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# Implementing an objective of the Convention on Biological Diversity – intellectual property, access to genetic resources and benefit sharing in Australia

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*One of the objectives of the United Nations Convention on Biological Diversity was to fairly and equitably share the benefits from genetic resource use. This article traces the implementation of this objective through the Conference of the Parties to the Convention on Biological Diversity decisions and the measures adopted by the Australian Government. While there have been significant achievements, new developments are imminent that will signal a return to the original contentions and disagreements between the needs and wants of the developing South countries and the developed North countries. These new developments provide Australia with an opportunity to reconsider its current approach to access and benefit sharing and provide an avenue to implement intellectual property laws in the context of access and benefit sharing that promotes conservation of the Earth's genetic resources.*

## INTRODUCTION

The United Nations *Convention on Biological Diversity* (CBD)<sup>1</sup> was signed for Australia on 5 June 1992 at the conclusion of the United Nations Conference on Environment and Development.<sup>2</sup> The CBD set out three objectives:

to be pursued in accordance with its relevant provisions, are [1] the conservation of biological diversity, [2] the sustainable use of its components and [3] the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources,<sup>3</sup> including by appropriate access to

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<sup>1</sup> [1993] ATS 32 (CBD); the CBD only applies to genetic resources accessed after 29 December 1993, the date of entry into effect of the CBD generally and for Australia: see CBD, arts 33, 34(1) and 36(1); notably the resources of the seas within state jurisdiction covered by United Nations *Convention on the Law of the Sea* [1994] ATS 31 are accessed and shared according to the scheme set out in the CBD (for a review see Lawson C and Downing S, “It’s patently absurd – benefit sharing genetic resources from the seas according to UNCLOS, the CBD and TRIPs” (2002) 5 *International Journal of Wildlife Law and Policy* 211; for a review of resources outside this jurisdiction see Jabour-Green J and Nicol D, “Bioprospecting in areas outside national jurisdiction: Antarctica and the Southern Ocean” (2003) 4 *Melbourne Journal of International Law* 76), and possibly excludes some of the materials in the *International Treaty on Plant Genetic Resources for Food and Agriculture* [2002] ATNIF 14 Multilateral System that are the list of food crops and forages set out in Annex 1 that are under the management and control of the Contracting Parties and in the public domain, the ex situ collections of the Consultative Group on International Agricultural Research system of International Agricultural Research Centres and contributions by other resource holders (for a review see Lawson C, “Patents and plant breeder’s rights over plant genetic resources for food and agriculture” (2004) 32 *FLR* 107).

<sup>2</sup> For an overview of the Conference and its various outcomes see Grubb M, Koch M, Thomson K, Munson A and Sullivan F, *The “Earth Summit” Agreements: A Guide and Assessment* (Earthscan Publications Ltd, 1993).

<sup>3</sup> The term “genetic resource” is broadly defined to mean “genetic material of actual or potential value” and “genetic materials” means “any material of plant, animal, microbial or other origin containing functional units of heredity”: CBD, art

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genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.<sup>4</sup>

On the face of the CBD, the third objective of benefit sharing the uses of genetic resources marked a fundamental shift in binding international measures to conserve biodiversity.<sup>5</sup> First by recognising the sovereign right of countries over their genetic resources.<sup>6</sup> Second, by linking access to those resources with the outcomes of scientific research and commercial uses, and access to technology on more favourable and non-commercial terms, including the products and technologies of the private sector derived from those genetic resources.<sup>7</sup> Third, by introducing intellectual property<sup>8</sup> into the economic and policy debates about conserving genetic resources that might benefit future technological, economic and social development.<sup>9</sup>

At the time the CBD was being negotiated, there was almost universal consensus that the predominantly poor countries with the majority of the Earth's useful biological diversity (the South) should benefit from the exploitation of that diversity by the predominantly rich and technologically advanced countries (the North).<sup>10</sup> However, the content of the benefits to be shared

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2; however, in practice, the CBD definition has difficulties with respect to leaving out biochemicals, leaving out ex-situ holdings acquired before 29 December 1993, including human genetic materials and applying only to some marine resources: see Conference of the Parties to the Convention on Biological Diversity, *Access to Genetic Resources and Benefit Sharing: Legislation, Administrative and Policy Information* (1995) UNEP/CBD/COP/2/13, pp 15-18.

<sup>4</sup> Convention on Biological Diversity n 1, art 1; aspects of the CBD are included in domestic Australian legislation as the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), with access to genetic resources addressed in s 301; although there are a number of other laws that affect various other aspects of access, for example the *Wildlife Protection (Regulation of Export and Import) Act 1982* (Cth), *Customs (Prohibited Exports) Regulations 1958* (Cth), and so on; for an analysis of the intellectual property requirements in the CBD see Lawson, n 1 at 119-125; Lawson and Downing, n 1 at 217-219.

<sup>5</sup> An earlier non-binding arrangement adopted in the *International Undertaking on Plant Genetic Resources for Food and Agriculture* (Resolution 8/83, 22nd Session of the FAO Conference 1983) applied the "common heritage" principles to certain agricultural plant genetic resources that was later amended to recognise farmers rights and the legitimacy of intellectual property over elite plant varieties (Resolutions 4/89 and 5/89, 25th Session of the FAO Conference 1989), and later amended to recognise "that nations have sovereign rights over their plant genetic resources" (Resolution 3/91, 26th Session of the FAO Conference 1991); for a review of the developments leading to fundamental shift from "common heritage" to "state sovereignty" principles governing biological resources see Tilford D, "Saving the blueprints: the international legal regime for plant resources" (1998) 30 *Case Western Reserve Journal of International Law* 373 at 387-418; Aoki K, "Weeds, seeds & deeds: recent skirmishes in the seed wars" (2003) 11 *Cardozo Journal of International and Comparative Law* 247 at 305-313.

<sup>6</sup> Convention on Biological Diversity, n 1, art 15(1); see also art 3, and the possible limitations on sovereign countries exploiting their natural resources according to the CBD's provisions: see Blay S and Piotrowicz R, "Biodiversity and conservation in the 21<sup>st</sup> century: a critique of the earth summit 1992" (1993) 10 *EPLJ* 450 at 462.

<sup>7</sup> Convention on Biological Diversity, n 1, arts 15, 16 and 19; see also United Nations Conference on Environment and Development, *Agenda 21* (United Nations Conference on Environment and Development, 1992) [34.1]-[34.29]; General Assembly of the United Nations, *Rio Declaration on Environment and Development* (1992) A/CONF 151/26 (Vol I) principle 9; see generally Grubb et al, n 2, pp 144-145.

<sup>8</sup> For the purposes of this article "intellectual property" is a term used generally to mean copyright, patent, plant breeder's rights, know how, trade secrets/confidential information and geographic indicators; for an overview of intellectual property applied to genetic resources see Duffield G, *Intellectual Property, Biogenetic Resources and Traditional Knowledge* (Earthscan, 2004) pp 25-41.

<sup>9</sup> Convention on Biological Diversity, n 1, Preamble and arts 3, 10, 11, 15, 16, 19 and 22; see also Organisation for Economic Co-operation and Development, *Harnessing Markets for Biodiversity: Towards Conservation and Sustainable Use* (Organisation for Economic Co-operation and Development, 2003) pp 18-19 and 109; Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy* (Commission on Intellectual Property Rights, 2002) pp 57-72; Australian State of the Environment Committee, *Australia State of the Environment 2001: Independent Report to the Commonwealth Minister for the Environment and Heritage* (CSIRO Publishing, 2001) p 110.

<sup>10</sup> Noting that at the time the CBD was being negotiated the developed nations were the net beneficiaries of developing nations' biological materials: see for example United Nations Development Program, *Conserving Indigenous Knowledge: Integrating New Systems of Integration* (United Nations Development Program, 1994); note also the contributions of germplasm held in North repositories: Odek J, "Bio-Piracy: creating proprietary rights in plant genetic resources" (1994) 2 *Journal of Intellectual Property Law* 141, at 145-147; note, however, that the developed countries of the North were not a homogeneous, cohesive or coordinated block: see Panjabi R, *The Earth Summit at Rio: Politics, Economics and the Environment* (Northeastern University Press, 1997) pp 263-264.

from exploiting that accessed diversity and the issue of access to and transfer of technology to exploit those genetic resources remained contentious.<sup>11</sup> A central contention was the developed North's view that intellectual property should be maintained and respected.<sup>12</sup> Meanwhile the South contended that its genetic resources had value and exploiting that value was an opportunity to address poverty alleviation and technological development requiring more favourable and non-commercial terms of access to useful technology.<sup>13</sup> In essence, the contentions over the CBD might be reduced to:

[t]he South wants the technology and the North wants the South to have it. But while the South sees itself as a potential partner, the North looks South and sees only paying customers.<sup>14</sup>

The outcome of these contentions in the final text of the CBD was to postpone the resolution through agreeable diplomatic language effecting a compromise: "that patents and other intellectual property rights may have an influence on the implementation of this [CBD]" with an obligation to "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".<sup>15</sup> The diplomatic language allowed the technology rich North countries (principally the United States, the European Union and Japan) to agree to preferential and concessional access to and transfer of technology using undefined terms that would not undermine the concern of the North countries to maintain their existing intellectual property arrangements.<sup>16</sup> The outcome was, at best, just an in-principle agreement to exchange genetic resources for benefits that might include access to and transfer of technology.<sup>17</sup>

This compromise also reflected, in part, the unresolved tensions between intellectual property negotiations in the international trade and the environment that were being concurrently negotiated in different forums. The environmental CBD was negotiated under the auspices of the United Nations Environment Programme and the international trade *Agreement on Trade Related Aspects of Intellectual Property Rights* (TRIPs)<sup>18</sup> was being negotiated under the auspices of the General Agreement on Tariffs and Trade (GATT).<sup>19</sup> Essentially the CBD attempted to set a balance by encouraging the biodiversity rich countries to maintain their resources so they might be sustainably used by the countries with highly developed technology, with the benefits accruing to both the biodiversity-rich and poor countries.<sup>20</sup> In contrast, TRIPs attempted to establish new rules and disciplines moving intellectual property into the realm of international trade laws so as to reduce distortions and impediments to international trade while encouraging new invention relying on the

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<sup>11</sup> For a summary of those contemporary competing South and North views see Gillespie A, "Common property, private property and equity: clash of values and the quest to preserve biodiversity" (1995) 12 EPLJ 388 at 389-392 and the references therein.

<sup>12</sup> For an overview of the various contentions and particularly those of the United States see generally Panjabi, n 10.

<sup>13</sup> See for example United Nations Environment Program, *Report of the Ad Hoc Working Group on the Work of the Second Session in Preparation for a Legal Instrument on Biological Diversity* (1990) UNEP/BioDiv2/3, p 7.

<sup>14</sup> Tilford, n 5 at 419.

<sup>15</sup> Convention on Biological Diversity, n 1, art 16(5); see also Lucia P and Marin C, *Providing Protection for Plant Genetic Resources: Patents, Sui Generis Systems, and Biopartnerships* (Kluwer Law International, 2002) p 92.

<sup>16</sup> See for example Grubb et al, n 2, p 29.

<sup>17</sup> Noting that a number of North countries were careful to declare their position on intellectual property; for example Switzerland declared on ratification that "transfers of technology and access to biotechnology, as defined in the text of the [CBD] will be carried out in accordance with art 16 of the said [CBD] and in compliance with the principles and rules of protection of intellectual property, in particular multilateral and bilateral agreements signed or negotiated by the Contracting Parties to this [CBD]": Secretariat of the Convention on Biological Diversity, *Handbook of the Convention on Biological Diversity* (2nd ed, Transcontinental Printing, 2003) p 310.

<sup>18</sup> *Marrakech Agreement Establishing the World Trade Organisation* [1995] ATS 8, Annex 1C (TRIPs); made at Marrakech 15 April 1994; entry into force generally and for Australia on 1 January 1995. Available from the World Trade Organisation website <http://www.wto.org>.

<sup>19</sup> For an overview of this still unresolved tension see for example Secretariat of the World Trade Organisation, *Trade and Environment at the WTO* (World Trade Organisation, 2004).

<sup>20</sup> See Organisation for Economic Co-operation and Development, n 9, pp 18-19 and 109.

formula “patents = free trade + investment = economic growth”.<sup>21</sup> According to the generalised South-North divide,<sup>22</sup> the CBD imposes obligations on the biodiversity-rich South to provide access to its genetic resources,<sup>23</sup> and in return the technology-rich North facilitates access and transfer of technology, know-how and financial support and incentives,<sup>24</sup> that promoted economic growth directly addressing the development agenda to alleviate poverty.<sup>25</sup>

The expressed objections of the leading technology-rich North country, the United States, to the CBD’s agreed text was that the treatment of finances, intellectual property, technology transfer and biotechnology were inadequate.<sup>26</sup> In particular, the United States was concerned that the language dealing with intellectual property was “a constraint to the transfer of technology rather than as a prerequisite”<sup>27</sup> reflecting the United States’ biotechnology industry’s perspective that the CBD opened the way for countries to reduce the level of intellectual property protection and introduce compulsory licensing arrangements.<sup>28</sup> However, the United States, following a change of administration, signed the CBD, subject to the following proviso:

The United States declares its understanding that access to and transfer of technology subject to intellectual property rights under this [CBD] require the recognition of, and consistency with, the adequate and effective protection of intellectual property rights, and thus does not provide a basis for the use of compulsory licensing laws to compel private companies to transfer technology under this agreement ... The United States declares its understanding of art 16(2) that the phrase “fair and favourable terms” means terms that are determined by a free market without trade restrictions and government coercion ... The United States declares its understanding that fair and equitable sharing of the benefits arising out of the utilisation of genetic resources requires members of this [CBD] to respect the rights of other member countries and of private parties to the technology that arise out of such utilisation of genetic resources ... For this reason the United States believes that the extension of adequate and effective intellectual property protection for the technology derived from the use of genetic resources is an essential prerequisite to the success of the [CBD].<sup>29</sup>

Following the CBD entry into force for Contracting Parties (on 29 December 1993) minimum intellectual property standards have been established and codified in TRIPs for World Trade Organisation (WTO) Member States (from 1 January 1995). The interaction between the CBD and TRIPs remains contentious,<sup>30</sup> with internationally contested inherent conflicts between TRIPs and

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<sup>21</sup> Sell S and Prakash A, “Using ideas strategically: the contest between business and NGO networks in intellectual property rights” (2004) 48 *International Studies Quarterly* 143, at 154; see also Drahos P, “Global property rights in information: the story of TRIPs at the GATT” (1995) 13 *Prometheus* 6 at 7.

