Regulations as will be discussed in the next section of the paper. It is important to note that the legal fraternity have learnt the importance of GIs and it is necessary to protect them world over.

has been granted to the company on the basis of mutually beneficial terms and prior informed consent of the local population of that habitat. The provision for this has been made within the framework of the Biological Diversity Act wherein application for patents related to and access to biological is subject to the permission given by the National Biodiversity Authority.¹²⁸

It is also suggested that when the biodiversity is utilized the indigenous people should get a right to reverse access. Renewed access to lost livelihood resources would provide new opportunities for poverty alleviation, whilst restoring biodiversity and associated knowledge and cultural values. This is particularly important given the loss of diversity and the impacts of climate change in many communities. Yet government policies often restrict access to ex-situ resources collected from communities.

Lastly there needs to be increased awareness of IPRs and the principles of Benefit Sharing amongst the local inhabitants. Some studies have noted that the lack of awareness amongst communities about the threat of biopiracy and IPRs and their rights in ABS (Access and Benefit Sharing) undermines their capacity to defend their resource rights. Any access and benefit sharing mechanisms developed without proper capacity building exercises to sensitize communities of the new challenges posed by the onset of evolving legislation in the area of intellectual property protection, will not bring forth fair and equitable results. Furthermore, greater awareness of the issues is needed to improve participation of communities in the development of policies for TK protection and ABS so these are inclusive of diverse communities.

VII. CONCLUDING REMARKS

It seems inevitable that IPRs will become increasingly imbricate in new plans for social reform and, thus, in new fields of governance. The use of IPRs in ethical marketing schemes, rural development projects, ecotourism enterprises, and cultural rights campaigns, however, appears to pose as many problems as those to which it provides solutions. As we have suggested, these are primarily questions of governance. If GIs become the basis for new forms of commodity production, "sustainable development," or political autonomy, because of the growing necessity to sequester symbolic value and

¹²⁸Section 6 & 7 Biodiversity Act 2002, source: <http://wbbb.gov.in/Legislations/rules/TheBiologicalDiversityAct2002.pdf>, accessed on 12.8.2008 also section 21 states: The National Biodiversity Authority shall while granting approvals under section 19 or section 20 ensure that the term and conditions subject to which approval is granted secures equitable sharing of benefits arising out of the use of accessed biological resources, their by-products, innovations and practices associated with their use and applications and knowledge relating thereto in accordance with mutually agreed terms and conditions between the person applying for such approval, local bodies concerned and the benefits claimers.

to view culture as a resource, then it is imperative that we begin to subject IP management to new forms of scrutiny and its managers to enhanced standards of responsibility. Only if, and when, these new expressions and exercises of cultural rights are tempered with respect for civil and political rights will we have a basis for evaluating them as strategies to achieve greater social justice.