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INSTITUTIONALISED EXCLUSION: THE POLITICAL ECONOMY OF BENEFIT SHARING AND INTELLECTUAL PROPERTY

Simon West

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1

INTRODUCTION

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (the Protocol), agreed in the final hours of COP 10 of the Convention on Biological Diversity (CBD) in October 2010,¹ was negotiated with the aim of providing for 'fair and equitable sharing of the benefits arising from the utilization of genetic resources',² and has been hailed as marking the 'end of biopiracy' - providing new recognition for farmers, rural agricultural communities, and traditional knowledge holders.³ If the Copenhagen climate summit of 2009 was seen as a nadir of international environmental law-making, overtly dominated by grandstanding and geo-political manoeuvring, Nagoya has been viewed as a zenith, symbolising compromise and subversion of national political interests in favour of a global environmental and social good.⁴ However, this optimistic perspective prioritises the production of law at the expense of analysis of its content and construction.⁵

In search of a more textured interpretation of the developments in Nagoya, this paper proposes that the provisions of the Protocol should be interpreted in the context of the broader political economy of intellectual property. It is submitted that the access and benefit sharing (ABS) regimes codified by the Protocol have been designed to 'regularise' traditional knowledge and local customary rights over genetic resources with the dominant rights-based international intellectual property (IP) regime composed of the World Trade Organisation (WTO), the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and the World Intellectual Property Organisation (WIPO).⁶ However, rather than creating equivalent rights for local and indigenous communities, Nagoya has succeeded in creating a set of conditional and subservient obligations attached to conventional intellectual property rights (IPRs) which in effect positions these communities in a state of legal dependency. While the Nagoya Protocol perhaps provides a strategic gain for developing state governments in the shifting narrative of international negotiations, the ABS system it enshrines in international law institutionalises the exclusion of local and indigenous communities from legal rights to intellectual and genetic resources.

The Nagoya Protocol has emerged from a process of 'regime-shifting', whereby developing states have reacted to the strengthening of the international IP regime by raising concerns about IPRs in an 'expanding list of international venues'.⁷ Perceived economic, social and environmental inequities caused by the TRIPS approach to knowledge

1 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity, Nagoya, 29 October 2010, available at <http://www.cbd.int/abs/text/> [Nagoya Protocol] and Convention on Biological Diversity, Rio De Janeiro, 5 June 1992, 31 *Int'l Leg. Mat.* 818 (1992) [CBD].

2 Nagoya Protocol, note 1 above, Article 1.

3 Greenpeace Press Release, 'Statement on Close of UN Biodiversity Summit in Nagoya, Japan,' Friday 29 October, 2010, available at <http://www.greenpeace.org/international/en/press/releases/Statement-on-Close-of-UN-Biodiversity-Summit-in-Nagoya-Japan/> and Kabir Bavikatte and Daniel F. Robinson, 'Towards a People's History of the Law: Biocultural Jurisprudence and the Nagoya Protocol on Access and Benefit Sharing' 7/1 *Law, Environment and Development Journal* 35 (2010).

4 Jonathan Watts, 'Goodwill and compromise: Nagoya biodiversity deal restores faith in UN,' *Guardian*, Friday, 29 October 2010, available at <http://www.guardian.co.uk/environment/2010/oct/29/nagoya-biodiversity-summit-deal?intcmp=239>.

5 The North-South divisions that have dogged the climate regime also define the ideological territory of the CBD, not least regarding the key issue of finance. See Dinah Shelton, 'Equity', in Daniel Bodansky et al, *The Oxford Handbook of International Environmental Law* 639 - 662, 650 (Oxford: Oxford University Press, 2007).

6 Marrakesh Agreement Establishing the World Trade Organization, Marrakesh, 15 April 1994, 1867 *U.N.T.S* 154, 33 *I.L.M.* 1144 (1994) [WTO Agreement], Agreement on Trade-Related Aspects of Intellectual Property Rights, Marrakesh, 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 *U.N.T.S* 299, 33 *I.L.M.* 1197 (1994) [TRIPS] and Convention Establishing the World Intellectual Property Organization, Stockholm, 14 July 1967, available at http://www.wipo.int/export/sites/www/treaties/en/convention/pdf/trtdocs_wo029.pdf [WIPO Convention].

7 Laurence R. Helfer, 'Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Lawmaking' 29 *Yale Journal of International Law* 1 (2004).

protection have prompted the articulation of 'redemptive' strategies in the more fluid contexts of the CBD and the Food and Agricultural Organisation (FAO), aiming to improve the recognition of the contributions of traditional agricultural communities. In this context, ABS structures have emerged as a way of providing recompense to traditional agricultural communities denied protection under IPRs. However, although ABS structures clash with IPRs in the sense that they introduce more restrictions on South-North transfer of knowledge and resources than the previous system of open access, in another deeper sense they are integrally part of the change in the early 1990s from systems of free exchange to private and sovereign control. As Cullet has pointed out, many developing countries prohibited patents of life forms and food-related products (for example, seeds) prior to TRIPS; appropriation of such knowledge in these countries was therefore prevented.⁸ However, while TRIPS has expanded the allocation of property rights over genetic resources and associated knowledge throughout the developing world, there has been a failure to allocate equivalent rights to traditional agricultural communities. Rather, developing states have asserted sovereign rights over genetic resources through the CBD at the same time as investing in industrial knowledge protection standards under TRIPS, removing legal control over the use and exploitation of genetic and intellectual resources from communities and creating a state of dependence of communities on the beneficence of the state.⁹ While increasingly formalised ABS structures (as found in Nagoya Protocol) may improve the material comfort of some communities, they can be seen as 'institutionalising the absence of property rights for traditional knowledge holders'.¹⁰

This paper submits that the prominence of ABS structures can be attributed to their ability to incorporate traditional knowledge (and protection of genetic resources) into dominant IPR structures without challenging the inherently unequal legal treatment of industrially and traditionally produced knowledge. ABS structures, from this perspective, are a natural corollary of IPR. Facilitated access works to empower the sovereign state, providing legal certainty to transnational biotechnology and agricultural firms whilst empowering the state to regulate the exploitation of knowledge; benefit sharing introduces (previously alien) concepts of 'property, exclusivity and exclusion' to local and indigenous agricultural communities, without offering the autonomous legal status required to defend these rights themselves.¹¹ The problems encountered by benefit sharing schemes in identifying rights-holders and benefit recipients, and delimiting contributions to knowledge, highlight the inherently political and arbitrary character of the ownership approach to knowledge protection and reveal the broader relationships of power and exploitation that underlie the international intellectual property system. As Brush has written, 'case studies of access and benefit sharing efforts under the CBD indicate that new property based schemes for farmers and communities are unworkable and likely to forestall more viable approaches to address the needs of conserving genetic resources and improving rural livelihoods'.¹² By situating the Nagoya Protocol within the international political economy of intellectual property and benefit sharing, this paper demonstrates that the Protocol is understood best, not as a new horizon for local and indigenous agricultural communities, but as part of a 'reification' process of dominant IPR norms.¹³

8 Philippe Cullet, 'Environmental Justice in the Use and Exploitation of Genetic Resources', in Jonas Ebbesson and Phoebe Okowa eds, *Environmental Law and Justice in Context* 371, 375 (Cambridge: Cambridge University Press, 2009).

9 See, for instance, Graham Dutfield, *Sharing the Benefits of Biodiversity: Access Regimes and Intellectual Property Rights*, Science Technology and Development Discussion Paper No.6, Center for International Development and Belfer Center for Science and International Affairs (Cambridge, MA: Harvard University, 1999).

10 Cullet, note 8 above, at 376.

11 Manuel Ruiz Miller, *The Farmers' Rights Project - Background Study 3: Farmers' Rights in Peru - A Case Study* (Lysaker, Norway: The Fridtjof Nansen Institute, 2006), p. 32, available at <http://www.fni.no/doc&pdf/FNI-R0506.pdf>.

12 Stephen B. Brush, *Farmers' Rights and Protection of Traditional Agricultural Knowledge*, CAPRI Working Paper No.36 (Washington, D.C.: International Food Policy Research Institute, 2009), p. 34.

13 Christopher May, *The Global Political Economy of Intellectual Property Rights: The New Enclosures*, 2nd Ed., 148 (London and New York: Routledge, 2010).

The issues surrounding protection of traditional knowledge (TK) and genetic resources are intertwined; however, in the interests of concision this paper will focus primarily on TK with reference to genetic resources where appropriate. This is justifiable by the integral nature of knowledge to the productive use of genetic resources and the centrality of knowledge to the legal concepts of inventive step, novelty and individual ownership that lie at the heart of the international IPR system.

This paper does not aim to provide an analysis of the direct impacts of various forms of IP protection, but rather seeks to trace the evolution of certain ideas about intellectual property within international law from a perspective which ‘conceives of the politics of identity as a continual contest for control over the power necessary to produce meaning in a social group’.¹⁴ In sections 2 and 3, TRIPS is analysed as a discourse functioning on terms of exclusion and control, where politically and socially constructed ideas about IP have undergone a process of ‘reification’ to appear as neutral, even natural, legal rules.¹⁵ Sections 4 and 5 examine how developing state governments and civil society have attempted to modify/affect this norm development through TRIPS, WIPO and CBD negotiating forums using strategies of ‘regime shifting’¹⁶ and ‘indirect strategic manipulation’.¹⁷ The success of the dominant discourse in setting the terms of the debate through processes of legalisation and globalisation, establishing the concept of IP as an excludable and individual ‘right,’ has restricted the scope of such arguments to only slight modifications of existing ‘natural’ property rights. As sections 6 and 7 make it clear, this confined discursive space has resulted in a Protocol that reinforces dominant TRIPS norms and increases legal recognition of indigenous and local communities only to the extent of creating a legal dependency on existing IPRs for a stream of limited ‘benefits.’

Nevertheless, the paper concludes that the process of negotiation within the TRIPs Council and the CBD COP has succeeded in revealing IPRs as a contingent social construction, even as they have emerged as the dominant knowledge protection method. Indeed, the increasing awareness of inequity ‘on the ground’ has ignited a debate about what IP is *for*, which inherently challenges the view of IPRs as simply *being*. This debate, in the context of a rapidly changing geo-political context, suggests that the concepts of knowledge protection enshrined within international law will continue to change over time. Swiftly changing material and political context makes international law – a construct sitting somewhere between rhetoric and realism – uniquely vulnerable to flux.

