

**Access to Genetic Resources and Sharing of Benefits Arising out of their Utilization: A critical analysis of the contribution of the Nagoya Protocol to the existing international regime on access and benefit-sharing**

**By**

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**Declaration**

**I, Dieu-Donné Mushamalirwa Kizungu, hereby declare that this dissertation is my own original work and that all sources have been accurately reported and acknowledged, and that this document has not previously in its entirety or in part been submitted at any University in order to obtain an academic qualification.**

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**Date**

## **Dedication**

**To my late father, Kizungu Igwarha Etienne, and to my mother M'Bakunda Njabuka Odile.**

**To my wife, Neuilly Chiyoge, and our beloved daughters, Melissa, Vanessa and Raissa, for your support and continual encouragement.**

**To the Kizungu and Chiyoge families for their encouragement throughout the years of study.**

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## **Abstract**

**Prior to the commencement of the Convention on Biological Diversity (CBD), genetic resources were considered to be the common heritage of mankind; this principle gave the right to developed countries to obtain and freely use the genetic material of developing countries.**

**Growing concern over the controversial ‘free access’ system and the monopolization of benefits led to the negotiation of an international treaty, the CBD, to regulate access to genetic resources and the sharing of benefits resulting from the utilisation of such resources.**

**The CBD makes some important innovations. It recognizes that the authority to determine access to genetic resources depends on national governments and is subject to national legislation. Thus, the CBD recognizes state sovereignty over genetic resources and institutes the principles of Prior informed Consent (PIC), Mutually Agreed Terms and Benefit-Sharing.**

**However, the CBD and other international instruments relating to genetic resources have not had the desired effect of preventing the misappropriation of genetic resources and associated traditional knowledge (TK). Developing countries suffered and continue to suffer from the piracy of their resources. This state of affairs has led to the recent adoption of the ‘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,’ (2010 Nagoya Protocol).**

**This dissertation will consider the contribution of the Nagoya Protocol to the existing global and regional instruments concerning the access and benefit sharing of genetic resources. After explaining the gaps in the existing instruments, it will explore whether the Protocol is a miracle solution to the recurrent concern over misappropriation of genetic resources from biologically rich countries, or whether there is still much work to do to sort out this problem.**

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## **List of Acronyms**

<b>AAAS</b>	<b>American Association for the Advancement of Science</b>
<b>ABS</b>	<b>Access and Benefit Sharing</b>
<b>AU</b>	<b>African Union</b>
<b>BL</b>	<b>Biodiversity Law</b>
<b>BfN</b>	<b>Federal Agency for Nature Conservation</b>
<b>CAN</b>	<b>Andean Community of Nations</b>
<b>CGIAR</b>	<b>Consultative Group on International Agricultural Research</b>
<b>CHM</b>	<b>Clearing-house mechanism</b>
<b>CNA</b>	<b>Competent National Authority</b>
<b>CSIR</b>	<b>Council for Scientific and Industrial Research, South Africa</b>
<b>CITES</b>	<b>Convention on International Trade in Endangered Species of Wild Flora and Fauna</b>
<b>CONAGEBIO</b>	<b>National Commission for the Management of Biodiversity, (Costa Rica)</b>
<b>COP</b>	<b>Conference of the Parties</b>
<b>CSIR</b>	<b>Council for Scientific and Industrial Research</b>
<b>DENR</b>	<b>Department of Environment and Natural Resources, (Costa Rica)</b>
<b>EC</b>	<b>European Community</b>
<b>EC-CHM</b>	<b>European Community Biodiversity Clearing House Mechanism</b>
<b>EU</b>	<b>European Union</b>
<b>FAO</b>	<b>Food and Agriculture Organization of the United Nations</b>
<b>GATT</b>	<b>General Agreement on Tariffs and Trade</b>
<b>GBO</b>	<b>Global Biodiversity Outlook</b>
<b>GEF</b>	<b>Global Environment Facility</b>

<b>GMO</b>	<b>Genetically Modified Organism</b>
<b>GRFA</b>	<b>Genetic Resources for Food and Agriculture</b>
<b>HIV</b>	<b>Human Immunodeficiency Virus</b>
<b>IARC</b>	<b>International Agricultural Research Centre</b>
<b>ICIMOD</b>	<b>International Center for Integrated Mountains Development</b>
<b>ICTSD</b>	<b>International Centre for Trade and Sustainable Development</b>
<b>IGC</b>	<b>Intergovernmental Committee</b>
<b>IGO</b>	<b>Inter-Governmental Organization</b>
<b>IISD</b>	<b>International Institute for Sustainable Development</b>
<b>IK</b>	<b>Indigenous Knowledge (also referred to as Traditional Knowledge)</b>
<b>ILC</b>	<b>Indigenous and Local communities</b>
<b>ILO</b>	<b>International Labour Organization</b>
<b>IMF</b>	<b>International Monetary Fund</b>
<b>INBio</b>	<b>Instituto Nacional de Biodiversidad (Costa Rica)</b>
<b>IP</b>	<b>Intellectual Property</b>
<b>IPGRI</b>	<b>International Plant Genetic Resources Institute</b>
<b>IPM</b>	<b>Intellectual Property Management</b>
<b>IPRs</b>	<b>Intellectual Property Rights</b>
<b>IR</b>	<b>International Regime</b>
<b>IT</b>	<b>International Treaty</b>
<b>ITPGRFA</b>	<b>International Treaty on Plant Genetic Resources for Food and Agriculture</b>
<b>IU</b>	<b>International Undertaking on Plant Genetic Resources</b>
<b>IUCN</b>	<b>World Conservation Union (formerly the International Union for the Conservation of Nature)</b>

