Djims Milius*

Developing countries; Indigenous peoples; Intellectual property; International trade; Traditional knowledge

ABSTRACT

The article questions the relevance of recent proposals on intellectual property (IP) for traditional knowledge (TK) in current trade talks. It examines issues of definition for TK and suggests modalities in which to understand collective rights. A number of proposals are reviewed including administrative and IPR modes of protection to identify the inherent problems associated with their effective use in the area of TK. Case studies on current national experiences with TK protection and promotion are presented for Australia, South Africa, India and China. WIPO's fact-finding missions for identifying existing gaps in the needs and expectations of TK holders are reviewed for West Africa, Eastern and Southern Africa, and the Caribbean Region. The paper concludes that raising IP issues for TK at the WTO prematurely without having reached prior evidence-based clarity and consensus on how to equitably resolve these issues can only undermine the legitimacy and relevance of achievable outcomes.

INTRODUCTION

Recent developments in the current Doha trade talks suggest that intellectual property is still a poor cousin to tariff valuation concerns in world trade. Nonetheless, creeping up on the agenda were proposals for a geographical indications (GIs) register for fine goods. The EU negotiator clearly saw the economic incentives to protecting an already lucrative market of wines and cheeses. Developing country trade officials who also backed the proposal seem to favour an extension of the right to protect a wider range

^{*}Senior Research Fellow, Intellectual Property Law & Policy Research Unit, University of Cape Town, Faculty of Law, Cape Town, South Africa.

¹ Intellectual Property Watch, "New WTO Draft Modalities Text on IP Issues Gathers Wider Support", July 18, 2008, available at http://www.ip-watch.org/weblog/index.php?p=1160 [Accessed March 23, 2009].

of higher goods, and that perhaps extending to traditional and indigenously derived products.²

The matter of protecting traditional knowledge (TK) also came up indirectly through statements seeking to formalise links between the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPs) and the Convention on Biological Diversity (CBD). There, requirements for protecting genetic resources and for benefit-sharing agreements suggest a number of mechanisms for the preservation of products and knowledge derived from traditional or indigenous sources. Augmenting the disclosure requirement of patents for the sources from which they derive their claims has been suggested as a way in which to accomplish that goal.³

What is striking in these failed negotiations to date is that everybody knows that intellectual property rights are unlikely to be a deal-breaker of trade negotiations at this point in time. The expectation is that agreement on substantive trade tariff levels for agriculture and manufactured goods would facilitate the adoption of a package deal by members. This was the formula adopted the last time round during the Uruguay trade talks, of which agreements were adopted as a single undertaking by members.

Though intellectual property (IP) was not treated in a separate package or as a deal-maker in the most recent mini-ministerials for the current trade talks either, openly debating how IP can be better adapted to practical needs of all Member State users is a relatively new phenomenon. The TRIPs Agreement was basically adopted wholesale when it emerged unscathed from the Dunkel draft, though evidence is gathering that it was not to the advantage of developing country members of the Agreement.⁴

This time round, however, everyone recognises that IP has gained significant grounds in the past 15 years,⁵ and can be part of extending prosperity through trade for at least the next 10 to 20 years. And it already seems that developing countries (DCs) have become wiser as to what to seek or concede in this increasingly important area of trade-related concerns. It is actually not too far-fetched to envisage that in future a new trade deal might partly depend on deal-breaking negotiations on IP.

But for that to realistically occur, we must continue to learn from evidence-based work which continues to take place in various international fora, and commit to systematically apply the lessons learned in those settings. Engaging in hard-nosed negotiations on the relevant issues beforehand on the basis of political and economic clout and preponderance alone will ensure the increasing irrelevance and neglect of the relevant IP issues. This indeed would be a tragedy, especially when everything

² The DCs who joined the EU in calling for IP issues to be put on the table for discussion are Brazil, China, India and the African Caribbean and Pacific (ACP) group of nations. The third part of this article reviews a 2007 ICTSD study on introducing GIs to protect traditional knowledge in India, and shows that the Indian delegation's position in this area does not seem consistent with the evidence gathered on the ground.

³ Such proposals had also been table by the African group during the failed Seattle rounds of talks. See M. Blakeney, "The Protection of Traditional Knowledge under Intellectual Property Law" [2000] E.I.P.R. 261.

⁴ See P. Drahos and J. Braithwaite, *Information Feudalism: Who Owns the Information Economy?* (London: Earthscan Publications Ltd, 2002), p.198.

⁵ This situation is brought about largely thanks to the TRIPs Agreement which has put IP on the agendas of countries who failed to see the relevance of formalising those rights within their borders and between WTO Member States.

else suggests that certain issues currently matter to the interests and goals of both beneficiaries and users of TK.

Why traditional knowledge matters

It might be too soon to tell whether protecting traditional knowledge (TK) via roundabout ways such as GIs and the Convention on Biological Diversity (CBD) might be a viable suggestion in the end. Until members muster the courage and ambition to engage in additional ministerial rounds of meetings to produce concrete results, it might be too early to tell which way things might go.

Already, however, it seems that very little clarity exists on the nature or legal definition of the concept in TK which is to receive protection, and which is to be exchanged in potentially tradeable goods. If interested developing countries (DCs) and their concerned indigenous groups want the slightest chance for their concerns in this area to be heard, much work needs to be done to reach a satisfying conclusion.

Uproar has already been expressed by indigenous groups protesting the appropriation and unauthorised commodification of knowledge they have held for generations. The Indigenous Peoples Council on Biocolonialism (IPCB)⁶ has been a vocal proponent of efforts begun at the World Intellectual Property Organization (WIPO) to formalise the legal status of traditional knowledge in products, processes and in the expression of culture.⁷ Fears of misappropriation or of "biopiracy" are most often cited in reference to the need for developing formal legal instruments and mechanisms to effectively protect TK.⁸

The other side of the argument for reasons why the international community should give legal status to TK has to do with enabling protection for commerce and the free market. In that way, TK holders can benefit from their indigenous knowledge and use that particular trade route on the road to economic prosperity. The vision for creative legal craftsmanship, for the adaptation of already existing rights or for sui generis solutions would also square well with the development theme the World Trade Organization (WTO) has set for itself since 2001.

In the end formalising the legal status of TK rights would help construct a much needed "IP & Development Tool Box". Elements of a set of specially devised legal instruments would promote compliance to international legal standards. IP development legal tools in the area of TK would not only ensure preservation and protection of indigenous knowledge systems, but would also provide incentives for incremental innovation from an indigenous knowledge base.⁹

⁶ IPCB was created to assist Indigenous peoples in the protection of their genetic resources, Indigenous knowledge, and cultural and human rights from the negative effects of biotechnology.

⁷ WIPO/GRTKF/IC/12/9 Prov. reporting the Twelfth Session, Geneva, February 25 to 29, 2008, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, WIPO, May 30, 2008.

⁸ IPCB, The Convention on Biological Diversity's International Regime on Access & Benefit Sharing: Background & Considerations for Indigenous Peoples (IPCB: Nixon, NV: IPCB, 2006), p.4.

⁹ Efforts toward building capacity in IP for development are emerging in Africa for example through a task force presided over by Ghana. The goal is "to promote local herbal medicines by protecting indigenous knowledge and genetic property and establishing benefit-sharing systems in addition to

Antony Taubman, the former acting-director and head of the Global Intellectual Property Issues Division at WIPO, has summarised a number of policy issues that remain problematic in the debate on how to adequately protect IP in TK.¹⁰ His list includes:

- Misappropriation—what is it to misappropriate TK/TCEs, 11 what is the cause of action and the nature of the damage?
- retroactivity —is the existing public domain legitimate and inviolable?
- Localisation—how to recognise and defer to a community's customary law?
- Collectivity—what legal status or legal personality for traditional communities?
- Ownership—what is the nature of custodianship? Who benefits?
- Subject-matter—what makes knowledge and cultural expressions "traditional"?

This article turns its attention to a number of these issues and attempts to provide an evidence-based account of the progress made to date in the field. It also draws attention to helping develop more sound theoretical bases from which to further engage with opportunities that present to increase legal clarity and predictability in the field.

Clarifying the concept of TK

In practice, the concept of TK is not only misunderstood by industrialised nations, their firms and agents. An African delegate at the failed WTO mini-ministerials of July 2008 commenting on proposals for disclosure of origin in patents stated that:

"... [T]he lack of development is so extreme in [least-developed] communities—and the forefront of biotechnological development so advanced—that there is limited capacity to understand what is contained within traditional knowledge and genetic resources that is being used in new products up for patenting. So those communities also do not understand how to get advantages from the use of their resources, he said, because they do not know what of those resources is inside the new product."12

tackling the spread of cheap, fake medicines that are causing an unnecessary loss of life . . .". In support of the initiative, Ghana's president, John Kufuor, has stated that:

. . . [P]rotection of intellectual property rights for local medical industries will sustain socioeconomic development that depends on investment and the growth of local industries, entrepreneurs and innovators who are willing to invest the capital needed to create brands and copyrights and to deploy money into research and development necessary to produce products which are accorded IP rights. To promote international investment, the task force will help West African countries to comply with international standards set by the WHO, World Intellectual Property Organization (WIPO), and the International Trademark Association (INTA), a US-based industry group."
See the August 8, 2008 Intellectual Property Watch report entitled "Anti-Counterfeiting Initiative

Aimed at Protecting African Medical Industries"

¹⁰ See Antony Taubman's presentation for the "Facilitating Participation in the IP and TK Debate in WIPO's IGC" Conference entitled "Inclusion, dialogue, diversity—forging new pathways", February 22, 2008, available on the http://ipronline.org website [Accessed March 23, 2009].

¹¹While acknowledging the parallels existing in the discourse for the protection of traditional knowledge (TK) and traditional cultural expressions (TCEs), this article's efforts primarily focus on the former.

¹² From IP Watch, July 30, 2008 entry, available at http://www.ip-watch.org/weblog/index.php?p=1184 [Accessed March 23, 2009].

