
NURTURING NATURE, NURTURING KNOWLEDGE:

THE NAGOYA PROTOCOL ON ACCESS & BENEFIT SHARING

by Jeremy Morse

BACKGROUND

In Rio de Janeiro in 1992, nations from around the world gathered at the 'Earth Summit' Conference to discuss the environment and sustainable development. A major outcome was the adoption of the *Convention on Biological Diversity* ('CBD'), which has since been ratified by all but a tiny minority of nations.¹ One of the key principles of the CBD is to ensure the equitable sharing of benefits arising out of the utilisation of genetic resources. The CBD also encourages the sharing of benefits arising from the use of Indigenous peoples' knowledge, innovations and practices so far as it relates to the conservation and sustainable use of biological diversity.²

At a meeting in October 2010 in Japan, the members of the CBD came together to finalise the text of a document that would establish an 'International Regime on Access and Benefit Sharing' ('IRABS') and expand upon these provisions of the CBD. The resulting document - the *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation* ('the Protocol') has been hailed a landmark achievement in the push to establish an IRABS. However, there are a number of unresolved issues which may compromise the effectiveness of the proposed regime.

Among other things, countries that sign the Protocol will be required to take measures in order to ensure that where traditional knowledge associated with genetic resources (e.g. plant and animal materials) is used in research and development, the resulting benefits will be shared in a fair and equitable way with the Indigenous holders of that knowledge.³ Each party to the protocol will also be required to take measures to ensure that traditional knowledge associated with genetic resources, are only accessed with the knowledge holders' prior informed consent or approval and involvement, on mutually agreed terms.⁴ The Protocol also seeks to ensure that genetic resources held by Indigenous communities are only accessed with the prior informed consent or approval and involvement of the knowledge holders, and that any benefits arising from their utilisation will be shared in a fair and equitable way with the communities concerned.

Another important inclusion in the Protocol is the requirement that when implementing their obligations, signatories shall take into consideration Indigenous customary laws, community protocols and procedures.⁵ They will also be obliged to support Indigenous communities in the development of protocols in relation to traditional knowledge associated with genetic resources. This is an important milestone for Indigenous rights generally, as it is the first time in international treaty law that signatories to an instrument are clearly obliged (albeit in accordance with domestic laws) to recognise Indigenous customary laws, protocols and procedures.

WHY DO WE NEED AN INTERNATIONAL REGIME ON ACCESS & BENEFIT SHARING?

Consider the following scenario: a researcher comes into an Indigenous community and documents how the community uses a particular plant as a medicine. The knowledge is then used as a basis of developing a new drug, cosmetic or other product which is sold for a commercial profit. Meanwhile, the Indigenous community never receives any acknowledgement, profit or return for imparting their knowledge. As a final insult, the organisation then obtains a patent relating to the plant, giving it an exclusive right to commercialise the subject matter of the patent (whether a process or compound) in that way.

Practices like this, now widely referred to as 'biopiracy'⁶ have been frequent enough over recent decades to raise the concerns of many Indigenous groups and their advocates, as well as many governments, particularly those from the developing world.

One example concerns a patent given to the French Institute of Scientific Research for Development in Cooperation ('ORSTOM') over active principles found in the evanta plant. The patent was based on ethnobotanical research conducted in the Amazon, where it had been found that the Chimane tribe used the plant as a compress to treat the disease leishmaniasis. Without consulting or offering to share any benefits with the Chimane tribe, ORSTOM registered the patent and even named the

active ingredients Chimanimines after the Indigenous knowledge holders.⁷

Another well-known example involves the Hoodia plant found in southern Africa, which has been used by the San people of the Kalahari as an appetite suppressant on long journeys for generations. Having attained this knowledge, researchers at the South African Council for Scientific and Industrial Research ('CSIR') began the development of a potentially lucrative diet pill (and associated patent) using genetic material in the Hoodia plant without consulting the San people or agreeing to share the potential profits. Following a media outcry, the CSIR eventually entered a benefit sharing agreement with the San people which promised them a percentage (albeit a small one) of future profits - one of the first agreements of its kind.⁸

An IRABS would, at least in theory, provide a consistent international framework that would compel researchers to consult with Indigenous people regarding the use of their traditional knowledge associated with genetic resources and where appropriate provide them with benefits that may include monetary payments, education and training or new infrastructure.

