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Traditional Knowledge and the International Context for Protection

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Abstract

This paper traces the relationship between traditional knowledge and biodiversity and examines the current discussions towards achieving such protection through the international intellectual property system. This paper will concentrate on the particular cultural and legal problems associated with the protection of indigenous intellectual property, specifically in terms of medicinal and agricultural knowledge and the impact of the Trade Related Aspects of Intellectual Property Rights Agreement and the Convention on Biological Diversity. The apparently conflicting relationship between these two international instruments will be addressed. In reviewing attempts to acknowledge the role of indigenous and traditional communities in the management and sustainable development of biological resources, this paper argues for authority and capacity with respect to resources to vest in the community. This is maintained in recognition of the significance of this relationship of community to its resources, to the facilitation of community development through appropriate assurance of traditional resource relationships, within an international legal system of obligations towards biological and cultural diversity.

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Introduction

Intellectual property rights were rendered concerns of international trade in the Uruguay Round of GATT, when the World Trade Organization (WTO) was established, and the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs)[1] was concluded. Acceptance of TRIPs is mandatory for any country wishing to be a member of the WTO. Thus, intellectual property rights and enforcement continue to be an important part of the ongoing trade rounds of the WTO, particularly in the Ministerial Declaration adopted on 14 November 2001, in Doha (Doha Declaration).[2] The Doha Declaration includes a mandate to review the patenting of biotechnology in the context of issues of biopiracy and the specific interests of indigenous and traditional groups and developing countries.

Creating effective international protection of indigenous cultural production, traditional knowledge, and biological resources requires urgent action, and discussions of the appropriate means by which to achieve such protection usually commence and remain within an intellectual property model. Indeed, international intellectual property law has been adopted as the appropriate forum in which to conduct international discussions towards adequate protection of traditional knowledge, in the form of the World Intellectual Property Organization's (WIPO)[3] Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC).[4]

The IGC is specifically assigned the task of looking at the intellectual property aspects of access and traditional knowledge, in the context of international instruments, national laws of Member states, and current debate over balancing interests between commercialising traditional knowledge, on the one hand, and protecting it against commercialisation, on the other. In the Fifth session of the IGC, staged in July 2003, discussions called for the increased acknowledgment of and coordination with other international instruments, including the Convention on Biological Diversity (CBD).[5] As this article is published, the IGC is preparing for its

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[1] The text of TRIPs may be found at http://www.wto.org/english/docs_e/legal_e/27-trips.pdf

[2] The Doha Ministerial Declaration was adopted 14 November 2001, with the mandate to address a variety of issues concerning international trade and economic development, including the marginalisation of least developed countries. Negotiations take place within the Trade Negotiations Committee and its subsidiaries, with other work occurring within WTO councils and committees, including the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore discussed below. The text of the Declaration may be found at http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.pdf

[3] The World Intellectual Property Organization was established in 1967 with the task of the administration of intellectual property treaties and conventions signed by member nations.

[4] The World Intellectual Property Organization (WIPO) Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, was established in the 26th (12th Extraordinary Session) of the WIPO General Assembly, held in Geneva, 25 September to 3 October 2000 to consider and advise on appropriate actions concerning the economic and cultural significance of tradition-based creations, and the issues of conservation, management, sustainable use, and sharing of the benefits from the use of genetic resources and traditional knowledge, as well as the enforcement of rights to traditional knowledge and folklore. The text of this Session can be found at http://www.wipo.org/eng/document/govbody/wo_gb_ga/pdf/ga26_6.pdf

[5] The text of the CBD may be found at http://www.biodiv.org/doc/legal/cbd-en.pdf

Sixth Session, to be staged in Geneva 15-19 March 2004, where it will accelerate progression towards international schemes for the protection of traditional knowledge in the context of intellectual property and defensive measures.

The agenda for the Sixth Session reiterates the importance of seeking clarity for that protection in the form of an international framework, through the cooperation of various members of the international trading community. Thus, it would appear that the potential for recognising and protecting the sovereignty of indigenous and traditional groups in the management of their resources is vested in the international community, and the possibility of mobilising the value of indigenous and traditional management is to be found within the global context of biodiversity rather than the localised deprivation sustained by conventional intellectual property rights.

This is not to create a problematic dichotomy between the local "Indigenous" and the global "International." Rather, it is to resist the conventional historical and geographical sentimentalisation of community, and to enliven "community" as a legal actor within a global context beyond the deprivation of place. In other words, it is necessary to give individual communities legal effect within a *sui generis* system whereby community is generated through the interrelationships between members and through the interaction with other communities, rather than through the deprivation and boundary-making of place. In this way, a particular community will not be defeated by the perceived "modernising" effect of global forces, and will also be granted access to the political, social, public sphere.

This is why the present work will deal with the wider international issues involved, but this paper will also pursue such an examination through the Australian perspective for the following reasons. Australia is very rich in biological resources (approximately 10% of the world's resources) and maintains an interest in ensuring high economic return. On the other hand, Australia's biotechnology industry is thriving but small, and the government is concerned to ensure legal certainty in this field in order to encourage continuing investment in this developing industry. Australia's Indigenous people possess a rich traditional and cultural knowledge, in the context of a developed nation, thereby problematising the assumptions of tradition against innovation, developing against developed. For these reasons, Australia presents an important case through which to examine the relationship between intellectual property regimes for the protection of community and traditional knowledge, and the national interests in privatisation of those interests in commercial bodies through the very same processes of intellectual property protection. In this way, the question of whether the private ownership and exploitation rights based in an intellectual property model form the appropriate mechanism for protection may be raised and considered.

1 Legal Parameters of Traditional Knowledge

1.1 Legalising Knowledge

Protection of traditional knowledge must be facilitated and effective in a global context, that is, within an international legal framework. While international law presents the opportunity for community to act beyond the imbalance that frequently occurs in agreements at the community/state level (that is, agreements subject to domestic laws and policies), the administration of justice will often reinstate an artificial unity when conceiving of "community" and indeed the "Indigene." In

seeking the creation of legal principles in order to invigorate the capacity and authority of community with respect to the protection of its traditional knowledge, there is the attending risk of the unification of community, traditional knowledge, and the Indigene, in order to give the concepts the phenomenological priority that appears necessary to their application within a judicial context. Thus, a legal framework will have trouble conceiving of the multiplicity of community, in that it will attempt to unify and individualise community within the conventional understanding of individual rights.

For the purposes of adequate protection and respect for traditional knowledge, the extent to which the international treaty system can proceed beyond the conventional model of state sovereignty must be examined. It is necessary to consider the way in which the international system might overcome the disempowerment of local communities at the domestic level, particularly in the context of traditional knowledge and efforts towards its protection. While the legal framework sought for this protection runs the risk of generalising the Indigene, arguably international agreements for the protection of traditional knowledge remain the most significant tool. It is necessary, therefore, to conceptualise the principles of community rather than to attempt to clarify the identity of the indigenous or traditional interests in any single sense, towards achieving an effective legal model for protection.

Community must be invigorated through the interactions within and between communities, rather than through the construction of boundaries which legitimise the anthropological homogenising of community at the historical and geographical moment of colonisation, rendering it passive and unchanging thereby denying community groups any effective access to the public political sphere. This problem is particularly significant when attempting to apply private intellectual property rights to the unique concerns of communal traditional knowledge. Schemes based upon intellectual property models will protect products or works which are rendered artificially scarce through the conferring of rights of exclusory monopolies to the individual (or individualised) creator or owner of that property. Thus, the object of protection is indeed a work or expression of a process or idea,[6] rather than the process or practice that is often of more fundamental value to communal integrity and cohesion than the product itself. Thus, adequate protection must conceive of the importance of the use and management of cultural practice and production, and not merely the individual exclusory rights to the end form or product of that practice, as in intellectual property regimes.