There is, however, common ground for agreement between parties accepting that "[i]ntellectual property is a legal concept which deals with creations of human ingenuity".¹³

WIPO is a prominent forum where administrative aspects of TK are debated and formalised under consensus agreement. In practice:

"WIPO is expected by its Member States to be present at international discussions relating to genetic resources, traditional knowledge and folklore, to help clarify as far as possible the implications for intellectual property."

Importantly, WIPO also recognises the opportunity for change in that "the intellectual property system is dynamic, characterized by its ability to evolve and adapt". ¹⁴

With regard to the nature and difficulties encountered by WIPO and others engaging in the debate, John Mugabe writes that:

"The case of traditional knowledge of indigenous and local peoples has opened debate on the adequacy and ethics of intellectual property protection. The debate (particularly the absence of consensus on whether and how to extend intellectual property protection to traditional knowledge) has so far shown these issues are complex and controversial. This is partly because of differences in conceptual treatment and often lack of clarity on the two concepts of traditional knowledge and intellectual property. It is also because a scant body of information is available to those responsible for policy and law making, at both national and international levels." ¹⁵

Perhaps this statement was truer over 10 years ago when written. Today however, a significant body of studies, reports and evidence has emerged to inform policymaking in this increasingly relevant area of intellectual property law.

TRADITIONAL KNOWLEDGE AS COMMUNAL PROPERTY

Joseph Githaiga offers a view from the "South", stating that

¹³ See WIPO link http://www.wipo.int/about-ip/en/studies/publications/genetic_resources.htm for definitions [Accessed March 23, 2009].

¹⁴ Consult WIPO website, at http://www.wipo.int/portal/index.html.en [Accessed March 23, 2009].

¹⁵ John Mugabe continues that:

[&]quot;In addition, these issues are often debated in isolated United Nations, business sector and non-governmental organizations' conferences—each with its distinct sectoral interest and focus in the subject. For example, dialogue (within the ILO and the United Nations Working Group on Indigenous Populations, amongst others) on the human rights of indigenous peoples has seldom addressed, at least consistently, issues of intellectual property rights in traditional knowledge. The World Trade Organization (WTO) regime has not confronted the implications of its Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement) for the protection and use of traditional knowledge" (p.10).

See J. Mugabe, Intellectual Property Protection, and Traditional Knowledge: An Exploration in International

See J. Mugabe, Intellectual Property Protection, and Traditional Knowledge: An Exploration in International Policy Discourse (Nairobi, Kenya: ACTS Press, African Centre for Technology Studies, 1999).

". . . [M]odern intellectual property law regimes, which are rapidly assuming global uniformity, have facilitated and reinforced this process of economic exploitation and erosion of indigenous peoples' cultures. This is because they are based on notions of property ownership which are alien and detrimental to indigenous peoples." ¹⁶

He contrasts the Eurocentric position premised on the view that individuals have the right to private property, to that of indigenous groups interested in preserving and developing communal rights and interests.

It is not clear that the distinction can always be made in such a clear way given that indigenous groups might be open to commercial uses of their knowledge. Also, Western-based firms or philanthropists may have interest in promoting indigenous art and financially support their patronage. Similarly they might want to invest in preserving traditional knowledge and genetic resources for long-term sustainability and access. Even in such a permissive context, however, both parties must work the precise legal mechanism through which "use or alienation of indigenous heritage must be sanctioned by the community as a whole or by its traditional custodians acting with the mandate of the community".¹⁷

TK: what it is

A 2002 World Intellectual Property Organization (WIPO) report on the intellectual property needs and expectations of traditional knowledge holders includes in the traditional knowledge sub-category:

"... tradition-based literary, artistic and scientific works, performances, inventions, scientific discoveries, designs, marks, names and symbols, undisclosed information and all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic field". 18

Further, according to WIPO:

"Contrary to a common perception, traditional knowledge is not necessarily ancient. It is evolving all the time, a process of periodic, even daily creation as individuals and communities take up the challenges presented by their social and physical environment. In many ways therefore, traditional knowledge is actually contemporary knowledge. Traditional knowledge is embedded in traditional knowledge systems, which each community has developed and maintained in its local context. The commercial and other advantages deriving from that use could give rise to

¹⁶ J. Githaiga, "Intellectual Property Law and the Protection of Indigenous Folklore and Knowledge" (1998) 5(2) E Law: Murdoch University Electronic Journal of Law para.18, available at http://www.murdoch.edu.au/elaw/issues/v5n2/githaiga52.html [Accessed March 23, 2009].

¹⁷ Githaiga, "Intellectual Property Law and the Protection of Indigenous Folklore and Knowledge" (1998) 5(2) E Law: Murdoch University Electronic Journal of Law para.4.

¹⁸ Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, December 9–17, 2002, *Elements of a Sui Generis System for the Protection of Traditional Knowledge*. Geneva: WIPO Secretariat. WIPO/GRTKF/IC/4/8, pp.9–10.

intellectual property questions that could in turn be multiplied by international trade, communications and cultural exchange." ¹⁹

TK: what it is not

The WIPO definition, while obviously concerned with intellectual property law, also seems to distinguish between intellectual property related forms of traditional knowledge, other forms of real or moveable property, and heritage protection in a broader sense. Figure 1 represents one way of representing the relationship between these concepts showing the relative conceptual boundaries of our current understanding of TK.²⁰



Figure 1

Two other alternative terms that have been used in the past in this context have been "folklore" and "indigenous cultural and intellectual property", which are not as commonly used at present as traditional knowledge for different reasons. Michael Blakeney points out that there has been a shift away from using "folklore" because it was criticised for its Eurocentric content and for its inability to express the holistic conception of many non-Western communities with regard to knowledge and its transmission. ²¹

Similarly, the term "indigenous cultural and intellectual property" used in the report drafted by the Aboriginal rights activist Terri Janke includes indigenous ancestral remains, sacred indigenous sites, so-called "cultural environment resources" such as minerals and species and even languages as far as they are relevant for "cultural identity, knowledge, skill and the teaching of culture". 22

¹⁹ http://www.wipo.int/about-ip/en/studies/publications/genetic_resources.htm [Accessed March 23, 2009].

²⁰ WIPO, WIPO Report on Fact-finding Missions on Intellectual Property and Traditional Knowledge (1998–1999), Geneva: 2001), Part One, p.26. Full report available at http://www.wipo.int/tk/en/tk/ffm/report/final/index.html [Accessed March 23, 2009].

²¹ See C. Antons, "Traditional Knowledge and Intellectual Property Rights in Australia and South Asia" in C. Heath and A. Kamperman Sanders (eds), *New Frontiers of Intellectual Property Law: IP and Cultural Heritage, Geographical Indications, Enforcement and Overprotection* (Oxford: Hart Publishing, 2005), pp.37–52.

²² Antons, "Traditional Knowledge and Intellectual Property Rights in Australia and South Asia" in *New Frontiers of Intellectual Property Law*, 2005, p.41.

What emerges from these discussions is that the term "traditional knowledge" is much wider than "folklore" in the sense previously used (and is meant to include copyright related artistic expressions such as handicrafts, dances and music), but much narrower than "indigenous cultural and intellectual property". Finally while the WIPO definition of traditional knowledge can be taken to be much narrower than what is meant by "heritage" it is, however, wider than the concept of "indigenous knowledge" which implies that it is applied and produced by indigenous peoples, which may not necessarily be the case.

A useful manner in which to represent TK with relation to the protection it might attract in terms of property rights is to examine its status in the wider intellectual commons where all types of knowledge are managed. The commons is a conceptual landscape containing both public and private intellectual goods, products and processes that have a potential to attract protection in IP or not.

Traditional knowledge in the intellectual commons

In more detail, the intellectual commons of nations differ from mere physical landscapes subject to property claims. They can be fenced in and conceptually enclosed like the more familiar physical property landscapes subject to private rights in goods and land. There are few remaining pure commons in land and resources in modern times. Drawing a distinction, in fact, Kenneth Himma argues that:

". . . [T]he intellectual commons, unlike the land commons, is not a resource already there waiting to be appropriated by anyone who happens to be there; it is stocked by and only by the activity of human beings." 23

The international dimensions of the intellectual commons of nations are regulated by IP agreements and conventions. Those IP domains related to trade are mandated by the international trade law laid in the minimum standards of the TRIPs Agreement. There is a variety of legal instruments that apply to intellectual objects in the international intellectual commons. This large array of legal tools makes up a complex regulatory framework which allows "management" of the commons. Such measures are effective in preventing free-riding in most cases. The variety of protection offered in the intellectual commons attempts to cover the various domains and uses intellectual objects serve in the commons.

Relevant human activity in the intellectual commons tends to produce intellectual objects identifiable as discoveries, inventions and innovations. Not all such species of intellectual objects, however, receive protection from currently existing legal instruments in property rights. Discoveries in nature and unexpressed ideas are such unprotected exceptions. These are taken to be obvious, common-or-garden.

²³ K. Himma, "The justification of intellectual property: contemporary philosophical disputes", Berkeley Center for Law and Technology, Paper 21, 2006, p.11, available at the eScholarship Repository, University of California, http://repositories.cdlib.org/bclt/lts/21/ [Accessed April 20, 2009].

Brushing aside the more mundane pieces of information, "the most important, interesting, non-obvious propositional objects [in the logical space of the commons]²⁴ cannot be readily consumed until someone . . . makes them available to other people". It is undoubtedly the creative arrangements, sequences, relationships and order of these various objects in the "logical space" of the commons that count as inventive or non-obvious.

Unarranged objects would simply pass as simple facts or pieces of informational data which are ready to be manipulated in a new way in logical space. Creatively manipulated facts (such as new inventions or expressed ideas) can resonate with other intellects. These recognise novelty of invention or newly particular expressions of ideas.