2 POLITICAL ECONOMY OF KNOWLEDGE PROTECTION

2.1 Intellectual Property Rights

TRIPS, an agreement between WTO member states, establishes ‘universal minimum standards of intellectual property protection and enforcement’,¹⁸ while WIPO is responsible for promoting the protection of intellectual property around the world and administers several important treaties related to this goal, including the Patent Law Treaty (PLT) and the Patent Cooperation Treaty (PCT).¹⁹ These treaties, reflecting the imperatives of modern industrial economies, treat knowledge as an intellectual property right (IPR) - alienable, excludable and marketable.²⁰ Proponents insist that IPRs stimulate innovation and reward industrial and

14 Ted Hopf, ‘The Promise of Constructivism in International Relations Theory’ 23(1) *International Security* 171, 180 (1998).

15 May, note 13 above, at 148.

16 Helfer, note 7 above, at 6.

17 Ronnie Yearwood, ‘Interaction Between World Trade Organisation (WTO) Law and External International Law: The Constrained Openness of WTO Law (A Prologue to a Theory)’, Presentation at University College London WTO Scholars Forum, 16 March 2011.

18 Dutfield, note 9 above, at 6.

19 Patent Law Treaty, Geneva, 1 June 2000; Patent Cooperation Treaty, Washington, 19 June 1970.

20 The main types of IPR protected by WIPO are patents, copyright, geographical indicators and trademarks. See WIPO, *WIPO Intellectual Property Handbook: Policy, Law and Use* (Geneva: World Intellectual Property Organization, 2nd ed. 2004).

intellectual creativity. IPRs on living organisms have been gradually introduced in the developed world over the last 30 years as technology such as genetic modification has advanced and the 'inventive step', 'non-obvious' and 'industrial application' criteria used to qualify patents are increasingly considered applicable to the life sciences.²¹ The International Convention for the Protection of New Varieties of Plants (UPOV) provides a weaker form of intellectual property protection to commercial plant breeders known as Plant Variety Protection (PVP).²² While signatories of TRIPS are not required to implement UPOV, the two have been closely linked given UPOV's status as a *sui generis* system of protection under TRIPS and the requirements imposed by so-called 'TRIPS-plus' bilateral treaties which often insist on the implementation of UPOV by the developing country party. TRIPS, WIPO and UPOV represent the developed world's IPR-based approach to protecting knowledge.

2.2 Traditional Knowledge

However, the IPR approach to knowledge protection has been linked with a range of inequitable outcomes for agricultural communities in the developing world, as it is considered to run counter to ways of rewarding innovation in many rural and traditional societies which tend to see knowledge as inherently non-excludable and non-alienable, emphasising community contributions to knowledge developed over generations.²³ TK produced and transmitted in local agricultural communities - for instance relating to seed breeding, landraces and crop production - is mostly oral, collective, and continually adapting to a changing environment; such knowledge 'embraces the whole of the culture of the people living in an indigenous

or local community'.²⁴ Therefore 'the term 'traditional' relates to the way the knowledge has been created, preserved and disseminated and it is not connected with the nature of the knowledge itself'.²⁵ This manner of production, in failing to provide the stability required by PVP under UPOV, and temporal (patent protection lasts for 20 years) or 'inventive step' criteria required by patents, has led to exclusion of traditional knowledge from IPR protection. The introduction of IPR protection into developing countries via TRIPS has meant that such knowledge is now vulnerable to appropriation by industrial knowledge producers.

Concern has been long voiced within civil society that the large rewards accrued by industries reliant on genetic resources have been inequitably made at the expense of rural and indigenous communities.²⁶ While these communities play a vital role in preserving the traditional knowledge and genetic diversity essential to industrially produced pharmaceutical, biotechnological and agricultural products, they often remain unrewarded due to a lack of legal rights over these resources.²⁷ This phenomenon, labelled 'biopiracy', is linked with a range of inequitable outcomes such as failing to incentivise conservation of biodiversity, private monopolisation of information long in the public domain and removal of a revenue source from both rural communities and state governments.²⁸

21 The first 'life patent' was granted in the United States in 1980 for a modified micro-organism. See Owain Williams, 'Life patents, TRIPs and the international political economy of biotechnology', in Alan Russell and John Vogler eds, *The international politics of biotechnology: Investigating global futures* 67 - 68 (Manchester: Manchester University Press, 2000).

22 International Convention for the Protection of New Varieties of Plants, Paris, 2 December 1961 (revised at Geneva on 10 November 1972, 23 October 1978 and 19 March 1991).

23 Williams, note 21 above, at 71 - 72.

24 Claudia Finetti, 'Traditional Knowledge and the Patent System: Two Worlds Apart?' 33 *World Patent Information* 58, 58 (2011).

25 *Id.*

26 Kerry ten Kate and Sarah A. Laird, *The commercial use of biodiversity: Access to genetic resources and benefit-sharing* 6 - 7 (London: Earthscan, 2002).

27 Secretariat of the Convention on Biological Diversity, *Access and Benefit-Sharing in Practice: Trends in Partnerships Across Sectors*, Technical Series No. 38 (Montreal: SCBD, 2008) and Biswajit Dhar and R.V. Anuradha, 'Access, Benefit-Sharing and Intellectual Property Rights' 7/5 *The Journal of World Intellectual Property* 597, 602 (2004).

28 Ikechi Mgbeoji, *Global Biopiracy: Patents, Plants and Indigenous Knowledge* 12 - 13 (New York: Cornell University and UBC press, 2006) and Philip Schuler, 'Biopiracy and Commercialization of Ethnobotanical Knowledge', in J. Michael Finger and Philip Schuler eds, *Poor People's Knowledge: Promoting Intellectual Property in Developing Countries* 159 (Washington, D.C.: The World Bank and Oxford University, 2004).

Developing states, from which the majority of biodiversity used by the global pharmaceutical, biotechnological, agricultural and horticultural industries is derived,²⁹ have therefore maintained a largely ambivalent relationship with international IP law as constructed by the WIPO, TRIPS and UPOV. Developing states have sought to tread a fine line between implementing TRIPS and UPOV requirements in order to attract foreign investment and secure access to lucrative markets in the developed world, while attempting to preserve legal space to shield emergent domestic industries, protect the right of the state to issue compulsory licenses in health or environmental emergencies, and stem the (unrewarded) outward flow of TK and genetic resources from local and indigenous communities. The disparate socio-economic contexts of TRIPS member states have made explicit the centrality of knowledge protection to many policy-making arenas (economic, environmental, public health); the 'issue density' of knowledge protection has consequently increased dramatically in recent years.³⁰ However, the reluctance of the developed states that dominate WTO law-making to expand or liberalise interpretation of certain concepts (further discussed in section 3 below), together with increased institutional diversity at the international level, has caused a 'splintering' of the international legal treatment of knowledge protection.

The industrial use and protection of knowledge in developing and trading new products is regulated by TRIPs, the use of knowledge and genetic resources in agriculture has been addressed at the behest of developing states and civil society by the FAO's International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA),³¹

and the need to conserve, protect and reward holders of TK and genetic resources essential for maintaining biodiversity is addressed in the CBD.³² However, powerful actors such as the United States and the EC, 'far more adroit at shaping regimes to reflect their interests', have succeeded in delivering a far greater degree of legalisation to TRIPs (through comprehensive substantive rules and dispute settlement machinery supported by the threat of retaliatory sanctions).³³ This legalisation, reflecting the interests of powerful states, inherently excludes the socio-political interests of the less powerful. Therefore the separation of these three elements, arguably all integral to a productive understanding of the nature and use of knowledge, has – due to the asymmetric political power exercised by the industrialised world – largely shorn IPRs of public and moral obligation relevant to intellectual property law-making in traditional agricultural contexts.³⁴ These obligations have found expression through development of the concepts of Farmers' Rights in the FAO, and ABS in the CBD.

2.3 Farmers' Rights

The concept of Farmers' Rights emerged through the FAO in the 1980s in response to the broadening scope of PVP afforded to commercial plant breeders under UPOV.³⁵ Proponents of Farmers' Rights feared that the property rights bestowed upon plant breeders could restrict the abilities of farmers to exchange, use and store seeds, and degrade traditional knowledge. Such farmer-produced knowledge, built up orally throughout generations, was not protected

29 Susette Biber-Klemm and Danuta Szymura Berglas, 'Problems and Goals', in Susette Biber-Klemm and Thomas Cottier eds, *Rights to Plant Genetic Resources and Traditional Knowledge: Basic Issues and Perspectives* 3, 6 (Wallingford, Oxford and Cambridge, MA: CABI on behalf of the Swiss Agency for Development and Cooperation, 2006) [Biber-Klemm and Cottier].

30 Robert O'Keohane, 'The Demand for International Regimes', in Stephen D. Krasner ed., *International Regimes* 141 (Ithaca, NY: Cornell University Press, 1983), p. 155, qtd. in Helfer, note 7 above, at 8.

31 The International Treaty on Plant Genetic Resources for Food and Agriculture, Rome, 3 November 2001 [ITPGRFA].

32 Robin Pistorius, *Scientists, Plants and Politics – A History of the Plant Genetic Resources Movement* 98 (Rome: International Plant Genetic Resources Institute, 1997).

33 Helfer, note 7 above, at 2 – 7.

34 See, for instance, Vandana Shiva, 'Farmers' Rights and the Convention on Biological Diversity', in Vicente Sanchez and Calestous Juma eds, *Biodiplomacy: Genetic Resources and International Relations* 107, 115 (Nairobi, Kenya: African Centre for Technology Studies, 1994) [Sanchez & Juma].