Although Access and Benefit Sharing ('ABS') schemes have already been implemented in several Australian jurisdictions,⁹ the Protocol will ensure the widespread implementation of uniform laws, and facilitate the development of community protocols regarding traditional knowledge associated with genetic resources.

UNRESOLVED ISSUES

With time running out at the Nagoya meeting, and the parties unable to reach a consensus, those drafting the Protocol left a number of issues unresolved in order to get it passed.¹⁰

For example, it is unclear whether the Protocol will apply to genetic resources and traditional knowledge that were acquired before it enters force (and/or the entry into force of the CBD). This is important, because there are many collections of plants, animals and other biological resources kept in 'ex-situ' locations around the world such as herbariums, museums, commercial nurseries and private collections. Similarly there is a wealth of traditional knowledge that has already been acquired from Indigenous people, and stored in various places. Under the principle of retroactivity, a new law cannot apply to an action that occurred before the law enters force. This would suggest that the Protocol would not apply to genetic resources in ex-situ collections or traditional

knowledge accessed before the Protocol enters force. Arguably, the provisions of the Protocol could be applied to all genetic resources and traditional knowledge accessed after the CBD came into force in 1993, although this too may be up for debate.¹¹ A closely related question is whether resources previously collected for research on a particular usage would fall under the Protocol if some new or additional usage was researched or discovered.

An example of such a situation relates to the native Australian smokebush. Samples of the plant were taken out of Australia in the '60s, to be screened for cancer research in the United States. Although found ineffective against cancer, the plants were much later discovered to have a compound effective in the treatment of HIV.¹² Under the Protocol, it would be difficult (if not impossible) to force the holder of the smokebush to comply with the provisions of an ABS law. Also, under the Protocol, there is no clear requirement for the researcher to enter a new agreement with the access provider when the purpose of the research or use of the genetic resource changes. However, there is a requirement under clause 6 of the Protocol that members establish clear rules and procedures for requiring and establishing mutually agreed terms for access to genetic resources. This 'may include' terms regarding 'changes of intent' regarding the utilisation of the genetic resources accessed.¹³ Had an ABS law been in place in Australia in the 1960s (when the smokebush was originally acquired), the accessing party may have been bound to share in the benefits derived from utilisation of the smokebush, even where its use changed.

As noted by Professor Nijar, there is scope for signatories to enact laws applying the principles of the Protocol to new and continuing uses of genetic resources and/or traditional knowledge, even if they have been accessed previously.¹⁴ Unfortunately, in the case of the smokebush, the genetic resources were removed to the United States, which is not even a signatory to the CBD, let alone the Protocol. In theory, if the United States was a signatory to the Protocol, and took the step of enacting such laws, the original access provider may have been in a position to renegotiate benefits for further uses of the smokebush. This highlights the importance of having an effective IRABS in place Australia and internationally.

Another contentious issue is whether the definition of traditional knowledge in the Protocol includes knowledge that is publicly available. This is of particular concern in countries such as China and India, where vast amounts of traditional medicinal knowledge has become so wide

spread that it is common knowledge, and not identifiable or connected to one particular group. It also applies to Indigenous Australians, as a significant amount of traditional knowledge has been recorded and published, often as part of research projects and/or without the permission of its holders. If this knowledge is not covered by the Protocol purely because it is publicly available, this will preclude Indigenous people from relying upon the Protocol to prevent the use of such knowledge by bio prospectors or to obtain a share of the benefits resulting from its use.

A Global Multilateral Benefit Sharing Scheme is an option canvassed in the Protocol that would partially alleviate these issues.¹⁵ The scheme would apply where prior informed consent cannot be obtained, perhaps because access occurred in the past and thus the origin of resources or knowledge cannot be determined.¹⁶ Foreseeably, this could also apply to situations where knowledge has been widely dispersed. Benefits would be collected in a pooled fund which would be used to support the conservation of biological diversity and the sustainable use of its components globally.¹⁷ There is little guidance in the Protocol on how such a scheme would operate.