The minds or intellectual agents in turn might grasp, replicate and improve upon that intellectual activity once they are made aware of it. Such inventors or innovators have in fact contributed to a "significant" change in the intellectual commons. They have altered the landscape of the intellectual commons in a significant and noticeable way.

The challenge is to take this analysis a little forward, and ask whether and in what conditions custodians or holders of traditional knowledge can be said to have a moral right to the knowledge they hold in the intellectual commons. Perhaps traditional kinds of knowledge must be given status at national levels first in order to gain status in international law, or vice versa. It might indeed be too soon to tell, but significant developments both in what has been proposed and what occurs in practice suggest how traditional knowledge might be managed in the commons.

The suggestion is made in the literature that this diversity of terms for TK, and lack of precision in definitions used in the debate, are in large part responsible for the lack of concerted approach in the types of intellectual property instruments and approaches taken to protect that knowledge. But this really is a hasty conclusion given that we are yet to determine whether in the first place traditional knowledge holders have a moral right to claim property in that knowledge. If indeed there is an area or domain in the intellectual commons for traditional (forms of) knowledge, then can we show that its custodians have a moral right in it?

TK holders are not creators

The relationship of guardians or custodians of knowledge to the intellectual commons is quite different from that of creators, inventors and innovators. Already the difference between concepts or guardianship and custodianship suggests that the domain of the commons where a particular element of traditional knowledge resides might not always be (or have the potential to become) public. And that is by virtue of the exercise of discretion of those who hold that knowledge in their trust, and whose tradition might dictate they view as sacred or otherwise.

By definition it is generally accepted that the general body of knowledge pertaining to a whole tradition and way of life, and on how to interact with the natural world, cannot have arisen from one individual or a single creator but rather over decades, centuries or millennia through the interaction of individuals and their groups. Similarly it is also

²⁴ The logical space of the intellectual commons can be described as a working space or conceptual space of sorts where the human intellect is at liberty to exercise its critical powers of analysis and deduction.

inferred that even specific traditional knowledge is the result of generational indigenous (sometimes crude) empirical investigation based on incremental improvements by a process of trial and error, and therefore cannot be the single property of one living heir or even of those that have contributed to that specific knowledge, but who no longer live.

Hence it appears highly unlikely that those traditional communities would seek Western-type individualistic forms of protection for their knowledge, specific or otherwise, given the importance of co-operation and open sharing among all the members within that community, or of specific select groups of practitioners, where that is the mode of knowledge generation. Nonetheless, the argument that such communities offer to protect their collective knowledge faces substantial difficulties for recognition at law.

It is essentially true that TK holders or custodians or holders of traditional knowledge, broadly defined, are not its creators in the strict sense of the term. While it is clear that a number of widely adopted international agreements have referred to the high seas and to the human genome as the "common heritage of mankind", the rights and privileges flowing from that concept bequeath a responsibility for sustainable stewardship of the oceans and their resources as well as responsible use of the human genome for the advancement of humankind.²⁵ Despite these statements of recognition of humanity's standing with regards to these resources, relevant treaties fall short of ascribing full moral rights arising from that recognition.²⁶

There is room to argue that traditional knowledge is exactly in that position with regard to the fact that recognition could be given without the prerogative of moral rights necessarily having to be vested in those that simply hold it in trust for their—and future generation's—enjoyment or consumption. Or, in fact, is it simply a matter of applying a general principle to cover the particular case of giving recognition to those who hold "the common heritage of an indigenous group"?

The unlikelihood of such top-down approaches to the argument ever being successful arises because of differences in the type, quality and potential benefits that can arise from these dissimilar resources, namely the oceans and traditional knowledge. Nonetheless, one would do well not to dismiss recent developments and proposals coming, as it were, from the bottom up in the law of equity and in the law of personality that seem to compensate for these difficulties.

Case law and the legal literature are not clear on whether there are collective rights. From time to time, some judges at common law render surprising judgments that allow theorists and practitioners reflection on the matter at hand. One such incident arose in Australia where Justice von Doussa pointed out that the assumption of communal ownership to a copyrighted work would involve the creation of rights not

²⁵ Some may object here on the basis that the high seas are being used in an ecologically responsible manner, or that the human genome sequence is being used for the purposes of basic scientific research rather than commerce are both debatable.

²⁶ The AAAS Handbook on TK and IP states that "moral rights have historically been associated with written works and copyright [as *droit d'auteur* in French civil law for instance]. In the context of TK, moral rights may be defined as the rights of the knowledge holders to be given proper acknowledgement of their TK, not to have it modified without permission, and not to have it used in a manner that discredits TK holders" (p.5), available at http://shr.aaas.org/tek/handbook/handbook.pdf [Accessed March 23, 2009].

otherwise recognised by the Australian legal system.²⁷ Commenting on the outcome and significance of the case, Antons writes:

"Instead of communal ownership, Justice von Doussa in an important *obiter* remark was prepared to recognise a fiduciary obligation of an Aboriginal artist as the individual holder of the copyright to preserve the religious and ritual significance of a work that made use of traditional symbols. By using the equitable concept of the fiduciary obligation, the judge placed the Aboriginal artist in a similar position vis-à-vis his/her community as a trustee towards a beneficiary." ²⁸

Antons concludes this thought by stating that "it seems that the possibilities of the law of equity in common law countries with regards to folklore and traditional knowledge protection are yet to be fully explored".²⁹

If parties were prepared to explore further the principle of applying a trustee–beneficiary relationship between the "holder representative" and "holders collective", a number of important considerations would have to be made. First, it would be considered a matter of normality that each and every member of the said community be able to act as a trustee in the capacity to which they intend to make use of the traditional knowledge of their group, either as artists, healers or practitioners of the kind of their choosing. This right to represent, as it were, must be limited only to the individual acting as a holder in trust of certain components or aspects, rather than the totality, of the group's traditional knowledge.

This means that even when it comes to giving permission to outsiders or non-members of the group, the trustee's power is limited to the ascent of the whole community which holds, and has interest in, a particular component or aspect of their traditional knowledge which is theirs through heredity or group inclusion. Similarly therefore, in order to allow outsiders the use of their traditional knowledge, a recognised group of elders or trustees appointed by the community must determine how and with whom a part of the entirety of their traditional knowledge is to be shared. This obviously falls short of the ideal situation of having 100 per cent of the relevant community give ascent to use its traditional knowledge, but is a pragmatic compromise which ensures the legitimacy of whatever decision is reached on the matter.

Another original view on a possible approach to take to recognise communal rights (TK or other) takes inspiration from developments in the law of personality. Antony Taubman suggests that essential aspects of the law of personality pertaining to privacy, confidentiality and publicity can provide adequate protection for a collective personality of a traditional community. The two very important questions Taubman asks in this context are "[c]an a community be considered to have a collective personality, as a way of characterising a shared, but distinctive, cultural identity [; and] [i]f so, how should its integrity be protected?"³⁰

²⁷ John Bulun Bulun v R & T Textiles Pty Ltd [1998] F.C.A. 1082.

²⁸ Antons, "Traditional Knowledge and Intellectual Property Rights in Australia and South Asia" in *New Frontiers of Intellectual Property Law*, 2005, p.44.

²⁹ Antons, "Traditional Knowledge and Intellectual Property Rights in Australia and South Asia" in *New Frontiers of Intellectual Property Law*, 2005, p.44.

³⁰ A. Taubman, "Is there a right of collective personality?" [2006] E.I.P.R. 485, 485.

He provides answers that suggest that the possibility of establishing a right of collective personality also depends on the recognition of identity of collective entities, which in Taubman's view goes to the legal personality and standing of a community. The issue that reaches beyond the notion of simple recognition of identity, in his view, is the one concerned with establishing a separate legal category recognised as a collective personality. Taubman makes the suggestion that it would simply be a matter of extending notions of personality already existing in the law. Indeed he considers that it appears reasonable to increase the scope of the legal notion of personality to collective personality from those already recognised which are: a natural person, a couple, a fictitious human character, and fantastic fictitious characters. ³²

One of the conceptual problems with such a move is that the essence of distinctive characters is their identifiable variable for personhood, and combining a large number of them into a collectivity really does not alter the separateness of their individual autonomy associated with their individual personhoods. This means that the whole cannot be considered the sum of its parts in the gaze of the law, but really as various collective superseding qualities of the whole (in this case having to do with traditional values and customs) which generally prevail over individual noise in the mix.

In the socio-legal mindset of Western nations, giving up the essential individualism that is stock and barrel part of the legal constellation of its evolutionary past would be too high a cost to pay at this stage of modern legal development. Rather, the compromise that must be reached to accommodate traditional communities aspiring to collective personality in the law is to extend current recognition given to protect "the arts and crafts, and tribal insigna of recognised tribes" to the recognition of its custodians.³³

Of course that custodial obligation of traditional communities to preserve and bequeath their traditional knowledge, even for those yet unborn in their midst, is not a figment of their imagination, and can be traced in many instances to customary law. In a sense to altogether avoid the awkwardness of identifying individual custodians who are part of the community as right holders, by creating a collective personality that is indistinct, goes a long way toward increasing the likelihood that appropriate group-based decisions are made about what should be done with their traditional knowledge. For wouldn't every member of the group be entitled to recognition of his or her rights should custodians be recognised directly?

In addition to giving recognition to a concept of collective personality, adequately protecting traditional knowledge also means deciding what this recognition affords these groups in terms of rights that can be exercised by the collective and the cause of action that can be invoked to remedy infringement of its rights to personality proper. So here, the question which needs asking, as stated earlier, is: how should the integrity of collective personality be protected?

In short, protection of a community's collectively held traditional knowledge does not mean simply closing off links with other cultural communities—or of the related

³¹ Taubman, "Is there a right of collective personality?" [2006] E.I.P.R. 485, 490.

³² Taubman, "Is there a right of collective personality?" [2006] E.I.P.R. 485, 490. It would seem that if the law recognises couples and fictional characters, and even fantastic ones, it might not be such a big conceptual leap to also include collectives and indigenous groups.