<sup>22</sup> There is a considerable history and literature about this divide, but see for a contemporaneous commentary Palmer G, “The Earth summit: what went wrong at Rio?” (1992) 70 *Washington University Law Quarterly* 1005.

<sup>23</sup> As a generalisation these are the general obligations set out in the Convention on Biological Diversity, n 1, arts 6-15.

<sup>24</sup> As a generalisation these are the general obligations set out in the Convention on Biological Diversity, n 1, arts 16-21.

<sup>25</sup> See for example A/CONF.151/26, n 7, annex 1 (*Rio Declaration on Environment and Development*).

<sup>26</sup> Secretariat of the CBD 2003, n 17, p 311; see also United Nations Conference on Environment and Development, *United States Declaration at UNCED on the Adoption of the Agreed Text of the Convention on Biological Diversity* (1992) 31 *International Legal Materials* 848; although the United States had expressed ongoing concerns during the negotiation process and at the Earth Summit: see Panjabi, n 10, pp 244-263.

<sup>27</sup> United States Department of State, “Convention on Biological Diversity” (1992) 3 *US Department of State Dispatches* 423.

<sup>28</sup> See United States Patent and Trade Mark Office, “Biotech Group Explain Objection to Earth Summit’s Biodiversity Treaty” (1992) 44 *Patent, Trademark and Copyright Journal* 120; Reilly W, “What they are saying: first reactions to the biodiversity convention” (1992) 8 *Diversity* 8; for a critique of this opposition see McManis C, “The interface between international intellectual property and environmental protection: biodiversity and biotechnology” (1998) 76 *Washington University Law Quarterly* 255 at 262-265.

<sup>29</sup> Quoted from Gillespie, n 11 at 394; see also Raustiala K, “Domestic institutions and international regulatory cooperation: comparative responses to the Convention on Biological Diversity” (1997) 49 *World Politics* 482 at 492-494.

<sup>30</sup> For an overview of the current controversy see Council for Trade-Related Aspects of Intellectual Property Rights, *The Relationship Between the TRIPs Agreement and the Convention on Biological Diversity (CBD): Checklist of Issues* (2004) IP/C/W/420; Council for Trade-Related Aspects of Intellectual Property Rights, *Taking Forward the Review of Article 27.3(b) of the TRIPs Agreement – Joint Communication from the African Group* (2003) IP/C/W/404; Council for Trade-Related Aspects of Intellectual Property Rights, *The Relationship Between the TRIPs Agreement and the Convention on*

the CBD being that TRIPs requires genetic materials be protected by patents or a *sui generis* plant variety that privately appropriates genetic resources over which a country has sovereign rights under the CBD,<sup>31</sup> and that these privileges do not also require the additional measures set out in the CBD, such as prior informed consent, mutually agreed terms and benefit sharing.<sup>32</sup> These essentially North-South contentions about intellectual property are being resolved through various forums,<sup>33</sup> with the CBD providing some insight into the failure to negotiate a satisfactory balance between access and benefit sharing, and providing some indication of future developments. This article, therefore, examines the specific expectations for intellectual property and the Australian Government's initiatives so far to implement the fair and equitable sharing of the benefits arising from using genetic resources required by the CBD. This article argues that regulating access has been pursued as an end in itself, rather than as part of the quid pro quo for benefit sharing and the broader objective of the CBD for biodiversity conservation. This article is structured as follows:

- Part two reviews the framework for access and benefit sharing set out in the CBD. The essential elements of this framework are that countries have sovereignty over the resources within their jurisdiction. With this sovereignty there is an obligation to make those resources available subject to prior informed consent, mutually agreed terms, and a sharing of the benefits. However, the analysis shows that the language of the CBD is couched in broad terms that sets out caveats leaving the exact term of the CBD's obligations uncertain and open to interpretation.
- Part three examines the developments in implementing the CBD through the Conference of the Parties' (COP) decisions and deliberations. These developments illustrate the evolving nature of the CBD and the focus until recently, of the COP on promoting private contracts for determining the mutually agreeable terms of access and benefit sharing. Recent developments appear to mark a move towards negotiating a new international agreement expressly dealing with access and benefit sharing in the broader context of a development agenda.
- Part four examines Australia's response to implementing the CBD's objective of access and benefit sharing. This has included a number of initiatives, recognising the potential value of Australia's genetic resources and attempting to resolve the complex arrangements between the various levels of government through a permit access scheme and private contracts with suggested model terms to share the benefits. Australia's response demonstrates a preference for promoting access without necessarily promoting benefit sharing and a broader conservation imperative; and
- Part five sets out the conclusions, suggesting that future developments in addressing the access and benefit sharing objectives of the CBD provide Australia with an avenue to

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*Biological Diversity and the Protection of Traditional Knowledge* (2003) IP/C/W/403, p 1; see also Tarasofsky R, "The relationship between the TRIPs agreement and the Convention on Biological Diversity: towards a pragmatic approach" (1997) 6 *Review of European Community and International Environmental Law* 148 and the references therein.

<sup>31</sup> Council for Trade-Related Aspects of Intellectual Property Rights, *The Relationship Between the TRIPs Agreement and the Convention on Biological Diversity – Summary of Issues Raised and Points Made* (2002) IP/C/W/368, p 2; see also Council for Trade-Related Aspects of Intellectual Property Rights, *Review of the Provisions of Art 27.3.b - Communication from Kenya on Behalf of the African Group* (1999) IP/C/W/163.

<sup>32</sup> Council for Trade-Related Aspects of Intellectual Property Rights, *Minutes of Meeting Held in the Centre William Rappard on 21 and 22 September 2000* (2000) IP/C/M/28, p 43; see also IP/C/W/368, n 31, p 2.

<sup>33</sup> Other forums include the General Assembly of the United Nations (see for example General Assembly of the United Nations, *Resolution 58/212: Convention on Biological Diversity*, 58th Session (2004) A/RES/58/212), the Food and Agriculture Organisation of the United Nations (see for example Conference of the Food and Agriculture Organisation of the United Nations, *International Undertaking on Plant Genetic Resources for Food And Agriculture* (2001) C 2001/16), the World Trade Organisation (see for example IP/C/W/403, n 30), the World Intellectual Property Organisation (see for example World Intellectual Property Organisation's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, *Overview of Activities and Outcomes of the Intergovernmental Committee* (2003) WIPO/GTRKF/IC/5/12), the United Nations Conference on Trade and Development (see for example the BIOTRADE initiative: United Nations Conference on Trade and Development, *UNCTAD BIOTRADE: Some Considerations on Access, Benefit Sharing and Traditional Knowledge* (United Nations Conference on Trade and Development, 2000)), and so on: see for recent analysis of some of these forums Helfer L, "Regime shifting: The TRIPs agreement and new dynamics of international intellectual property lawmaking" (2004) 29 *Yale Journal of International Law* 1.

reconsider its stance on intellectual property and carefully consider the role of intellectual property in conserving Australia's, and the Earth's, genetic resources.

The analysis in this article is essentially a narrative of the CBD's implementation. This approach has been adopted to illustrate the uncertain potential of the text of the CBD and then the narrow focus of its implementation to date. However, recent developments show that future developments are revisiting many of the initial controversies with a focus on returning to development and poverty alleviation (perhaps eradication) concerns. This, it is argued, should prompt Australia to reconsider its stance to promoting intellectual property ahead of promoting access to and transfer of technology and carefully consider the role of intellectual property in promoting biodiversity conservation.

### **CBD'S FRAMEWORK FOR ACCESS AND BENEFIT SHARING**

Having articulated the general objective for the fair and equitable sharing of the benefits arising from using genetic resources, the CBD imposes a framework for its implementation. Thus, access to genetic resources is according to the authority of countries "[r]ecognising the sovereign rights of States over their natural resources"<sup>34</sup> with an obligation to facilitate access for "environmental sound uses" without imposing restrictions that are counter to the CBD's objectives.<sup>35</sup> Further, access must be from countries of origin or countries that have acquired the genetic resources according to the CBD,<sup>36</sup> on mutually agreed terms,<sup>37</sup> with prior informed consent,<sup>38</sup> and most importantly, taking:

legislative, administrative or policy measures, as appropriate, and in accordance with arts 16 [access to and transfer of technology] and 19 [handling of biotechnology and distribution of its benefits] and where necessary through the financial mechanism established by arts 20 [financial resources] and 21 [financial mechanism] with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilisation of genetic resources with the Contracting Party providing such resources.<sup>39</sup>

In dealing with the access to and transfer of technology, the CBD text provides:

Each Contracting Party, recognising that technology includes biotechnology, and that both access to and transfer of technology among Contracting Parties are essential elements for the attainment of the objectives of this [CBD], undertakes subject to the provisions of this art [16] to provide and/or facilitate access for and transfer to other Contracting Parties of technologies that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment.<sup>40</sup>

Where access to and transfer of technology is made and the technology is "subject to patents and other intellectual property rights", then "access and transfer shall be provided on terms which recognise and are consistent with the adequate and effective protection of intellectual property rights".<sup>41</sup> Significantly, the CBD expressly provides that access to and transfer of technology to developing countries<sup>42</sup> "shall be provided and/or facilitated under fair and most favourable terms, including on concessional and preferential terms where mutually agreed, and where necessary in accordance with the financial mechanism".<sup>43</sup> For all countries, the access to and transfer of

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<sup>34</sup> Convention on Biological Diversity, n 1, art 15(1); see also art 3.

<sup>35</sup> Convention on Biological Diversity, n 1, art 15(2).

<sup>36</sup> Convention on Biological Diversity, n 1, art 15(3).

<sup>37</sup> Convention on Biological Diversity, n 1, art 15(4).

<sup>38</sup> Convention on Biological Diversity, n 1, art 15(5).

<sup>39</sup> Convention on Biological Diversity, n 1, 15(7).

<sup>40</sup> Convention on Biological Diversity, n 1, art 16(1).

<sup>41</sup> Convention on Biological Diversity, n 1, art 16(2).

<sup>42</sup> Presumably this also includes the "developing and least developed countries" as distinguished by TRIPs, art 66.

<sup>43</sup> Convention on Biological Diversity, n 1, art 16(2).

technology “protected by patents and other intellectual property rights” must be on “mutually agreed terms” and “in accordance with international law”,<sup>44</sup> and:

The Contracting Parties, recognising that patents and other intellectual property rights may have an influence on the implementation of this [CBD], 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.<sup>45</sup>

A key element in the access to and transfer of technology in exchange for access to genetic resources contemplated by the text of the CBD is that Contracting States take “legislative, administrative or policy measures” to require the private sector to facilitate “access to, joint development and transfer of technology” for the benefit of “both governmental institutions and the private sector of developing countries”.<sup>46</sup> In respect of biotechnology, the measures include the “effective participation in biotechnological research activities”<sup>47</sup> and the “the results and benefits arising from biotechnologies based upon genetic resources”.<sup>48</sup> Other measures deal with the exchange of information<sup>49</sup> and technical and scientific cooperation.<sup>50</sup>

A further requirement is that, “as far as possible and as appropriate”, each Contracting Party should “[a]dopt measures relating to the use of biological resources to avoid or minimise adverse impacts on biological diversity”.<sup>51</sup> Then the CBD text also recognised the special place of traditional and community knowledge, practices and innovations, requiring Contracting Parties, “as far as possible and as appropriate”, to:

respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, innovations and practices.<sup>52</sup>

Of particular significance to intellectual property, the CBD text also provides that Contracting Parties “shall, as far as possible and as appropriate, adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity”.<sup>53</sup> Further, the CBD is not intended to affect the “existing” rights and obligations of Contracting Parties “except where the exercise of those rights and obligations would cause serious damage or a threat to biological diversity”.<sup>54</sup>

The challenge for Contracting Parties like Australia was to develop and implement legislative, administrative or policy measures within the framework set out in the text of the CBD so as to share in a fair and equitable way both the “results of research and development” and the “benefits arising from the commercial and other utilisation of genetic resources”. Importantly, Australia’s obligations are to both genetic resources accessed in Australia and genetic resources accessed in other countries and exploited in Australia. These competing obligations reflect Australia’s place as one of the Earth’s 12 mega diverse nations with considerable biological diversity to conserve,<sup>55</sup> and Australia’s dependence on imported biological diversity to sustain its agricultural and

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<sup>44</sup> Convention on Biological Diversity, n 1, art 16(3).

<sup>45</sup> Convention on Biological Diversity, n 1, art 16(5).

<sup>46</sup> Convention on Biological Diversity, n 1, art 16(4).

<sup>47</sup> Convention on Biological Diversity, n 1, art 19(1).

<sup>48</sup> Convention on Biological Diversity, n 1, art 19(2).

<sup>49</sup> See Convention on Biological Diversity, n 1, art 17.

<sup>50</sup> See Convention on Biological Diversity, n 1, art 18.

<sup>51</sup> Convention on Biological Diversity, n 1, art 10(b).

<sup>52</sup> Convention on Biological Diversity, n 1, art 8(j).

<sup>53</sup> Convention on Biological Diversity, n 1, art 11.

<sup>54</sup> Convention on Biological Diversity, n 1, art 22(1).

<sup>55</sup> For example see: State of the Environment Advisory Council, *Australia: State of the Environment 1996* (CSIRO Publishing, 1996) p 4(30).

industrial economy.<sup>56</sup> This is a significant challenge as Australia must address both intellectual property over access to its resources to ensure a fair and equitable return on exploiting its genetic resources while at the same time balancing the potentially high costs on intellectual property over imported genetic resources and products and processes incorporating those genetic resources.<sup>57</sup> Further, Australia depends on conserving the Earth's biological diversity to sustain "the food, health and other needs of the growing world population, for which purpose access to and sharing of both genetic resources and technologies are essential".<sup>58</sup>

### DEVELOPMENTS AT THE CBD'S COP

The approach to intellectual property under the CBD has evolved over time, with the original text providing only limited guidance to the relationship between the CBD's objectives and intellectual property.<sup>59</sup> At its most simple the CBD established the sovereign country biodiversity holder as the gatekeepers of the genetic resource and subjects those seeking access to mutually agreeable terms, prior informed consent and, in return, a promise to share the benefits resulting from access to those resources.<sup>60</sup> The challenge has been to determine the role of intellectual property in the mutually agreeable terms of access and their place in sharing the benefits from that access. To date, the major areas where intellectual property has been actively considered by the COP under the CBD are access to genetic resources and benefit sharing; the protection of traditional knowledge, innovations and practices; the transfer of, and access to, technology; and scientific and technical cooperation.<sup>61</sup> These are not discrete areas and many of the COP's considerations have overlapped, with the various considerations evolving with the implementation of the CBD. This Part traces these developments.