There are also a number of phrases included in the Protocol that may qualify or temper its potential effectiveness in relation to Indigenous people. For example, the requirement to take measures to ensure that genetic resources and traditional knowledge are accessed with the prior informed consent of Indigenous communities is 'in accordance with domestic law'. Arguably, this leaves the obligation at the discretion of national governments, although it could also be taken to be providing the flexibility required for the differing legal frameworks and approaches of the Parties.¹⁸

RESPONSE

The response to the Protocol has been generally positive, and is considered a milestone achievement by many participants and onlookers. The Union for Ethical Biotrade, for example views the Protocol as a landmark in the international governance of biodiversity.¹⁹ However, many have also criticised the Protocol for its vagueness on several issues, as discussed above. Swiderska also notes that measures requiring the prior informed consent of Indigenous communities for access to genetic resources need only be taken 'in accordance with domestic law'.²⁰ This means that national governments can choose to ignore this requirement.²¹ It should also be noted that a number of CBD members including Bolivia, Cuba and Venezuela were unhappy with the Protocol, stating that

they held 'grave reservations about the Protocol as another attempt by developed countries to legitimize biopiracy and commodify Nature'.²²

CASE STUDY: MARY KAY AND FERDINANDA TERMINALI

A recent example of how the Protocol might be applied centers around the Kakadu Plum, a plant known to contain exceptionally high levels of Vitamin C. The Kakadu Plum has been used by untold generations of Indigenous people throughout the northern regions of Australia.²³ A number of products have been developed for commercial sale by both Indigenous and non-Indigenous enterprises in various products including food, beauty creams and health drink powders.

Since 2007, Mary Kay, an American cosmetic company, has applied for patents in various countries over certain chemical compounds found in the Kakadu Plum. If those patents are granted, Mary Kay will have an exclusive right to use the chemical compounds in the way specified in the patent for a period of twenty years. This has caused great concern to many Indigenous people and their advocates,²⁴ as it could allow Mary Kay to stop others from using the Kakadu Plum to prepare cosmetic products for commercial sale.

The IP Australia patent examiner's first report in response to the application seems to indicate that it is unlikely the patent will be granted because among other reasons, it is 'merely a mixture of known ingredients'.²⁵ Issues regarding the validity of Mary Kay's patent applications aside, it is interesting to consider whether, and how, the Protocol may help to protect the interests of Indigenous people in this case.

On the surface, it would seem that Mary Kay would be obliged to share any benefits derived from the commercial exploitation of the Kakadu Plum. However, Mary Kay may have sourced samples of the Kakadu Plum on a commercial basis through a local company,²⁶ in which case it would be under no obligation to share benefits with Indigenous communities. Furthermore, even if the genetic resources had been accessed from Indigenous lands, it was before the Protocol comes into effect, and it is unlikely that its provisions will apply retrospectively.

The Protocol states that the party accessing the knowledge would be obliged to obtain the prior informed consent of the Indigenous communities, and ensure their involvement on mutually agreed terms.²⁷ However, Kakadu Plum's beneficial properties are widely known and

so it is unlikely that Mary Kay would be legally obliged to obtain the prior informed consent of Indigenous people to use this knowledge.

CONCLUSION

The establishment of an IRABS under the CBD was a significant international development for Indigenous people that has unfortunately, as of yet, delivered little in terms of their ability to control or benefit from the use of their genetic resources and associated traditional knowledge. The Protocol promises to establish a more useful and comprehensive regime through which ABS laws may finally deliver a real solution to the issues of biopiracy. However, there are some serious questions that need to be resolved regarding the effectiveness of the proposed regime from an Indigenous perspective. The Nagoya Protocol, in its current form, is unlikely to prevent situations in which traditional knowledge is used, as is shown by the Mark Kay case study.

If these issues can be ironed out, the Protocol could provide Indigenous people a greater voice regarding the use of genetic resources on their land. It will also give Indigenous people a chance to control the use of their traditional knowledge associated with genetic resources. If effectively implemented and policed, it will also provide Indigenous people with an important opportunity to receive a share in the resulting benefits.

Jeremy Morse (LLB, BIndig) is a solicitor at Terri Janke & Co, a law firm specialising in Indigenous cultural and intellectual property issues.