³³ Taubman, "Is there a right of collective personality?" [2006] E.I.P.R. 485, 491.

commercial domain—to exploit that knowledge. It might, however, mean deciding what aspects of the collective identity may be used and disseminated beyond the community, and on what terms. The constraints of customary law for exercising confidentiality—for example in cases where knowledge should be passed on to a certain birth age cohort, or to traditional medicine apprentices only for instance—must be negotiated at all times in order to respect the cultural identity that forms an important part of the essence of the community. In summary, the causes of action that would be available to infringement on the right of personality would be:

"... the manifold causes of action loosely grouped together as a right of personality ... [and which] roughly mirror the diversity of the multifarious forms of misappropriation, free-riding and unjust enrichment, intrusion, illegitimate invocation of identity, and cultural offence and damage claimed by indigenous, local and other traditional cultural communities".³⁴

One of the difficulties with the "law of personality" approach is that there are inadequate financial penalties in remedying the breach of personality rights. Another is that in a plaintiff-led field of law, marginalised communities are unlikely to have the resources to extend the law in the direction that would recognise their collective personality and identity. In the end, Taubman suggests that:

"... [R]ecognising a collective right of personality—systematically, or through the concretion of case law—may help restore the public interest dimension to the law of personality, deliver equity to the culturally dispossessed, and deploy the law of personality and general IP law to promote, not stifle, cultural diversity." ³⁵

The two options discussed here are (1) to place artists (or community members) in fiduciary trust of the symbols and component items of their traditions by way of the law of equity; or (2) to develop the law of personality to recognise collective personality and provide mechanisms to maintain its integrity. These approaches stand in stark conceptual contrast from each other in that the first still attaches traditional rights to individual entities or persons, while the second would entirely supersede the notion of individualism entrenched in Western legal tradition, and nearly approximate the particular sense of collective identity which is known to belong to a large number of traditional communities.

The rights of non-TK holders

The often very real differences in moral, philosophical and religious positions that exist between traditional knowledge custodians and others, or outsiders, suggest that the respective perspectives on the rights of access to that knowledge can also at times differ dramatically. Here, invoking the very fundamental values of utility, autonomy, privacy and justice in a pluralistic mode might inform policymakers on the possible outcomes of a situation where there is question of the level and quality of access to a traditional

³⁵ Taubman, "Is there a right of collective personality?" [2006] E.I.P.R. 485, 492.

³⁴ Taubman, "Is there a right of collective personality?" [2006] E.I.P.R. 485, 485–486.

knowledge resource component k which a particular custodian community x could provide to others who do not belong to that particular community.

Should one give consideration to the value of utility, it might be more instrumentally productive that, for instance, TK about medicinal properties of a specific plant held by its custodians be "shared" with a powerful pharmaceutical company that intends to develop a drug out of that knowledge. This is of course assuming that the principle of utility favours doing good for, or reaching, the greatest number possible. Alternatively, it is true that holding this knowledge secret within the community might also be useful to its members, or other groups (or perhaps also particular individuals) judged to qualify by the community. In terms of numbers however, the principle of utility might suggest the TK be readily and most efficiently transferred to the company.

When one looks at observing the principle of autonomy for the same example, the power to maintain control over one's traditional knowledge might confer a very real and cultural/spiritual sense of independence and self-reliance where that knowledge is used to the benefit of the community. Even where the knowledge is held by a small circle of practitioners, those who belong to that community at large and who benefit from the particular TK through membership may also feel the real sense of autonomy that group self-reliance brings, and in not having to depend on outsiders for their technological knowledge and expertise.

Similarly, it might be of some significance that when the value of privacy is invoked in the context of taking a pluralistic approach to protecting the right, there is a very limited extent to which formal IP rights can maintain secrecy about TK. In fact TK might spill over into the public domain even where it is protected say, by a patent, through patent claim disclosure. Where the issue is to maximise potential benefit from the applications or products arising from TK, trade secrecy might be a temporary solution that could bind companies dealing in TK with indigenous groups to maintain a trade secret in that knowledge with regard to their competitors in that market, or from others who have an interest in that knowledge.³⁶ However, even where financial benefit is secured in that period of exchange of TK under contract for the maintenance of privacy associated with trade secrets, it can only last for as long as the trade secret, or depending on the terms of the contract regulating that exclusive relationship.

³⁶ In the converse situation where the rights to privacy of the individual have to be weighed against those of a group, an interesting test is offered that also balances the outcome of these considerations. The question of how the circumstances in which the interests of others outweigh those of the individual in the content he creates can be evaluated is based on a concept developed in David Townend's article "Overriding Data Subjects' Rights in the Public Interest" in D. Beyleveld, D. Townend, S. Rouille-Mirza and J. Wright (eds), *The Data Protection Directive and Medical Research Across Europe* (Aldershot: Ashgate, 2004), pp.89–101. There he writes that in the context of data protection in medical research:

[&]quot;... [T]he public interest must be balanced by considering the situation as balances between individuals. Thus, the rights of single individuals must stand against other single individuals in the balance if individuals are not to be used instrumentally... In order to breach the fundamental rights and freedoms of the actual individual, the balance must be struck with a reasonably foreseeable potential individual, that is not a specific actual individual, but a person who is imaginable in the community... It is not that those rights are potential (for example different from the rights of the actual right-holder), they are the fundamental rights and freedoms of an unknown but not unforeseeable individual from within the community" (p.100).

Finally, should the value of justice or equity become one of the considerations in the pluralistic approach to administer use and access to TK, different sets of results might obtain. For instance, recognition of historically negative and harmful legacies of colonialism with respect to the subjugation and oppression of indigenous groups around the world might suggest that some form of redress could be achieved through an IP mechanism.³⁷ While the Convention on Biological Diversity (CBD) makes provisions for benefit-sharing in cases where genetic resources resulting from indigenous groups' prior traditional knowledge is relevant, it does not explicitly state that the motivation is to mitigate the effects of colonialism in those societies.

Nonetheless, the issue of equity as seen from the perspective of distributive justice dictates that a fair distribution of harms and benefits ought to occur. While initially seemingly "giving away" TK to the public domain might appear harmful to many indigenous groups, perhaps balancing the benefits that can be reaped from that knowledge—from the revenues generated by associated products manufactured by multinationals using that knowledge—might contribute significantly to the pursuit of the principle of justice.

To sum up, it is quite clear that the actual balancing act performed at this junction by policy- and decision-makers will mostly depend on the values they feel, with the consultation of the indigenous groups concerned, ought to take precedence at the given time and in the cultural context where that particular set of considerations is most reasonable or practicable.

Where the issue in evaluation is the justification for grant of IP protection to traditional knowledge, it is worth considering that in different situations, providing IP protection might be more justifiable than in others where it is less so. Accepting this state of affairs must not, however, be construed as a radical endorsement of all forms of IP protection for TK, but rather as a preliminary position from which to explore suitable IP instruments and regimes that might be most appropriate in the context of protecting traditional knowledge. The next section will begin to provide a sense of the current debate that surrounds proposals for devising adequate IP protection regimes for TK.

PROPOSED SOLUTIONS FOR PROTECTION OF TK

In the area of public international law, there already exists a range of international legal treaties, conventions and instruments that address the treatment of indigenous traditional knowledge. These include:

• the Convention Concerning the Protection of the World Cultural and Natural Heritage 1972 (the UNESCO Heritage Convention);

³⁷ The legacy of indigenous groups' oppression is most significant when one considers the systematic annihilation of indigenous languages in African slaves brought to the New World. They were not permitted to speak their languages and were punished corporally for taking part in practices or ceremonies considered to be primitive by the slave masters. Of course, oral tradition is the mechanism through which traditional knowledge and customary practices are passed on from one generation to the next.

- the Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property 1970 (the UNESCO Cultural Property Convention);
- the Convention Concerning Indigenous Peoples in Independent Countries 1986 (ILO Convention 169)³⁸;
- negotiations concerning the FAO's International Undertaking on Plant Genetic Resources (the IUPGR-FAO);
- the Convention on Biological Diversity 1992 (the CBD)³⁹; and
- United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa 1994 (the UNCCD).40

A standard criticism of international conventions in this area, however, is that they consider the protection of indigenous knowledge an essential component of the greater concern for global ecological sustainability. Indigenous peoples' declarations, on the other hand, perceive the protection of their knowledge as a fundamental aspect of their ultimate right to self-determination.⁴¹ It is, however, not always clear that these goals are necessarily mutually exclusive in all instances.

Interestingly the most important intellectual property agreement of the 20th century, TRIPs, does not mention or treat the subject of TK.⁴² This is an omission that has seen legal practitioners and policymakers explore a number of possibilities for adapting or creating new norms from existing IP laws.

To date, patents have proved insufficient to protect TK related to genetic resources. A number of other mechanisms have been used and proposed to compensate for these inadequacies. In addition to adopting a disclosure of origin policy for patent filings related to TK, ⁴³ other administrative and legal proposals include:

 the creation of an ombudsman or public defender to investigate abuses against indigenous communities;44

³⁸ ILO Convention 169 art.15.

³⁹ More specifically, provisions for the protection of indigenous traditional knowledge include Principle 22 of the Rio Declaration on Environment and Development and Ch.26 of Agenda 21 both proclaimed at the 1992 Rio Earth Summit; and art.8(j) of the Convention on Biological Diversity. See Michael Blakeney, "Bioprospecting and the Protection of Traditional Medical Knowledge of Indigenous Peoples: An Australian Perspective" (1997) 6 European Intellectual Property Reporter 298, 300–303.

⁴⁰http://www.wipo.int/export/sites/www/tk/en/tk/ffm/report/interim/pdf/7.pdf [Accessed March 23, 2009].

⁴¹ Blakeney, "Bioprospecting and the Protection of Traditional Medical Knowledge of Indigenous Peoples" (1997) 6 European Intellectual Property Reporter 298, 300.