35 Rene Salazaar, Bert Visser and Niels Louwaars, 'Protecting Farmers' New Varieties: New Approaches to Rights on Collective Innovations in Plant Genetic Resources' 35/9 *World Development* 1515 (2007) and Regine Andersen, *Realising Farmers' Rights Under the International Treaty on Plant Genetic Resources for Food and Agriculture* (Lysaker: Fridtjof Nansen Institute, FNI Report 11/2006) [Andersen].

equivalently as it failed to meet the industrially derived criteria of 'inventive step' and was unattributable to specific legal actors. Farmers' Rights were seen to correct this by recognising that commercial varieties are 'usually the product of applying breeders' technologies to farmers' germplasm'.³⁶ However, at the international level, Farmers' Rights are vaguely defined, with the International Undertaking on Plant Genetic Resources for Food and Agriculture (1989) (FAO Undertaking) referring to 'rights arising from the past, present and future contributions of farmers in conserving, improving, and making available plant genetic resources, particularly those in the centres of origin/diversity'.³⁷ Andersen has identified two approaches to understanding Farmers' Rights: the stewardship approach (embodied historically in FAO's treatment of TK and genetic resources) which sees farmers as stewards of agro-biodiversity and attempts to secure 'legal space' for farmers to continue this role, and the ownership approach (as pursued through the CBD, see below) whereby 'rewards' for genetic material used in commercial varieties or protected by IPRs are secured by means of ABS or special farmer IPRs.³⁸

Farmers' Rights emerged at a time when genetic resources and associated knowledge were treated in international law as the 'common heritage of mankind'. Accordingly, reward for farmers' conservation of genetic diversity and agricultural knowledge was proposed to come from an international fund filled with donations from the developed world (reflecting the stewardship approach). However, the vague definition of Farmers' Rights, together with a realisation that the developed world would not recognise Farmers' Rights as a kind of intellectual property right (due to direct competition with PVP), and doubts over the commitment of resources to the international fund, led to a shift from an economic to a social rationale - and from a legally actionable right to a moral exhortation.³⁹ In this sense the concept of Farmers' Rights as currently exists in international

law is better understood as a receptacle of the moral and social issues left unsolved by the IPR regime - akin to a socio-economic human right.⁴⁰

2.4 Access and Benefit Sharing

As the concept of Farmers' Rights evolved throughout the early to mid nineties, several trends, including increased recognition of the value of genetic resources, expansion of PVP protection, liberalisation of agricultural policy and North-South political discord led to the replacement of 'common heritage of mankind' with 'state sovereignty' as the overarching legal principle guiding treatment of traditional knowledge and genetic resources.⁴¹ The entry into force of the CBD, in affirming state sovereignty over natural resources, meant that rights vested in the international community by the FAO Undertaking were now entrusted to state discretion. The suite of actions suggested by the FAO Undertaking's successor, the ITPGRFA, to fulfil Farmers' Rights corresponded closely with those provided for in the CBD, such as the protection of traditional knowledge, the right to equitably participate in sharing benefits, and the right to participate in decision-making relevant to traditional knowledge and genetic resources, reflecting a move towards an ownership approach.⁴² As Brush notes, the emphasis on sovereign ownership of genetic resources and associated knowledge presaged greater regulation of access to natural resources and prompted the development of ABS systems as a means of facilitating 'transactions' between industry and agricultural communities (a process which has come to be known as 'bioprospecting').⁴³ In order to ensure legal certainty on both sides of these transactions, ABS structures have introduced concepts of 'property, exclusivity and exclusion' to traditional agricultural communities which may

³⁶ Pistorius, note 32 above, at 89.

³⁷ International Undertaking on Plant Genetic Resources, Res. 5/89, *Farmers' Rights*, Rome, 29 November 1989.

³⁸ Andersen, note 35 above.

³⁹ Pistorius, note 32 above, at 91.

⁴⁰ Indeed, a human right to have cultural expression and traditional knowledge protected has been developed through the United Nations Economic and Social Council (ECOSOC) and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). See, for instance, Darrell Posey, 'International agreements for protecting indigenous knowledge', *in* Sanchez and Juma, note 34 above, at 119, 126.

⁴¹ Brush, note 12 above, at 11.

⁴² ITPGRFA, note 31 above, Article 9.2.

⁴³ Brush, note 12 above, at 12.

work to 'erode the spirit and nature of Farmers' Rights as a whole'.⁴⁴ Indeed, ABS structures fail to address the fundamental conceptual differences between traditional agricultural practices based on free exchange and communal knowledge and IPR structures based on individual property. This, rather than leading to a realisation of Farmers' Rights in the sense of maintaining systems of free exchange, incorporates traditional farmers into the IPR system.

The construction of ABS regimes under the CBD (established to help conserve biodiversity and ensure the fair and equitable sharing of biological resources) has emerged as a way of distributing the financial rewards provided by IPRs to a wider field of contributors, without challenging the theoretical basis of the TRIPS endorsed approach to knowledge protection.⁴⁵ By securing state sovereignty over TK and genetic resources, the CBD ended the 'open-access' common heritage system and empowered developing states to regulate the trans-boundary movement of such resources. In negotiations, G-77 states insisted upon the authority to determine access to knowledge and resources in return for participation in conservation efforts,⁴⁶ reflected in Article 15.1 'recognizing the sovereign rights of States over their natural resources [and] the authority to determine access to genetic resources'.⁴⁷ However, developed states insisted upon an assurance that such access would be easily obtainable, reflected in the qualification of Article 15.2, noting 'each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties'.⁴⁸ Access provisions were accepted by developing states in the context of Article 8(j), encouraging 'the equitable sharing of benefits arising from the utilisation' of such resources and associated knowledge.⁴⁹ The concept of benefit sharing emerged in response 'to the fact

that holders of genetic resources and traditional knowledge are not granted rights to control the use of their resources and knowledge but only rights to put conditions on access by outsiders'.⁵⁰ In the context of the contemporaneous negotiations of the CBD and TRIPS agreement, genetic resources and associated knowledge moved decisively from systems of free exchange and common heritage towards 'sovereign and private appropriation'.⁵¹

ABS structures, in the context of a global strengthening of life patents under TRIPS and PVP under UPOV, are viewed by some as an improvement upon the previous system of open access (where there was little, if any, regulation on the trans-boundary movement of resources and knowledge). From this perspective, the Nagoya Protocol, by institutionalising the concepts of facilitated access and benefit-sharing within the international legal architecture, introduces a form of substantive equity, or equity *praeter legem*, to the law of genetic resources and traditional knowledge, reconciling competing positions on knowledge protection and securing unprecedented legal recognition for the contributions of local and indigenous communities to the production of knowledge.

However, the pre-TRIPS/CBD system protected traditional knowledge holders and agricultural communities in developing countries to an extent, as patents on life processes were generally prohibited (consequently no appropriations or restrictions could occur). The worldwide strengthening of life patents and IPR in general has not coincided with a similar bestowal of rights upon traditional knowledge holders.⁵² Therefore, from this perspective, the affirmation of ABS signalled by the Nagoya Protocol with the strengthening of IPR rather institutionalises the lack of property rights for traditional knowledge holders and agricultural communities. In this sense, rather than constituting a radical challenge to the IPR norms disseminated by TRIPS, the ABS system institutionalised by the Nagoya Protocol is in fact merely the other side of the IPR coin.

44 Miller, note 11 above, at 32.

45 ETC Group, 'From Global Enclosure to Self Enclosure: Ten Years After – A Critique of the CBD and the "Bonn Guidelines" on Access and Benefit Sharing (ABS)', ETC Group Communique, Issue 83, 2004, pp. 8-9.

46 Hanne Svarstad, 'National sovereignty and genetic resources', in Sanchez and Juma, note 34 above, at 45.

47 CBD, note 1 above, Article 15.1.

48 *Id.*, Article 15.2.

49 *Id.*, Article 8(j).

50 Cullet, note 8 above, at 375.

51 *Ibid.*, at 376.

52 *Id.*

3

PROTECTION OF KNOWLEDGE IN THE INTERNATIONAL TRADE REGIME

In order to understand how access and benefit sharing fit into the political economy of intellectual property, an exploration of how the concept of intellectual property as an excludable and alienable right has become dominant in international law is essential. The reification of the IPR approach to knowledge protection has excluded local, indigenous and communal forms of knowledge and has prompted the construction of ABS regimes as a response.

3.1 Intellectual Property as a Political Compromise

Unlike 'real' property rights to tangible matter (such as land), property rights to knowledge are not a consequence of scarcity; rather, they are a deliberate construction to create scarcity and allow individual or commercial exploitation of an un-rival resource. IPRs are a compromise, facilitating both individual and collective gain from innovation, and therefore their legal delineation necessitates explicitly political decisions.⁵³ Such decisions will necessarily reflect unique social and cultural contexts, and consequently a marked disparity has appeared between national legal structures governing rights to knowledge and resources. Although these structures vary wildly, developed industrial societies have tended to adopt more individually centred laws based on the concept of patents as a means of rewarding industrial innovation and protecting the profits of enterprise in what has been characterised as a rights-based approach, while developing countries have adopted more relaxed laws which prioritise the public good and the general economic development of society as a whole through an emphasis on the obligations that come with

knowledge creation.⁵⁴ This observation has been borne out by comparative and historical studies that show how contemporary developed states such as the United States and Europe have adopted similarly relaxed attitudes to intellectual property at earlier stages of development to allow knowledge to freely percolate throughout society.⁵⁵

3.2 Intellectual Property in the World Intellectual Property Organisation (WIPO)

The World Intellectual Property Organisation (WIPO), a UN specialised agency, was created to regularise ideas about intellectual property in a world of proliferating sovereign states.⁵⁶ The IPR approach to knowledge protection, conceptualising knowledge as an excludable right (while in fact reflecting a set of political choices made in a specific context), was therefore increasingly characterised as 'technical,' 'neutral' and particularly 'legal.' This characterisation was aided by dint of imbalanced economic power and intellectual resources between the developed states pushing such ideas and receptive developing states eager to assert their sovereign status through adoption of international treaties. While the WIPO lacked a high level of legalisation, it exercised influence through its mandate to 'promote' IPRs in the developing world through use of education and capacity-building programmes.⁵⁷ This carefully constructed appearance of 'neutrality' added significantly to the WIPO's political power in disseminating legal norms.

3.3 Intellectual Property in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement)

WIPO's conglomeration of 'technical expertise' was to prove pivotal in the international codification of patents as representing an intrinsic, almost natural,

⁵³ Christopher May, *The World Intellectual Property Organisation: Resurgence and the Development Agenda* 10 (London: Routledge, 2007).

⁵⁴ Calestuous Juma, *Intellectual Property Rights and Globalisation: Implications for Developing Countries, Science, Technology and Innovation Discussion Paper No.4*, Center for International Development (Cambridge, MA: Harvard University), p.4.

⁵⁵ *Id.*

⁵⁶ May, note 53 above, at 14, 24.

⁵⁷ *Ibid.*, at 37.