Contrary to these concerns of communal cohesion and integrity, the processes of globalised culture and trade are rendering the necessary protection of traditional knowledge and culture inconceivable or unrealisable within conventional juridical regimes. In particular, communal cultural processes are completely beyond the ambit of protection within an intellectual property law model. The "local" and traditional community, as it were, has been denied its capacity other than as a commoditised value to be traded. That is, traditional communities are denied their capacity and authority to act locally in respect of these resources, rendered merely the nostalgic validation and authentication for the value of those resources in the new global public

[6] Note the discussion of the idea/expression dichotomy in *University of London P Ltd v University Tutorial P Ltd* [1916] 2 Ch 601 at 608-609 per Peterson J.

realm of consumption: "Being local in a globalized world is a sign of social deprivation and degradation."[7]

In particular, traditional intellectual property law depends on a form upon which litigation may be based in order to enforce and protect and therefore realise that form, and protect the property rights vested in the individual. Modern biotechnology development, for instance, produces highly valuable intellectual property for which the ownership of intellectual property becomes far more significant than the creation. Inventors almost invariably assign their rights to the commercial interests funding the research and with the ongoing resources necessary to protect and enforce and thereby continue the intellectual property in the end product. Increasingly, it is the private ownership of intellectual property that is the organising principle of its circulation and manifestation, rather than the creators.

1.2 Problematising Knowledge

In contrast to the principles of conventional intellectual property law, and that which is often critical to various Australian Indigenous groups for the protection of Indigenous Australian culture, [8] it is not the form or work that is trespassed upon (through copying or other infringing activity), but the communal process itself of continuing the practice of the form.[9] For instance, in the example of Australian Indigenous cultural production, non-traditional or non-Indigenous exploitation of customary methods and practice may cause similar offence to an Indigenous group as the exploitation or imitation of the end product itself.

> *Sacred Aboriginal designs are not "ideas" in the same sense as, say, Cubism or Dadaism. Rather they are "property" in its most basic sense, the distinction between real and intellectual property having no significance in Aboriginal Customary law. It is thus a property right, not just a mere idea, which is infringed when a sacred design is employed in an unauthorised way: an infringement as concrete as trespass in Anglo-Australian law.*[10]

Furthermore and again drawing upon the Australian example, Indigenous cultural knowledge is at risk of the potential trespass of a work itself upon the spiritual beliefs

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[7] Z Bauman, *Globalization: The Human Consequences* (1998), 2.

[8] It is well noted that conventional intellectual property regimes at best compromise the integrity of that material or at worst fail to realise fully the necessary value in Indigenous cultural material in attempting to render it within systems which cannot account for the communal interest in cultural resources: T Janke, *Our Culture Our Future: A Report on Australian Indigenous Cultural and Intellectual Property Rights*, ATSIC (1997).

[9] T Janke, *Our Culture Our Future: A Report on Australian Indigenous Cultural and Intellectual Property Rights*, ATSIC (1997). See also *Milpurrurru and Others v Indofurn Pty Ltd and Others* (1995) AIPC ¶91-116 (von Doussa J), on the subject of a cultural interest in painting techniques that warrants protection. In this case, evidence was also tendered that inaccurate reproductions cause deep offence as artworks are an important means of recording stories and culture and continuing that culture, causing the right to create such artworks and to use pre-existing designs and totems to reside in the traditional custodians of the stories who act as a fiduciary to the greater Indigenous community.

[10] S Gray, "Aboriginal Designs and Copyright" (1991) 9(4) *Copyright Reporter* 8 at 15.

and traditional custom that may be represented in the form of that particular work.[11] Therefore, adequate protection must conceive of the creative process, rather than the owned product if it is to give effect to the kinds of rights identified in presentations to the IGC and independent reports by diverse indigenous and traditional groups:[12]

> *While intellectual property rights confer private rights of ownership, in customary discourse to "own" does not necessarily or only mean "ownership" in the Western non-Indigenous sense. It can convey a sense of stewardship or responsibility for the traditional culture, rather than the right merely to exclude others from certain uses of expressions of the traditional culture, which is more akin to the nature of many IP rights systems.*[13]

Nevertheless, this irrelevance of Western-style ownership is not a licence to abandon any concept of indigenous or traditional ownership at all, thus delivering traditional knowledge as a global resource to be exploited and removed to the private domain of individual commercial interests. On the contrary, it is the recognition of the difference in operation and process of ownership within a communal setting. One of the key concerns of indigenous peoples and traditional communities consulted during WIPO's fact-finding and other consultative processes, was the ability "to protect, in a positive sense, their traditional cultural expressions, which, where collectively owned, should be protected in the name of the relevant community."[14]

In an increasingly mobilised culture and economy, rights to traditional knowledge and resources are fixed as local rights, determined by historical and temporal, geographical and spatial dimensions. Indeed, Australian rights to native title are increasingly compromised by the requirement of an unbroken connection to the land, more and more difficult for claimants to establish where dispersal of groups and alienation from or interruption to cultural practices has occurred.[15] In the strict

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[11] In the case of *Bulun Bulun v R & T Textiles Pty Ltd* (1998) 41 IPR 513, von Doussa J held that equity imposes upon the Indigenous artist obligations as a fiduciary not to exploit the artistic work in a manner contrary to the laws and custom of the relevant community, as well as to make every effort to protect, in this case, the copyright in the artistic work. Although, an equitable interest in the ownership of the copyright in the Ganalbingu people was not found in this particular case.

[12] See the comprehensive report commissioned by the Aboriginal and Torres Strait Islander Commission (Australia) by T Janke, *Our Culture: Our Future: Report on Australian Indigenous Cultural and Intellectual Property Rights*, ATSIC (1997). See also the WIPO Report, "Minding Culture: Case-Studies on Intellectual Property and Traditional Cultural Expressions."

[13] Preliminary Systematic Analysis of National Experiences with the Legal Protection of Expressions of Folklore. WIPO/GRTKF/IC/4/3, at 22. See also T Janke, *Our Culture: Our Future: Report on Australian Indigenous Cultural and Intellectual Property Rights*, ATSIC (1997), 44.

[14] WIPO/GRTKF/IC/4/3, at 14. See the documents produced in this consultative process: WIPO, *Intellectual Property Needs and Expectations of Traditional Knowledge Holders: WIPO Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge (1998-1999)* (2001).

[15] The requirement for a "connection" with the land as provided by s 223(1), can prove to be an unnecessarily restrictive and elementary understanding of Indigenous identification with traditional lands. Although lower courts have been less rigorous in demanding continuity of physical presence on traditional territory (*Re Waanyi People's Native Title Application* (1995) 129 ALR 100 per French J at 114; *Mason v Tritton* (1994) 34 NSWLR 572 per Kirby P at 584) Toohey J in *Mabo (No 2)* required a continuing physical presence since colonisation, and Mason J also required a physical connection in *Coe v Commonwealth* (1993) 68 ALJR 110. The recent decision of the High Court, rejecting the claim

requirement for place, Australian native title law effectively naturalises the denial of land through insisting upon physical markers of community that are almost impossible to sustain beyond the moment of colonisation. Thus, the mobility of the power that comes with an increasingly globalised context in which trade and financial transactions operate, seemingly fixes and disenfranchises traditional communities such that any rights to resources are uncertain, outside conventional dimensions of trade, and foreign to the unproblematic classification of ownership and value within domestic laws. Rather than accepting and continuing the obligations inherited through traditions and norms, legislative structuring of public life ensures that rights are increasingly individualistic, and meaningful often only through the process of their enforcement:

> *Co-operation is giving way to a pervasive adversarialism in which confrontation and litigation, rather than community endeavour or political action, are seen as the principal means of achieving one's goals.*[16]

Thus, the concept of personal or individual property rights, in the conventional intellectual property law application, may not be appropriate for certain indigenous and traditional intellectual interests, as this concept presumes and sustains a version of the relationship between the right-holder and the object that is often irrelevant and inappropriate in the context of community differentiation and access. Arguably, individual property rights cannot be reconciled with the kinds of interests or rights bound up in traditional practice, knowledge, and method. Thus, the right to traditional medicines, medical practices, and agricultural knowledge may apply not merely a general right within the community, but as a measure of a particular individual's cultural circumstances, initiatory advancement, and personal differentiation within the cultural community.[17] The particular piece of intellectual property, if it can be comprehended as such, is not a generalised communal right, but it is also not anchored to a particular individual as in Western intellectual property law:

> *Although individual creativity is not stressed in traditional communities, it would be wrong to jump to the extreme and suppose that designs are subject to a generalised communal right. Communities are internally differentiated to quite a high degree, and their members should not be seen as interchangeable units. On any matter, some people are likely to have rights of a certain kind, others rights of another kind, and yet others no rights at all.*[18]

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of the Yorta Yorta people's traditional rights of land and waterways, handed down 12 December 2002, demonstrated how significant this obstacle has become for native title claimants.