⁴²P. Drahos, and J. Braithwaite, *Information Feudalism: Who Owns the Information Economy?* (London: Earthscan Publications Ltd, 2002), p.10.

⁴³ M. Berglund, "The Protection of Traditional Knowledge Related to Genetic Resources: The case for a modified patent application procedure" (2005) 2(2) SCRIPT-ed 206, 209 et seq., available at http://www.law.ed.ac.uk/ahrc/SCRIPT-ed/vol2-2/TK.pdf [Accessed March 23, 2009].

44 G. Dutfield, Intellectual Property Rights, Trade and Biodiversity: Seeds and Plant Varieties (London:

Earthscan & IUCN, 2000), p.81.

- voluntary contractual regimes to ensure access and benefit-sharing such as material transfer agreements (MTAs) or information transfer agreements (ITAs);⁴⁵
- voluntary guidelines and codes of conduct such as the FAO International Code of Conduct for Plant Germplasm Collection and Transfer,⁴⁶ the Bonn Guidelines⁴⁷ and the WIPO IGC draft IP Guidelines for Access and Benefit-Sharing⁴⁸;
- databases and community registers to publish TK in the public domain and hence, failing novelty, block the grant of patents based on indigenous knowledge;⁴⁹ and a Global Bio-Collecting Society (GBS) providing a TK register mechanism at the global scale⁵⁰;
- plant breeders' rights used to cover new plant varieties under the UPOV Convention(s).⁵¹

⁴⁵ WIPO has gone some ways in drafting minimum standards and IP guidelines for access and benefit-sharing. Colombia and Costa Rica have shown some experience with such contractual regimes. See World Intellectual Property Organization, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, *Genetic Resources: Draft Intellectual Property Guidelines for Access and Equitable Benefit-Sharing* (2004), WIPO/GRTKF/IC/7/9.

⁴⁶ The FAO Code deals with agricultural uses of genetic resources, and recognises the impact of actors other than plant collectors, donors, sponsors, users and curators. It encourages the use of material transfer agreements (MTAs) and benefit-sharing. See World Intellectual Property Organization, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Matters Concerning Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore—An Overview (2001), WIPO/GRTKF/IC/1/3, para.39.

⁴⁷ The Bonn Guidelines were adopted under the aegis of the CBD and deals with issues related to access to and benefit-sharing related to genetic resources. The Guidelines encourages increasing indigenous community participation and capacity to participate, prior informed consent, and mutually agreed terms. Derivatives of genetic products should also receive protection under Bonn.

⁴⁸ World Intellectual Property Organization, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, *Genetic Resources: Draft Intellectual Property Guidelines for Access and Benefit-Sharing Contracts* (2004), WIPO/GRTKF/IC/6/5

⁴⁹ Berglund aptly states that:

"By voluntarily placing information in community registers indigenous communities also forgo the possibility of receiving compensation for that knowledge. Open-access databases should only be used for TK which is already in the public domain or for which prior informed consent has been obtained. Insight as to how to obtain compensation for TK in the public domain may be gained from systems of domaine public payant whereby royalties are paid for the use of artistic or musical works in the public domain. To avoid this issue of non-compensation, confidential registers have been proposed."

been proposed."
Berglund, "The Protection of Traditional Knowledge Related to Genetic Resources" (2005) 2(2) SCRIPT-ed 206, 209 and 213. On proposed related payment mechanisms for databases, see WIPO, Genetic Resources: Draft Intellectual Property Guidelines for Access and Equitable Benefit-Sharing (2004), para.73(iv).

⁵⁰ See P. Drahos, "Indigenous Knowledge, Intellectual Property and Biopiracy: Is a Global Bio-Collecting Society the Answer?" [2000] E.I.P.R. 245.

⁵¹ John Mugabe writes that:

"Plant breeders' rights are useful regimes for countries that do not wish to extend patents to plant varieties and other living organisms. However, in 1991 several amendments that tilt plant breeders' rights more towards patents were introduced in the UPOV Convention. First, there was an expansion of subject matter for protection under the regime of plant breeders' rights. The 1978 Act of the UPOV Convention provided protection only to plant varieties of nationally defined species. The 1991 Act extends protection to varieties of all genera and species. In addition, the revised UPOV Convention has extended protection to commercial use of all material of the protected variety while the 1978 regime restricted the commercial use of only the reproductive material of the variety."

Mugabe, Intellectual Property Protection, and Traditional Knowledge (1999), p.13.

TABLE 1 Administrative and other legal methods for protecting TK

Proposals	Problems	
Ombudsman	May be unwelcome where national government at fault	
Contracts	Unequal bargaining power of parties; lack of legal resources and experience by DCs to defend contracts; over-reliance on NGOs for capacity building and advocacy	
Codes of conduct	Corporations can disregard codes of conduct in relations with DCs; application of the guidelines cannot be legally enforced	
Databases	Patent examiners in certain jurisdictions, namely the US, do not extend novelty or prior art search to other countries; once in public domain TK is no longer under control of indigenous community; published TK can still be used to develop new products; would need to be limited-access databases to obtain compensation	
Plant breeders' rights (UPOV)	Limited "farmer's privilege" in the 1991 Act weakens the economic position of rural farmers and stifles local and traditional innovations; does not recognise the knowledge and other contributions that indigenous and local peoples make to plant breeding programmes	

Traditional knowledge protection is often thought of in the context of biodiversity and genetic resources. Table 1 describes problems that must be overcome with proposals for protecting TK in genetic resources through administrative or legal methods.

Traditional knowledge need not necessarily be related to plant or genetic materials. In fact, the knowledge that indigenous peoples may possess might have nothing to do with genetics as this frame of analysis is relatively recent in modern times. It is therefore an implicit assumption which suggests that the modern Western paradigm promulgated by Western scientists is to constitute the legitimate frame of reference for assessing whether the knowledge thus derived from traditional or indigenous groups qualifies in term of its genetic component usage.

Where assumptions as to the nature of the knowledge passed down from indigenous groups are not so rigidly bound to Western scientific assumptions, a wider range of legal instruments that have been proposed in IPR law also include:⁵²

⁵² WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, May 30, 2008, Draft Gap Analysis on the Protection of Traditional Knowledge, available at http://www.wipo.int/tk/en/igc/gap-analyses.html [Accessed April 20th 2009].

- undisclosed or confidential information or also trade secrets;⁵³
- unfair competition laws covering protection against specific acts of confusing, false or misleading representations, and also wrongful suggestions that TKrelated products are endorsed or authorised by such relevant community;
- distinctive signs which include trade marks, service marks, certification and collective marks⁵⁴ which can be used defensively to refuse or invalidate marks that would create cultural or spiritual offence to indigenous communities;
- industrial design laws used to protect TK related to a way of producing tools or handicrafts;
- copyright and related laws as apply to descriptions of TK included in databases, and compilations of TK of which contents selection or arrangement constitute intellectual creations.

A number of difficulties are attached to these modes of protection of IP in TK. Table 2 lists those identified as most relevant to finding practical solutions in the debate.

TABLE 2 IPR proposals for protecting TK

Proposal for protection	Problems for adequate protection
Undisclosed information	Disclosure within a defined traditional community might not be considered "secret"; uncertainty as to the role of customary law and practices in meeting the standard of confidentiality; knowledge of spiritual or cultural value to community may not be protected when third party realises commercial benefit in their terms
Unfair competition laws	Definition of what constitutes "competition" might be fluid as it is determined by each country; it is unclear what standard definition will apply to "contrary to honest practices in industrial or commercial matters"; national authorities will have to take account of honest practices established in international trade law, and in the jurisdiction where protection is sought; sanctions and remedies provided by individual national laws apply
Distinctive signs	Cannot protect knowledge as such
Design law	Does not address the content of knowledge as such, and is more relevant to the protection of traditional cultural expressions; possible to exclude protection for designs based on technical or functional considerations

 $^{^{53}}$ Undisclosed information provisions are stipulated under TRIPs art.39 and Paris Convention art.10 bis.

⁵⁴ Provisions for distinctive signs are found in the TRIPs Agreement, the Madrid Agreement and Protocol, the Lisbon Agreement on Protection of Appellations of Origin and the Paris Convention.

TABLE 2 (Continued)

Copyright law	Deals with the form of expression and does not protect
	knowledge as such; more relevant to the protection of
	traditional cultural expression than for TK; the know-
	how and substantive content of TK could be taken and
	used by third parties, commercially or otherwise, ⁵⁵ even
	if included in a copyright-protected database

The debate on the protection of traditional knowledge through intellectual property law has also broken new ground in various human rights fora. More particularly now, and unlike in colonial or pre-modern times, the appropriation of TK by industrialised country firms and nationals without fair compensation or reward to indigenous peoples is seen as contravening a number of modern liberal values. It is widely accepted that fundamental, moral and legal norms should protect people from economic, ecological, moral and ethical exploitation.

Critics in that area support the view that:

". . . [T]he concern in the human rights forums is therefore whether and how to apply international human rights standards and laws to protect traditional knowledge of indigenous and local peoples as their intellectual property."56

To that end, rights in traditional knowledge are explicitly regarded as part of a bundle of human rights. The most likely instruments cited to provide such a protection include the Universal Declaration of Human Rights 1948 (the UDHR) and the International Covenant on Economic, Social and Cultural Rights 1966 (the ICESCR).⁵⁷

⁵⁵ There is also a related concern which applies to know-how content which is present in patent pools arrangements or open-source agreements. In such cases, it is necessary not to assume that know-how is automatically passed on in technology transfer agreements, as know-how is in essence the intangible part of an intangible right. Material transfer agreements (MTAs) and other types of information transfer agreements (ITAs) which are based on a patent pool or open-source models of collaborative research—and perhaps crucially so when they involve a developing country partner—must therefore include formal mechanisms to transfer know-how, in addition to other intellectual property. This insight was gained from attending an Intellectual Property Seminar delivered by Rosemary Wolson, Senior Intellectual Property Manager, Council for Scientific and Industrial Research (CSIR) entitled "IP Management & Technology Transfer at the CSIR Sharing Experiences in Bioprospecting & Other Areas". This South African Department of Science and Technology (DST), Japan International Cooperation Agency (JICA) and World Intellectual Property Organization (WIPO) ''Joint Seminar for Capacity Development on Intellectual Property" presentation was given on January 27, 2009, in Pretoria.