'right' – rather than an instrumental balance of social objectives – within the TRIPS Agreement. The perceived need for 'technical' knowledge in what was presented as a neutral matter allowed US corporations (reliant on robust protection of IPRs to maintain profits) to essentially write the TRIPS Agreement to suit their interests.⁵⁸ This discourse was constructed within developed countries through an emphasis on fairness, a right to the proceeds of labour, and the individual right to ownership, contrasted with the characterisation of developing countries as IP 'pirates'.⁵⁹ These ideas were formulated as specifically 'legal' rights within the WTO agreements and were bolstered by precise and detailed elaboration within the overarching principles of non-discrimination embodied in most-favoured nation (Article I) and national treatment (Article III).⁶⁰

The normativity created through an emphasis on procedural equity and non-discrimination within the WTO provides a rational legality to the agreement which appears neutral and 'mainstream.' However, as Koskenniemi makes clear, there is no 'natural' centre-ground within international law. Rather, consensus is the end-point of a hegemonic process of law-making where idiosyncratic interests and preferences are lifted 'from the realm of the special to that of the general' and consequently appear 'natural, necessary, or even pragmatic'.⁶¹ At the domestic level social institutions have, while appearing to work on behalf of the public good, been shown to actually facilitate state interest in, and circumvention of, specific modes of interaction harmful to powerful interests.⁶² WTO works in a

similar way in the international arena. While principles of non-discrimination are also balanced with social and environmental objectives and exceptions⁶³ to create an appearance of rational and equitable law-making, these principles allow for the labelling of culturally derived knowledge protection structures in developing countries as 'deviant' and aberrant, necessitating 'exceptions', 'grace periods' and further monitoring.⁶⁴ Through this material and discursive exercise of power,⁶⁵ previously alien forms of knowledge protection have been introduced to developing countries by TRIPS, aided by the threat of economic sanctions and given legal weight through the powerful WTO dispute settlement body.⁶⁶

The conflation of a political interpretation of IPR favourable to industrial innovation with the very notion of 'legality' itself enables the relegation of public responsibilities previously integral to the creation of knowledge in many developing countries to the inferior position (both in abstract moral and pragmatic institutional terms) of 'social' and 'political' concerns. Consequently, the integral purpose or 'means' of knowledge to enhance human welfare and innovation becomes sidelined in favour of a pursuit of IPRs as an 'end' in themselves. Traditional and community knowledge is excluded from protection within TRIPS; its treatment has only recently been provided for within the WIPO's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC), where it is negatively defined in essence as any knowledge that is not 'consistent' with forms of knowledge

⁵⁸ *Ibid.*, at 29.

⁵⁹ Peter Drahos and John Braithwaite, 'Who Owns the Knowledge Economy? Political Organising Behind TRIPS,' Briefing 32 (The Corner House, September 2004).

⁶⁰ General Agreement on Tariffs and Trade 1994, Marrakesh, 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 187, 33 I.L.M. 1153 (1994) [GATT 1994].

⁶¹ Martti Koskenniemi, *From Apology to Utopia: The Structure of International Legal Argument* 597 (Cambridge: Cambridge University Press, 2005).

⁶² Michel Foucault, trans. Graham Burchell, *Security, Territory, Population: Lectures at the Collège de France, 1977-78* 353 - 355 (Basingstoke and New York: Palgrave MacMillan, 2007) and Mitchell Dean, *Governmentality: Power and Rule in Modern Society* (London: Sage Publications, 1999) [Dean].

⁶³ WTO Agreement, note 6 above, Preamble and TRIPS Agreement, note 6 above, Articles 7 and 8.

⁶⁴ Dean, note 62 above, at 32. The 'grace' or 'transitional' measures for developing countries are set out in Article 65 of TRIPS, review and amendment procedures are provided for in Article 71.

⁶⁵ Hopf, note 14 above, at 199.

⁶⁶ See, for instance, *India – Patent Protection for Pharmaceutical and Agricultural Chemical Products* (U.S. complaint), Report of the Appellate Body, 19 Dec 1997, WTO Doc. WT/DS50/AB/R, and *India – Patent Protection for Pharmaceutical and Agricultural Products* (EC Complaint), Report of the Panel, 24 Aug 1998, WTO Doc. WT/DS79/R.

protected under existing legal frameworks.⁶⁷ The principles that guide the IGC's work programme focus primarily on the regularisation of traditional knowledge and use of genetic resources with 'existing legal systems' rather than investing communities with new forms of protection.⁶⁸

Benefit sharing has emerged to capture these substantive concepts unaccounted for in conventional IPRs – their dependent status on conventional forms of knowledge protection act as a 'hedge' against a more radical programme of reform.⁶⁹ Hence, as Hayden notes, benefit sharing arrangements are often constructed by companies convinced they are the 'right thing to do' - akin to a form of charity - but remain outside the sober world of legal right.⁷⁰ In this context it has been posed by some that the CBD has fulfilled the role of 'pressure-valve' for developed states, siphoning dissent into a legally harmless arena (in a similar way that contentious issues are often articulated in the 'soft law' resolutions of the United Nations General Assembly).⁷¹

4 PROTECTION OF KNOWLEDGE IN THE CONVENTION ON BIOLOGICAL DIVERSITY (CBD)

CBD was negotiated almost simultaneously alongside the TRIPS Agreement in the early 1990s. The strengthening of IPR standards throughout the

1980s led to concerns that traditional knowledge and genetic resources were being appropriated from developing countries. In an attempt to capture value from this transfer,⁷² developing countries unhappy with the 'open-access' system in place argued in favour of treating traditional knowledge and resources as the property of the sovereign state – in theory 'protecting' communities from the rapacity of the open market.⁷³ While a move towards national sovereignty appeared at first glance to conflict with the free trade imperatives of the international trade regime, the transferral of power over genetic resources from communities to the state was a necessary step in the transformation of the public goods provided by biodiversity into private profit.⁷⁴ By obtaining control over the use and transfer of TK and genetic resources, developing states ensured that they would control any legal recognition given to traditional agricultural communities.⁷⁵ By concurrently recognising the validity of IPRs in the CBD and signing up to TRIPS, developing countries ensured that it would be very hard to construct any form of recognition that countered dominant IPR norms.⁷⁶

However, when the distributive inequities and social costs of TRIPS became apparent developing countries increasingly turned to the sovereignty promised by the CBD to articulate a critique of the WTO system.⁷⁷ Goldstein has found that 'one of the primary political effects of legalizing the trade regime [was] an interaction with increased precision about

67 Olufunmilayo B. Arewa, 'TRIPS and Traditional Knowledge: Local Communities, Local Knowledge, and Global Intellectual Property Frameworks' 10(2) *Marquette Intellectual Property Law Review* 155, 164 (2006).

68 Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, *The Protection of Traditional Knowledge: Revised Objectives and Principles*, 18th Session, 9-13 May 2011, WIPO Doc. WIPO/GRTKF/IC/18/5, Annex, pp. 1 – 2.

69 Cori Hayden, 'Benefit-Sharing: Experiments in Governance', in Rishab Aiyer Ghosh ed., *CODE: Collaborative Ownership and the Digital Economy* 113, 122 (Cambridge, MA: MIT Press, 2005).

70 *Ibid.*, at 121 – 122.

71 Helfer, note 7 above, at 56.

72 Phillipe Cullet, *Intellectual Property Protection and Sustainable Development* 158 (New Delhi: LexisNexis Butterworths, 2005).

73 Frederic Hendrickx, Veit Koester and Christian Prip, 'Access to genetic resources: A legal analysis', in Sanchez and Juma, note 34 above, at 139, 140.

74 Brush, note 12 above, at 42.

75 *Ibid.*, at 12.

76 Article 16.5 in the CBD declares that "recognizing that patents and other intellectual property rights may have an influence on the implementation of this Convention, shall cooperate in this regard subject to national legislation and international law in order to ensure that such rights are supportive of and do not run counter to its objectives."

77 Alan E. Boyle and Christine M. Chinkin, *The Making of International Law* 30 (Oxford: Oxford University Press, 2007).

the distributive implications of trade agreements'.⁷⁸ This attempt by developing countries to assert sovereign control over resources by shifting negotiations to regimes 'whose institutions, actors, and subject matter mandates are more closely aligned with [their own]'⁷⁹ finds precedent in attempts to reject 'neo-colonial' economic practices⁸⁰ and assert sovereign control over development through proposals for a New International Economic Order in the 1970s and a Right to Development in the 1980s.⁸¹ However, the political factors that have made the CBD such a fertile ground for developing countries seeking to push back against TRIPS are also the same factors that have prevented states from articulating an effective critique of the IPR system; the 'soft law' nature of the CBD, the absence of hegemonic actors (for example, the United States) and the lack of a mandate to address property rights, have meant that the ABS measures developed have constituted small modifications of existing rights and are parasitic on the acquiescence of dominant IPR forms. The lack of strongly worded provisions and an effective dispute settlement body have meant that the CBD has proved uncommonly erratic in its national implementation; the success of the IPR regime at setting the terms of the debate has meant that initiatives within the CBD have been 'defensive' rather than 'positive' in securing legal protection for TK.

Indeed, one of the major problems developing country parties have faced in implementing the CBD has been the task of identifying the knowledge and resources to be protected – other than 'everything but that covered by TRIPS'. The concept of TK is complex and integral to the culture of local communities. Finetti defines it as mixture of 'technical concepts', 'survival practices' and 'spiritual

meanings and beliefs',⁸² while Ellen and Harris have identified localness, oral transmission, empirical, practical, shared and holistic as the defining traits.⁸³ It should also be noted that it is difficult to distinguish between use of genetic resources (which is dependent on knowledge about them) and TK (which is developed from the use of resources). This has become a particular problem in domestic legislation (particularly in India; see below), where benefit-sharing under the CBD in relation to TK is implemented together with Farmers' Rights under the ITPGRFA relating to genetic resources. Attempts to delimit TK to identify recipients of benefits reveal the arbitrary and inherently political nature of intellectual property; at the same time such delimitation provokes socio-political conflict without offering participants the equality and certainty under the law provided by rights. These conditional 'benefits' consequently undermine emergent formulations of Farmers' Rights.

4.1 Access

TK is treated in CBD in two areas. First, Article 15 of the CBD recognizes the sovereign rights of states over their natural resources and mandates the creation of 'facilitated access' regimes (in the sense of 'assisting' or 'easing')⁸⁴ to ensure 'environmentally sound uses' of genetic resources.⁸⁵ Hendrickx claims that 'it has been suggested that *genetic resources* should be interpreted to include the *knowledge* of genetic resources'.⁸⁶ While this interpretation is not generally accepted, 'nothing prohibits a State from including this notion in such a way that the access to traditional knowledge is also governed by these provisions'.⁸⁷ Indeed, subsequent national legislation has generally affirmed that access

78 Judith Goldstein and Lisa L. Martin, 'Legalization, Trade Liberalization, and Domestic Politics: A Cautionary Note' 54(3) *International Organization* 603, 619 (2000).