[16] W Hutton, *The World We're In* (2002), 160.

[17] In the case of *Yumbulul v Reserve Bank of Australia* (1991) 21 IPR 481, indigenous artist, Terry Yumbulul, had passed through such initiatory advancement during the process of which he learnt the sacred designs and meanings of the group and was presented with sacred objects as well as the authority to depict those objects in his paintings. See the discussion in M Blakeney "Protecting Expressions of Australian Aboriginal Folklore Under Copyright Law" (1995) 9 *EIPR* 442. See also R Bell, "Protection of Folklore" (1985) 19(2) *Copyright Bulletin* 4 at 8-9.

[18] K Maddock, "Copyright and Traditional Designs" (1988) 2(34) *ALB* 8 at 9.

The most significant aspect of the emphasis on community control is the recognition of the indigenous or traditional community's self-determination with respect to control over traditional resources:

> *[I]ndigenous peoples and their leaders actively demand recognition of the value of their customary practices, self-determination, and the capacity to share in the benefits of the exploitation of customary natural/cultural resources … amongst other "rights."*[19]

1.3 The "Indigenous" International

The phenomenological generalising of community and of the products, as it were, operates to varying degrees within the international instruments themselves, in the way in which those treaties define and delimit the term "Indigenous." While the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) and the Convention of Biological Diversity (CBD) will be considered in more detail below, it is useful here to consider the characterisation of "Indigenous" and "Community" within these critical instruments. Within the TRIPs agreement, there is no consideration of local or indigenous groups, the terms of that agreement concentrating solely on the rights, authority, and capacity of states or national governments. Thus, the framework of TRIPs facilitates the sovereignty of nation-states in the traditional sense of the international agreement. Within this context, the community or local indigenous group is summarised merely in terms of a geographical instance of or relationship to the national identity. The CBD, on the other hand, while not defining "Indigenous" within its "Terms of Use", does explicitly acknowledge the capacity of indigenous and local groups in its Preamble. The Preamble makes the agreement between the Contracting Parties subject to the recognition of:

> *the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components.*[20]

Despite this recognition of community, which is sustained throughout the document, the CBD nevertheless emphasises the sovereignty of states with respect to the preservation of biological resources, noting that such protection is ultimately the responsibility of states.[21] Similarly, while the CBD provides for in situ conservation, consistent with community autonomy and governance, those community interests are to be subject to national laws.[22]

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[19] J Sutherland, "Representations of Indigenous Peoples' Knowledge and Practice in Modern International Law and Politics" (1995) 2(1) *Australian Journal of Human Rights* 39 at 40.

[20] The Convention on Biological Diversity. http://www.biodiv.org/doc/legal/cbd-en.pdf

[21] Preamble.

[22] Article 8(j).

1.4 The Personal is Political

From this discussion, it is apparent that the concept of personal or individual property rights, in the application of conventional intellectual property law, may not be appropriate for certain indigenous and traditional intellectual interests. Arguably, individual property rights cannot be reconciled with the kinds of interests or rights bound up in indigenous and traditional intellectual practice, knowledge, and method. We have seen that the right to access and use traditional medicines, medical practices, and agricultural knowledge may not operate as merely a general right within the community, but rather as a personal measure of a particular individual's relationship to others within that cultural community.[23]

Conventional intellectual property models are not suitable to extend, in an ad hoc fashion, in order to recognise the specific rights that are understood and claimed by traditional and indigenous groups. That is, intellectual property rights further the development and progress of intellectual activity, rather than protect the historical and cultural relevance of particular intellectual resources to the traditional development of communities:

> *The principal rationale of intellectual property protection is to provide a commercial incentive for inventiveness and creativity. It also provides an incentive for the disclosure of inventions and creative works. The various intellectual property statutes establish specific periods of time during which a rights holder is immunised from competition. At the end of that period … the invention or the design will be in the public domain. Indigenous peoples are not primarily concerned with the commercial exploitation of their creative works, but on occasion with the prohibition or restriction of commercial use of creative activities and knowledge which may have sacred significance.*[24]

Thus, there is a fundamental difference between the object of protection that is understood in conventional legal discourse, and that sought by traditional and indigenous groups. The ultimate object for conventional intellectual property law is the industrial activity itself, and the monopoly must necessarily be limited in duration in pursuit of that object. For indigenous and traditional peoples, the object might be more appropriately understood as the protection of their knowledge from the industrial activity itself. Thus, the concerns arguably at the centre of traditional knowledge protection are fundamentally at odds with the impetus of intellectual property law, specifically with respect to patent law. While the development of intellectual property protection for indigenous and traditional knowledge continues to be driven by the value of that knowledge to commerce,[25] either directly in terms of the market value of that knowledge, or indirectly through the conservation of genetic

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[23] See note 17 on the case of *Yumbulul v Reserve Bank of Australia* (1991) 21 IPR 481, and the discussion in M Blakeney, "Protecting Expressions of Australian Aboriginal Folklore Under Copyright Law" (1995) 9 *EIPR* 442. See also R Bell, "Protection of Folklore" (1985) 19(2) *Copyright Bulletin* 4 at 8-9.

[24] M Blakeney, "Bioprospecting and the Protection of Traditional Medical Knowledge of Indigenous Peoples: An Australian Perspective," (1997) 6 *European Intellectual Property Review* 298 at 300.

[25] DA Posey et al, "Collaborative Research and Intellectual Property Rights," (1995) 4 *Biodiversity and Conservation* 892 at 893.

resources, some suggest that the major concern for traditional knowledge holders is protection, paradoxically, against such value:

> *The first concern of indigenous peoples is that their right NOT to sell, commoditize, or have expropriated from them certain domains of knowledge and certain sacred places, plants, animals, and objects be respected.*[26]

That which must be developed and encouraged through the protection of traditional and indigenous knowledge and the community for which that knowledge is critical, is wisdom and continuity of culture. While interest in biodiversity as a global genetic and economic resource has gone a long way towards encouraging sustainable use of the environment, the importance of conserving the method as well as the tangible or material object must also be acknowledged: "Not only are we losing resources in terms of species and their populations but knowledge of how medicinal plants have been used by native cultures":[27]

> *Indigenous people have the right to practice and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature, as well as the right to the restitution of cultural, intellectual, religious and spiritual property taken without their free and informed consent or in violation of their laws, traditions and customs.*[28]

2. The International Community

2.1 The Agreement On Trade Related Intellectual Property Rights (TRIPS)

The Agreement on Trade Related Intellectual Property Rights (TRIPs) is part of the *World Trade Organisation Agreement* of 1994, the result of the Uruguay Round of trade negotiations of the General Agreement on Tariffs and Trade (GATT). Thus, when a country becomes a signatory to the WTO to access the subsequent trade advantages, that country must also implement the basic provisions set down by TRIPs. Therefore, TRIPs effectively controls the global distribution of intellectual property rights through international trade.

Prior to TRIPs, an international framework for intellectual property standards was in operation in the form of the various instruments administered by the World Intellectual Property Organization (WIPO). The administrative role of WIPO was compromised by the fact that the organisation had no means by which to enforce its decisions. After losing allegedly billions of dollars through infringement of its intellectual property throughout the world, the United States argued for international protection of intellectual property rights (in light of their particular significance to

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[26] DA Posey et al, "Collaborative Research and Intellectual Property Rights," (1995) 4 *Biodiversity and Conservation* 892 at 893.

[27] V Heywood, "Medicinal and Aromatic Plants as Global Resources," (1999) 500 *Acta Horticulturae* 21 at 27.