Following the signing of the CBD, the first COP adopted a medium-term "Access to Genetic Resources" programme of work that included two subjects, the compiling of information and documents about access to genetic resources and the sharing of its benefits (art 15), and about access to and transfer of technology in exchange for that access (art 16).<sup>62</sup> Significantly, the consideration of intellectual property was placed under the "Access to Genetic Resources" programme rather than the "Issues Relating to Technology" programme, thereby linking intellectual property considerations to the transfer of technologies that made use of the accessed genetic resources.<sup>63</sup> The effect of this decision was to focus the role of intellectual property in the arrangements for access to genetic resources (thus linking arts 15 and 16(5)), rather than the broader debate about restricting intellectual property in making technology available to developing countries as a possible means of alleviating poverty (as set out in art 16(1) and (2)).<sup>64</sup> This

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<sup>56</sup> For an outline of Australia's particular perspective see Conference of the Parties to the Convention on Biological Diversity, *Biological Diversity and Intellectual Property Rights: Issues and Considerations* (1996) UNEP/CBD/COP/3/Inf.20, p 1.

<sup>57</sup> See Lawson, n 1, pp 126-139.

<sup>58</sup> *Convention on Biological Diversity*, n 1, Preamble.

<sup>59</sup> See Helfer, n 33, pp 28-29.

<sup>60</sup> See Lawson C and Pickering C, "The conflict for patented genetic materials under the *Convention on Biological Diversity* and the *Agreement on Trade Related Aspects of Intellectual Property Rights*" (2001) 12 *Australian Intellectual Property Journal* 104 at 104-106.

<sup>61</sup> See: Conference of the Parties to the Convention on Biological Diversity, *Report of the Fifth Meeting of the Conference of the Parties to the Convention on Biological Diversity* (1998) UNEP/CBD/COP/5/23, p 11.

<sup>62</sup> Conference of the Parties to the Convention on Biological Diversity, *Report of the First Meeting of the Conference of the Parties to the Convention on Biological Diversity* (1995) UNEP/CBD/COP/1/17, p 62.

<sup>63</sup> See UNEP/CBD/COP/1/17, n 62, p 62; see also Conference of the Parties to the Convention on Biological Diversity, *Report of the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity* (1995) UNEP/CBD/COP/2/19, p 28.

<sup>64</sup> See Conference of the Parties to the Convention on Biological Diversity, *Intellectual Property Rights and Transfer of Technologies which Make Use of Genetic Resources* (1995) UNEP/CBD/COP/2/17, p 2; see further Conference of the Parties to the Convention on Biological Diversity, *Report of the Third Meeting of the Conference of the Parties to the Convention on Biological Diversity* (1997) UNEP/CBD/COP/3/38, pp 97-98; Conference of the Parties to the Convention on Biological Diversity, *Promoting and Facilitating Access to, and Transfer and Development of Technology* (1996)

distinction, however, did not deal finally with the tension between the developing South and the developed North over access to and transfer of technology, as reflected in a statement at the time by the Algerian representative on behalf of the G77 and China:

G-77 and China are deeply concerned that intellectual property rights deny developing countries access to affordable technology and equitable benefits that accrue from the conservation and sustainable use of biodiversity. This is especially dismaying when it is in the fields of agriculture, nutrition and health care, the very fields in which traditional communities, by their sustainable life styles, have preserved resources and knowledge of their use for centuries. If the [CBD] is to have any meaning beyond superficialities, then the removal of these distortions is crucial. G-77 and China can therefore regard the decision on the intellectual property rights as only the first step in a long journey, and urge that a thorough study be undertaken to ensure that intellectual property rights are supportive of and do not run counter to the objectives of the [CBD] ... we call for an urgent implementation of art 16, para 5 on transfer of technology.<sup>65</sup>

At the second COP the *Access to Genetic Resources* programme was considered,<sup>66</sup> with the COP deciding to compile the views on possible options for developing national legislative, administrative or policy measures to implement art 15.<sup>67</sup> The second COP also sought to analyse the impact of intellectual property on the conservation and sustainable use of biological diversity and the equitable sharing of benefits from their use “in order to gain a better understanding of the implications of art 16(5)”, including “inviting Governments and other relevant stakeholders to submit case studies that address the role of intellectual property rights in the technology transfer process, in particular the role of intellectual property rights in the transfer of biotechnology”.<sup>68</sup>

The third COP deciding to seek further information about existing mechanisms both addressing access to genetic resources and sharing the benefits,<sup>69</sup> and sought to extend co-operation with other institutions dealing with intellectual property, notably the World Intellectual Property Organisation (WIPO) and the WTO.<sup>70</sup>

After considering the various materials before the meeting,<sup>71</sup> the fourth COP decided to convene a Panel of Experts on Access to and Benefit-Sharing (the Panel):

to draw upon all relevant sources, including legislative, policy and administrative measures, best practices and case studies on access to genetic resources and benefit sharing arising from the use of those genetic resources, including the whole range of biotechnology, in the development of a common understanding of basic concepts and to explore all options for access and benefit sharing

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UNEP/CBD/COP/3/21; notably, Australia asserted that “[t]he owners of technologies should be able to earn a commercial return on their investment, thereby encouraging investment and technology transfer. There is a greater incentive for entrepreneurs to invest in developing countries and to license patented environmental technologies where there is a strong system of intellectual property rights”: Conference of the Parties to the Convention on Biological Diversity, *Submissions Received by the Executive Secretary Concerning Ways and Means to Promote and Facilitate Access to and Transfer and Development of Technology* (1996) UNEP/CBD/COP/3/Inf 4, pp 3-4.

<sup>65</sup> UNEP/CBD/COP/1/17, n 62, p 23.

<sup>66</sup> See UNEP/CBD/COP/2/19, n 63, pp 26-28.

<sup>67</sup> UNEP/CBD/COP/2/19, n 63, p 64.

<sup>68</sup> UNEP/CBD/COP/2/19, n 63, p 65.

<sup>69</sup> UNEP/CBD/COP/3/38, n 64, pp 95-97.

<sup>70</sup> UNEP/CBD/COP/3/38, n 64, pp 98-101; see also Conference of the Parties to the Convention on Biological Diversity, *The Impact of Intellectual Property Rights Systems on the Conservation and Sustainable Use of Biological Diversity and on the Equitable Sharing of Benefits from its Use (A Preliminary Study)* (1996) UNEP/CBD/COP/3/22.

<sup>71</sup> See: Conference of the Parties to the Convention on Biological Diversity, *Measures to Promote and Advance the Distribution of Benefits from Biotechnology in Accordance with Article 19* (1998) UNEP/CBD/COP/4/21; Conference of the Parties to the Convention on Biological Diversity, *Addressing the Fair and Equitable Sharing of the Benefits Arising out of Genetic Resources: Options for Assistance to Developing Country Parties to the Convention on Biological Diversity* (1998) UNEP/CBD/COP/4/22; Conference of the Parties to the Convention on Biological Diversity, *Review of National, Regional and Sectoral Measures and Guidelines for the Implementation of Article 15* (1998) UNEP/CBD/COP/4/23; Regional Meetings on Biological Diversity, *Report of the Latin American and the Caribbean Regional Preparatory Meeting* (1998) UNEP/CBD/RG LAC/3/2.

## Implementing an objective of the Convention on Biological Diversity – intellectual property, access to genetic resources and benefit sharing in Australia

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on mutually agreed terms including guiding principles, guidelines, and codes of best practice for access and benefit sharing arrangements.<sup>72</sup>

The focus was to be on legislative, administrative and policy measures for prior informed consent, references to the country of origin in relevant publications and patent applications, mutually agreed terms including on benefit sharing and intellectual property rights and technology transfer, and incentive measures to encourage the conclusion of “contractual partnerships”.<sup>73</sup>

The subsequent report of the Panel reached a broad consensus about the “principles that should govern access and benefit sharing arrangements” and “a common understanding of the key concepts such as prior informed consent, mutually agreed terms, and fair and equitable benefit sharing”, together with “important information and capacity-building needs associated with access and benefit sharing arrangements”.<sup>74</sup> The key recommendation of the Panel was the need to develop guidelines about prior informed consent and mutually agreed terms.<sup>75</sup>

At this early stage the Panel considered intellectual property might provide an incentive to comply with the CBD’s prior informed consent requirements by a requirement to provide evidence of satisfactory consent on applying for intellectual property (presumably this was addressed to patents and plant breeder’s rights that require formal registration).<sup>76</sup> Significantly, the Panel considered the COP needed to explore intellectual property issues “in greater depth” recognising that intellectual property was a component of other domestic and international legal instruments.<sup>77</sup> However, in dealing with intellectual property, the Panel concluded:

The Panel acknowledged that intellectual property rights may have an influence on the implementation of access and benefit sharing arrangements and may have a role in providing incentives for users to seek prior informed consent. The Panel was not able to come to any conclusions about these issues, and therefore suggests that the [COP] consider these matters further.<sup>78</sup>

Usefully the Panel identified a number of issues that required further study, including that intellectual property application procedures require that the applicant submit evidence of prior informed consent, the place of intellectual property in traditional knowledge related to genetic resources, the guiding parameters for contractual arrangements,<sup>79</sup> application of the formal intellectual property threshold standards and the resulting scope, and an assessment of the effect of intellectual property as an incentive to conservation and benefit sharing.<sup>80</sup>

In parallel with the Panel’s work, the fourth COP had also decided to convene an Inter-Sessional Meeting on the Operations of the Convention (ISOC) as “a preparatory discussion” on access to genetic resources.<sup>81</sup> The ISOC began assessing the relationship between intellectual property and the relevant provisions of the TRIPs and the CBD,<sup>82</sup> ex situ collections made before

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<sup>72</sup> Conference of the Parties to the Convention on Biological Diversity, *Report of the Fourth Meeting of the Conference of the Parties to the Convention on Biological Diversity* (1998) UNEP/CBD/COP/4/27, p 109.

<sup>73</sup> UNEP/CBD/COP/4/27, n 72, p 110.

<sup>74</sup> UNEP/CBD/COP/5/23, n 61, pp 24-25.

<sup>75</sup> Conference of the Parties to the Convention on Biological Diversity, *Report of the Panel of Experts on Access and Benefit-sharing* (1999) UNEP/CBD/COP/5/8; see also UNEP/CBD/COP/5/23, n 61, pp 24 and 54-55.

<sup>76</sup> See UNEP/CBD/COP/5/8, n 75, p 23.

<sup>77</sup> See UNEP/CBD/COP/5/8, n 75, p 24.

<sup>78</sup> UNEP/CBD/COP/5/8, n 75, p 27.

<sup>79</sup> Meaning “(a) Regulating the use of resources in order to take into account ethical concerns; (b) Making provision to ensure the continued customary use of genetic resources and related knowledge; (c) Provision for the exploitation and use of intellectual property rights include joint research, obligation to work any right on inventions obtained or provide licenses; (d) Taking into account the possibility of joint ownership of intellectual property rights”: UNEP/CBD/COP/5/8, n 75, p 25.

<sup>80</sup> UNEP/CBD/COP/5/8, n 75, pp 23-26.

<sup>81</sup> UNEP/CBD/COP/4/27, n 72, p 132.

<sup>82</sup> Conference of the Parties to the Convention on Biological Diversity, *Report of the Inter-Sessional Meeting on the Operations of the Convention* (1999) UNEP/CBD/COP/5/4, pp 30-31.

29 December 1993,<sup>83</sup> and a number of other matters that the Panel should consider<sup>84</sup> without formally making any firm conclusions about the place on intellectual property in access and benefit sharing arrangements.

The fifth COP took note of the Panel's report<sup>85</sup> and the ISOC report,<sup>86</sup> and then decided, in dealing with access to genetic resources, to establish an Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing with the mandate to develop guidelines and other approaches to access and benefit sharing.<sup>87</sup> The outcome of this decision was the Ad Hoc Open-Ended Working Group's report that recommended the adoption of the *Draft Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilisation*,<sup>88</sup> although key terms remained to be defined, including "access to genetic resources", "benefit sharing", "commercialisation", "derivatives", "provider", "user", "stakeholder", "ex situ collection" and "voluntary nature".<sup>89</sup> The key objective of the guidelines was "to assist Parties in developing an overall access and benefit sharing strategy ... and in identifying the steps involved in the process of obtaining access to genetic resources and sharing benefits".<sup>90</sup> In addressing the role of intellectual property in implementing access and benefit sharing arrangements the Ad Hoc Open-Ended Working Group recommended that the COP "invite" countries to disclose the country of origin of genetic resources in applications for intellectual property "as a possible contribution to tracking compliance" with the obligations under the CBD of prior informed consent and the mutually agreed terms to access genetic resources.<sup>91</sup> Further information gathering about intellectual property and access and benefit sharing was also recommended and a role envisioned for WIPO in developing model intellectual property clauses for negotiation of mutually agreed terms in contractual agreements.<sup>92</sup>

As "merely the first step on a long and complex process to secure access and benefit sharing"<sup>93</sup> under the CBD, the sixth COP adopted the *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilisation* (Bonn Guidelines)<sup>94</sup> as voluntary guidelines that apply to all genetic resources covered by the CBD (except human genetic resources),<sup>95</sup> in a manner that is "coherent and mutually supportive of the work of relevant international agreements and institutions"<sup>96</sup> and "without prejudice" to the *International Treaty on Plant Genetic Resources for Food and Agriculture*.<sup>97</sup> The Bonn Guidelines were the output of the Ad Hoc Open-Ended Working Group relying on the considerable information and experience of the Panel.<sup>98</sup> The sixth COP "invited" countries to the Bonn Guidelines "when developing and drafting legislative, administrative or policy measures on access and benefit sharing, and contracts and other arrangements under mutually agreed terms for access and benefit sharing".<sup>99</sup>

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<sup>83</sup> UNEP/CBD/COP/5/4, n 82, pp 31-32.