79 Helfer, note 7 above, at 6.

80 Phillipe Cullet, *Differential Treatment in International Environmental Law* 15 (Aldershot and Burlington, VT: Ashgate, 2003).

81 United Nations General Assembly (UNGA) Resolution 3201 (S-VI), Declaration on the Establishment of a New International Economic Order, 1 May 1974, A/RES/S-6/3201 and UNGA Resolution 41/128, Declaration on the Right to Development, 4 December 1986, A/RES/41/128.

82 Finetti, note 24 above, at 58.

83 R. Ellen and H. Harris, 'Introduction', in R. Ellen, P. Parkes and A. Bicker eds, *Indigenous Environmental Knowledge and its Transformations* 1 (Amsterdam: Harwood Academic Publishers, 2000).

84 Evanson Chege Kamau, 'Facilitating or Restraining Access to Genetic Resources? Procedural Dimensions in Kenya' 5/2 *Law, Environment and Development Journal* 154, 155 (2009).

85 CBD, note 1 above, Article 15.

86 Hendrickx, Koester and Prip, note 73 above, at 141.
87 *Id.*

requirements will also be applicable to the availability of TK as well as genetic resources. The principle of Prior Informed Consent (PIC) ensures the participation of sovereign states and permits the imposition of conditions on actors seeking access (Article 15.5). It is here that the Designated National Authority (DNA) can make access dependent upon benefit sharing agreements with communities from which knowledge or resources are being taken.⁸⁸ Once PIC has been applied, the access agreement should be arrived at on mutually agreed terms (MAT). Provider states are expected to supply fair and non-arbitrary procedures, legal certainty and transparency, and clear rules on access to resources to those seeking access to resources or knowledge.⁸⁹

While communities have been involved to some extent in the access legislation enacted by member states of the Andean Pact and the Organization for African Unity (OAU), among others there is a general trend towards state control.⁹⁰ Power imbalances may come into play at this point as deficits in institutional and human capacity in many developing countries have resulted in uneven application of PIC and MAT principles. In CBD negotiations, the 'gain' for G77 countries of state sovereignty over TK and genetic resources outweighed the 'gain' of providing for equitable treatment of its agricultural communities. As Svarstad has pointed out, 'a government's interests in the outcome of the Convention are not necessarily consistent with those of the local communities that use, develop and conserve the genetic resources in question.'⁹¹ Access structures allow state governments to enter the regulatory field regarding TK and genetic resources, capturing revenue and gaining control from the outward flow from traditional and indigenous agricultural communities, while also – in affirming the protection of IPRs – providing a stable environment for inward flows of international investment and technology.⁹² However, as national implementation has been uncoordinated, competitive devaluation has

occurred with states insisting upon stringent ABS measures being sidelined by bioprospectors.

The experience of 'early-starting' states in implementing access provisions has revealed that biodiverse developing states have much less individual bargaining power than first imagined in terms of regulating bio-prospecting. The Philippines legislation – in an archetypal example of early ABS implementation – required applicants to obtain PIC of all local communities affected, according to customary rules and procedures, and to bear the full costs of doing so.⁹³ This resulted in 'lengthy procedures; cumbersomeness; high costs; multiple costs; overlapping procedures, long delays; vagueness; [and] uncertainty' all of which appeared to impede rather than facilitate access.⁹⁴ These regulations were implemented because of a belief that genetic resources and traditional knowledge held enormous financial value to commercial bio-prospecting entities, and because of a failure on behalf of user countries to commit to measures that would police patent applications of companies for inequitable or illegal use of genetic resources. However, while genetic resources do play a prominent role in many pharmaceutical products, genetic material requires a substantial amount of investment to be turned into a profitable commercial product.⁹⁵ Furthermore many of these investments turn out to be 'blind alleys' providing a final loss for the company; raw genetic resources therefore hold a relatively low value for most commercial actors, especially in the context of widely available germplasm in *ex-situ* collections.⁹⁶ By 2004, the

⁸⁸ *Ibid*, at 142.

⁸⁹ Nagoya Protocol, note 1 above, Article 6 (a), (b) and (g).

⁹⁰ Dhar and Anuradha, note 27 above, at 618 – 619 and Dutfield, note 9 above, at 4.

⁹¹ Svarstad, note 46 above, at 47.

⁹² Helfer, note 7 above, at 28.

⁹³ Jorge Medaglia Cabrera, *A Comparative Analysis on the Legislation and Practices on Access to Genetic Resources and Benefit Sharing (ABS): Critical Aspects for Implementation and Interpretation* 192 (Bonn: IUCN, 2004).

⁹⁴ Kamau, note 84 above, at 156.

⁹⁵ The Economics of Ecosystems and Biodiversity (TEEB), *TEEB for National and International Policy Makers: Chapter 5, Rewarding benefits through payments and markets* 35, available at <http://www.teebweb.org/ForPolicymakers/tabid/1019/Default.aspx>.

⁹⁶ R.D. Simpson et al, 'Valuing Biodiversity for Use in Pharmaceutical Research' 104(1) *Journal of Political Economy* 163 (1996) and R.D. Frinn, 'Bioprospecting – Why is it so unrewarding?' 12 *Biodiversity and Conservation* 207 (2003).

Philippines had approved only one from eight commercial applications and one from seventeen academic research applications.⁹⁷ The consequent incentive for competitive devaluation has therefore exposed local communities to benefit sharing agreements which, often negotiated by the state, provoke social conflict and provide little legal control over the use of their knowledge and resources.

4.2 Benefit Sharing

The concept of benefit-sharing was developed within the CBD as ‘part of the bargain that led developing countries to accept the facilitated access provisions now in place’⁹⁸ specifically as a means of providing some recognition of the role that indigenous peoples and local communities play in developing genetic resources and nurturing biodiversity.⁹⁹ Benefit sharing for use of TK is explicitly provided for in Article 8(j) under examples of *in-situ* conservation measures, where it is stated that each contracting party shall, as far as possible and as appropriate, ‘subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities ... and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.’¹⁰⁰ Benefit sharing refers to the distribution of any funds received on account of facilitating access; for instance from the registering of IPRs by the bio-prospector. Benefits can be either monetary (such as up-front payments, payments of royalties or license fees) or non-monetary (such as sharing of research results, technology transfer or capacity-building).¹⁰¹ Joint ownership of IPRs is listed in the Annex to the Nagoya Protocol as a possible monetary or non-monetary benefit, but this is exceedingly rare in practice and would be subject to the particular contract negotiated and to the conditions of relevant national and international IP law.

The formulation of reward as a ‘benefit’ rather than a ‘right’ explicitly demotes TK protection below that of IPRs. As Hayden notes, ‘many actors frame the problem that benefits can address as an asymmetry in the ways that property works. Yet the actors and institutions charged with the giving-back part of the benefit-sharing relationship are often quite insistent that a solution not be framed in the same language.’¹⁰² The failure to base recognition of local contributions to knowledge and preservation of genetic resources on legal right has created a state of legal dependency among such communities on conventional IPR forms. This dependency has resulted in a range of distributive problems with benefit sharing schemes when resource exploitation is permitted. For instance, in the famous case of the Kani people of southern Kerala, who use the *Aarogyappacha* plant to defend against fatigue, a benefit sharing regime was instituted by biologists from the Tropical Botanic Garden and Research Institute (TBGRI). The biologists had ‘discovered’ *Aarogyappacha* and developed an anti-fatigue drug, selling the manufacturing rights to a private company. TBGRI decided to give half of the licensing fee to the Kani people along with royalties from commercial sales.¹⁰³ While initially lauded for its ‘progressive’ approach, the scheme has subsequently illuminated problems with benefit sharing.¹⁰⁴ Only a minority of the Kani tribe had any actual interaction with the TBGRI biologists, and while they were generally content with their reward other sections of the community were unhappy.¹⁰⁵ Moreover the provision of financial reward has the potential to exacerbate existing social tensions, with problems of allocating money to individual community members based on need, contribution or social position.

The exacerbation of social conflict caused by dependence has also been observed in Peru, a pioneer in establishing benefit sharing for holders of TK and genetic resources. Here local communities feel that

97 Cabrera, note 93 above, at 164 – 165.

98 *Id.*

99 This was seen as giving effect to the third objective of the CBD in relation to Articles 15 (Access to Genetic Resources) and 8(j) (Traditional Knowledge). Introduction to the Nagoya Protocol, see note 1 above, at 1.

100 CBD, note 1 above, Article 8(j).

101 Nagoya Protocol, note 1 above, Annex I.

102 Hayden, note 69 above, at 121.

103 Dhar and Anuradha, note 27 above, at 631.

104 C.R. Bijoy, ‘Benefit Sharing from the Indigenous Peoples’ Perspective: The TBGRI-Kani ‘Model’ 3/1 *Law, Environment and Development Journal* 1, 19 (2007).

105 Philippe Cullet et al, ‘Intellectual Property Rights, Plant Genetic Resources and Traditional Knowledge’, in Biber-Klemm and Cottier, note 29 above, at 112, 138 – 139.