[28] Article 12, *Draft Declaration on the Rights of Indigenous Peoples*.

international trade) at the Uruguay Round of GATT in the early 1990s. The result was TRIPs, which became effective, January 1, 1995. TRIPs requires member nations to comply with international treaties and conventions protecting intellectual property, including the implementation of such provisions in national laws.

While many of the provisions of TRIPs reflect the requirements of earlier agreements, such as the Paris and Berne Conventions, it imposes additional requirements particularly with respect to new technologies. As part of the WTO Agreement, TRIPs is facilitated by more effective dispute settlement procedures with options of sanctions against signatory countries for non-compliance.

TRIPs has attracted great criticism for its emphasis on large corporations, their control of the global distribution of goods, and the "globalisation" of intellectual property rights arguably at the expense of developing countries and indigenous groups.[29] TRIPs internationalises, and thereby generalises in favour of developed, industrialised western countries, the social and economic dimensions of intellectual property rights.

2.2 The Convention On Biological Diversity (CBD)

The Convention on Biological Diversity (CBD), concluded 5 June 1992, was the result of discussions at the Rio de Janeiro 1992 United Nations Conference on Environment and Development (the "Earth Summit") towards a strategy for sustainable development, following negotiations that had commenced in November 1990 under the United Nations Environment Programme (UNEP).[30] The CBD, administered by UNEP, establishes principles for the protection of the environment while ensuring ongoing economic development, emphasising conservation of biodiversity, sustainable use, and fair and equitable benefit sharing of that use of genetic resources. The CBD is also a significant international instrument in the development of rights in indigenous and traditional resources, in that it is based on the localised community control of resources and aims to provide for the equitable sharing of the benefits derived from them, thereby re-invigorating national sovereignties with respect to biological and intellectual resources.[31]

The CBD now has 188 parties, thus potentially providing for global coverage[32] and important acknowledgment of indigenous cultural and intellectual property rights: "The importance of the CBD as a tool for indigenous groups lies in its recognition of the contributions of indigenous and local communities to the conservation of biodiversity." [33] The capacity of this document to organise relationships between

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[29] P Drahos, "Global Property Rights in Information: The Story of TRIPS at the GATT" (1995) 13(1) *Prometheus* 6.

[30] JR Adair, "The Bioprospecting Question: Should the United States Charge Biotechnology Companies for the Commercial Use of Public Wild Genetic Resources" (1997) 24 *Ecology Law Quarterly* 131 at 142. See also I Commins, "Biodiversity: Legal Implications for Australia," (1993) 10(6) *Environment and Planning Law Journal* 486 for a useful discussion of the Draft Convention and its implications.

[31] Article 3 acknowledges national proprietary rights.

[32] J Sutherland, "Intellectual and Cultural Property Rights and Bio-Prospecting" (1995) 34 *Development Bulletin* 36 at 37.

[33] AB King & PB Eyzaguirre, "Intellectual Property Rights and Agricultural Biodiversity: Literature Addressing the Suitability of IPR for the Protection of Indigenous Resources" (1999) 16 *Agricultural and Human Values* 41 at 46.

states with respect to traditional knowledge, however, persists largely as potential as it remains unratified by the United States of America. Similarly, although Australia has ratified the CBD and implemented basic legislation, the legislative response has been disappointing to indigenous groups.[34]

While the CBD has been lauded for its recognition of cultural diversity as an instrument in the protection of biodiversity, the "salience" of the importance of biodiversity continues to be articulated in terms of international trade and global economic resources:

> *What place does a conservation agency have in taking advantage of our natural biological assets? Cynics might say that such activities are about wealth-generation, not conservation, but it is more and more difficult to achieve the latter without the former. Nowadays, a vital part of conservation work lies in changing attitudes to our environment. If we are to protect the goose that lays the golden eggs, the community must see some golden eggs.*[35]

This transformation in the perspective upon the protection of biological diversity has been recognised as a shift from the notion of conserving natural areas to that of nature conservation as preserving a resource to be consumed:

> *The new emphasis on the conservation of biological diversity as resource has added a very different dimension to the debate about the conservation of natural areas. Traditionally, nature conservation has been defined as a benefit to be provided, usually by government, rather than its destruction as a resource consumed, frequently irreversibly, and, consequently, a harm to be prevented.*[36]

The CBD, at first instance, localises the global trade values foregrounded in TRIPs and emphasises the interests of biological diversity; however, the terms of that emphasis are still in the context of resources to be conserved for their utilisation. Thus, the CBD may be read more strictly as a means for ensuring the sustainability of the bioprospecting industry.[37]

Despite these limitations, the CBD is an important re-assertion of the sovereign rights of states over their biological resources (Articles 3 and 15), in the context of the globalisation of resources that is favoured in TRIPs. The Preamble explicitly recognises "the close and traditional dependence of many indigenous and local

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[34] T Keyes, "Indigenous Rights Sidelined Again" (1999) 4(22) *Indigenous Law Bulletin* 14; T Keyes, "The Environment Protection and Biodiversity Conservation Bill 1998 (Cth): Implications for Traditional Owners of Uluru Kata Tjuta National Park" (1998) 4(16) *Indigenous Law Bulletin* 22.

[35] J Armstrong & K Hooper, "Nature's Medicine" (1994) 9(4) *Landscope*, 10, at 14.

[36] D Farrier, "Implementing the In-Situ Conservation Provisions of the United Nations Convention on Biological Diversity in Australia: Questioning the Role of National Parks" (1996) 3(1) *The Australasian Journal of Natural Resources Law and Policy* 1 at 3. Further on the issue of reserves in the conservation of global resources, see GB Ingram, "Management of Biosphere Reserves for the Conservation and Utilization of Genetic Resources: The Social Choices," (1990) 40(2) *Impact of Science on Society* 133.

[37] D Farrier, "Implementing the In-Situ Conservation Provisions of the United Nations Convention on Biological Diversity in Australia: Questioning the Role of National Parks" (1996) 3(1) *The Australasian Journal of Natural Resources Law and Policy* 1 at 3.

communities embodying traditional lifestyles on biological resources." It continues that it is desirable to share equitably the "benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components."[38] The emphasis on equitable sharing of benefits is repeated in Articles 1, 8(j), 10, and 15(7). Article 8(j) obliges each contracting party, as far as possible and appropriate, to:

> *Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.*

Although without explicit recognition of communal property rights, Art 8(j) is an important acknowledgement of authority in the community[39] and an extension of rights in ownership beyond that which can be protected by existing intellectual property laws:

> *[Art 8(j)] seems to affirm, then, that the holders ("subject to national legislation") have rights over their knowledge, innovations and practices, whether or not they are capable of being protected by IPRs. If they are not capable of being protected by the existing IPR system, there is still an obligation for governments to safeguard these entitlements either through a new IPR law or by other legal or policy measures. These duties should also extend to users of traditional knowledge, innovations and practices.*[40]

Furthermore, the CBD recognises the importance of traditional use of genetic resources in the sustainable preservation of biological diversity. Article 10(c) obliges each contracting party, as far as possible and appropriate, to

> *Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.*

The CBD establishes access to the biological resources of developing countries on a quid pro quo basis with technology transfer from the industrialised countries, and asserts that intellectual property rights must not conflict with the conservation and sustainable use of biodiversity (Art 16.5) (Article 16). Similarly, Articles 17(2) (Exchange of Information) and 18(4) (Technical and Scientific Cooperation) include the encouragement and development of exchange and use of indigenous and traditional knowledge and technologies, in the spirit of the CBD.

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[38] For a discussion of equitable benefit-sharing arrangements, see SP Mulligan, "For Whose Benefit?" (1999) 8(4) *Environmental Politics* 35.

[39] H Fourmile, "Indigenous Peoples, the Conservation of Traditional Ecological Knowledge, and Global Governance," in N Low (ed) *Global Ethics and Environment* (1999), 215 at 231.

[40] G Dutfield, *Intellectual Property Rights, Trade and Biodiversity* (2000), 35.