<sup>84</sup> UNEP/CBD/COP/5/4, n 82, pp 28-30.

<sup>85</sup> UNEP/CBD/COP/5/23, n 61, p 25; see also Conference of the Parties to the Convention on Biological Diversity, *Access to Genetic Resources* (2000) UNEP/CBD/COP/5/21.

<sup>86</sup> UNEP/CBD/COP/5/23, n 61, p 21; see also UNEP/CBD/COP/5/21, n 85.

<sup>87</sup> UNEP/CBD/COP/5/23, n 61, pp 197-198.

<sup>88</sup> Conference of the Parties to the Convention on Biological Diversity, *Report of the Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing* (2001) UNEP/CBD/COP/6/6, p 14.

<sup>89</sup> UNEP/CBD/COP/6/6, n 88, pp 14 and 15.

<sup>90</sup> UNEP/CBD/COP/6/6, n 88, p 16.

<sup>91</sup> UNEP/CBD/COP/6/6, n 88, p 36.

<sup>92</sup> UNEP/CBD/COP/6/6, n 88, pp 36-38.

<sup>93</sup> Conference of the Parties to the Convention on Biological Diversity, *Report of the Sixth Meeting of the Conference of the Parties to the Convention on Biological Diversity* (2002) UNEP/CBD/COP/6/20, p 19.

<sup>94</sup> UNEP/CBD/COP/6/20, n 93, pp 60-62 and 253-269 (Bonn Guidelines).

<sup>95</sup> Bonn Guidelines, n 94, cl 9.

<sup>96</sup> Bonn Guidelines, n 94, cl 10.

<sup>97</sup> Bonn Guidelines, n 94, cl 10.

<sup>98</sup> UNEP/CBD/COP/6/6, n 88; see also UNEP/CBD/COP/6/20, n 93, pp 60-62.

<sup>99</sup> UNEP/CBD/COP/6/20, n 93, p 253.

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The Bonn Guidelines proposed the establishment of a “competent national authority”,<sup>100</sup> identified the responsibilities of Contracting Parties that are the origin of genetic resources and the implementation of mutually agreed terms,<sup>101</sup> and set out the steps in the access and benefit sharing process.<sup>102</sup> While the Bonn Guidelines do not appear to favour a specific approach to intellectual property rights, they contemplate private contracts addressing intellectual property rights and other matters between the resource holder and the exploiter dealing with the access and benefit sharing arrangements.<sup>103</sup> However, the Bonn Guidelines do deal at some length with the various methods by which benefits might be shared identifying those involved in the resource management, scientific and commercial process<sup>104</sup> and the various kinds of monetary and non-monetary benefits.<sup>105</sup>

The Bonn Guidelines have also followed through to other activities under the CBD including: the Global Strategy for Plant Conservation,<sup>106</sup> the Action Plan on Capacity-Building for Access and Benefit Sharing<sup>107</sup> and the Programme of Work on Forest Biological Diversity.<sup>108</sup> Significantly, however, the sixth COP clearly identified the Bonn Guidelines as merely a step in the evolution of the CBD’s objectives,<sup>109</sup> and initiated further work in developing other approaches to access and benefit sharing and capacity building,<sup>110</sup> other measures to implement prior informed consent,<sup>111</sup> and documented the experience from countries implementing the Bonn Guidelines.<sup>112</sup>

The sixth COP also decided to reconvene the Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing to advise the COP “recognising” that “a package of measures may be necessary to address the different needs of Parties and stakeholders in the implementation of access and benefit sharing arrangements”.<sup>113</sup> Importantly, some COP members asserted that the Bonn Guidelines should “be used through a negotiation process to develop an international legally binding instrument on access to genetic resources and fair and equitable sharing of the benefits arising out of their utilisation”.<sup>114</sup> In addressing the role of intellectual property in access and benefit sharing, the sixth COP made no decisions, merely “inviting” countries:

to encourage the disclosure of the country of origin of genetic resources in applications for intellectual property rights, where the subject matter of the application concerns or makes use of genetic resources in its development, as a possible contribution to tracking compliance with prior informed consent and the mutually agreed terms on which access to those resources was granted.<sup>115</sup>

At the seventh COP, further information gathering was sought about experiences and lessons from implementing the Bonn Guidelines and its key terms,<sup>116</sup> and other approaches to access and benefit sharing.<sup>117</sup> Significantly, however, the seventh COP responded to the broader concerns of the South about fairly and equitable share the benefits from using genetic resources under the CBD

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<sup>100</sup> Bonn Guidelines, n 94, cl 12.

<sup>101</sup> Bonn Guidelines, n 94, cl 14.

<sup>102</sup> Bonn Guidelines, n 94, cls 20-48.

<sup>103</sup> See UNEP/CBD/COP/6/20, n 93, pp 263 and 274-275.

<sup>104</sup> UNEP/CBD/COP/6/20, n 93, pp 264-265.

<sup>105</sup> UNEP/CBD/COP/6/20, n 93, pp 267-269.

<sup>106</sup> UNEP/CBD/COP/6/20, n 93, p 142.

<sup>107</sup> UNEP/CBD/COP/6/20, n 93, p 195.

<sup>108</sup> UNEP/CBD/COP/6/20, n 93, pp 233 and 235.

<sup>109</sup> See UNEP/CBD/COP/6/20, n 93, pp 253 and 255.

<sup>110</sup> UNEP/CBD/COP/6/20, n 93, pp 253 and 270-273; see also Conference of the Parties to the Convention on Biological Diversity, *Report of the Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity* (2004) UNEP/CBD/COP/7/21, p 298.

<sup>111</sup> UNEP/CBD/COP/6/20, n 93, p 253.

<sup>112</sup> UNEP/CBD/COP/6/20, n 93, p 253; see also UNEP/CBD/COP/7/21, n 110, pp 297-298.

<sup>113</sup> UNEP/CBD/COP/6/20, n 93, p 271.

<sup>114</sup> UNEP/CBD/COP/6/20, n 93, p 62.

<sup>115</sup> UNEP/CBD/COP/6/20, n 93, p 274.

<sup>116</sup> UNEP/CBD/COP/7/21, n 110, pp 297-298.

<sup>117</sup> UNEP/CBD/COP/7/21, n 110, p 298.

that had been expressed at the United Nations *World Summit on Sustainable Development*<sup>118</sup> and at the United Nations General Assembly,<sup>119</sup> and decided:

to mandate the Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing with the collaboration of the Ad Hoc Open-Ended Inter-Sessional Working Group on Article 8(j) and Related Provisions, ensuring the participation of indigenous and local communities, non-governmental organisations, industry and scientific and academic institutions, as well as intergovernmental organisations, to elaborate and negotiate an international regime on access to genetic resources and benefit sharing with the aim of adopting an instrument/instruments to effectively implement the provisions in art 15 and art 8(j) of the [CBD] and the three objectives of the [CBD].<sup>120</sup>

The significance of the seventh COP decision to begin “to elaborate and negotiate an international regime on access to genetic resources and benefit sharing”<sup>121</sup> was express recognition of the broader place of access and benefit sharing in achieving the objectives of the CBD,<sup>122</sup> the evolving nature of access and benefit sharing arrangements,<sup>123</sup> and the importance place of the CBD’s access and benefit sharing arrangements in addressing “poverty eradication and environmental sustainability”.<sup>124</sup> These deliberations also expanded the scope of the access and benefit sharing considerations to address the promise of the CBD of “fair and most favourable terms, including on concessional and preferential terms where mutually agreed, and where necessary in accordance with the financial mechanism” to developing countries,<sup>125</sup> recognising that both access to and transfer of technology among the Contracting Parties was an essential element for attaining the objectives of the CBD.<sup>126</sup> This was also reflected in the sixth COP decision that “encouraged” WIPO “to make rapid progress in the development of model intellectual property clauses which may be considered for inclusion in contractual agreements when mutually agreed terms are under negotiation”.<sup>127</sup>

In response to the sixth COP’s request WIPO made a submission to the seventh COP outlining its work and findings on the disclosure requirements related to genetic resources.<sup>128</sup> WIPO’s interpretation of the role of intellectual property in implementing the access and benefit sharing obligations in the CBD were either to disclose the origin or source of genetic resources used in or connected with an invention a requirement of a patent application or to require the disclosure of the legal context in which relevant genetic resources were accessed, such as by providing evidence

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<sup>118</sup> See: United Nations, *Report of the World Summit on Sustainable Development (2002) A/CONF.199/20*, p 35 (Plan of Implementation at [44(o)]) “call for action to negotiate within the framework of the [CBD], bearing in mind the Bonn Guidelines, an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilisation of genetic resources”; see also Conference of the Parties to the Convention on Biological Diversity, *Report of the Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing on the Work of its Second Meeting (2003) UNEP/CBD/COP/7/6*.

<sup>119</sup> See: General Assembly of the United Nations, *Resolution 57/260: Convention on Biological Diversity*, 57<sup>th</sup> Session (2003) A/RES/57/260, p 2; see also A/RES/58/212, n 33.

<sup>120</sup> UNEP/CBD/COP/7/21, n 110, p 300.

<sup>121</sup> See UNEP/CBD/COP/7/21, n 110, p 300.

<sup>122</sup> See UNEP/CBD/COP/7/21, n 110, p 299.

<sup>123</sup> See UNEP/CBD/COP/7/21, n 110, p 299; noting that the Panel of Experts on Access and Benefit-sharing convened by the fourth COP stated that “[c]ontractual arrangements, for the moment, are the main mechanism for gaining access to genetic resources and delivering benefits” (emphasis added): UNEP/CBD/COP/5/8, n 75, p 11.

<sup>124</sup> See UNEP/CBD/COP/7/21, n 110, p 299; see also General Assembly of the United Nations, *United Nations Millennium Declaration*, 55<sup>th</sup> Session (2000) A/RES/55/2.

<sup>125</sup> *Convention on Biological Diversity*, n 1, art 16(2).

<sup>126</sup> See UNEP/CBD/COP/7/21, n 110, p 14.

<sup>127</sup> UNEP/CBD/COP/6/20, n 93, p 275.

<sup>128</sup> Conference of the Parties to the Convention on Biological Diversity, *Technical Study on Disclosure Requirements Related to Genetic Resources and Traditional Knowledge (2003) UNEP/CBD/COP/7/Inf.17*; this report was provided with the proviso that “it should not be considered a formal paper expressing a policy position on the part of WIPO, its Secretariat or its Member States” (p 1); notably the Secretariat of the CBD also concluded a Memorandum of Understanding with WIPO and WIPO had extended its focus on international intellectual property issues including the place of the CBD in existing intellectual property arrangements: see UNEP/CBD/COP/7/21, n 110, p 21.

that the access complied with a certain procedure or legal standards like specific criteria for adequate prior informed consent.<sup>129</sup> As a consequence of these submissions, the seventh COP decided to implement a work program addressing technology transfer and technology co-operation, including establishing an expert group on technology transfer and scientific and technical cooperation.<sup>130</sup> The significance of this work program is:

to develop meaningful and effective action to enhance the implementation of arts 16 to 19 as well as related provisions of the [CBD] by promoting and facilitating the transfer of and access to technologies from developed to developing countries, including the least developed among them and small island developing States, as well as to countries with economies in transition, as well as among developing countries and other Parties, necessary to ensure implementation of the three objectives of the [CBD], and in support of the target to achieve a significant reduction of the current rate of biodiversity loss at the global, regional and national level by 2010. Implementation of this programme of work shall also contribute to the attainment of the Millennium Development Goals<sup>131</sup> to ensure environmental sustainability and to eradicate extreme poverty and hunger by 2015, and shall fully take into account specific national circumstances and constraints such as remoteness or vulnerability.<sup>132</sup>

The role of intellectual property has been addressed in the work program as part of “creating enabling environments” that identify and put in place “institutional, administrative, legislative and policy frameworks conducive to private and public sector technology transfer and cooperation”.<sup>133</sup> This is to include technical studies that explore and analyse the role of intellectual property rights in technology transfer in the context of the CBD including the costs and benefits of intellectual property.<sup>134</sup> Significantly, this is also to “identify potential options to increase synergy and overcome barriers to technology transfer and cooperation” consistent with the United Nations *World Summit on Sustainable Development’s* Plan of Implementation.<sup>135</sup>

The precise role of intellectual property in any “international regime on access to genetic resources and benefit sharing” is presently unclear. The “scope” of this regime will presumably extend to “[a]ccess to genetic resources and promotion and safeguarding of fair and equitable sharing of the benefits arising out of the utilisation of genetic resources in accordance with relevant provisions of the [CBD]” and “[t]raditional knowledge, innovations and practices in accordance with art 8(j)”.<sup>136</sup> The elements of this regime will include measures:

- for benefit sharing including, inter alia, monetary and non-monetary benefits, and effective technology transfer and cooperation so as to support the generation of social, economic and environmental benefits;
- to promote and safeguard the fair and equitable sharing of benefits arising out of the utilisation of genetic resources;
- to ensure the sharing of benefits arising from the commercial and other utilisation of genetic resources and their derivatives and products, in the context of mutually agreed terms; and

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<sup>129</sup> UNEP/CBD/COP/7/Inf.17, n 128, p 9; see also Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, *Certain Decisions of the Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity Concerning Access to Genetic Resources and Benefit-Sharing* (2004) WIPO/GTRKF/IC/6/11.

<sup>130</sup> UNEP/CBD/COP/7/21, n 110, pp 366-378.

<sup>131</sup> See A/RES/55/2, n 124.

<sup>132</sup> UNEP/CBD/COP/7/21, n 110, p 369.

<sup>133</sup> UNEP/CBD/COP/7/21, n 110, p 374.

<sup>134</sup> UNEP/CBD/COP/7/21, n 110, p 374.

<sup>135</sup> UNEP/CBD/COP/7/21, n 110, p 374; see also A/CONF.199/20, n 118, p 35.

<sup>136</sup> UNEP/CBD/COP/7/21, n 110, p 301.