'benefits derived from the use of biodiversity components and traditional knowledge collected and obtained from these communities have not been adequately shared and distributed'.¹⁰⁶ Communities reportedly feel 'cheated' by schemes failing to deliver promised benefits, competing over limited monetary awards bestowed selectively from above. The International Cooperative Biodiversity Group Program (ICBG) initiated a project to investigate and develop medicinal plants used by Aguaruna Amazonian communities. However, the knowledge examined by the program (and consequently rewarded) was not limited to those Aguarunas who participated in the program and not all Aguarunas participated in the negotiation process.¹⁰⁷ Indeed, these experiences are degrading the inherent concept of TK as shared, developed over time and passed down through generations. Ruiz Muller writes that the Peruvian situation 'presents a risky 'anti-commons' context which translated into seed exchange and a Farmers' Rights context, may in the future seriously undermine traditional exchange practices'.¹⁰⁸

Rather than creating a powerful rights-based empowerment among local communities to protect and feel comfortable sharing their knowledge, ABS regimes work to create a state of legal dependency within biodiversity-rich communities, as 'benefits' do not result from a legal right actionable by an individual or community but are dependent upon a conventional legal relationship struck between state (potentially via the community involved) and bio-prospecting party.¹⁰⁹ IPRs act as an 'enabler' for benefit sharing; it is in this sense that facilitated access appears to work as a 'trojan horse' inviting in dominant ideas about knowledge protection as a precondition for benefits.¹¹⁰ Indeed, benefit sharing has emerged as a broadly supported concept in international legal negotiations precisely because benefits do not constitute legal rights – rather they work to 'regularise' traditional knowledge and contributions to genetic resources with the dominant

IPR system.¹¹¹ Because of this synchronicity between benefit sharing and IPR, there has been a steady institutive process behind benefit sharing in the CBD. The adoption of the voluntary Bonn Guidelines in 2002,¹¹² which outline principles guiding the equitable negotiation of contracts and consequent distribution of benefits (such as providing model terms for establishing PIC and MAT), was seen as a 'first step' to producing the legally binding document eventually achieved in Nagoya.¹¹³ The rhetorical power of the dominant IPR discourse is such that it has defined its critique as well as its justification.

4.3 Disclosure

While ABS has been developed along the CBD track through the Bonn Guidelines and onwards to Nagoya, developing states have attempted to 'link' the CBD with TRIPS by proposing a 'disclosure of origin' requirement in patent applications.¹¹⁴ Due to the lack of effective enforcement or compliance apparatus in the CBD, developing countries have maintained that a means of multilateral enforcement is required.¹¹⁵ Indeed, the unilateral access requirements of the Philippines were excessively restrictive because of a lack of assurance that user states and international corporations would respect the Philippines' benefit sharing mechanism. Developing states have argued that compliance should be fulfilled through a disclosure requirement inserted

¹⁰⁶ Miller, note 11 above, at 11.

¹⁰⁷ *Ibid*, at 12.

¹⁰⁸ *Ibid*, at 11.

¹⁰⁹ Stephen B. Brush, 'Bioprospecting the Public Domain' 14(4) *Cultural Anthropology* 535, 539 (1999).

¹¹⁰ Hayden, note 69 above, at 119.

¹¹¹ *Ibid*, at 120 – 121.

¹¹² Secretariat of the Convention on Biological Diversity, *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization*, (Montreal: Secretariat of the Convention on Biological Diversity, 2002), available at <http://www.cbd.int/doc/publications/cbd-bonn-gdls-en.pdf>.

¹¹³ United Nations, World Summit on Sustainable Development, *Draft plan of implementation of the World Summit on Sustainable Development*, para. 42(o), UN Doc. A/CONF.199/L/1 (26 June 2002).

¹¹⁴ Jonathan Carr, 'Agreements That Divide: TRIPS vs. CBD and Proposals for Mandatory Disclosure of Source and Origin of Genetic Resources in Patent Applications' 18(1) *Journal of Transnational Law & Policy* 131 (2008).

¹¹⁵ Convention of Biological Diversity, *Report of the First Part of the Ninth Meeting of the Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing*, at 6 – 40, UN Doc. UNEP/CBD/WG-ABS/9/3 (26 April 2010).

in Article 27 or 29 of the TRIPS Agreement, which would predicate successful patent applications on the disclosure of source of material, country of origin, evidence of PIC, and production of a certificate of compliance with national ABS regulations.¹¹⁶ Arguments have also been made for mandatory disclosure requirements within the WIPO's PCT treaty and within the Nagoya Protocol.¹¹⁷ Disclosure would, it has been argued, complement the registers of TK drawn up by many countries – such as the Traditional Knowledge Digital Library (TKDL) in India and the Korean Traditional Knowledge Portal (KTKP) – which are used to prove 'prior art' and prevent unfair patenting.¹¹⁸

Contrarily, the US has argued that any benefit-sharing or disclosure must be voluntary, that any international action would constitute a burdensome and unworkable burden on patent offices, and that the origin of a material is unrelated to its patentability so would be an inappropriate barrier to patent applications.¹¹⁹ Developing countries have countered by pointing out US support for a multilateral approach to IPR in general,¹²⁰ by asserting that the procedural nature of disclosure would render it unproblematic¹²¹ especially in relation to the implementation of TRIPS as a whole which has 'proven to be quite burdensome for developing countries and for consumers of technology in general';¹²² and by stating that location is often integral to the material, especially when related to traditional knowledge.¹²³

Some form of disclosure requirement appears necessary if the limited gains of ABS are to be cemented. As Vogel et al note, a disclosure requirement would effectively create a cartel over genetic resources, ensuring efficiency gains by reducing transaction costs and some degree of equity by ensuring that the source country or community benefited from conservation of the resource in question.¹²⁴ In effect, disclosure would ameliorate to some extent the competitive devaluation encouraged by the uneven adoption of ABS schemes in tandem with TRIPS IPR norms by linking the two and establishing some overt legal 'common ground' between the regimes. As explored in section 5 below, however, the lack of a disclosure requirement in either TRIPS or the Nagoya Protocol invites a move towards 'perfect competition'¹²⁵ between the two regimes, whereby indigenous and local communities are not only removed from control over their resources by facilitated access and benefit sharing, but that due to a lack of legalisation these limited gains are themselves largely unenforceable.

4.4 Sui Generis Systems of Protection

This problem of 'perfect competition' between international regimes is illustrated by the hamstrung development of hybrid *sui generis* systems of knowledge protection, through which states have attempted to fulfil obligations to protect and reward traditional knowledge under CBD requirements, while also providing for Farmers' Rights as conceived under the ITPGRFA, plant breeders' rights under UPOV, and patenting under TRIPS at the same time. While this compartmentalised implementation is necessary given the requirements of international law, the lack of cohesiveness in the international law governing knowledge protection and genetic resources – produced by very different conceptions of how knowledge develops – has resulted in somewhat messy and contradictory *sui generis* systems.¹²⁶ The

116 World Trade Organisation (WTO), *The Relationship Between the TRIPS Agreement and the Convention on Biological Diversity: Summary of Issues Raised and Points Made*, IP/C/W/368/Rev.1 (8 February 2006), pp. 28 – 31.

117 *Ibid*, at 31 – 33. See also Evanson Chege Kamau, Bevis Fedder and Gerd Winter, 'The Nagoya Protocol on Access to Genetic Resources and Benefit-Sharing: What is New and what are the Implications for Provider and User Countries and the Scientific Community?' 6/3 *Law, Environment and Development Journal* 246, 255 (2010).

118 Finetti, note 24 above, at 60 – 64.

119 WTO, note 116 above, at 14 – 23 and 57 – 65.

120 *Ibid*, at 23.

121 *Ibid*, Brazil and India, at 62.

122 *Ibid*, Brazil, at 63 and Carr, note 114 above, at 136.

123 WTO, Brazil and India, note 116 above, at 66.

124 Joseph Henry Vogel et al, 'The Economics of Information, Studiously Ignored in the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing' 7/1 *Law, Environment and Development Journal* 52, 63 (2011).

125 *Ibid*, at 65.

126 Philippe Cullet, 'Plant Variety Protection and Farmers' Rights: Towards a Broader Understanding' 24 *Delhi Law Review* 2002 54 (2003).

greater forms of legalisation achieved by TRIPS and the concentration of economic power behind IPR in general inevitably prioritise certain international obligations over others.

The *sui generis* concept has emerged from TRIPS Article 27.3(b), which allows states to exclude 'plants and animals other than micro-organisms, and essentially biological processes for the production of plants and animals other than non-biological and microbiological processes'. Article 27.3(b) confirms however that signatories must provide for protection of plant varieties either by patents or 'an effective *sui generis* system'. Debate about what constitutes 'effective protection' has raged within the TRIPS Council, reaching a crescendo in 1999 when a pledged review of Article 27 was due to be held.¹²⁷ While the *sui generis* provision can theoretically be fulfilled by any system of recognition of rights over knowledge – including communal, farmers, and indigenous rights – the dominant discourse of IPR has narrowed the legal space available to construct such systems dramatically.

First, there is an institutional assumption within the WTO that the *sui generis* system will in fact be formed through adoption of PVP in line with UPOV.¹²⁸ PVP, conceptually indistinct from patenting,¹²⁹ has been connected with a range of problematic trends in developing countries, including negative economic impacts on small producers, genetic erosion of the gene bank, and reduced scientific innovation through restriction of access to basic research.¹³⁰ PVP overwhelmingly favours commercial rather than small-scale and subsistence farmers. Despite the lack of any mention of UPOV in the text of TRIPS, some developing

countries have become convinced through socialisation programmes conducted by the 'technical experts' of WIPO and the WTO that implementation of UPOV is mandatory.¹³¹ This perception is aided by the scarcity of model *sui generis* forms of protection.¹³²

Second, it has been argued by developed countries that an 'effective' *sui generis* system means effective in the context of TRIPS (that is, providing individual and excludable rights to knowledge) whereas developing states have countered that 'effective' means a system that works equitably in relation to a particular socio-economic context.¹³³ The wording of the provision appears to suggest that a *sui generis* system would provide an alternative to patents rather than a modified patent system; however the legalisation of TRIPS prioritises an interpretation in line with the goals of the agreement, specifically, the 'rational-legal' authority that serves to legitimate the organisation in the first place.¹³⁴ Keeley notes that 'when embodied in an array of implementing instruments and practices, a discourse becomes a creative part of the reality it purports to understand'.¹³⁵ As discussed in section 3, the 'neutrality' of WTO law is an inherently political construct geared toward the reproduction of a specific semantic interpretation.

Third, developed countries have been attempting to establish TRIPS as a 'minimum standard' by incrementally strengthening patenting and PVP requirements through bilateral avenues and by

¹²⁷ See, for instance, Genetic Resources Action International (GRAIN), *TRIPS versus Biodiversity: What to do with the 1999 review of Article 27.3(b)* (May 1999), available at <http://www.grain.org/briefings/?id=124>. The review was a hostage of the Seattle violence and consequent breakdown in talks and has not been concluded.

¹²⁸ Philippe Cullet, 'Revision of the TRIPS Agreement concerning the Protection of Plant Varieties – Lessons from India concerning the Development of a *Sui Generis* System' 2(4) *The Journal of World Intellectual Property* 617, 624 (1999).

¹²⁹ *Id.*

¹³⁰ GRAIN, note 127 above, at 2.