Access agreements are provided for under Article 15 (Access to Genetic Resources). Article 15(4) states that "Access, where granted, shall be on mutually agreed terms and subject to the provisions of this Article," while Article 15(5) states the necessity for "prior informed consent." This requirement for prior informed consent has proven to be one of the most important effects of the CBD and has appeared as a key provision in many governments' legislative responses to the document.[41] Unfortunately, as mentioned earlier, Australia's implementation of the CBD into Australian law in the form of the *Environment Protection and Biodiversity Conservation Act* 1999 (Cth) represents in this regard, according to some critics, a missed opportunity with respect to the CBD's position in relation to the recognition and protection of indigenous cultural and intellectual property.[42]

2.3 TRIPS and the CBD: Partner or Perish?

The CBD was entered into some months before TRIPs and its relationship to TRIPs is somewhat inconsistent. TRIPs recognises and promulgates private monopoly rights, particularly with respect to patents, conversely, the CBD is more concerned with the community control of genetic resources. TRIPs has been criticised for reinforcing private monopoly rights and privileging industrial innovations over informal, communal innovations:[43]

> *One of the main objectives of the Uruguay Round of the GATT was the extension of patent enforcement to certain key industries such as pharmaceuticals and agrochemicals which in many countries were exempt from patent protection. These are industries whose products – medicine and food – force in a particularly direct manner the issue of a conflict between "social" and "private" interests.*[44]

The CBD re-asserts national sovereignty, in contrast to the emphasis on international or global trade that is encouraged by TRIPs. The economic globalisation of intellectual property rights advocated in TRIPs is seen as a threat to the cultural and social welfare of indigenous and traditional groups: "Indigenous culture is, in many ways, at odds with the global politico-economic system. Numerous critics argue that the spread of western capitalist culture has led to the simultaneous erosion of both biological and cultural diversity."[45] Nevertheless, the complex question of indigenous and traditional knowledge is not answered by a simple reversal of the national/international paradigm. The CBD has been criticised for its emphasis on

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[41] H Fourmile, "Using Prior Informed Consent Under the Convention on Biological Diversity to Protect Indigenous Traditional Ecological Knowledge and Natural Resource Rights" (1998) 4(16) *Indigenous Law Bulletin* 14.

[42] M Davis, "Indigenous Rights in Traditional Knowledge and Biological Diversity: Approaches to Protection" (1999) 4(4) *Indigenous Law Reporter* 1 at 4; T Keyes, "Indigenous Rights Sidelined Again" (1999) 4(22) *Indigenous Law Bulletin* 14.

[43] J Sutherland, "Intellectual and Cultural Property Rights and Bio-Prospecting: Recent Developments" (1995) 34 *Development Bulletin* 36 at 37; J Sutherland, "TRIPS, Cultural Politics and Law Reform" (1998) 16(3) *Prometheus* 291 at 293-95.

[44] J Frow, *Time and Commodity Culture: Essays in Cultural Theory and Postmodernity* (1997), 192.

[45] SP Mulligan, "For Whose Benefit? Limits to Sharing in the Bioprospecting 'Regime'," (1999) 8(4) *Environmental Politics* 35 at 47.

State sovereignty, an emphasis which risks generalising cultural interests and ultimately undermining the biodiversity that is enriched and protected through the preservation of cultural diversity and indigenous and traditional culture that might be possible:

> *The problem of exclusive state sovereignty is the most critical in the Convention, because unless it is interpreted in a positive manner, which represents indigenous peoples' rights, it stands to undermine the very cultural diversity with which biological diversity closely relates.*[46]

Where the TRIPs agreement is potentially significant for indigenous and traditional people, however, is Article 27(3), which refers to subject matter that may be excluded from patentability and also raises the potential for introducing *sui generis* systems for protection.

While TRIPs and the CBD both emphasise protection of the Biotechnology industries, this agenda is explicit in the TRIPs agreement through the obligation upon signatories to pass intellectual property legislation over life forms. The CBD too emphasises intellectual property laws within which protection of traditional knowledge conforms, or at least, remains "subject to," but it does explicitly acknowledge indigenous communities:

> *While the CBD does provide a potentially useful opportunity for countries to introduce new measures recognising and protecting indigenous knowledge and innovations, it also imposes some constraints. The requirement that implementation of art 8(j) should be subject to national legislation may be problematic for indigenous peoples, especially if existing national laws take precedence, where these might contradict or place limitations on any measures introduced under art 8(j). The CBD encourages but does not oblige countries to respect and preserve indigenous knowledge. It does, however, provide an opportunity, if used appropriately, for countries to introduce special national laws beneficial for the protection and conservation of indigenous knowledge, traditions, innovations and practices.*[47]

Nevertheless, the provisions of the CBD, and in particular Article 8(j), have been criticised as idealising traditional lifestyles and romanticising or essentialising indigenous peoples:

> *Art 8(j) has been subjected to considerable criticism by indigenous peoples. It has been noted, for example, that the phrase "embodying traditional lifestyles" suggests that this provision applies only to "indigenous people who are isolated, fossilised in some cultural timewarp living in a never changing present", and excludes peoples who*

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[46] International Alliance of the Indigenous Peoples of the Tropical Forests, "The Biodiversity Convention: The Concerns of Indigenous Peoples" (1996) 1(4) *Australian Indigenous Law Reporter* 731 at 733.

[47] M Davis, "Indigenous Rights in Traditional Knowledge and Biological Diversity: Approaches to Protection" (1999) 4(4) *Indigenous Law Reporter* 1 at 3.

> *have "adapted their lifestyles to reflect the contemporary and continuing colonial situation in which [they] find [themselves]."*[48]

The emphasis on *in situ* conservation has been questioned for its bias towards the protection of the tangible physical area at the possible expense of protection of the lifestyle and traditional exploitation of resources in that area:[49] "Conserved wilderness is the other face of rampant, urban, industrial growth."[50] Furthermore, the CBD remains necessarily concerned with geo-historical areas rather than the persistence of community relationships to resources notwithstanding loss of place and alienation through the forces of colonisation.

Despite these criticisms for its soft language and an apparent deference to the dominant legal system, parties to the CBD remain under obligations to implement the general provisions.[51] The strength of the CBD, and indeed of Art 8(j), is the affirmation of rights in knowledge otherwise outside the ambit of intellectual property regimes.[52] Not only are traditional rights conceptually outside conventional regimes, but also conventional regimes may be completely inaccessible to traditional rights holders, both commercially and conceptually.[53]

Although the CBD provides a framework for potentially more appropriate legislative recognition of rights over traditional resources, operating purely within the context of community versus monopoly rights is simplistic. It is true that the concepts of traditional and indigenous cultural and intellectual property are not informed by the private monopoly rights paramount in Western law, rights that are central to the minimum requirements of TRIPs, but this must be understood as other than a simple opposition to these monopoly rights. More than a simple communal property right, the value for indigenous and traditional groups in their resources and intellectual products is primarily in the practice of the culture and integrity of the individual as well as the differentiation and continuation of the community, rather than inhering primarily in the products themselves.

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[48] The International Alliance of the Indigenous Peoples of the Tropical Forests, "The Biodiversity Convention: The Concerns of Indigenous Peoples" (1996) 1(4) *Australian Indigenous Law Reporter* 731 at 733 cited in S Pritchard & C Heindow-Dolman, "Indigenous Peoples and International Law: A Critical Overview," (1998) *Australian Indigenous Law Reporter* 38 http://www.austlii.edu.au/cgi-bin/disp.pl/au/journals/AILR/1998/38.html

[49] The International Alliance of the Indigenous Peoples of the Tropical Forests, "The Biodiversity Convention: The Concerns of Indigenous Peoples" (1996) 1(4) *Australian Indigenous Law Reporter* 731 at 733 cited in S Pritchard & C Heindow-Dolman, "Indigenous Peoples and International Law: A Critical Overview," (1998) *Australian Indigenous Law Reporter* 38 http://www.austlii.edu.au/cgi-bin/disp.pl/au/journals/AILR/1998/38.html See also the discussion of the in situ conservation system, and the need for off-reserve management, in D Farrier, "Implementing the In-Situ Conservation Provisions of the United Nations Convention on Biological Diversity in Australia: Questioning the Role of National Parks" (1996) 3(1) *The Australasian Journal of Natural Resources Law and Policy* 1.