- to promote access and benefit sharing arrangements that contribute to the achievement of the Millennium Development Goals, in particular on poverty eradication and environmental sustainability.<sup>137</sup>

Presumably these will be measures in addition to the general requirements of prior informed consent and mutually agreed access terms.<sup>138</sup>

## ADDRESSING THE CBD' SCHEME IN AUSTRALIA

Australia's response to the fair and equitable sharing objective of the CBD has been principally driven by an economic imperative to exploit the value of Australia's useful biological diversity<sup>139</sup> and to correct a market failure that promotes the short term destruction of biodiversity rather than the long term value of biodiversity as a "resources for use in agriculture and medicine, environmental services, and existence values".<sup>140</sup> The justification for formal regulation has been that by controlling access to this potentially useful biological diversity, the "diffuse and longer term benefits" can be realised as "more immediate and tangible" benefits that result in "increase market and community incentives for biodiversity conservation".<sup>141</sup> Central to each of the initiatives implementing the fair and equitable sharing objective is the place of intellectual property and the expectation, in Australia at least, that patents under the *Patents Act 1990* (Cth)<sup>142</sup> and plant breeder's rights under the *Plant Breeder's Rights Act 1994* (Cth)<sup>143</sup> will either "encourage domestic and foreign biodiscovery investment into Australia and focus attention on Australia's comparative advantages"<sup>144</sup> or capture some of the social and economic benefits from

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<sup>137</sup> UNEP/CBD/COP/7/21, n 110, p 302.

<sup>138</sup> UNEP/CBD/COP/7/21, n 110, p 302.

<sup>139</sup> Department of the Environment and Heritage, *Understanding the Nationally Consistent Approach for Access to and the Utilisation of Australia's Native Genetic and Biochemical Resources (NCA)* (Department of the Environment and Heritage, 2002) p 2; see generally Australian and New Zealand Environment and Conservation Council, *Implementation of and Implications of Ratification of the Convention on Biological Diversity* (Commonwealth of Australia, 1993); Department of the Environment, Sport and Territories, *Biodiversity and its Value*, Biodiversity Series Paper No 1 (Department of the Environment, Sport and Territories, 1993); Australian and New Zealand Environment and Conservation Council, *Access to Australia's Genetic Resources* (Commonwealth of Australia, 1994); Department of the Prime Minister and Cabinet, *Access to Australia's Biological Resources* (Australian Government Publishing Service, 1994); Commonwealth-State Working Group on Access to Australia's Biological Resources, *Managing Access to Australia's Biological Resources: Developing a Nationally Consistent Approach* (Department of the Environment, Sport and Territories, 1996).

<sup>140</sup> Department of the Environment and Heritage, n 139, p 2; note also Department of Environment, Sport and Territories, *Reimbursing The Future: An Evaluation of Motivational, Voluntary, Price-based, Property-right, and Regulatory Incentives for the Conservation of Biodiversity*, Biodiversity Series Paper No 9 (Department of Environment, Sport and Territories, 1996); Brown P, "Queensland-Genesland" (1993) 11 *BBC Wildlife* 13; Organisation for Economic Co-operation and Development, *Renewable Natural Resources: Economic Incentives for Improved Management* (Organisation for Economic Co-operation and Development, 1989).

<sup>141</sup> Department of the Environment and Heritage, n 139, p 2.

<sup>142</sup> The statutory "exclusive rights" under the *Patents Act 1990* (Cth) are, "during the term of the patent, to exploit the invention and to authorise another person to exploit the invention" (s 13(1)); these rights are "personal property" that is "capable of assignment and of devolution by law" (s 13(2)); the term "exploit" under the *Patents Act 1990* (Cth), "in relation to an invention, includes: (a) where the invention is a product – make, hire, sell or otherwise dispose of the product, offer to make, sell, hire or otherwise dispose of it, use or import it, or keep it for the purpose of doing any of those things; or (b) where the invention is a method or process – use the method or process or do any act mentioned in paragraph (a) in respect of a product resulting from such use" (Sch 1).

<sup>143</sup> The statutory "exclusive rights" under the *Plant Breeder's Rights Act 1994* (Cth) are "to do, or to license another person to do, the following acts in relation to propagating material of the variety: (a) produce or reproduce the material; (b) condition the material for the purpose of propagation; (c) offer the material for sale; (d) sell the material; (e) import the material; (f) export the material; (g) stock the material for the purposes described in paragraph (a), (b), (c), (d), (e) or (f)" (s 11), except private and non-commercial purpose acts (s 16(1)), experimental purposes (s 16(2)), the breeding of other plant varieties (s 16(3)) and conditioning for "reproductive purposes" or reproduction (such as farm saved seeds; s 17).

<sup>144</sup> Department of the Environment and Heritage, n 139, p 4.

exploiting Australia's biological resources.<sup>145</sup> However, the exact role of intellectual property in achieving these objectives still remains uncertain and possibly controversial.<sup>146</sup> Australia's progress to implementing the access and benefit-sharing framework required by the CBD provides some insight into the place of intellectual property.

Before signing the CBD, the Commonwealth, State, Territory and local governments agreed that the Commonwealth was "responsible for the negotiation, ratification and ensuring implementation of the proposed Biological Diversity Convention".<sup>147</sup> After the signing of the CBD, the then Minister for the Arts, Sport and the Environment and Territories published a report heralding Australia's role as an "honest broker" between the most industrialised countries (presumably the North) and the developing countries (presumably the South), and identifying a key outcome of the CBD as providing a means for developing countries to implement the conservation objectives through "funding, transfer of technology, information exchange, co-operation in research and training, and scientific and technical co-operation, while at the same time protecting the interests of developed countries in these areas".<sup>148</sup> The Australian Government then sought a report from the Australian and New Zealand Environment and Conservation Council (ANZECC).<sup>149</sup> ANZECC's analysis of the CBD provisions concluded that Australia could and should regulate access to its genetic resources with the requirements of "mutually agreed terms" and "prior informed consent" providing "a legal basis on which a fee generating permit system could be constructed for the provision of genetic resources and research and development based on these [resources]".<sup>150</sup> Interestingly, the report also provided that:

fees could be made payable commencing with initial use of the genetic material regardless of commercial applications. Where a permit to access genetic resources is granted it should be subject to adequate returns in the form of payments for access and use, royalties on derived products, or opportunities to participate in research and share in intellectual property based on the genetic resources.<sup>151</sup>

The ANZECC's analysis of the CBD provisions was also significant in recognising that intellectual property was given "full recognition" and that technology transfer was essentially a concern for "developing countries".<sup>152</sup> In ANZECC's view, Australia was already contributing to transferring technology to "developing countries" through the public domain, government-to-government co-operation, commercial transactions, research collaboration, education services and

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<sup>145</sup> Department of the Environment, Sport and Territories, *National Strategy for the Conservation of Australia's Biological Diversity* (Commonwealth of Australia, 1996) p 24; see also Department of Prime Minister and Cabinet, n 139, p 36.

<sup>146</sup> See for examples Sherman B, "Regulating access and use of genetic resources: intellectual property law and biodiscovery" (2003) 5 *European Intellectual Property Review* 301 at 301-304; Lawson and Downing, n 1 at 228-233; Lawson C and Pickering C, "Successfully controlling access under the *Environment Protection and Biodiversity Conservation Act 1999* and its Regulations requires a proper assessment of the impact of the *Patents Act 1990*" (2002) 13 *AIPJ* 109 at 109-114.

<sup>147</sup> *Inter-governmental Agreement of the Environment 1992*, Sch 6; made on 1 May 1992 between the Commonwealth, States, Territories and Local governments following a meeting on 31 October 1990 of Heads of Government of the Commonwealth, States and Territories of Australia, and representatives of local government in Australia at a Special Premiers' Conference held in Brisbane, that had agreed to develop and conclude an Intergovernmental Agreement on the Environment.

<sup>148</sup> Kelly R, *Report on the Earth Summit: The UN Conference on Environment & Development* (Better Printing Service, 1992) p 5.

<sup>149</sup> Australian and New Zealand Environment and Conservation Council 1993, n 139; the Australian and New Zealand Environment and Conservation Council (ANZECC) set up the ANZECC Task Force on Biological Diversity according to the *Intergovernmental Agreement of the Environment 1992* requiring, in part, a consideration of the implications of implementing the CBD and the manner in which that implementation might be undertaken: see *Intergovernmental Agreement of the Environment 1992* sch 6.

<sup>150</sup> Australian and New Zealand Environment and Conservation Council 1993, n 139, pp 32-33.

<sup>151</sup> Australian and New Zealand Environment and Conservation Council 1993, n 139, p 33.

<sup>152</sup> Australian and New Zealand Environment and Conservation Council 1993, n 139, p 34.

training programs, international assistance projects, and providing the “market conditions conducive to international trade in technology”.<sup>153</sup>

Subsequent reports were also provided by the ANZECC,<sup>154</sup> the Office of the Chief Scientist<sup>155</sup> and a Commonwealth-State Working Group on Access to Australia’s Biological Resources.<sup>156</sup> Each report recognised the importance of access to the genetic resources in exchange for benefits, including commercial benefits.<sup>157</sup> The favoured approach to regulating access that satisfied the conditions of being “simple and cost effective to administer, comprehensive, flexible, and involve minimal changes to existing regulatory/legislative systems” was a private contract between the resource holder and the bioprospector.<sup>158</sup> As a generalisation, Australia’s perception of the role of intellectual property appeared to be merely as a term of the contract to be negotiated by the parties depending of the circumstances of the particular case.<sup>159</sup> In this form intellectual property was a commercial inducement to facilitate and support the transfers of valuable genetic resources,<sup>160</sup> and in deriving financial and commercial benefits from subsequent developments to those transferred genetic resources.<sup>161</sup> However, even at this early stage complex issues about the apportionment of returns on commercial products (especially pricing) and between-country transfers of those benefits were recognised, and that “Governments will have to set clear policies for determining their own shares and as guidelines for research institute shares”.<sup>162</sup> However, there was consideration of a possibly broader regulatory approach.<sup>163</sup>

The condition of agreement within the [CBD] of “mutually agreed terms” does not prevent and indeed encourages, biodiverse countries to define and declare through legislation and regulatory arrangements, the terms and principles they believe necessary to form the foundation for access to indigenous biological resources.<sup>164</sup>

By 1998 the Australia Government’s position on complying with the CBD was much clearer. Australia’s report to the fourth COP<sup>165</sup> provided “the background needed to understand the Australian context for the conservation and sustainable use of biodiversity”, and presented “an overview of the various strategies, plans and programmes which have been put in place in Australia to address each of the articles of the [CBD]”.<sup>166</sup> In this report Australia articulated its position that the government’s role was “in setting the standards and creating enabling conditions for technological development” that was to be achieved through “stable macro-economic management”, “adoption of market-oriented policies”, “reduction of trade and investment barriers”, “effective and accountable institutions including ... intellectual property regimes”, and that “Australia believes a strong intellectual property regime will promote technology transfer”.<sup>167</sup>

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<sup>153</sup> Australian and New Zealand Environment and Conservation Council 1993, n 139, pp 34-35.

<sup>154</sup> Australian and New Zealand Environment and Conservation Council 1994, n 139.

<sup>155</sup> Department of Prime Minister and Cabinet, n 139.

<sup>156</sup> Commonwealth-State Working Group on Access to Australia’s Biological Resources, n 139.

<sup>157</sup> See for example Commonwealth-State Working Group on Access to Australia’s Biological Resources, n 139, p 13.

<sup>158</sup> Commonwealth-State Working Group on Access to Australia’s Biological Resources, n 139, p 9.

<sup>159</sup> Commonwealth-State Working Group on Access to Australia’s Biological Resources, n 139, p 9.

<sup>160</sup> Department of Prime Minister and Cabinet, n 139, pp 23-24.

<sup>161</sup> See Australian and New Zealand Environment and Conservation Council 1994, n 139, p 4; Department of Prime Minister and Cabinet, n 139, p 36; Commonwealth-State Working Group on Access to Australia’s Biological Resources, n 139, p 6.

<sup>162</sup> See for example Department of Prime Minister and Cabinet, n 139, p 49.

<sup>163</sup> See also Commonwealth-State Working Group on Access to Australia’s Biological Resources, n 139, pp 9-10 that provided “[c]learly the application of the [Multi-Purpose Contract System] would depend on the extent to which a jurisdiction claimed ownership or chose to regulate biological resources within its jurisdiction” (p 9).

<sup>164</sup> Department of Prime Minister and Cabinet, n 139, p 52; see also Australian and New Zealand Environment and Conservation Council 1993, n 139, pp 33 and 35.

<sup>165</sup> The second COP requested countries provide, as required by the CBD, art 26, “reports on measures which it has taken for the implementation of the provisions of this Convention and their effectiveness in meeting the objectives of this [CBD]”: see also UNEP/CBD/COP/2/19, n 63, p 72.

<sup>166</sup> Commonwealth of Australia, *Australia’s National Report to the Fourth Conference of the Parties to the Convention on Biological Diversity* (Environment Australia, 1998) p 4.

<sup>167</sup> Commonwealth of Australia, n 166, p 79.

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Again, Australia's position was as a transferrer of technology to developing countries, relying on "a regulatory and economic environment to support the access to and transfer of environmentally sound technologies".<sup>168</sup>

Australia's position reflected a number of policy initiatives,<sup>169</sup> and the subsequent introduction of legislation<sup>170</sup> and the negotiation of other international agreements and arrangements affecting biodiversity conservation and access issues.<sup>171</sup> The principal policy initiative was the *National Strategy for the Conservation of Australia's Biological Diversity* (National Strategy)<sup>172</sup> that was developed according to an obligation in the CBD: "in accordance with its particular conditions and capabilities", to "[d]evelop national strategies, plans or programmes for the conservation and sustainable use of biological diversity" and "[i]ntegrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies".<sup>173</sup> In describing the significance of the National Strategy, Australia reported to the fourth COP that "[t]he report draws on the [National Strategy] as the main implementing mechanism for the [CBD] in Australia".<sup>174</sup>

The National Strategy was prepared by the Biological Diversity Advisory Committee and finalised by the ANZECC in 1996.<sup>175</sup> The National Strategy articulated the need to integrate biological diversity conservation and natural resource management to achieve ecologically sustainable yields when exploiting Australia's biological resources.<sup>176</sup> An element of the strategy recognised that "it is in Australia's interests to control access to our genetic resources and obtain an appropriate return for any permitted access", with an access regime that ensures Australia's participation in research and development and the benefits flowing from the commercial utilisation of Australia's genetic resources.<sup>177</sup> A major stated objective in regulating access to genetic resources was to ensure "that the social and economic benefits of the use of genetic material and products derived from Australia's biological diversity accrue to Australia".<sup>178</sup> In implementing the strategy key actions included sharing benefits through "effective controls, legislation and incentives (including secure property rights)" to ensure that Australia participated in the research and development, and shares the benefits from any commercial opportunities".<sup>179</sup> The role of (intellectual) property was to ensure that "Australia benefits from access to and use of its genetic resources through existing arrangements such as plant variety rights and patents legislation and any new arrangements that are developed".<sup>180</sup> Reviewing the implementation of the National Strategy in 2001 the ANZECC considered it to be "[p]artially achieved", with "[c]onsiderable progress ... made in this area during the development of the ground rules for access in 2000".<sup>181</sup>

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<sup>168</sup> Commonwealth of Australia, n 166, p 3.