¹³¹ *Ibid.*, at 4.

¹³² Philippe Cullet, 'Plant Variety Protection in Africa: Towards Compliance with the TRIPS Agreement' 45(1) *Journal of African Law* 97, 100 (2001).

¹³³ This disagreement stems from fundamental discussions about the relationship of WTO law to public international law. See, for instance, Boyle and Chinkin, note 77 above, at 248 and Joost Pauwelyn, *Conflict of Norms in Public International Law: How WTO Law Relates to Other Rules of International Law* (Cambridge: Cambridge University Press, 2003).

¹³⁴ Michael N. Barnett and Martha Finnemore, 'The Politics, Power and Pathologies of International Organizations' 53(4) *International Organization* 699, 707 (1999).

¹³⁵ James F. Keeley, 'Toward a Foucauldian Analysis of International Regimes' 44(1) *International Organization* 83, 91 (1990).

shifting norm-development back into the more flexible environment of the WIPO.¹³⁶ So-called 'TRIPS-plus' provisions in bilateral investment treaties (BITs) between developed and developing states require the developing state to either implement a form of UPOV or provide patent protection for plants and animals in return for trade preferences.¹³⁷ BITs have frequently required the implementation of IPR standards in developing countries far stricter than developed state parties themselves would be willing to implement, and therefore worked to undermine attempts to construct socially equitable *sui generis* systems.¹³⁸

India has implemented perhaps the most progressive *sui generis* system, yet even in the context of a domestic politics highly antipathetic toward TRIPS the legislation remains plagued by inconsistencies and contradictions. In terms of agricultural knowledge (relating to seeds, landraces etc.), the Protection of Plant Varieties and Farmers' Rights Act (2001) aims to fulfil obligations under Article 27.3(b) of TRIPS by providing for plant breeders' rights (through elements of UPOV 1978 and 1991) while also providing farmers the opportunity to register new crop varieties and enjoy the same protection as plant breeders. However, the criteria for registering farmers' varieties are identical to UPOV requirements – which appears to defeat the basis of Farmers' Rights as UPOV requirements (stability, uniformity etc.) disqualify many traditional breeding methods. Furthermore, India's decision to join UPOV will likely impose political pressure on the Plant Variety Authority to favour plant breeders at the expense of farmers.¹³⁹ The Act also approaches the subject purely from a commercial basis, failing to acknowledge the importance of protecting Farmers' Rights in the

context of maintaining biodiversity and traditional culture.¹⁴⁰

The Biodiversity Act (2002) addresses obligations under the CBD and primarily imposes access restrictions on traditional knowledge and genetic resources. The Act requires that all seekers of biological resources, and applicants for IPRs related to biological resources, must obtain the consent of the National Biodiversity Authority (NBA).¹⁴¹ The NBA then has the authority to construct benefit sharing schemes to recompense holders of TK, including the ability to allocate joint IPRs, technology transfers, participation in research and development, or monetary reward – however as of 2008, despite approval of over 300 access requests, no benefit recipients had been identified.¹⁴² The Act invests no collective or individual rights with local communities (indeed, in the benefit sharing structure, communities have no ability to restrict or reject requests for access), rather centralising control over biological resources with the NBA. There is no evidence of adherence to PIC and MAT procedures in the access approvals granted so far.¹⁴³ A commitment to benefit sharing here appears to institutionalise the absence of property rights over biological resources. As the secretary of the NBA has stated, 'there is no mention about community ownership of genetic resources, and in the absence of clear guidance on ownership of resources, there is always scope for confusion in sharing the benefits.'¹⁴⁴

The Patents (Amendment) Act (2002) updates India's patent laws to comply with TRIPS, but also imposes (national) disclosure of origin requirements on patent applications. Non-disclosure of geographical or intellectual origin in TK provides a ground for opposing or revoking a patent. However, the Patent

136 May, note 53 above, at 95 – 96.

137 Peter Drahos, 'BITs and BIPs' 4 *Journal of World Intellectual Property Law* 791 (2001) and Genetic Resources Action International (GRAIN), 'TRIPS-plus' Through the Back Door: How Bilateral Treaties Impose Much Stronger Rules for IPRs on Life than the WTO (GRAIN, July 2001).

138 Graham Dutfield, 'To Copy is to Steal': TRIPS, (Un)free Trade Agreements and the New Intellectual Property Fundamentalism' 1 *Journal of Information, Law, and Technology* 1 (2006).

139 Cullet, note 126 above, at 53.

140 *Id.*

141 Kalpavriksh and GRAIN, *Six Years of the Biological Diversity Act in India* 7 (Delhi and Pune: Kalpavriksh and GRAIN, 2009).

142 *Ibid.*, at 24.

143 *Ibid.*, at 25.

144 Dr. K. Venkatraman, Member Secretary of the NBA, in a presentation at the International Conference on Access and Benefit Sharing for Genetic Resources, New Delhi, March 2008, qtd. in Kalpavriksh and GRAIN, note 141 above, at 26.

Act fails to even mention benefit sharing, despite the fact that the primary role of benefit sharing is to ameliorate the inequities of patent protection in the agriculture sector.¹⁴⁵

While India's *sui generis* system appears in theory to support the promotion of rights for farmers and traditional communities over knowledge to the same level as commercial or industrial actors, in practice the system institutionalizes central government control over TK and genetic resources while favoring PVP over Farmers' Rights. The legislation 'comprises a collection of defensive responses to international commitments, rather than a cohesive strategy to address internal problems'.¹⁴⁶ The centralization of control over biodiversity and associated knowledge encouraged by the state sovereignty principle of the CBD appears to undermine the feasibility of autonomous rights exercisable by rural communities.¹⁴⁷ Rather, the investment of control in a central government committed to implementing UPOV and TRIPS further excludes local and indigenous peoples from legal control over the knowledge they rely on. The momentum behind ABS as the sole response to the inequities of TRIPS makes it likely that any *sui generis* systems will be formulated primarily through PVP with attached access and benefit sharing provisions.

4.5 Towards the Nagoya Protocol

In general, while the ABS procedures developed in the CBD as a response to the inequities of TRIPS provide some friction by introducing extra regulation in the transfer of genetic resources, they have also created a legal 'buffer zone' between traditional communities and IPRs enjoyed by entities in developed countries. Article 15 used in tandem with Article 8(j) effectively creates two sets of legal claimants under the CBD – with states on one side and local/indigenous peoples on the other – '[refuelling] longstanding struggles between indigenous groups and nation-states'.¹⁴⁸ Indeed, the enthusiasm of state parties to obtain some control

over the flow of biological resources and the increased role of the state in benefit-sharing schemes has created a 'two-tiered' knowledge protection system whereby collective and indigenous forms of knowledge and innovation are dependent, legally speaking, on their acquisition under conventional IPRs.¹⁴⁹ Under this two-tiered system, developing states have attempted through the TRIPS Council and CBD COP to insert a 'disclosure of origin' requirement in international patent law, while civil society in the developing world has attempted to hold states to their obligations to ensure benefit sharing conducted under PIC and MAT. The achievement of a more legalised ABS regime at Nagoya would, while perhaps going some way to achieve the latter two goals, fail to challenge the institutionalised exclusion of local and indigenous peoples from knowledge protection.

The political economy of intellectual property has severely constricted the terms upon which legal recognition can be granted to farmers and rural communities. Discourses are 'ways of thinking which may overlap and reinforce each other and close off other ways of thinking'.¹⁵⁰ In a context of globalised 'technical' IPR standards hostile to community and farmer's rights and non-monetised transactions, and progressive tightening of national standards through bilateral treaties, any argument for making IP practice more equitable can only be made in terms of modifying the existing international IPR framework. Further dissemination of dominant IPR norms becomes self-generating as benefit sharing becomes dependent on access granted to bio-prospectors. It is in this limited discursive space where negotiations to construct the Nagoya Protocol took place. The relative success or failure of the Protocol for local and indigenous communities therefore depends on the extent to which rules regarding access and benefit-sharing can be made to 'stick' on both user and provider countries and on the IPR regime through processes of legalization.

¹⁴⁵ Cullet, note 126 above, at 54.

¹⁴⁶ *Id.*

¹⁴⁷ Cullet, note 8 above, at 379.

¹⁴⁸ Hayden, note 69 above, at 116.

¹⁴⁹ *Ibid.*, at 122 – 123.

¹⁵⁰ Cris Shore and Susan Wright, 'Policy: A New Field of Anthropology', in Cris Shore and Susan Wright eds, *Anthropology of Policy: Critical Perspectives on Governance and Power* 3, 18 (London: Routledge, 1997).

5

NAGOYA PROTOCOL: INSTITUTIONALISATION OF EXCLUSION

The Nagoya summit was intended to clarify both provider and user state responsibilities in terms of both access requirements and benefit-sharing provisions, providing the basis for legal certainty and stimulating the development of ‘minimum standards’ to promote clarity and compliance.¹⁵¹ Legalization consists of three components: obligation, precision and delegation.¹⁵² While the Nagoya Protocol does represent a move towards further legalisation of many of the 2002 Bonn Guidelines, particularly in relation to provider state obligations, the creation and legalization of user state obligation and effective compliance procedures are missing. Despite the relatively detailed nature of the document, there is widespread use of ‘escape clauses’ (‘as appropriate’) and submission to national control (‘in accordance with domestic legislation’) within the core substantive provisions of the Protocol, for instance Article 5 (Fair and Equitable Benefit Sharing), Article 6 (Access to Genetic Resources), and Article 7 (Access to Traditional Knowledge Associated with Genetic Resources). This is a result of pressure from developed country parties and international organisations such as WIPO in the negotiation process.¹⁵³

5.1 Access and Benefit Sharing

The Protocol lays out extensive provisions on access in Article 6, which should be based on the PIC of the provider of genetic resources, and ‘as appropriate’ and ‘in accordance with domestic law’ on the PIC of indigenous/local communities (where they have the ‘established right’ to grant access).¹⁵⁴

151 Kamau, note 84 above, at 249. Requirements for clarity gained prescience in the context of implementation of several overly restrictive national ABS schemes throughout the 1990s and early 2000s, notably in the Philippines.