[50] A Salleh, "Politics In/Of the Wilderness," (1996) 23 *Arena Magazine* 26 at 27.

[51] H Fourmile, "Indigenous Peoples, the Conservation of Traditional Ecological Knowledge, and Global Governance," in N Low (ed) *Global Ethics and Environment* (1999), 215 at 229.

[52] G Dutfield, *Intellectual Property Rights, Trade and Biodiversity* (2000), 35-37.

[53] M Blakeney, "Bioprospecting and the Protection of Traditional Medical Knowledge of Indigenous Peoples: An Australian Perspective," (1997) 6 *European Intellectual Property Review* 298 at 300.

> *[Traditional Resource Rights] are mutually supportive and entirely consistent with the Convention on Biological Diversity since the destiny of traditional peoples largely determines and is determined by, the state of the world's biological diversity. Significantly, they are consistent, too, with the requirements of GATT/WTO and FAO/IUPGR.*[54]

Rather than attempting to conceal rights to traditional knowledge and resources within an entitlement-based western conception of intellectual property rights, the CBD provides an autonomy-based justification for rights to resources within the community rather than a right to property in genetic resources.[55] This *sui generis* right creates a relationship between the interest in biodiversity and the traditional control of resources necessary to the protection of cultural diversity. In accordance with this approach, the significance of agreements must be examined, while maintaining an awareness of the potential for imbalances in negotiating power between groups.

3. Cultural Prospecting and the Consumption of Community

3.1 The Doha Mandate

The Doha Declaration of 2001[56] involves an instruction to the TRIPs Council to look at the relationship between TRIPs and the CBD and the issue of traditional knowledge, particularly in relation to bio-piracy and the patenting of biotechnology. The Declaration also instructs the TRIPs Council to examine the protection of traditional knowledge in the context of this review, in relation to biotechnology (TRIPs Article 27.3 (b)). This review must occur with regard to the particular interests of developing countries.

Doha is a technical mandate that requires review (not necessarily amendment) of TRIPs within the existing international framework. Provisions in TRIPs leave to the discretion of member states the treatment of the patenting of plant and animal materials, in Article 27.3(b). Furthermore, there are no requirements for disclosure of the source of material that might end up in a patent, such as biological material that may have been prospected from traditional communities. The CBD represents an affirmation of state sovereignty over native biological resources. The CBD gives the State authority to determine the rules governing principles of prior informed consent, mutually agreed terms, and equitable sharing with respect to the use of traditional knowledge and resources.

Since the Doha Declaration, there is increased political pressure to conduct a review of obligations to protect traditional knowledge and the patenting of genetic resources. Together with the discussions in the WIPO IGC and the work of specific task forces, this has motivated changes to the system of International Patent Classification (IPC) to include a new category of information in traditional knowledge, specifically traditional medicine based upon plants. This is part of the imperative to document

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[54] "What Are Traditional Resource Rights?" http://users.ox.ac.uk/~wgtrr/trr.htm

[55] AJ Stenson & TS Gray, "An Autonomy-Based Justification for Intellectual Property Rights of Indigneous Communities" (1999) 21 *Environmental Ethics* 177.

[56] World Trade Organization, Ministerial Conference, Fourth Session, Doha, 9-14 November 2001, Ministerial Declaration, Adopted on 14 November 2001, WT/MIN(01)/DEC/1, 20 November 2001.

traditional knowledge as prior art. In this context, enhanced documentation of traditional knowledge is argued to be important to provide searchable prior art for the purposes of the Patent Cooperation Treaty (PCT).[57] Of further interest in this context is the study[58] jointly commissioned by WIPO and the UNEP and presented at the recent Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP7), held in Kuala Lumpur 9-20 February 2004. The study calls for, amongst other recommendations, an international system for access and benefit-sharing which provides for a mix of TK-related incentives, of which intellectual property protection may be just one element. Further, the Kuala Lumpur Declaration of COP7 reaffirms the role of indigenous and local communities in the conservation and sustainable use of biological resources and the development of an international regime on access and benefit sharing towards community development.[59]

In order to understand the international intellectual property issues raised by the Doha Mandate and the subject of current discussions, particularly in respect of traditional knowledge and biodiversity, it is necessary to address the relationship between the CBD and TRIPs and the specific tensions that arise between these documents and the obligations they create in member countries.

3.2 Community Management of "Global" Resources

Appropriate international measures towards consistent approaches ensuring that benefits derived from the collection of genetic resources accrue to local and indigenous communities are, as we have seen, the subject of current discussions. In the commercial collection of genetic resources from developing nations, the benefits are enjoyed by Western multinational companies at the expense of developing countries and local indigenous and traditional groups, which, if uncompensated, receive no benefit for their conservation of their biodiversity and their sustainable farming practices.[60] Furthermore, such interference with the local community structure can fracture the social groups through the interruption of traditional authorities and ethics and the depletion of local resources: "Entrance into market economics weakens local cohesion as a few entrepreneurs emerge and claim individual rights over what had been communal resources."[61]

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[57] WIPO International Patent Cooperation Union (PCT Union), Meeting of the International Authorities Under the PCT. Ninth Session, Geneva, July 21 to 25, 2003. "PCT Minimum Documentation." Prepared by the International Bureau, 2 July 2003. PCT/MIA/9/4. http://www.wipo.int/pct/en/meetings/mia/pdf/pct_mia_9_4.pdf

[58] Professor Anil K Gupta, "The Role of Intellectual Property Rights in the Sharing of Benefits Arising from the Use of Biological Resources and Traditional Knowledge." Study jointly commissioned by WIPO and UNEP. Pre-publication version for the Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity Kuala Lumpur, February 9 to 20, 2004. http://www.wipo.int/tk/en/unep/index.html

[59] http://www.biodiv.org/doc/ref/cop-07/cop-07-md-01-en.pdf

[60] JR Adair, "The Bioprospecting Question: Should the United States Charge Biotechnology Companies for the Commercial Use of Public Wild Genetic Resources?" (1997) 24 *Ecology Law Quarterly* 131 at 141. See also J Christie, "Indigenous Peoples, Biodiversity and Intellectual Property Rights" (1995) 5(4) *Australasian Biotechnology* 241 at 241-242.

[61] JB Alcorn, "Economy Botany, Conservation, and Development" (1995) 82(1) *Annals of the Missouri Botanical Garden* 34 at 41.

The exploitation of traditional resources, and the alienation of such products from the particular indigenous and traditional community, and the cultural context in which those resources subsist, has continued since the times of colonial expansion:

> *[R]etrospective assessments of the economic and social consequences of the "Columbian exchange" have been particularly important in recent decades for supporting arguments in favour of national sovereignty over genetic resources and the development of benefit-sharing arrangements with the suppliers of commercially useful biological resources.*[62]

It is the cultural and customary investment, rather than the commercial, that Doha calls for review, together with the significant issue of access to the benefits of that biotechnology, particular in the area of medicine.

The relationship between substantiating the principle of self-determination with respect to the cultural significance of traditional resources, and the ability to administer those resources, currently is best supported by the practice of bio-prospecting agreements.[63] Such agreements are made in the context of international environmental and intellectual property standards whereby indigenous and traditional peoples are able to share equitably in the benefits derived from their traditional knowledge, resource management, and practices, while encouraging the preservation of biodiversity and environmental resources.[64]

> *[L]icensing agreements established early in the ethnobotanical bioprospecting activities, that draw upon traditional knowledge and biological resources, can be used as a mechanism for benefit sharing where such activities result in a patentable invention such as a new pharmaceutical or agricultural crop.*[65]

Nevertheless, licensing agreements are not unproblematic in their application,[66] and the problems and limitations of such agreements have been raised in the WIPO-UNEP Study presented to COP7.[67] The practice emphasises the notion of intellectual

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[62] J Sutherland, "Representations of Indigenous Peoples' Knowledge and Practice in Modern International Law and Politics" (1995) 2(1) *Australian Journal of Human Rights* 39 at 41.

[63] J Sutherland, "Bio-prospectors or Bio-pirates?" (1998) *Consuming Interest* 13.