<sup>169</sup> See for example Department of the Environment, Sport and Territories, n 145; see also Commonwealth of Australia, *Australian Biotechnology: A National Strategy* (Paragon Printers Australasia, 2000).

<sup>170</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 301, notably the regulations are still awaiting implementation.

<sup>171</sup> For example the *International Treaty on Plant Genetic Resources for Food and Agriculture* [2002] ATNIF 14; for a review of Australia's negotiating record see Lawson, n 1 at 112-119.

<sup>172</sup> Department of the Environment, Sport and Territories, n 145.

<sup>173</sup> *Convention on Biological Diversity*, n 1, art 6.

<sup>174</sup> Commonwealth of Australia, n 166, p 4.

<sup>175</sup> Department of the Environment, Sport and Territories, n 145, p iii; see also Australian and New Zealand Environment and Conservation Council 1993, n 139, p iii.

<sup>176</sup> Department of the Environment, Sport and Territories, n 145, pp 17-24.

<sup>177</sup> Department of the Environment, Sport and Territories, n 145, pp 23-24.

<sup>178</sup> Department of the Environment, Sport and Territories, n 145, pp 23-24; for other similar statements, see Commonwealth-State Working Group on Access to Australia's Biological Resources, n 139, p 23; Department of the Prime Minister and Cabinet, n 139, p 36.

<sup>179</sup> Department of the Environment, Sport and Territories, n 145, p 24.

<sup>180</sup> Department of the Environment, Sport and Territories, n 145, p 24.

<sup>181</sup> Australian and New Zealand Environment and Conservation Council, *Review of the National Strategy for the Conservation of Australia's Biological Diversity* (Pirie Printers, 2001) p 46.

Although the ANZECC recognised that “[t]he realisation of benefits to Australia from the use of its genetic resources is still some way down the track”<sup>182</sup>.

In 1998 the Australian Government introduced<sup>183</sup> and the Parliament later passed<sup>184</sup> the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) s 301 making provision for Regulations to establish a scheme to control access to genetic resources in “Commonwealth areas”,<sup>185</sup> “about all or any of the following” being “the equitable sharing of the benefits arising from the use of biological resources in Commonwealth areas”, “the facilitation of access to such resources”, “the right to deny access to such resources” and “the granting of access to such resources and the terms and conditions of such access.”<sup>186</sup> According to the Australian Government the EPBC Act included “features” to “improve Australia’s capacity to protect its biodiversity”.<sup>187</sup> One of these features was “providing that regulations may be made for the control of access to biological resources in Commonwealth areas”.<sup>188</sup>

In considering the Bill the Senate Environment, Communications, Information Technology and the Arts Legislation Committee acknowledged the lack of detail in the Bill about regulating access to genetic resources, but accepted there was a clear statement of the issues the regulations might consider.<sup>189</sup> The Committee’s conclusions were that:

The Committee finds that the Bill is clear with respect to its intention to regulate access to biological resources. It is appropriate that the details of the regulatory scheme for controlling access be fleshed out in the regulations. This approach has worked well for regulating matters such as the collection of specimens and the pursuit of research in parks and reserves for scientific purposes under the *National Parks and Wildlife Conservation Act 1975* and associated regulations. The Committee does not see a need for there to be further detail provided within the Bill itself, as the Bill has already outlined key elements of the regulatory scheme and the Department of the Environment and Heritage has already indicated that the regulations will include matters that are relevant under the Biodiversity Convention.<sup>190</sup>

To determine the framework and content of the regulations, the Australian Government then initiated the Access to Biological Resources in Commonwealth Areas inquiry (Voumard Committee) “to advise on a scheme that could be implemented through regulations ... to ‘provide for the control of access to biological resources in Commonwealth areas’” taking into account the CBD and the National Strategy.<sup>191</sup> In interpreting the Terms of Reference the Voumard Committee stated:

I have taken the view that there are some commonalities in the ideas of the equitable sharing of benefits and of accruing social and economic benefits to the country. Both involve consideration of public and private benefits and both require the application of fairness and the concept of ownership

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<sup>182</sup> Australian and New Zealand Environment and Conservation Council, n 181, p 46.

<sup>183</sup> See Commonwealth, *Senate Hansard*, 1 July 1998, p 4600 (Assistant Treasurer, Rod Kemp); Commonwealth, *Senate Hansard*, 11 November 1998, p 132 (Parliamentary Secretary to the Minister for Health and Aged Care, Grant Tambling).

<sup>184</sup> Assented to on 16 July 1999 and commenced on 16 July 2000: see *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 2.

<sup>185</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 525 defines “Commonwealth areas” to include Commonwealth lands, airspace over that land and the marine environment under Commonwealth control. This restriction reflects the limits of the Commonwealth’s constitutional powers. It is notable that this proposed scheme to regulate access will apply to very limited areas in Australia, the remaining areas being covered by State/Territory, indigenous and private right holders: see generally Commonwealth-State Working Group on Access to Australia’s Biological Resources, n 139.

<sup>186</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 301.

<sup>187</sup> Commonwealth, *Senate Hansard*, 12 November 1998, p 209 at 211 (Assistant Treasurer, Rod Kemp); note also Commonwealth, *Senate Hansard*, 2 July 1998, p 4795 at 4797 (Minister for the Environment, Robert Hill).

<sup>188</sup> *Senate Hansard*, 12 November 1998, n 187, p 211; note also *Senate Hansard*, 2 July 1998, n 187, p 4797.

<sup>189</sup> See Senate Environment, Communications, Information Technology and the Arts Legislation Committee, *Environment Protection and Biodiversity Conservation Bill 1998 and Environmental Reform (Consequential Provisions) Bill 1998* (Senate Printing, 1999) at [9.105]-[9.111].

<sup>190</sup> Senate Environment, Communications, Information Technology and the Arts Legislation Committee, n 189, [9.111].

<sup>191</sup> Department of Environment and Heritage, *Access to Biological Resources in Commonwealth Areas* (Department of Environment and Heritage, 2000) app 2 (Terms of Reference).

## Implementing an objective of the Convention on Biological Diversity – intellectual property, access to genetic resources and benefit sharing in Australia

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to allow distribution to be determined. I have sought to identify each of the factors applying in each case so that when these considerations are compared with the recommended scheme, the scheme can be seen to meet these criteria.<sup>192</sup>

Perhaps significantly, the Voumard Committee's "guiding principles"<sup>193</sup> included that "the owner of land or the holder of sovereignty over the seabed is entitled to secure benefits flowing from the use of that land or seabed and the plants, animals and micro-organisms growing or living within it"<sup>194</sup> The Voumard Committee also identified its four "overarching principles, or desirable features",<sup>195</sup> for developing an access scheme, including that it "provide incentives for the conservation and sustainable use of biological resources".<sup>196</sup> The Voumard Committee's conclusion was then to favour a private contract model, where:

either the owner or holder of resources in the particular Commonwealth area, is empowered to negotiate a benefit sharing contract with the proponent (bioprospector). The contract will be based on a model contract to be developed and agreed by industry, Indigenous organisations and other stakeholders. The model contract will include provisions for benefit sharing through non-monetary and monetary benefits, such as fees, milestone payments and royalties, from sources including products derived from the material collected and intellectual property rights.<sup>197</sup>

Under this contract model the agreement between the resource owner or holder and the bioprospector would only take effect if, among other things, the responsible Minister for the Environment issued a permit being satisfied that there was "adequate benefit sharing".<sup>198</sup> The role of the regulations was then to "establish this scheme, harnessing existing legal and administrative arrangements to the benefit of the owners of biological resources, whether public or private, while ensuring the broader public interest is protected".<sup>199</sup> The proposed role for the Department of Environment and Heritage was to establish and manage the access scheme through, among other things, to "develop and seek endorsement by stakeholders of a model contract for use by parties in Commonwealth areas and possible use in other jurisdictions", "negotiate benefit sharing contracts on behalf of, or in conjunction with, other Commonwealth agencies which administer Commonwealth areas" and provide leadership in the development of a nationally consistent approach to access and benefit sharing issues by Commonwealth, State and Territory Governments.<sup>200</sup>

The EPBC Act regulations have now been developed through a consultation process<sup>201</sup> to implement a regime of access.<sup>202</sup> The concept of access adopted by the proposed Regulations refers to "the process whereby samples from individual organisms are gathered, their genetic and biochemical make-up and other attributes determined and their potential use assessed".<sup>203</sup> Under

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<sup>192</sup> Department of Environment and Heritage, n 191, pp 3-4.

<sup>193</sup> Department of Environment and Heritage, n 191, p 5.

<sup>194</sup> Others included; "the state is entitled to regulate activities on land or at sea, in the public interest"; "to the extent possible, the use of existing laws and administrative structures is preferable to the creation of new ones"; "any regulations must be consistent with Australia's international obligations and existing Commonwealth law", and "any scheme must not put at risk Australia's existing ease of importation of genetic resources for food and agriculture": Department of Environment and Heritage, n 191, p 5.

<sup>195</sup> Department of Environment and Heritage, n 191, p 5.

<sup>196</sup> Department of Environment and Heritage, n 191, p 6.

<sup>197</sup> Department of Environment and Heritage, n 191, p 1.

<sup>198</sup> Department of Environment and Heritage, n 191, pp 1-2.

<sup>199</sup> Department of Environment and Heritage, n 191, p 2.

<sup>200</sup> Department of Environment and Heritage, n 191, p 2.

<sup>201</sup> See Department of Environment and Heritage, *Draft Amendments to the Environment Protection and Biodiversity Conservation Regulations 2000 – Access Permits and Benefit-Sharing Arrangements: A Guide* (Department of Environment and Heritage, 2001).

<sup>202</sup> *Draft Environment Protection and Biodiversity Conservation Amendment Regulations 2001* (Cth) were released for public comment on 7 September 2001; see Hill R, "Bioprospecting Regulations Released for Public Comment", Press Release, Parliament House, Canberra, 7 September 2001; see also Department of Environment and Heritage, n 201.

<sup>203</sup> Department of Environment and Heritage, n 191, p 9.

the Regulation's scheme, it is proposed that "access to biological resources" will mean "the taking of biological resources of native species for: (a) conservation, commercial application or industrial application, or (b) research on, any genetic resources, or biochemical compounds, comprising or contained in the biological resources".<sup>204</sup> "Examples of access to biological resources are: collecting living material, analysing and sampling stored material, and exporting material for purposes such as taxonomic research, conservation, research and potential commercial product development".<sup>205</sup> The preferred method of benefit sharing under the EPBC Act and Regulations are contracts between the holder or owner of the biological resource and the bioprospector, with some oversight through the development of model contracts and access permits.<sup>206</sup> This is a compromise solution taking into account jurisdictional arrangements,<sup>207</sup> the existing property rights scheme in Australia that could be regulated by the EPBC Act,<sup>208</sup> the broad remit to regulate access to "biological resources" that include "genetic resources" together with other non-genetic resources (such as biochemicals),<sup>209</sup> and the limited claims by the Commonwealth to ownership over biological resources within its powers (particularly over the seas).<sup>210</sup>

Complementing the National Strategy and the EPBC Act, the Australian Government issued a *Developing Australia's Biological Future* discussion paper in 1999 identifying its "vision" that "[c]onsistent with safeguarding human health and ensuring environment protection, that Australia capture the benefits of biotechnology for the Australian community, industry and the environment".<sup>211</sup> The discussion paper stated that the "[o]wnership of, access to, and management of biological resources, including plant genetic resources, are of strategic importance to Australia's capacity to develop a competitive biotechnology industry"<sup>212</sup> and that "[a]ccess to the new technology and genetic resources and the ownership of intellectual property is also becoming increasingly important, with implications in agriculture for farm management practices and profitability".<sup>213</sup>

The subsequent *National Biotechnology Strategy* set out a vision to "capture the benefits of biotechnology for the Australian community, industry and the environment" through maintaining and developing "the infrastructure for generating biotechnology applications through...secure access to genetic and biological resources and conserving genetic and biological resources".<sup>214</sup> This was to be achieved through "clear and transparent terms of access and conditions for use of Australia's marine and terrestrial biological resources".<sup>215</sup> This outcome reflected the concern from Biotechnology Australia that "[c]urrent access mechanisms are slow and cumbersome and hamper industry development"<sup>216</sup> and that "a streamlined path for the biotechnology industry to access Australia's biological resources" was required.<sup>217</sup>

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<sup>204</sup> Draft Regulation 8A.02(1), Environment Protection and Biodiversity Conservation Amendment Regulations 2001 (Cth); the terms "biological resources", "genetic resources" and "species" are defined in *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 528.

<sup>205</sup> Draft Regulation 8A.02(1), Environment Protection and Biodiversity Conservation Amendment Regulations 2001 (Cth); similar words were used in the Explanatory Memorandum, Environment Protection and Biodiversity Conservation Bill 1998 (Cth) p 86.

<sup>206</sup> Department of Environment and Heritage, n 191, pp 1-3.

<sup>207</sup> A federal arrangement with overlapping Commonwealth and State jurisdictions: Department of Environment and Heritage, n 191, pp 41-50.

<sup>208</sup> Thus the access scheme is confined to "Commonwealth areas": Department of Environment and Heritage, n 191, pp 41-50.

<sup>209</sup> Department of Environment and Heritage, n 191, pp 9-11.