152 Kenneth W. Abbott et al, ‘The Concept of Legalization’ 54(3) *International Organization* 401, 401 (2000).

153 Kamau, note 84 above, at 255 – 257.

154 Nagoya Protocol, note 1 above, Article 6.1, 6.2.

Each party requiring PIC shall establish, ‘as appropriate’, legal certainty, clarity and transparency, fair and non-arbitrary rules and procedures, and provide for the issuance of a certificate or permit as evidence of achieving PIC and MAT.¹⁵⁵ The focus here appears to be limiting the terms on which developing state governments can set access and PIC requirements, while clarifying that any recognition of holders of traditional knowledge will be mediated by the provider state. Precision regresses slightly from the Bonn Guidelines, which may be representative of the ‘price paid’ for greater obligation.

Regarding benefit-sharing, Article 5 requires that ‘benefits arising from the utilization of genetic resources as well as subsequent applications and commercialization shall be shared in a fair and equitable way with the Party providing such resources’. Such sharing shall be provided for by legislative, administrative or policy measures, shall be based on MAT, and ‘as appropriate’ and in ‘accordance with domestic legislation’ be extended to indigenous and local communities. The benefits shall be either monetary or non-monetary; an indicative list is provided in the Annex. There is no clarification within the Protocol of the status of retroactive application, which is viewed by developing countries as a means of righting past ‘bio-piratical’ acts and advancing substantive equity,¹⁵⁶ and the only potential attachment of specific legal rights to rural communities or holders of traditional knowledge comes with the listing of joint ownership of relevant IPR in the Annex detailing possible monetary and non-monetary benefits.

5.2 Compliance and Disclosure

Provider state obligation to provide equitable benefit sharing is weak, whilst the highly qualified provisions in Articles 15 and 16 relating to user state obligations refer primarily to access. While this provides a compromise between state interests and reaffirms state sovereignty over biodiversity, the interest of knowledge-rich agricultural communities is neglected. The provisions on compliance and

155 *Ibid*, Article 6.3 (a) – (e).

156 Kamau, note 84 above, at 254.

monitoring see a significant regression regarding precision, largely as a result of resistance from user countries. The Protocol imposes, in Articles 15 and 16, imprecise obligations on user countries to take 'appropriate, effective and proportionate legislative, administrative or policy measures' to provide that genetic resources (and traditional knowledge) utilized within its jurisdiction are acquired with PIC and MAT. Article 17 mandates the establishment of 'checkpoints' to instigate monitoring and tracking of Protocol requirements. However, the Protocol has omitted a list of potential checkpoints, merely requiring that a checkpoint be situated within a body that is 'effective' and has functions 'relevant' to the subject matter of the Protocol. As Bavikatte and Robinson note, the listing of patent offices as potential checkpoints could have increased pressure in the international trade regime to include a mandatory disclosure requirement.¹⁵⁷ The internationally recognised certificate of compliance referred to in Article 17.2 is 'only partially outlined', with the list of minimum criteria reduced from earlier drafts, and a lack of clarity on whether it is mandatory or voluntary and whether a lack of certification would constitute a violation of the treaty.¹⁵⁸

Compliance procedures are suggested for the national level, and currently provide little assurance for provider states that user countries will 'up their game' significantly (virtually no user countries have yet made any move to create mandatory compliance procedures). Each party is required to designate a national 'checkpoint'; disclosure of use of genetic resources is made at 'any stage of research, development, innovation, pre-commercialisation or commercialisation'¹⁵⁹ rather than the immediate notification widely considered imperative.¹⁶⁰ Documents accepted as evidence include the proposed certificate of compliance, which as

mentioned above is severely lacking in detail. The substantive content of disclosure focuses primarily on access requirements, and as mentioned above includes no obligation to disclose benefit-sharing arrangements.¹⁶¹

There are currently no international compliance procedures. The mandatory (international) obligation to disclose the origin of genetic material, much discussed prior to the Nagoya negotiations and included in earlier drafts, was abandoned in the final document.¹⁶² Article 30 specifies that such procedures are to be agreed at the first Conference of Parties this year, but it is merely specified that such measures are to include 'advice and assistance, where appropriate', so they appear unlikely to be of a more 'legal' character than the weak dispute settlement provisions of the CBD.¹⁶³ The focus on delegation at a national level respects the principle of national sovereignty over genetic resources contained within the CBD, but effectively precludes strong multilateral enforcement mechanisms and places legal recognition of holders of traditional knowledge at the mercy of national legislation which has so far proved to be largely ineffectual.

A multilateral system of benefit-sharing inclusive of all major users of genetic resources and associated information is essential to ensure even marginally improved legal protection for farmers and agricultural communities in developing countries, primarily because of the inability of provider countries to impose extraterritorial measures on users.¹⁶⁴ The lack of a statement on international disclosure and the omission of key enforcement tools such as a benefit-sharing ombudsman have created a Protocol lacking key aspects of legalisation. The Protocol is constructive in some respects, notably in its achievement of an incrementally enhanced

¹⁵⁷ Bavikatte and Robinson, note 3 above, at 48.

¹⁵⁸ Kamau, note 84 above, at 257.

¹⁵⁹ Nagoya Protocol, note 1 above, Article 17.1 (a) (iv).

¹⁶⁰ Joshua D. Sarnoff and Carlos M. Correa, 'Analysis of Options for Implementing Disclosure of Origin Requirements in Intellectual Property Applications,' United Nations, Geneva, 2005, UNCTAD/DITC/TED/2005/14, submission to Convention on Biological Diversity, *Analysis of Options for Implementing Disclosure of Origin Requirements in Intellectual Property Applications*, 22 Dec 2005, UNEP/CBD/WG-ABS/4/INF/2.

¹⁶¹ Kamau, note 84 above, at 257.

¹⁶² Draft Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, Status as of Noon, 27 Oct 2010.

¹⁶³ The CBD mandates negotiation, good offices and mediation by a third party. Failing this, parties are referred to standard dispute settlement procedures of international law: arbitration or the ICJ. CBD, note 1 above, Article 27.

¹⁶⁴ Cullet, note 72 above, at 165.

level of formality and legality and its ability to introduce a higher level of clarity (through the definition of contentious terms).¹⁶⁵ However, these are largely symbolic gains, in the sense that they are effectively mere political commitments without the ability to definitively shape state behaviour if there is no corresponding disclosure obligation in patent applications. As Koskenniemi notes, the ability of international law to communicate shared values, create expectations about future behaviour, and structure decision-making contexts, is 'parasitic on the capacity of law to provide determinate outcomes to normative problems'.¹⁶⁶ In many ways, the most important issues have been left unresolved. This is no great fault of the Protocol; indeed, it is merely a predictable result of the structure of the current international law-making environment.

6 CONCLUDING REMARKS: INTERNATIONAL LAW AND THE POLITICAL ECONOMY OF INTELLECTUAL PROPERTY

The conflicting discourses of intellectual property reflect an underlying friction within the discipline of international law itself. IPRs do not exist externally to legal structures in the sense that physical property does, so to exist in a meaningful way IPRs depend on significant political, economic, but crucially ideological investment to affect a process of reification.¹⁶⁷ This process has occurred through the development of supposedly 'natural' law within TRIPS. Similarly, within the 'liberal theory of politics', international legal standards are socially constructed within the community of nation states; they are both created by and subsequently binding on their legal subjects.¹⁶⁸ While the law must relate in some concrete way to the realities that states face,

it must also be normative in the sense of being able to provide determinate outcomes to normative problems.¹⁶⁹ The lack of a global judicial body and the socially constructed nature of international law mean that this normativity becomes a matter of belief and ideology rather than an externally 'real' phenomenon. Reification of international law is pursued through the development of customary and treaty law largely under the auspices of the United Nations and increasingly through powerful regimes such as the WTO.

These ideologies are challenged when the social costs of their reification lead to an examination of their inherently 'constructed' character. The distributive inequities of the TRIPS approach to IP law, which prioritises the end-producer of knowledge and excludes community and freely-exchanged forms of knowledge embodied within the social interactions of traditional agricultural communities and indigenous peoples, has been challenged over the last ten years by agricultural communities, civil society and some state governments. However, the political and economic powers behind the process of TRIPS reification, exercising an effective 'external' enforcement of IPR law through use of trade incentives, have limited this critique to calls for modification of existing structures. Even within CBD negotiations, the underlying concepts of IPR law (including the protection of innovation as a fundamental right) are seen as necessary to promote innovation.

Therefore, rather than providing normative legal change which would increase the recognition of the knowledge contributions of traditional agricultural communities, the Nagoya Protocol reasserts the position of dominant forms of IP protected within TRIPS. This is done through a limitation of recognition to a subsidiary obligation of existing IPR holders to provide some form of 'benefit' to communities further back in the value-chain. The forms of legalisation found within the Protocol appear insufficient to ensure that even these notional benefits are adequately distributed; furthermore, the existence of the Protocol as the sole institutionalised response to TRIPS in the field of traditional knowledge and genetic resources serves to obstruct

¹⁶⁵ Kamau, note 84 above, at 262.

¹⁶⁶ Koskenniemi, note 61 above, at 27.

¹⁶⁷ May, note 13 above, at 145.

¹⁶⁸ Koskenniemi, note 61 above, at 21.

¹⁶⁹ *Ibid*, at 25 – 27.

more equitable responses that would seek to either undo TRIPS (in providing systems of free exchange) or provide equal rights to communities and indigenous peoples (through formation of Farmers' Rights). It now appears likely that any *sui generis* system of knowledge protection constructed in compliance with TRIPS will consist of some combination of access and benefit-sharing provisions.

Nevertheless, critiques of TRIPS expressed through Protocol negotiations have contributed to a greater examination of the 'construct' of IPRs, increasing awareness that the legality of TRIPS, as with international law in general, relies to a significant extent on the consent it engenders. It has been remarked that as global geopolitical dominance shifts to emerging markets and developed countries find themselves outpaced in certain sectors, the governments of the United States, Europe and Japan may begin faltering in their adherence to strictly reified IPRs.¹⁷⁰ A 're-balancing' of international law – providing adequate legal space for states to construct laws which are necessarily linked to their particular circumstances and provide recognition to culturally appropriate forms of knowledge protection – may eventually be inevitable as the dynamics of the international marketplace begin to favour non-US, non-European, and non-Japanese corporations. An examination of the political economy of intellectual property exposes the shifting and constantly renegotiated boundaries between communities, the state and the private sector. Collective local and indigenous knowledge about genetic resources passed throughout communities and generations is likely to prove much more resilient.

¹⁷⁰Dutfield, note 9 above, at 10 – 11 and Hayden, note 69 above, at 122 – 123.

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