[64] C Oddie, "Bio-prospecting" (1998) 9 *Australian Intellectual Property Journal* 6 at 9; Sutherland J, "Intellectual and Cultural Property Rights and Bio-Prospecting: Recent Developments" (1995) 34 *Development Bulletin* 36; FS Indígena & B Kothari, "Rights to the Benefits of Research: Compensating Indigenous Peoples for their Intellectual Contribution," (1997) 56(2) *Human Organization* 127; J Jones, "Regulating Access to Biological and Genetic Resources in Australia: A Case Study of Bioprospecting in Queensland," (1998) 5(1) *The Australasian Journal of Natural Resources Law and Policy* 89.

[65] Department of Foreign Affairs and Trade, "Traditional Knowledge," http://www.dfat.gov.au/ip/traditional_knowledge.html (25/09/01).

[66] N Roht-Arriaza, "Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities," (1996) 17 *Michigan Journal of International Law* 919 at 956-957.

[67] Professor Anil K Gupta, "The Role of Intellectual Property Rights in the Sharing of Benefits Arising from the Use of Biological Resources and Traditional Knowledge." Study jointly commissioned by WIPO and UNEP. Pre-publication version for the Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity Kuala Lumpur, February 9 to 20, 2004. "Part One:

property as commodities of trade and removes the emphasis from the protection of the knowledge or tradition. Furthermore, there is criticism of compensation for what are perceived to be naturally occurring resources, the value, it is argued, being in the modification and commercialisation of those resources.[68] However, it is widely acknowledged that in harvesting and modifying those resources, a necessary starting point often requires a direct utilisation of indigenous or traditional knowledge.[69] Indeed, this rendering of the biological resource as an object of intellectual property is very limiting to the effort to realise what are not only biological resources, but also and frequently cultural resources.

The ideology of biological resources as a global commodity, that authorises the unfettered access of bioprospectors, was rejected by Costa Rica in the 1980s. The creation of the Ministry of Natural Resources, Energy, and Mines (MIRENEM) in 1986 increased, at the parliamentary executive level, awareness and environmental concerns such that by the end of the 1980s, Costa Rica had ended the practice of allowing free and unlimited access to its wild genetic resources.[70] With the establishment of a non-profit national biodiversity institute, Instituto Nacional de Biodiversidad (INBio), and accompanying legislation allowing the government to use INBio as a means of regulating access, bioprospecting concessions were negotiated in return for compensation.[71] In 1991, a landmark agreement between INBio and the Merck pharmaceutical company attracted a great deal of attention.[72] In its payment of $1 million and $130 000 of scientific equipment in consideration, as well as royalty payments between 5 and 65% depending on the type of genetic material which are provided directly for conservation purposes,[73] this agreement represents an important

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Introductory Essay. Rewarding Conservation of Biological and Genetic Resources and Associated Traditional Knowledge and Grassroots Creativity." http://www.wipo.int/tk/en/unep/part-I.pdf

[68] KA Goldman, "Compensation for Use of Biological Resources Under the Convention on Biological Diversity: Compatibility of Conservation Measures and Competitiveness of the Biotechnology Industry" (1994) 25 *Law and Policy in International Business* 695 at 714-718. This article maintains a commitment to traditional intellectual property law paradigms and fails to recognise the fundamental shift that might be available to protect indigenous traditional resource rights, through a positive reading of the CBD. See also *Moore v Regents of University of California* 271 Cal. Rptr. 146 at 147-49, where it was held that there no property rights existed in discarded personal body tissue used subsequently to develop a permanent cell line for supply to genetic engineering companies.

[69] LI Yano, "Protection of the Ethnobiological Knowledge of Indigenous Peoples" (1994) 41 *UCLA Law Review* 443 at 449-450.

[70] R Gámez et al, "Costa Rica's Conservation Program and National Biodiversity Institute (INBio)," in WV Reid et al (eds), *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (1993), 53 at 54-55.

[71] JR Adair, "The Bioprospecting Question: Should the United States Charge Biotechnology Companies for the Commercial Use of Public Wild Genetic Resources" (1997) 24 *Ecology Law Quarterly* 131 at 142.

[72] JR Adair, "The Bioprospecting Question: Should the United States Charge Biotechnology Companies for the Commercial Use of Public Wild Genetic Resources" (1997) 24 *Ecology Law Quarterly* 131 at 142. For a more detailed discussion of access agreements and contracts, see SA Laird "Contracts for Biodiversity Prospecting" in WV Reid et al (eds), *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (1993), 99.

[73] R Gámez et al, "Costa Rica's Conservation Program and National Biodiversity Institute (INBio)," in WV Reid et al (eds), *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (1993), 53 at 56-57.

departure from the common heritage of humankind argument, rendering the inequitable exploitation of the genetic resources of developing countries by multinational companies more difficult to sustain.

However, while this arrangement reflected a national interest in the wild genetic resources of a developing country, it did not directly involve any indigenous knowledge providers.[74] Nevertheless, it is arguable that the same principles are useful in confronting the difficult issues in adequate protection of indigenous and traditional cultural and intellectual property in a developed nation, such as Australia. That is, the property interest, if it can be adequately described in that way, vests with the people of a particular group, practising and continuing their knowledge. Use of that knowledge should follow free and informed consent and should make adequate remuneration for such use,[75] and appropriate bio-prospecting agreements represent the most effective way currently available to encourage conservation, facilitate research, and protect the resources of indigenous and traditional communities.

As discussed, indigenous or traditional medicinal and agricultural knowledge presents not only significant potential to commercial interests for the identification and privatisation of biological material, [76] but also important systems of management and preservation of the biodiversity of local resources. Through an intellectual property model, the commercial exploitation of that knowledge and such resources removes the product and generally requires disclosure regarding the traditional use and knowledge of that product. In the Merck-INBio Biosprospecting Agreement, Merck received samples and information regarding their traditional use in return for $1.35 million and an agreed royalty of between 2 and 3% of the drug value (estimated to earn over US$1 billion per year).[77]

Despite this apparent return, many argue that the fracturing of the communal processes is commenced, and indeed the sharing of benefits is with the national interest and not with the indigenous community responsible for the traditional knowledge being exploited.[78] Thus, privatisation removes from the communal process

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[74] M Davis, "Indigenous Rights in Traditional Knowledge and Biological Diversity: Approaches to Protection" (1999) 4(4) *Indigenous Law Reporter*, 1 at 24.

[75] An Australian example is Amrad, a Victorian pharmaceutical company that has entered into a bioprospecting agreement with the Tiwi Land Council. The agreement allows Amrad to conduct research with plant species in the Tiwi Islands, with the assistance of local indigenous groups. As indigenous intellectual property lawyer, Terri Janke argues, "This type of arrangement is likely to increase in the future as medical researchers seek to discover the full extent of earth's biological resources. Indigenous people should be aware of their intellectual and cultural property rights so that they can negotiate terms for sharing such knowledge, if appropriate" ("Don't Give Away Your Valuable Cultural Assets" (1998) 4(11) *Indigenous Law Bulletin* 8 at 11). See also the discussion in J Christie, "Enclosing the Biodiversity Commons" in R Hindmarsh et al (eds) *Altered Genes: Reconstructing Nature: the Debate* (1998), 53 at 61-62.

[76] M Blakeney, "Intellectual Property Aspects of Traditional Agricultural Knowledge," in RE Evenson et al (eds), *Economic and Social Issues in Agricultural Biotechnology* (2002), at 43.

[77] M Blakeney, "Intellectual Property Aspects of Traditional Agricultural Knowledge," in RE Evenson et al (eds), *Economic and Social Issues in Agricultural Biotechnology* (2002), 43.

[78] R Gámez et al, "Costa Rica's Conservation Program and National Biodiversity Institute (INBio)," in WV Reid et al (eds), *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (1993), 53.

of management, the effective means (the product itself) to sustain the customary practices and processes vital to the cohesion and integrity of the local community.