<sup>210</sup> Department of Environment and Heritage, n 191, pp 43-46; see also Department of Environment and Heritage, n 201.

<sup>211</sup> Biotechnology Australia, *Developing Australia's Biotechnology Future* (Biotechnology Australia, 1999) cover.

<sup>212</sup> Biotechnology Australia, n 211, p 30.

<sup>213</sup> Biotechnology Australia, n 211, p i.

<sup>214</sup> Commonwealth of Australia, n 169, p 7.

<sup>215</sup> Commonwealth of Australia, n 169, p 26; see also Biotechnology Australia, *Mid-term Review of the National Biotechnology Strategy*, Final Report (Biotechnology Australia, 2002) p 21.

<sup>216</sup> Department of Environment and Heritage, n 191, pp 31-32.

<sup>217</sup> Department of Environment and Heritage, n 191, pp 31-32.

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By 2002, the mid-term review of the *National Biotechnology Strategy* confirmed that the EPBC Act regulations were the major legislative initiative facilitating access to genetic resources in “Commonwealth areas”,<sup>218</sup> and that a nationally consistent approach to access to genetic “resources was being developed between the Commonwealth, State and Territory governments including preparing “appropriate documentation, management and access protocols”<sup>219</sup> through the *Nationally Consistent Approach for Access to and the Utilisation of Australia’s Native Genetic and Biochemical Resources* (Nationally Consistent Approach).<sup>220</sup>

On 11 October 2002 the Commonwealth, State and Territory Ministers of Australia constituting the Natural Resource Management Ministerial Council endorsed the Nationally Consistent Approach,<sup>221</sup> being a set of principles setting out a nationally consistent approach for the development or review of legislative, administrative or policy frameworks dealing with the access to, and utilisation of, Australia’s genetic and biochemical resources.<sup>222</sup> The goal of this agreement was to “[t]o position Australia to obtain the maximum economic, social and environmental benefits from the ecologically sustainable use of its genetic and biochemical resources whilst protecting our biodiversity and natural capital”.<sup>223</sup> These principles were based on the “world’s best practice” Bonn Guidelines and the National Strategy<sup>224</sup> and expressly addressed the CBD’s objective of “the fair and equitable sharing of the benefits arising from the use of genetic resources”.<sup>225</sup> The principles, “to be taken into account, as far as is practical and appropriate”,<sup>226</sup> provide for permission from the relevant jurisdictional authority, a framework addressing ecologically sustainable and ethical collection with the equitable sharing of benefits between access providers and applicants, various measures to facilitate biodiscovery and maximise certainty, a legal basis for access and benefit sharing to maximise certainty, and various administrative arrangements.<sup>227</sup> The justification for a nationally consistent approach appears to have been to “provid[e] certainty to the industry and scientific communities that are seeking access to genetic and biochemical resources throughout Australia”<sup>228</sup> so as to “enable the fair and equitable sharing of benefits derived from the use of Australia’s genetic and biochemical resources”.<sup>229</sup>

The non-binding “framework” proposes that the equitable sharing of benefits be between access providers and applicants for permission to access the genetic and biochemical resources, suggesting examples of an “agreement to share research outcomes with the provider or to make research outcomes available to the public through publication or related activities” or “negotiation of a legally binding benefit sharing agreement between the access provider and the person, institution or corporation seeking access”.<sup>230</sup> To assist “model contracts and dictionaries of contractual terms for benefit sharing agreements should be developed”.<sup>231</sup> However, there is express recognition that “reassurance should be provided that arrangements do not alter existing property or intellectual property law”.<sup>232</sup>

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<sup>218</sup> *Biotechnology Australia*, n 215, p 21.

<sup>219</sup> *Biotechnology Australia*, n 215, p 21.

<sup>220</sup> Department of the Environment and Heritage, *Nationally Consistent Approach for Access to and the Utilisation of Australia’s Native Genetic and Biochemical Resources* (Department of the Environment and Heritage, 2002).

<sup>221</sup> Department of the Environment and Heritage, n 220, p 1.

<sup>222</sup> See Department of the Environment and Heritage, n 139, p 1.

<sup>223</sup> Department of the Environment and Heritage, n 220, pp 2-3.

<sup>224</sup> Department of the Environment and Heritage, n 220, p 1.

<sup>225</sup> Department of the Environment and Heritage, n 220, p 2.

<sup>226</sup> Department of the Environment and Heritage, n 220, p 4.

<sup>227</sup> See Department of the Environment and Heritage, n 220, pp 4-6; see also Department of the Environment and Heritage, n 139, p 3.

<sup>228</sup> Department of the Environment and Heritage, n 220, p 2.

<sup>229</sup> Department of the Environment and Heritage, n 220, p 4.

<sup>230</sup> Department of the Environment and Heritage, n 220, p 8.

<sup>231</sup> Department of the Environment and Heritage, n 220, p 8.

<sup>232</sup> Department of the Environment and Heritage, n 220, p 8.

Perhaps significantly, the reviews of the National Biotechnology Strategy<sup>233</sup> have heralded the “improved access to Australian biological resources, including an intergovernmental agreement with States and Territories”<sup>234</sup> with “appropriate documentation, management and access protocols are being prepared”<sup>235</sup> with the agreed approach being the Nationally Consistent Approach providing “the basis for future legislative, administrative and policy action on genetic resources management by Commonwealth, State and Territory Governments”<sup>236</sup> The effect of these arrangements has been to promote access that “encourage[s] local, national and international investment in Australia’s biotechnology research and development capabilities, including, biodiscovery research, bioprocessing and product development”,<sup>237</sup> with no mention of the quid pro quo of fairly and equitably sharing the benefits according to the CBD’s objective, or more broadly, the necessary incentives to conserve and sustainably use biological diversity.

## CONCLUSIONS

The principal policy documents articulating Australia’s approach to access and benefit sharing under the CBD has been the 1996 National Strategy,<sup>238</sup> and more recently the 2002 Nationally Consistent Approach.<sup>239</sup> Both policy documents have been interpreted as advocating a private contract model that is reflected in the proposed Regulations under the EPBC Act<sup>240</sup> and focus on promoting access to genetic resources ahead of other conservation imperatives.<sup>241</sup> This leaves the resource holder to negotiate with the bioprospector and hopes that any commercial or market value from the accessed genetic resources will be sufficiently shared with the policy objective that by regulating access to genetic resources “the social and economic benefits of the use of genetic material and products derived from Australia’s biological diversity accrue to Australia”.<sup>242</sup>

While there are examples showing that this objective may have been achieved,<sup>243</sup> the broader question *should* primarily be whether this approach has contributed to the conservation of biodiversity, and subsequently, whether the benefits shared in return for the access were adequate and appropriate to promote conservation and sustainable use of genetic resources. This characterisation of the concerns reflects the overriding objective of the CBD to conserve

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<sup>233</sup> See Biotechnology Australia, n 215, pp 21-22; Biotechnology Australia, *Summary of the Outcomes from the 2003 Evaluation of the National Biotechnology Strategy and Biotechnology Australia* (Biotechnology Australia, 2002) p 1; notably the report of the *Outcomes from the 2003 Evaluation of the National Biotechnology Strategy and Biotechnology Australia* has not been broadly released to the public.

<sup>234</sup> Biotechnology Australia, n 233, p 1.

<sup>235</sup> Biotechnology Australia, n 215, p 21.

<sup>236</sup> Biotechnology Australia, n 215, p 21.

<sup>237</sup> Australian Government, *National Report to the Fourth Session of the United Nations Forum on Forests* (Department of Agriculture, Fisheries and Forestry, 2004) p 7.

<sup>238</sup> Department of the Environment, Sport and Territories, n 145.

<sup>239</sup> Department of the Environment and Heritage, n 220.

<sup>240</sup> See: Department of Environment and Heritage, n 201.

<sup>241</sup> See: for example Biotechnology Australia, n 215, pp 21-22; Biotechnology Australia, n 233, p 1.

<sup>242</sup> Department of the Environment, Sport and Territories, n 145, p 23; see also Department of the Environment and Heritage, n 220, pp 2-3.

<sup>243</sup> See for examples Department of Environment and Heritage, n 191, pp 93-103; Conference of the Parties to the Convention on Biological Diversity, *Synthesis of Case-Studies on Benefit Sharing* (1998) UNEP/CBD/COP/4/Inf.7; note also Jones J, “Regulating access to biological and genetic resources in Australia: a case study of bioprospecting in Queensland” (1998) 5 *Australasian Journal of Natural Resources Law and Policy* 89; an example of such a contractual arrangement was set out in Council for Trade-Related Aspects of Intellectual Property Rights, *Technology Transfer Practices of the US National Cancer Institute’s Departmental Therapeutics Programme – Communication from the United States* (2002) IP/C/W/341; by way of an Australian example the Australian Institute of Marine Science (AIMS) entered into an agreement with the State of Queensland where the benefits from access to the State of Queensland’s genetic resources was 1.5% of net profit received by AIMS as a result of R&D on biological samples, documentation of biodiversity to aid better management (conservation benefit), capacity building in this kind of R&D, capture of opportunity for Intellectual Property development in new discoveries, capture of innovative biotechnology industry, and new sustainable resource-based industry: see Australian Institute of Marine Science, *AIMS Annual Report 2000-2001* (Australian Institute of Marine Science, 2001) p 22; although notably these are all examples of biochemicals as opposed to genetic (the units of heredity) resources.

biodiversity, “aware” that “conservation and sustainable use of biological diversity is of critical importance for meeting the food, health and other needs of the growing world population, for which purpose access to and sharing of both genetic resources and technologies are essential”.<sup>244</sup> While it may be too early to determine the effect of private contracts on conservation and benefit sharing, and in particular the place of intellectual property in contributing to those objectives, it is certainly not too early to challenge the underlying assumptions about Australia’s current approach – particularly as Australia’s response to the CBD was primarily driven by an articulated economic imperative to correct a market failure that promotes short-term destruction of biodiversity, rather than the long term conservation of biodiversity as a useful resource for future exploitation.<sup>245</sup> By regulating access there is the expectation that longer-term benefits will be delivered by creating incentives for biodiversity conservation,<sup>246</sup> in part through establishing intellectual property over aspects of the accessed resource and its uses.<sup>247</sup> According to this characterisation of the access and benefit sharing objectives of the CBD, and Australia’s regulation of access, then any regulation of access needs to expressly address incentives for long term biodiversity conservation, rather than merely the indeterminate immediate economic and social benefits from access to exploit genetic resources.<sup>248</sup> This also assumes the current failure of markets to value biodiversity conservation over other uses thus necessitating regulatory intervention,<sup>249</sup> and the underlying conservation problem that necessitated the CBD’s attempted to set a balance by encouraging the predominantly South biodiversity rich countries to maintain their resources so they might be sustainably used by the North countries with highly developed technology.<sup>250</sup> This characterisation is also consistent with the CBD’s obligation to sustainably use the components of biological diversity and “adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity”<sup>251</sup> and promote measures that do not run counter to the CBD’s objectives.<sup>252</sup> If this characterisation is correct, then Australia’s approach to considering intellectual property in achieving the CBD’s objective to fairly and equitably share the benefits from using genetic resources needs to be reconsidered on the basis of conservation benefits as opposed to immediate economic and social benefits to resource holders. The place of intellectual property in this assessment is much less certain, with conflicting views

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<sup>244</sup> Convention on Biological Diversity, n 1, Preamble.

<sup>245</sup> For example, see: Department of the Environment and Heritage, n 139, p 2.

<sup>246</sup> See Organisation for Economic Co-operation and Development, *Handbook of Biodiversity Valuation: A Guide for Policy Makers* (Organisation for Economic Co-operation and Development, 2002) p 23; see also Conference of the Parties to the Convention on Biological Diversity, *Sharing of Experiences on Incentive Measures for Conservation and Sustainable Use* (1996) UNEP/CBD/COP/3/24.

<sup>247</sup> See: Organisation for Economic Co-operation and Development, n 9, pp 18-19 and 109; see also Department of the Environment and Heritage, n 139, p 4; Department of the Environment, Sport and Territories, n 145, p 24; see also Department of Prime Minister and Cabinet, n 139, p 36; for an examination of the other forms of property see Dawson F, “The significance of property rights for biodiversity conservation in the Northern Territory” (1996) 3 *Australasian Journal of Natural Resources Law and Policy* 179.

<sup>248</sup> See Organisation for Economic Co-operation and Development, n 246, pp 23-24; it might also be expected that the *Competition Principles Agreement* apply requiring a demonstration that the benefits of restricting competition to the community as a whole outweigh the costs (cl 5(1)(a)), and that the objectives of the regulation can only be achieved by restricting competition (cl 5(1)(b)); see also see Deighton-Smith R, “National competition policy: key lessons for policy-making from its implementation” (2001) 60 *Australian Journal of Public Administration* 29.

<sup>249</sup> See Convention on Biological Diversity, n 1, art 15(7); see also Organisation for Economic Co-operation and Development, n 9, pp 21-30.

<sup>250</sup> See for example Organisation for Economic Co-operation and Development’s Working Group on Economic Aspects of Biodiversity, *Economic Issues in Access and Benefit Sharing of Genetic Resources: A Framework for Analysis* (2003) ENV/EPOC/GSP/BIO(2001)2/Final, p 7; although noting that the Organisation for Economic Co-operation and Development Council and Organisation for Economic Co-operation and Development Environment Ministers may not yet accept a link between conservation and benefit-sharing: see Organisation for Economic Co-operation and Development Council, *Recommendation of the Council on the Use of Economic Instruments in Promoting the Conservation and Sustainable Use of Biodiversity* (Organisation for Economic Co-operation and Development, 2004) p 4.

<sup>251</sup> *Convention on Biological Diversity*, n 1, arts 10 and 11; see also UNEP/CBD/COP/7/21, n 110, pp 286-296.