- 1 Notably, one of the few nations not to have ratified the CBD is the United States of America.
- 2 *The Convention on Biological Diversity*, opened for signature 5 June 1992, entered into force 29 December 1993 art 8(j).
- 3 *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity ('Nagoya Protocol')* adopted on 29 October 2010 in Nagoya, Japan (not yet in force) art 5.5, annex 1; *Report of the Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity*, COP 10, [87] UNEP/CBD/COP/10/27 (2010).
- 4 *Nagoya Protocol* art 7.
- 5 *Nagoya Protocol* art 12.1.
- 6 See for example Vandana Shiva, *Biopiracy- the Plunder of Nature and Knowledge* (South End Press, 1997).
- 7 WIPO/INDIP/RT/98/4E Roundtable on Intellectual Property and Indigenous Peoples Initiatives for Protection of Rights of Holders of Traditional Knowledge, Indigenous Peoples and Local Communities, Document presented by Mr. Antonio Jacanimijoy, Coordinating Body for the Indigenous Peoples' Organizations of the Amazon Basin (COICA), Quito, July 23 & 24 1998, <www.wipo.int/edocs/mdocs/tk/en/wipo...rt.../wipo_indip_rt_98_4e.doc>.
- 8 Rachel Wynberg, 'Rhetoric, Realism and Benefit Sharing: Use of Traditional Knowledge of Hoodia Species in the Development of an Appetite Suppressant' (2004) 7(6) *Journal of World Intellectual Property*, 851-876.
- 9 Most notably the *Environment Protection and Biodiversity Regulations* 2000 (Cth), the *Biological Resources Act* 2006 (NT) and the *Queensland Biodiscovery Act* 2004 (QLD).
- 10 Krystyna Swiderska, *What happened at Nagoya?*, International Institute for Environment and Development, (November 2010) <<http://www.iied.org/natural-resources/key-issues/biodiversity-and-conservation/what-happened-nagoya>>.
- 11 For a more detailed discussion of this and other issues see Gurdial Singh Nijar: *The Nagoya Protocol on Access and Benefit Sharing of Genetic Resources: Analysis and Implementation Options for Developing Countries*, Research Paper 36, Centre of Excellence for Biodiversity Law, Kuala Lumpur (March 2011) <<http://biogov.cpd.ucl.ac.be/multistakeholder/presentations/Gurdial-Nijar-NagoyaProtocolAnalysis-CEBLAW-Brief.pdf>>.
- 12 Henrietta Fourmile, 'Protecting Indigenous intellectual property rights in biodiversity' (Paper presented at the Kaltja vs Business Conference, Darwin, 28 August 1996).
- 13 *Nagoya Protocol* art 6(g).
- 14 Gurdial Singh Nijar: *The Nagoya Protocol on Access and Benefit Sharing of Genetic Resources: Analysis and Implementation Options for Developing Countries*, Research Paper 36, March 2011, The South Centre, Geneva, Switzerland, page 20.
- 15 *Nagoya Protocol* art 10.
- 16 International Centre for Trade and Sustainable Development, 'CBD Reaches Agreements on Access and Benefit Sharing, But Some Question Its Effectiveness' (2010) 14(38) *Bridges Weekly Trade News Digest* 1 <<http://ictsd.org/i/news/bridgesweekly/92903/>>.
- 17 Union for Ethical Biotrade (2010), *Nagoya Protocol on Access and Benefit Sharing- Technical Brief*, Union for Ethical Biotrade, Geneva, Switzerland.
- 18 Above n 14, 26.
- 19 Union for Ethical Biotrade, above n 17, 1.
- 20 Swiderska, above n 10.
- 21 Ibid.
- 22 *Introducing the Aichi Nagoya Protocol on ABS*, (30 October 2010) Natural Justice <http://natural-justice.blogspot.com/2010/10/introducing-aichi-nagoya-protocol-on.html>.
- 23 Daniel F Robinson, 'Traditional Knowledge and Biological Product Derivative Patents: Benefit-Sharing and Patent Issues Relating to Camu Camu, Kakadu Plum and Açai Plant Extracts' (2010) *United Nations University Institute of Advanced Studies-Traditional Knowledge Bulletin, Topical Issues Series*. Available at <<http://www.unutki.org/downloads/File/Publications/TK%20Bulletin%20Articles/2010-05%20biological%20patent%20predicament.pdf>>.
- 24 Ibid.
- 25 Examiner's First Report on patent application no. 2007205838.
- 26 Robin Powell and Lindsay Murdoch, *Patent Fight Erupts over Kakadu Plum*, (4 December 2010) Sydney Morning Herald <<http://www.smh.com.au/national/patent-fight-erupts-over-kakadu-plum-20101203-18jud.html>>.
- 27 *Nagoya Protocol*, art 7.