The Australian Commonwealth Government Discussion Paper, *Managing Access to Australia's Biological Resources: Developing a Nationally Consistent Approach*,[79] emphasises the importance of national regulation of access to biological resources and specifically examines the "benefits from a national approach",[80] identifying the use of intellectual property rights as beneficial not only to the individual rights-holder, but also in regard to the national interests in the biological resources. The Merck-INBio agreement is cited as an example of the sharing of benefits between the government and thereby the national interests, and the private sector.[81] The Paper suggests a multi-purpose contract system which would require the particular bio-prospecting or research interest to contract with the owner of biological resources, in accordance with the particular jurisdiction, while the Commonwealth and the States control the *in situ* resources and facilitate equitable remuneration of the jurisdiction, sharing of benefits (including technology transfer to indigenous and traditional groups, and to developing nations), and protection of environmental and biodiversity values.[82] Significantly, such contracts may license the knowledge and stipulate confidentiality requirements and appropriate use, thereby addressing some of the particular questions raised by specific indigenous and traditional knowledge.[83]

Further to protecting traditional rights, codes of conduct or ethics for research and bio-prospecting are favoured by various professional organisations,[84] "and many of these organisations have been supportive of indigenous peoples' activities and aspirations."[85] Collaborative research efforts and accompanying agreements may facilitate both the research and development interests of industrialised nations, as well as protect both the traditional rights in the resources, and the cultural and biological diversity therein. Indeed, the industry of biotechnology is itself described by some writers as a collaborative mechanism for the promotion of diversity and thereby stability through the preservation of biological resources:

> *Biotechnology can also help in recovering local empirical practices by acting as a bridge between scientific and empirical learning and by*

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[79] Prepared by the Commonwealth-State Working Group on Access to Australia's Biological Resources, October 1996, and released 15 months later. See the discussion in N Stoianoff, "Access to Australia's Biological Resources and Technology Transfer," (1998) 20(8) *European Intellectual Property Review*, 298.

[80] *Managing Access to Australia's Biological Resources: Developing a Nationally Consistent Approach* (1998), at 13.

[81] N Stoianoff, "Access to Australia's Biological Resources and Technology Transfer," (1998) 20(8) *European Intellectual Property Review*, 298 at 299.

[82] N Stoianoff, "Access to Australia's Biological Resources and Technology Transfer," (1998) 20(8) *European Intellectual Property Review*, 298 at 303.

[83] N Stoianoff, "Access to Australia's Biological Resources and Technology Transfer," (1998) 20(8) *European Intellectual Property Review*, 298 at 304.

[84] DA Posey et al, "Collaborative Research and Intellectual Property Rights," (1995) 4 *Biodiversity and Conservation* 892 at 896.

[85] J Sutherland, "Representation of Indigenous Peoples' Knowledge and Practice in Modern International Law and Politics" (1995) 2(1) *Australian Journal of Human Rights* 39 at 53.

> *promoting diversity, genetic above all but even technical and social, as a mechanism of stability in farm ecosystems.*[86]

Other commentators advocate bio-collecting agencies, "chartered in a way that attended to the broader purposes that are specified in the CBD and perhaps also the International Undertaking on Plant Genetic Resources," as a means of ensuring certainty in contractual relationships in research agreements, overcoming problems of transaction and enforcement costs, and stimulating a regular process of ordering between the respective interests.[87] It is suggested that a single global bio-collecting agency is more appropriate and more able to serve traditional and indigenous communities, than the national, localised agencies, by creating uniformity and clarity as to minimum standards, greater scrutiny of economic exploitation of indigenous and traditional knowledge, and overcoming the need for an international treaty for national indigenous and traditional intellectual property rights. Drahos suggests that the international administration of such a system may facilitate greater transparency, uniformity, efficiency, and indeed scrutiny than a system distributed between various national collecting societies::

> *It might also be argued that international organisations, for the most part, serve the interests of indigenous groups better than state organisations. States, not uncommonly, have been opponents of indigenous groups in the context of land claims and rights issues. Political-economic elites wielding the power of the state present the greatest danger to indigenous groups.*[88]

Importantly, access agreements present the classic problem in contract law of unequal bargaining power, which the principle of a global bio-collecting agency seeks to overcome: "Clearly, a contract between an indigenous group and a multinational corporation is not a contract between equally well-resourced parties."[89]

Conclusion

Despite the promise that appears to be provided by international cooperation for the protection of traditional knowledge, the emphasis on multilateral cooperation in the context of intellectual property rights protects knowledge that is of economic value when disseminated in the marketplace. Such cooperation is based upon the sovereignty of the nation-state which contracts within the efficiency and "democracy" of the marketplace. Where the protection of traditional knowledge depends, however, on an international framework rather than the conventional pact inter-nations, as it were, it is possible to consider the order of that protection beyond the whims of the

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[86] B Amoroso, *On Globalization: Capitalism in the Twenty-First Century* (1998), 172.

[87] P Drahos, "Indigenous Knowledge, Intellectual Property and Biopiracy: Is a Global Bio-Collecting Society the Answer?" (2000) *European Intellectual Property Review* 245 at 248. See also the discussion in DA Posey et al, "Collaborative Research and Intellectual Property Rights," (1995) 4 *Biodiversity and Conservation* 892.

[88] P Drahos, "Indigenous Knowledge, Intellectual Property and Biopiracy: Is a Global Bio-Collecting Society the Answer?" (2000) *European Intellectual Property Review* 245 at 248.

[89] P Drahos, "Indigenous Knowledge, Intellectual Property and Biopiracy: Is a Global Bio-Collecting Society the Answer?" (2000) *European Intellectual Property Review* 245 at 247.

marketplace. Such an order must be provided through the international juridical production of the rights of community on a global scale, beyond the old contractual framework of national sovereignties agreeing within the context of the market.

> *If indigenous peoples are forced to relinquish their traditional customs and languages through, for example, assimilatory programmes which emphasise the conversion of their traditional economies based on biodiverse agricultural and hunter-gatherer ecosystems to cash economies based on monocultural systems of resource exploitation, then both cultural and biological diversity will suffer.*[90]

Biodiversity-rich local communities are thus sources of tremendous commercial potential for private interests and economic potential for national governments, but neither the effective preservation of community custom that is associated with those resources nor the sharing of these benefits directly with the indigenous and traditional communities responsible for the knowledge exploited has been adequately realised. To this end, as we have seen earlier, the CBD presents an important resource for indigenous rights in traditional knowledge beyond the individual private rights established by intellectual property laws. The CBD articulates a system of conservation of biological diversity as a universal cultural heritage, through an explicit acknowledgment of customary and indigenous knowledge and technologies.[91]

Counter to the global access argument that facilitates private exploitation of traditional knowledge as a public resource, the CBD presents international support for the protection of traditional resources from exploitation (whether or not intellectual property regimes are the appropriate means), while creating legal and financial incentives for the conservation of these precious biological and cultural resources. The provisions of the CBD provide a framework for communal custodianship and benefit-sharing, emphasising effective local autonomy as distinct from the monopolies that are protected in the international intellectual property framework supported by TRIPs. Thus, in utilising the principles of the CBD, there is an important opportunity for legislative recognition of indigenous rights and protection of traditional knowledge, by devising a regime through consultation that is culturally appropriate. By approaching the protection of biological diversity through mechanisms of cultural integrity and necessarily diversity, the CBD promotes an important transformation in the consideration of the local community as a legal actor in a global context. The CBD presents an important "localising" perspective in the context of globalised monopoly rights emphasised in TRIPs. This production of the local, however, must necessarily occur through the international order.

The protection of traditional biological resources has been constructed as an issue of property in the first instance, but ultimately this is a question of cultural integrity and obligations to international cultural diversity. International recognition of biological resources as means of the community in and of itself not only acknowledges the relationship between cultural diversity and biodiversity, but also presents legal

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[90] H Fourmile, "Indigenous Peoples, the Conservation of Traditional Ecological Knowledge, and Global Governance," in N Low (ed) *Global Ethics and Environment* (1999), 215 at 240.

[91] M Davis, "Indigenous Rights in Traditional Knowledge and Biological Diversity: Approaches to Protection" (1999) 4(4) *Indigenous Law Reporter*, 1 at 14.

protection in a form that is culturally appropriate, relevant, and meaningful to communal holders of traditional knowledge and resources.