<sup>252</sup> *Convention on Biological Diversity*, n 1, art 16(5); see also UNEP/CBD/COP/7/21, n 110, pp 366-378.

about the contribution of intellectual property to promoting conservation<sup>253</sup> and the kinds of benefits that might be usefully shared to promote conservation.<sup>254</sup>

The framework imposed by the CBD is essentially an obligation on the biodiversity-rich countries (principally the South) to provide access to their genetic resources, and in return the technology-rich countries that can exploit those resources (principally the North) should facilitate access to and transfer of technology, know-how and financial support and incentives.<sup>255</sup> The intention was that this arrangement would promote economic growth directly addressing the development agenda to alleviate poverty and thereby promote the conservation of biodiversity through sustainable development ahead of other uses that destroy biodiversity.<sup>256</sup> Unfortunately the final text of the CBD merely agreed to preferential and concessional access to and transfer of technology using undefined terms that would not undermine the concerns of some North countries to maintain their existing intellectual property arrangements.<sup>257</sup> That these essentially North-South contentions about intellectual property have not been resolved by the CBD's COP suggests that the CBD has failed to satisfactorily balance the objective of access for benefit sharing and the different interests of the South and North countries. Australia's stance in dealing with intellectual property perhaps identifies some of the problems and a basis from which to seek solutions.

There is no doubt that intellectual property plays a complex role in both conservation and benefit sharing<sup>258</sup>. However before that role can be assessed, there needs to be a clear understanding and demarcation of what the biodiversity conservation and benefit sharing problems are, and how they might be addressed, including the place of the incentive (utilitarian) model of intellectual property in promoting conservation and benefit sharing objectives. While aspects of the conservation assessment have been comprehensively undertaken in Australia,<sup>259</sup> the place of incentives established by the existing intellectual property schemes for both conservation and benefits sharing remains uncertain.<sup>260</sup> For example, Australia's approach to date in negotiating intellectual property provisions in international genetic resource conservation agreements appears to be to assume that the existing domestic intellectual property standards are appropriate.<sup>261</sup> In other words, that conservation and benefit sharing arrangements are required to fit within the existing intellectual property arrangements rather than the intellectual property arrangements being tailored to promote conservation and benefit sharing objectives. This approach probably reflects

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<sup>253</sup> See for examples Sampath P and Tarasofsky R, *Study on the Inter-relations between Intellectual Property Rights Regimes and the Conservation of Genetic Resources*, Final Report (Institute for International and European Environmental Policy, 2002) pp 25-72.

<sup>254</sup> See generally Commission on Intellectual Property Rights, n 9; see also Organisation for Economic Co-operation and Development, *Intellectual Property, Technology Transfer and Genetic Resources: An OECD Survey of Current Practices and Policies* (Organisation for Economic Co-operation and Development, 1996).

<sup>255</sup> As a generalisation, these are the general obligations set out in the Convention on Biological Diversity, n 1, arts 6-15 (access to resources) and arts 16-21 (returns for access to resources).

<sup>256</sup> For example, see: A/CONF.151/26, n 7, annex 1.

<sup>257</sup> For example, see: Grubb et al, n 2, p 29.

<sup>258</sup> See generally Sampath and Tarasofsky, n 253; Commission on Intellectual Property Rights, n 9; see also UNEP/CBD/COP/3/Inf.20, n 56, p 1

<sup>259</sup> For example, see Australian State of the Environment Committee, n 9.

<sup>260</sup> Although a broader assessment of a market failure in exploiting the benefits provided by the environment has been undertaken (see for example Explanatory Memorandum, *Environment Protection and Biodiversity Conservation Bill 1998* (Cth), pp 5-12), the specific assessment about regulating access to genetic resources has not been, other than to conclude that "[w]ithout government involvement, free access and use can result in adverse effects on the environment" (p 5); in the context of the CBD, Australia presented a paper at the third COP about intellectual property under the CBD. This paper was subject to the caveat that "the various issues and considerations set out in the paper should not be interpreted as representing an official Australian position" albeit that the paper "sets out Australia's basic approach to intellectual property": see UNEP/CBD/COP/3/Inf.20, n 56, p 1.

<sup>261</sup> For another recent example consider Australia's stance in negotiating the intellectual property provisions in the *International Treaty on Plant Genetic Resources for Food and Agriculture* [2002] ATNIF 14: see Lawson, n 1 at 116.

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the uncertain justification for intellectual property in Australia,<sup>262</sup> and especially in the context of the CBD.<sup>263</sup>

The Australian Government's rationale for intellectual property, as a generalisation, appears to be utilitarian in the sense that intellectual property is believed<sup>264</sup> to be an incentive for invention and creativity that promotes long-term competition for the benefit of consumers, attracts foreign investment and promotes the rapid transfer of new and economically useful technology.<sup>265</sup> For example, in addressing patents the Intellectual Property and Competition Review Committee's (IPCR Committee) rationale was that "[a]n effective patent system, accessible to foreign technology suppliers, allows Australian firms to import technology that would otherwise be unavailable, or would only be available at higher cost" with the consequence that "[t]his increases productivity and enhances competition in the Australian economy".<sup>266</sup> According to this rationale the IPCR Committee was able to accept the existing patent arrangements under the *Patents Act 1990* (Cth) and *Trade Practices Act 1974* (Cth) as appropriate and identified a number of improvements that might promote more competition in the application of the threshold tests and the duration of the patent term.<sup>267</sup> There was no assessment of intellectual property as an incentive to promote conservation. Further, the *Patents Act 1990* (Cth) and the *Trade Practices Act 1974* (Cth) were drafted to expressly provide for certain restrictions recognising that in limited circumstances the social costs of patenting outweighed the social benefits and that the statutory privileges may be restricted.<sup>268</sup> This approach accepts that "all-or-nothing solutions"<sup>269</sup> under the existing practical trade-off between a cost-effective method of approximating the necessary incentive *for invention* while also avoiding the high social costs of over-compensating the

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<sup>262</sup> See for an analysis of the Australian Government's intellectual property policies Lawson C and Pickering C, "TRIPs-Plus' patent privileges – an intellectual property 'cargo cult' in Australia" (2004) 22 *Prometheus* 355; Lawson C, "Patent privileges and the National Competition Policy – patent scope and allocation?" (2005) 33 *Australian Business Law Review* 7.

<sup>263</sup> See: UNEP/CBD/COP/3/Inf.20, n 56, p 1.

<sup>264</sup> Noting that the United States' Federal Trade Commission (FTC) states "[t]he US economy also reflects the belief that limited exclusive rights in intellectual property – as distinguished from tangible property – can encourage innovation, which also benefits consumers": Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (Federal Trade Commission, 2003) p 1(4).

<sup>265</sup> For a recent explanation of this view see Lawson C, "'Flexibility' in TRIPs: using patented inventions without the authorisation of the right's holder" (2004) 15 *AIPJ* 141 at 141-144; an alternative instrumental rationale is that intellectual property was an element of an internationally agreed regime of trade that reduced tariffs and promoted access to foreign markets in exchange for greater intellectual property protection: see Petersmann E-U, "Constitutionalism and international organisations" (1996) 17 *Northwestern Journal of International Law and Business* 398 at 442.

<sup>266</sup> Intellectual Property and Competition Review Committee, *Review of Intellectual Property Legislation under the Competition Principles Agreement* (IP Australia, 2000) p 110; notably, the Australian Government considers that the committee's report "stands as a benchmark on which the government can assess the effects of competition on future proposed intellectual property policy initiatives": see Lawson and Pickering, n 262 at 363.

<sup>267</sup> Intellectual Property and Competition Review Committee, n 266, p 144; the suggested improvements included requiring a specific, substantial and credible use be defined (pp 151-154), that the scope of prior art be expanded for assessing inventive step (pp 154-156 and 168-170) and that raising renewal fees might be applied to "extract a lower economic rent" (pp 144 and 156).

<sup>268</sup> For example, in commenting about compulsory licenses under the *Patents Act 1990* (Cth) the Intellectual Property and Competition Review Committee said: "[w]e accept that, at a conceptual level, there may be instances where a compulsory right is warranted. These include situations in which bargaining between parties is not able to achieve an outcome or, more importantly, situations in which the access right acts as a pro-competitive remedy that tempers the exclusivity that the patent right primarily provides. Experience in other jurisdictions with compulsory licensing, most notably the United States and Canada, demonstrates that these can, in carefully defined circumstances, lead to more efficient and immediate outcomes without harming long-term incentives to innovate. Indeed, the threat of compulsory licensing may lead to innovations being worked sooner and more widely than they would otherwise have been": Intellectual Property and Competition Review Committee, n 266, p 162.

<sup>269</sup> That is, a clear distinction between what subject matter is excluded from patenting and the remainder governed by the ordinary patenting rules without exceptions: see for an example of this view Epstein R, "A clear view of the cathedral: the dominance of property rules" (1997) 106 *Yale Law Journal* 2091.

invention with undue exclusions from competition could not be achieved.<sup>270</sup> In this context intellectual property may be a blunt economic tool with some uncertainty that its existing standards are necessarily suitable or that its particular consequences are necessarily appropriate in promoting the conservation and benefit sharing objectives under the CBD.

The place of intellectual property and access and benefit sharing generally in dealing with contentions between the South and North is also increasingly being challenged in other international forums because it may not be an appropriate form of regulation in promoting development. For example, the United Nations Development Program has asserted that the “relevance of TRIPs is highly questionable for large parts of the developing world” and that countries should “begin dialogues to replace TRIPs ... with alternative intellectual property paradigms”.<sup>271</sup> The United Nations General Assembly has also reiterated that the CBD rather than TRIPs “is the key international instrument for the conservation and sustainable use of biological resources and the fair and equitable sharing of benefits arising from the use of genetic resources”.<sup>272</sup> Perhaps most significantly, these developments are also reflected in the decision of the sixth and seventh COP meetings. The sixth COP decided to hold an open-ended inter-sessional meeting to consider the multi-year programme of work for the COP up to 2010<sup>273</sup> and to analyse the outcome of the *World Summit on Sustainable Development* as it relates to the CBD process.<sup>274</sup> The seventh COP then resolved to begin “to elaborate and negotiate an international regime on access to genetic resources and benefit sharing”,<sup>275</sup> that has gained support in other international forums.<sup>276</sup>

The opportunity to elaborate and negotiate a fresh international regime on access to genetic resources and benefit sharing provides Australia with an avenue to reconsider its stance on intellectual property and carefully consider the role of intellectual property in conserving Australia’s and the Earth’s unique genetic resources. This will, however, require Australia to go back and reconsider its underlying views about the role and place of intellectual property in access and benefit sharing arrangements under the CBD. While biodiversity remains less valuable than its destruction for immediate use, or clearing land occupied by those resources for short-term economic gains, the conservation of those valuable resources cannot be expected. This is the market failure that requires and justifies regulatory action. It is perhaps beneficial then that the contentions about the CBD’s access and benefit sharing objective have returned to the

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<sup>270</sup> There are competing views about addressing this problem, some commentators asserting that there should be *no* restrictions on a patentee’s “exclusive rights” (see for example Scott Kieff F, “Property rights and property rules for commercialising inventions” (2001) 85 *Minnesota Law Review* 697; Hagan T and Henry S, “Is a compulsory patent licensing statute necessary? A study of the US and foreign experience” (1975) 7 *Law & Policy in International Business* 1207 at 1211-1212), while others assert varying limitations on these rights (see for examples Yosick J, “Compulsory patent licenses for efficient use of inventions” (2001) *University of Illinois Law Review* 1275 at 1300-1303; Lemley M, “The economics of improvement in intellectual property law” (1997) 75 *Texas Law Review* 989 at 997; Merges R, “Intellectual property rights and bargaining breakdown: the case for blocking patents” (1994) 62 *Tennessee Law Review* 75 at 77; Dam K, “The economic underpinning of patent law” (1994) 23 *Journal of Legal Studies* 247 at 250).

<sup>271</sup> United Nations Development Program, *Making Global Trade Work for People* (Earthscan, 2003) pp 221-222.

<sup>272</sup> A/RES/58/212, n 33, p 1.

<sup>273</sup> UNEP/CBD/COP/6/20, n 93, p 316.

<sup>274</sup> See UNEP/CBD/COP/6/20, n 93, pp 210-211; Conference of the Parties to the Convention on Biological Diversity, *Report of the Open-Ended Inter-Sessional Meeting on The Multi-Year Programme of Work of the Conference of the Parties up to 2010* (2003) UNEP/CBD/COP/7/5, p 1.

<sup>275</sup> See UNEP/CBD/COP/7/21, n 110, p 300.

<sup>276</sup> See for example A/RES/58/212, n 33, p 2; noting that in the World Trade Organisation’s Committee on Trade and Environment (CTE) the CBD issue remains deadlocked with three apparent blocks: those favouring amending TRIPs, those seeing no conflict between TRIPs and the CBD, and those considering that the Council of TRIPs is addressing the issue and that it should not be duplicated by the CTE: Secretariat of the World Trade Organisation, n 19, p 42; the final resolution of these issues before the TRIPs Council and the CTE is not presently clear: see for examples General Council, *Doha Work Programme* (2004) WT/L/579, p 2; Ministerial Conference of the World Trade Organisation, *Preparations for the Fifth Session of the Ministerial Conference Draft Cancún Ministerial Text, Second Revision* (2003) JOB(03)/150/Rev.2, pp 4-5 (paras 21 and 23); noting that the WTO’s Cancún Ministerial Conference failed to reach a definitive conclusion, although the next Ministerial Conference in Hong Kong might be expected to at least provide a progress report: see General Council, *Minutes of Meeting Held in the Centre William Rappard on 21 October 2003* (2003) WT/GC/M/83, pp 4-5..

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development agenda. Without increasing the value of genetic resources for their long-term exploitation the immediate low market values will prevail and the destruction of biodiversity can be expected to continue. Similarly the need to transfer technology to promote both conservation and sustainable development is essential so that conservation values can take their place among concerns about poverty alleviation and other development issues. Australia now has an opportunity and avenue to lead the preservation of the Earth's valuable genetic resources and submit meaningfully proposals across the various international forums to identify and share the benefits from access to genetic resources and determine the appropriate incentives to conserve biodiversity.<sup>277</sup> The role and place of intellectual property in both conservation and benefit sharing, and both as a benefit and an incentive, is likely to be a key element in the conservation and sustainable use of biological diversity to meet "the food, health and other needs of the growing world population, for which purpose access to and sharing of both genetic resources and technologies are essential".<sup>278</sup>

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<sup>277</sup> Noting also that Contracting Parties to the CBD are now required to report to the COP about their progress in removing or mitigating perverse incentives to biodiversity conservation, and presumably this will include the role and place of intellectual property: see UNEP/CBD/COP/7/21, n 110, p 287.

<sup>278</sup> Convention on Biological Diversity, n 1, Preamble.