⁵⁶ See generally D. Posey in V. Sanchez and C. Juma (eds), Biodiplomacy: Genetic Resources and

International Relations (Nairobi: African Center for Technology Studies (ACTS) Press, 1994).

⁵⁷ For example, art.1 of the ICESCR "establishes the right of self-determination, including the right to dispose of natural wealth and resources. This implies the right to protect and conserve resources, including intellectual property". Posey goes on to argue that art. 7 of the UDHR can be used to extend intellectual property to the traditional knowledge of indigenous peoples. Article 7 states that "All are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any

PROTECTING IP IN TK IN PRACTICE

At the other end of the spectrum of protection proposed for TK, member nations part of public international law conventions and treaties have taken and reviewed different approaches in practice to protect IP in TK. This has been consciously done in order to protect TK and indigenous rights in their jurisdictions through recognition of the relevance of customary laws, or by introducing legislation into common law in the case of Australia.

These measures have also been forward-looking in the case of some members who have sought to promote industry and trade through documentation of traditionally held knowledge. These countries have recognised the commercial potential that formalised TK systems may have for trade. In many instances, prohibitive patenting costs and seemingly unreachable novelty and inventiveness criteria have been a motivation for exploring other IP protection measures.

Case studies

The following case studies on Australia, South Africa, India and China demonstrate the practical methods of IP protection individual countries have devised and are building towards for the purposes of protecting traditional knowledge.

Australia
Githaiga writes that:

"Estimates of [the cost of] registering patents in Australia are put at about \$14,000 and between \$5,000 and \$23,000 in other countries. The size of these amounts effectively prevents indigenous people from lodging applications, or at the very least limits the number of patents that can be applied for . . . The cost of maintenance may be as much as \$250,000 over the life of the patent. The cost of monitoring and defending the patent against infringement is usually much higher, particularly when international patents are concerned." 58

In such situations, the Copyright Act has been considered to protect traditional folklore and knowledge in Australia but suffers from a number of shortcomings. Specifically, the deficiencies of copyright law in this regard are manifested in the requirements appertaining to ownership and authorship; material form; originality; duration; and rights in derivative works. ⁵⁹

incitement to such discrimination" (explanation provided in Mugabe, Intellectual Property Protection, and Traditional Knowledge (1999)).

⁵⁸ Githaiga, "Intellectual Property Law and the Protection of Indigenous Folklore and Knowledge" (1998) 5(2) *E Law* paras 88–89, available at http://www.murdoch.edu.au/elaw/issues/v5n2/githaiga52.html [Accessed March 23, 2009].

⁵⁹ Githaiga, "Intellectual Property Law and the Protection of Indigenous Folklore and Knowledge" (1998) 5(2) E Law para.9. Also:

"Courts in Australia have acknowledged the failure of the copyright system to accommodate indigenous peoples' concept of ownership. In Yumbulul v Reserve Bank of Australia, French J

An amendment to the Copyright Act was passed in 2000 in the Australian Senate which introduced moral rights applying to individual authors, and which is a strong feature of French copyright law. In 2003, the Australian Government unveiled a Copyright Amendment Bill with a goal of developing Indigenous communal moral rights (ICMR) to protect the unique cultural interests of Indigenous communities.

The moral rights addressed under this Bill include the rights of integrity and attribution. While the ICMR proposal is not entirely novel, Australia is the first to introduce an actual Bill that could implant Indigenous concepts into codified Western law.⁶⁰ Though this is still a matter for debate in Australia, if passed it would be the first to deal with the intellectual property component of Indigenous cultural goods.

South Africa

The approach by the South African Government's Department of Trade and Industry is different. There, an Indigenous Knowledge Systems (IKS) Policy was adopted in 2004. A number of amendments have been proposed to the Patents Act and the Copyright Act, 1978 to protect IKS and allow commercial applications. ⁶¹

Other examples of protection of TK involve contractual agreements such as the one existing between the Khoi and San for the hoodia plant regulating the patents involving the subject-matter in future. ⁶² Nonetheless the government view is that "contractual agreements should not be the primary tool for protecting traditional knowledge and should be applied within the context of a protective IP legislation". ⁶³

In the end, South Africa sees itself as taking part in conducting IP law reviews, negotiating trade agreements and negotiations to implement a viable IKS policy. There has also been a mention of South Africa acceding to the International Treaty on Plant Genetic Resources (ITPGRFA), and amending its Plant Varieties Act in order to provide

observed that, Australia's copyright law does not provide adequate recognition of Aboriginal community claims to regulate the reproduction and uses of works which are essentially communal in origin.

Similar sentiments were echoed in Milpurrurru v Indofurn Pty Ltd by von Doussa J who stated that: the statutory remedies do not recognise the infringement of ownership rights of the kind which reside under Aboriginal law.

In addition to the problem of defining ownership, there is the related requirement that an author of the work be identified to whom ownership may be attributed. Indigenous folkloric works generally tend to be the results of a collective effort, with individual additions being incremental and spread out over time. Consequently, it is often the case that no one individual can be solely identified with the authorship of a design, song, dance or other manifestation of folklore."

See Githaiga, "Intellectual Property Law and the Protection of Indigenous Folklore and Knowledge" (1998) 5(2) E Law paras 15–17.

⁶⁰ See http://www.ip-watch.org/weblog/index.php?p=475&print=1 [Accessed March 23, 2009].

⁶¹ More recent initiatives have been taken by the Department of Science and Technology of South Africa and have established research chairs in Indigenous Knowledge Systems, with moves made toward systematising databases and databanks in view of protecting indigenous knowledge in future. See document available at http://www.dst.gov.za/media-room/press-releases-1/dst-announces-plans-to-bolster-indigenous-knowledge-systems/ [Accessed March 23, 2009].

62 See Viviana Munoz Tellez's publication "Recognising the traditional knowledge of the San people: The Hoodia case of benefit-sharing", available at http://www.ipngos.org/NGO%20Briefings/Hoodia%20case%20of%20benefit%20sharing.pdf [Accessed March 23, 2009].

⁶³ Republic of South Africa Government, DTI publication on IKS, p.16. Available at http://www.thedti.gov.za/ccrd/ip/policy.pdf [Accessed March 23, 2009].

protection to genetic resources and knowledge derived from traditional systems of knowledge in a biodiversity rich country.

India

Opposition to India's consideration of geographical indications (GIs) for TK protection seem to be at odds with the Indian delegation's official position at the recent WTO ministerials as they backed proposals for the extension of GIs. In fact, Gopalakrishnan, Nair and Babu show why the official government view is unsustainable in the current IP culture and legal environment in India.⁶⁴

The authors present case studies from India which show that a large number of local and village communities are involved in the production of the GI products. Such recognised community products have a good reputation and wide market in India. However, individuals and their communities do not have a cultural mindset conducive to legal protection of GIs at the community level.

Moreover, traders reap the major economic benefits when compared to the actual producers of GIs products. In the majority of the cases traditional knowledge associated with GI products is known to members of the community and is often used and promoted by outsiders, which would, in theory, make the right granted hard to enforce.⁶⁵

Countries must think of introducing amendments in the law focusing on the protection to actual producers of GIs so as to protect the interest of the holders of TK in the registered GIs. There must also be express provision in the law to protect the TK held in secret while registering the GIs, and hence the proposed WTO extension measures. Importantly in such cases only actual producers who are sole holders of the TK will be allowed to register the GIs. They must also be allowed to keep the information secret.

These steps would no doubt facilitate building up proper links between protection of TK and GIs through the existing laws. But this is not adequate to protect all forms of TK used in GI products since in the majority of the relevant cases TK is widely used. The authors of the report conclude that for effectively protecting these knowledge systems, countries must initiate steps to introduce a separate legal framework. The route India seemed to have favoured at the last mini-ministerial seems to be international enforcement of extended domestic GIs.

⁶⁴ N.S. Gopalakrishnan, P.S. Nair and A.K. Babu, *Exploring the Relationship between Geographical Indications and Traditional Knowledge: An analysis of the Legal Tools for the Protection of Geographical Indications in Asia* (Geneva: ICTSD Working Paper, 2007), report available at http://www.iprsonline.org/ictsd/docs/Gopaletal%20-%20GIs&TK.pdf [Accessed March 23, 2009]. There have been demands for the extension of higher form of protection afforded to wines and spirits to products of agriculture, textiles, and handicrafts which may fall under the category of TK to accommodate the interests of developing countries including India. In the July 2008 mini-ministerials for the Doha trade talks, the EC negotiators have to date indicated that they would only be interested in the documentation or registration of higher fine goods, but not for TK.

⁶⁵ The authors of the report state that the reality is that there are a large number of TK-based products in the market and the names used to sell these products do not qualify for the requirements for GI protection. The only notable provision is in the obligation to submit the details of the quality, reputation or other characteristics of the products required for the maintenance of quality control.

⁶⁶ Gopalakrishnan, Nair and Babu, Exploring the Relationship between Geographical Indications and Traditional Knowledge, 2007.

On another note, the Indian Government has taken major steps to document TK by establishing the Traditional Knowledge Digital Library (TKDL) project, which had been initiated by the Council of Scientific and Industrial Research (CSIR). Significant work has been carried out on the Ayurvedic system of traditional medicine resulting in 36,000 formulations translated in five international languages, which themselves had been codified and disclosed in writing in ancient Sanskrit scriptures in the 12th century B.C. There have been reports of talks for the US PTO to sign an agreement with India on data-sharing to prevent granting patents on products and their properties, and for uses that have been known in India for centuries.⁶⁷

China

Since April 2002, the State Intellectual Property Office (SIPO) of the People's Republic of China has established a Traditional Chinese Medicine (TCM) Patent Database to meet the needs of patent examination. The TCM contains over 19,000 bibliographic records and over 40,000 TCM formulas.⁶⁸

Though TCMs have over 5,000 years of history, the database documents TCM formulas published between April 1985 and December 2002. A limited English sample database version is available online. In addition to the China TCM Patent Database, SIPO uses some other TCM databases, which were not compiled directly by SIPO and are not located on SIPO servers. Most of them are in Chinese.⁶⁹

It should be noted that WIPO has been reviewing a proposal by the Asian Group and China that it should consider "creating a legal presumption of ownership on the part of the TK holder with a TK rights system". 70

Parallel efforts are being made to promote Chinese herbal medicine-related (CHM) inventions and patents in Taiwan.^{71,72} There are 21,388 CHM-related patents in

⁶⁷ The *Economic Times* reports that according to estimates by the Indian commerce department, close to 2,000 patents per year being granted in the US are for traditional products in use in India. This for India represents an infringement of its TK (reported online on October 31, 2007).

⁶⁸ Y. Liu and Y. Sun, "China Traditional Chinese Medicine (TCM Patent Database)" (2004) 26 World Patent Information 91.

⁶⁹ See Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Eighth Session, Geneva, June 6 to 10, 2005, *Update on Technical Standards and Issues Concerning Recorded or Registered Traditional Knowledge*, WIPO/GRTKF/IC/8/7, p.2

⁷⁰ WIPO/GRTKF/IC/8/7 p.4. Indigenous groups and nations in the Americas have taken certain approaches to document and provide legal status to TK. As part of an initiative from indigenous authorities and experts, Panama introduced Law 20 in 2000 entitled "Special Intellectual Property Regime Governing the Collective Rights of Indigenous Peoples, for the Protection and Defense of their Cultural Identity and their Traditional Knowledge, and Other Provisions" as a sui generis measure. Following the enactment of this law, a number of registrations for the collective rights of indigenous peoples have been made and include the Mola Kuna Panama dress, the Nahua dress worn by Ngobe women and the *tagua* and baskets of the Embera people. Importantly, any innovations involving these artistic expressions are also recognised by the law. See A. Lopez, "For the Recovery and Protection of Traditional Indigenous Knowledge", International Workshop on Traditional Knowledge, Panama City, September 21–23, 2005. Reported by UN Department of Economic and Social Affairs, document PFII/2005/WS.TK/6.

⁷¹ J.I.-H. Hsiao, "Patent Protection for Chinese Herbal Medicine Product Invention in Taiwan" (2007) 10(1) *Journal of World Intellectual Property* 1.

⁷²China's example in traditional medicine is also being followed by African countries to which China is providing technical co-operation. Gift H. Sibanda, the director-general of the African Regional

the TIPO CHM patent database. Before the advent of the draft patent examination guidelines, there was no difference in patent examination between CHM and Western pharmaceuticals.⁷³

Taiwanese researchers and entrepreneurs have been eager to argue that several characteristics make CHM different from other indigenous medicine remedies, folk medicines or shaman healings.⁷⁴ However, because CHM use and practice has spread globally, its long history has further complicated the issue of attributing ownership to the knowledge.

Differentiating CHM from other indigenous-based TK may be an attempt to circumvent the many problems related to the uncertain legal status of TK in most patent systems, and the difficulties this brings for the effective exercise of commerce and trade.⁷⁵

WIPO fact-finding missions on regional IP needs

WIPO's ground-breaking work on traditional cultural expressions (TCEs), traditional knowledge (TK) and genetic resources (GR) has already come a great distance. The way forward on addressing TK is coming into focus even if there is still a robust debate about what the next steps are. WIPO's programme began in 1998, with a new programme focusing on "IP for new beneficiaries".⁷⁶

The first step consisted in consulting with holders of TK, TCEs and GR, in order to learn directly about their IP needs and expectations. Table 3 provides a summary of

Intellectual Property Organization (ARIPO), has commented on recent collaboration of China and Africa in the area of IP and medicinal knowledge, stating that "It is commonly known that China has already developed a lot in this field and has come up with a very powerful database in the field of traditional knowledge. Africa is also trying to build its own database of traditional knowledge". China and ARIPO signed a co-operation deal last year for IP in traditional medicine. See June 21, 2008 online news report entitled "China and Africa to Deepen Cooperation in Fields of Intellectual Property And Medicine", available at http://english.cri.cn/4026/2008/06/21/1881@371298.htm [Accessed March 23, 2009]

⁷³ Hsiao, "Patent Protection for Chinese Herbal Medicine Product Invention in Taiwan" (2007) 10(1) *Journal of World Intellectual Property* 1, 7. In order to develop the Taiwan CHM industry, it has been proposed that the Government could create a sui generis system, make amendments to the patent law or draft special legislation. The Taiwan Government has adopted the approach to protect CHM though the patent system and to that effect has drafted patent examination guidelines for CHM inventions.

⁷⁴ Croizer notes that:

"CHM has a complex and predominantly rational theoretical basis; it is contained in a large collection of classics; the theoretical principles are related to the dominant cosmological concepts; a class of secular medical practitioners is guardians of this classic medicinal tradition, which divides CHM from folk medicina."

from folk medicine." See R.C. Croizer, "Medicine, Modernization and Cultural Crisis in China and India" (1970) 12(3) *Comparative Studies in Society and History* 275.

⁷⁵ P. Basu and H. Jia, "Trading on Traditional Medicines" (2004) 22 (3) *Nature Biotechnology* 263. ⁷⁶ Taubman, "Inclusion, dialogue, diversity", 2008, available at *http://ipronline.org* [Accessed March 23, 2009].

some of the reported findings published for the fact-finding missions (FFMs) conducted in selected groups of countries to date.

TABLE 3 Summary of fact-finding missions in three WIPO surveys

Protection of IP in TK	West Africa ⁷⁷	Eastern and Southern Africa ⁷⁸	Caribbean Region ⁷⁹
TK defined	 language; cloth weaving; cloth dyeing techniques; farming and agricultural techniques; traditional fishing methods; hunting skills; food preservation and conservation methods; food processing and fermentation technology; divine worship and spiritual aspects of healing (which precede the actual administration of some traditional medicines). 	 dispute-settlement processes and methods of governance; folksongs, dances, ceremonies; musical instruments; dress design, ornaments, handicrafts; traditional methods of hairstyling; traditional methods of preparing food, spices and drinks, meat-cutting techniques; the denotion of numbers by finger language; languages; historical sites; handicrafts; the medicinal use of plants; grazing systems, animal tracking; and 	 traditional usage of fruits, plants and animals for medicinal purposes; spiritual healing; traditional birthing methods; traditional bone setting techniques; cultural heritage; folksongs, dances and dramas; rites and rituals; traditional psychiatry; religion; trapping, hunting and fishing techniques; traditional food culture and

⁷⁷ Surveys took place between January 18 and February 3, 1999 in Nigeria, Ghana, Mali and Senegal. The fact-finding missions (FFMs) were carried under the auspices of WIPO. All Draft Reports reviewed available at http://www.wipo.int/tk/en/tk/ffm/report/interim/index.html [Accessed March 23, 2009].

 $^{^{78}\,\}mathrm{Countries}$ surveyed between September 4 and 20, 1998 were Uganda, Tanzania, Namibia and South Africa.

 $^{^{79}\,\}mathrm{Countries}$ surveyed between May 30 and June 9, 1999 were Trinidad and Tobago, Guyana and Jamaica.

TABLE 3 Continued

•	environmental and
	biodiversity
	conservation-related
	knowledge, such
	as knowledge
	of grass species,
	weather patterns,
	and knowledge
	relating to the
	preservation and
	use of natural and
	genetic resources.

- preservation techniques;
- handicrafts;
- traditional environmental preservation and conservation methods;
- language.

Current IP use for TK

- patents;
- contracts;
- sui generis protection: draft Organization of African Unity (OAU) regional legislation; a traditional medicine Bill to be debated in Ghana Parliament;
- customary law and practice.
- documentation projects concerning Uganda communities' TK on plant genetic resources available for academic research;
- contracts including benefit-sharing agreements; material transfer agreements;
- sui generis
 legislation in
 South Africa; OAU
 Draft Model Law;
 UNESCO/WIPO
 Model Provisions;
- database on traditional medicinal knowledge in South Africa;
- customary law and practice.

- documentation efforts for a National Herbarium, codification of songs, community museum and information centre in Trinidad and Tobago;
- efforts to get petty patents to protect informal inventions to be included in Jamaican law;
- Jamaican laws on the protection of folklore based on the UNESCO/WIPO Model Provisions;
- draft Copyright Bill addressing folklore developed in Guyana;

TABLE 3 Continued

- sui generis access regulations to the use of genetic resources in Guyana;
- customary practices of secrecy widely used in communities and by traditional healers;
- best practice protocols for protection of IP linked to the sustainable use of biodiversity

Problems

- preservation of culture more important to TK holders and practitioners than protecting from use from others;
- complexity and related cost of the patent system;⁸⁰
- advocates for sui generis protection stated that existing laws are inadequate.

- sustainable biodiversity related concerns take precedence over IP concerns;
- conventional IP rights already difficult to enforce;
- difficulties with implementation, enforcement and monitoring of sui generis laws and regulations;
- lack of self-esteem or recognition of Maroon communities makes them susceptible to poverty and exploitation.

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⁸⁰ In Nigeria, the National Institute for Pharmaceutical Research and Development (NIPRD) has filed three patents in 46 countries through the Organization Africaine de la Propriété Intellectuelle (OAPI) and the African Regional Intellectual Property Organization (ARIPO). Similarly, in Mali, a traditional practitioner has also patented three of his medical preparations. In both cases, the parties concerned expressed their reservations about the crippling costs of patenting and the technicality of the process. They requested a review of the patent costs and a simplification of the process, particularly in the case of developing countries (p.11) See FFM to West Africa at http://www.wipo.int/export/sites/www/tk/en/tk/ffm/report/interim/pdf/7-6.pdf [Accessed March 23, 2009].

TABLE 3 Continued

Opportunities ● survey to

- survey to complement documentation efforts;
- create community herbal heritage centres as a point of reference for holders of TK and users;
- government has a greater role to play in investing R & D capacity for TK; in helping form partnerships with industry; providing tax breaks for medicinal practitioners.
- sub-regional organisations such as SADC may play a role in IP rights enforcement;
- need for central institutional structures to regulate access to and use of TK, and manage rights invested in TK.
- documentation could be addressed at the regional level by CARI-COM secretariat to provide protection for holders of TK;
- calls made for an international regulatory framework for access and benefit-sharing in respect of genetic resources;
- need to co-operate with countries in other regions with experience in drafting and implementing regulations and legislation for TK;
- increase local institutional capacity to protect TK as national interest of their people.

The summary of the FFMs in Table 3, on the regional aspects of TK protection realities and needs, shows that the subject-matter that people in these regions take to constitute TK that ought to be protected is fairly consistent across the board, despite large cultural differences. It would be a mistake to look at traditional indigenous languages and religions mentioned as candidates for IP protection here and make parallels with Western languages and religions which do not necessarily attract IPRs.

The context for the need to preserve culture and ritualistic practices often comes from historical experiences of exploitation of these cultures in colonial times. Of course, the Western legal system has never had to develop IP rights for itself with regards to being

at the receiving end of colonial domination in modern history, and therefore those taking reference from the Western legal tradition only will find it implausible that such subject-matter should receive legal protection. The reality in such a pluralistic world of experiences dictates that a one world view on the nature of IP will simply not do.

The African and Caribbean countries surveyed in WIPO's fact-finding mission on IP needs show that these governments and their local indigenous groups are grappling with the complexities of protecting TK as well as their current systems might allow it in most cases. They are making wide use of documentation methods, contracts, customary laws and newly developed sui generis regulation and legislation to address the effective protection of TK.

This set of countries reviewed in the WIPO survey demonstrates the problems that patent systems create for TK holders wanting to protect their knowledge and practices. Concerns for the enforcement of existing and potential IP rights created for TK show a general lack of confidence in those societies that any IP solution implemented will be respected in practice.

Countries who took part in the FFMs have also signalled the need for strong structures of co-operation at the regional level to implement and enforce IP in TK. They also stated their hopes for governments and international organisations to support further developing documentation efforts and sui generis systems that respond to the local needs of TK holders, while appropriately balancing their rights to those of TK users.

Though expressed over 10 years ago, the concerns expressed by WIPO country members for their IP needs in TK provide an opportunity for other international organisations involved with IP to advance thinking and initiatives on this practical evidence base.

CONCLUSION

The work of WIPO continues to influence the approach of international organisations and NGOs on how they interpret, recognise, promote and balance the rights of TK holders, guardians and custodians with those of users. Although WIPO has undertaken vital research and administrative work related to the protection of TK, it is not an international enforcement organisation and can only make recommendations to Member States regarding the introduction of IP-related legislation. ⁸¹

There is increasing evidence that WIPO's work is not occurring in isolation and is receiving wider support by indigenous groups, national governments and international organisations. For instance, the WTO has noted that:

". . . [O]nce WIPO has completed work on model national legislation, attention could be focussed on how and to what extent the protection of traditional knowledge can be included in the TRIPs Agreement."82

 $^{^{81}}$ Berglund, "The Protection of Traditional Knowledge Related to Genetic Resources" (2005) 2(2) $SCRIPT-ed\ 206,\ 209$ and 220.

⁸² Opinions of the EC, Japan and Singapore, in World Trade Organization, Council for Trade-Related Aspects of Intellectual Property Rights, *The Protection of Traditional Knowledge and Folklore: Summary of Issues Raised and Points Made* (2002), WTO/IP/C/W/370, para.27.

The TRIPs Agreement offers opportunities but reform is needed. 83,84

The recent mini-ministerial meetings of the Doha round of WTO negotiations have been inconclusive on the opportunities the reform of TRIPs offers for the protection of TK. However, a new WTO Draft Modalities text on IP issues has recently gathered modest support.⁸⁵ As mentioned above, the July 17, 2008 draft text proposed the extension of the higher-level GI protection currently enjoyed by wines and spirits to other products.

In addition, the draft text proposed an amendment to TRIPs to require the disclosure of origin of traditional knowledge and genetic material in patent applications. The intention is to bring TRIPs in line with the CBD, which has been a long-standing debate in academic and international circles since 1995. There is room to wonder whether this proposal alone will address the fears of exploitation and desecration of cultures, and of biopiracy expressed by groups such as the Indigenous Peoples Council on Biocolonialism (IPCB).

There is evidence that the issue of TK protection has spread to a much wider conceptual domain than plant biodiversity-based concerns. In recent years, fears for abuses in medical research involving indigenous groups have also raised alarm bells for the Human Genome Diversity Project in particular. Another project called the Genographic Project has been seen by certain community groups as an initiative thirsty for the potential healing powers of indigenous blood stock and genes.

Perhaps raising the spectrum of unreal scenarios might not be useful to the progress of the debate. Rather, the WTO should follow its own advice and not advance and facilitate the commercial trade of TK-containing goods and processes prior to having reached consensus on the measures to be adopted in practice. And that fact-finding and consensus-building role seems to have been given and accepted by WIPO to date.

Translating concerns for patent disclosure of origin requirements and prior informed consent for TK into the terms of trade at this stage might be premature, risky and unhelpful. The evidence shows that the interests of communities, their indigenous peoples and their national governments are at odds with each other as to exactly how to resolve the issues to the satisfaction of both TK holders and users globally.

The last round of trade talks have produced an international IP Agreement that most critics accept is not fit for purpose in developing and least-developed countries.⁸⁸

⁸³ G. Dutfield, "Protecting Traditional Knowledge and Folklore" in F.W. Grosheide and J.J. Brinkhof (eds), Intellectual Property Law: Articles on The Legal Protection of Cultural Expressions and Indigenous Knowledge (2000), pp.63-86 at p.78.

⁸⁴ TRIPs arts 1, 29.1, 27.2 and 27.3(b) arguably provide ground for TRIPs reform in the area of TK according to Mugabe, *Intellectual Property Protection, and Traditional Knowledge* (1999). He supports his claim by quoting Graham Dutfield stating that "the absence of any mention of traditional . . . knowledge in the Agreement, does not prevent any Member from enacting legislation to protect such a category of knowledge". See G. Dutfield, "Can the TRIPS Agreement Protect Biological and Cultural Diversity?", *Biopolicy International* No.19 (Nairobi: ACTS Press, 1997), p.16.

⁸⁵ Intellectual Property Watch, July 18, 2008.

⁸⁶ The various issues debated are summarised at http://www.hgalert.org/topics/personalInfo/hgdp.htm [Accessed March 23, 2009].

⁸⁷ To get the IPCB position, consult generally http://www.ipcb.org/issues/human_genetics/index.html [Accessed March 23, 2009].

⁸⁸ Stiglitz and Charlton note that

[&]quot;The vast majority of the gains from the Uruguay Round would accrue to developed countries, with most of the rest going to a relatively few large export-oriented developing countries. Indeed many of

The interests of essentially 12 US high-technology firms had pushed forth the TRIPs Agreement irrespective of the consequences it would have on the majority of members of the WTO.⁸⁹

DCs as a group and their allies cannot afford to repeat the too familiar mistakes that came with recklessly signing on to a TRIPs Agreement undifferentiated for the various development levels and capacities of members for IP enforcement and innovation.

This time round, countries in whose interests it is to protect and promote particular trade-related aspects of IP in TK must not assume international consensus where a limited range of national interests are served. In general, it might indeed appear to WTO negotiators that a select group of influential countries are speaking for all least-developed countries and DCs' interest groups. The limited, but revealing, national and WIPO FFMs evidence reviewed in this article suggests that they would in fact be pushing forward a currently still unfinished or unbalanced agenda in TK rights.

There might indeed be no legitimacy or justification in developing IP in TK that only advantages the few at the expense of the many.

A balance of concerns for IP rights in TK must be reached through a careful national policy review process which in turn should inform developments in public international law. A wide-ranging consultation and stakeholder approach of the type initiated by WIPO since 1998 must be allowed to reach its conclusive outcomes.

Showing impatience with, and disregard for, this particular decade-long process at WIPO thus far, and pre-empting its efforts, can only produce much misguidance and unintended consequences. Sticking to the task all the way is the only legitimate process that might widely be agreed to provide a sound analytical and practical basis for having a constructive and productive debate in the area of TK and multilateral trade.

Desirable equitable results will only be reached through taking a practical and informed approach in addressing IP issues in TK, and perhaps not otherwise. In such a context, it might indeed be realistic to envisage that these issues might actually make it on to the general WTO negotiations agenda in future. And, hence, will TK trade in IP really have the potential of becoming a real deal-breaker in furthering the free trade of nations.

the poorest countries in the world will actually be worse off as a result of the round. Some estimates report that the 48 least developed countries are actually losing a total of US\$600 million a year as a result of the Uruguay Round . . . A large share of the net losers are among the poorest countries in the world, in particular sub-Saharan Africa, which has been estimated to have lost US\$1.2 billion as a result of the round $^{\prime\prime}$

a result of the round."

J. E. Stiglitz and A. Charlton, *Fair Trade for All: How Trade Can Promote Development* (Oxford: Oxford University Press, 2005), p.47.

⁸⁹ W. Kingston, "'Genius', 'faction' and rescuing intellectual property rights'" (2005) 23(1) *Prometheus* 12.