<b>IUCN-ELC</b>	<b>Environmental Law Centre of the International Conservation Union</b>
<b>LEAD</b>	<b>Law, Environment and Development Journal</b>
<b>LMMC</b>	<b>Like-Minded Megadiverse Countries</b>
<b>MAT</b>	<b>Mutually Agreed Terms</b>
<b>MOA</b>	<b>Memorandum of Agreement</b>
<b>MOP</b>	<b>Meeting of Parties</b>
<b>MTA</b>	<b>Material Transfer Agreement</b>
<b>NEPAD</b>	<b>New Partnership for Africa's Development</b>
<b>NEMBA</b>	<b>National Environmental Management: Biodiversity Act 10 of 2004</b>
<b>NGO</b>	<b>Non-Governmental Organization</b>
<b>NICs</b>	<b>National Influenza Centres</b>
<b>NPGRC</b>	<b>National Plant Genetic Resources Centre</b>
<b>PBR</b>	<b>Plant Breeders' Rights</b>
<b>PGR</b>	<b>Plant Genetic Resources</b>
<b>PGRFA</b>	<b>Plant Genetic Resources for Food and Agriculture</b>
<b>PIC</b>	<b>Prior Informed Consent</b>
<b>PVP</b>	<b>Plant variety protection</b>
<b>PVPFRA</b>	<b>Plant Varieties Protection and Farmers' Rights Act</b>
<b>R&amp;D</b>	<b>Research and development</b>
<b>SADC</b>	<b>Southern African Development Community</b>
<b>SESRIC</b>	<b>Organization of Islamic Cooperation Statistical Economic and Social Research and Training Centre for Islamic Countries</b>
<b>SAJELP</b>	<b>South African Journal of Environmental Law and Policy</b>
<b>SMTA</b>	<b>Standard Material Transfer Agreement</b>

<b>SANBio</b>	<b>Southern Africa Network for Biosciences</b>
<b>SPGRC</b>	<b>SADC Plant Genetic Resources Centre</b>
<b>TRIPS</b>	<b>Trade-Related Aspects of Intellectual Property Rights</b>
<b>TO</b>	<b>Technical Office</b>
<b>TK</b>	<b>Traditional Knowledge</b>
<b>TRIPS</b>	<b>Agreement on Trade-Related Aspects of Intellectual Property</b>
	<b>Rights</b>
<b>TO</b>	<b>Technical Office</b>
<b>TK</b>	<b>Traditional Knowledge</b>
<b>TRIPS</b>	<b>Agreement on Trade-Related Aspects of Intellectual Property</b>
	<b>Rights</b>
<b>UNDP</b>	<b>United Nations Development Programme</b>
<b>UNDRIP</b>	<b>United Nations Declaration on the Rights of Indigenous People</b>
<b>UN-ECLAC</b>	<b>United Nations Economic Commission for Latin America and the Caribbean</b>
<b>UNCLOS</b>	<b>United Nations Convention on the Law of the Sea</b>
<b>UNEP</b>	<b>United Nations Environment Programme</b>
<b>UPOV</b>	<b>International Union for the Protection of New Varieties of Plants</b>
<b>USD</b>	<b>United States Dollar</b>
<b>USAID</b>	<b>United States Agency for International Development</b>
<b>UEBT</b>	<b>Union Ethical BioTrade</b>
<b>VCLT</b>	<b>Vienna Convention on the Law of Treaties</b>
<b>WG</b>	<b>Working Group</b>
<b>WG-ABS</b>	<b>Working Group on Access to Genetic Resources and Benefit</b>
	<b>Sharing</b>

<b>WIPO</b>	<b>World Intellectual Property Organization</b>
<b>WSSD</b>	<b>World Summit on Sustainable Development</b>
<b>WTO</b>	<b>World Trade Organization ABS Access and benefit sharing</b>

## Chapter one: Introduction

### 1.1 The context of the dissertation

According to Wilson, „life on earth is supported by communities of plants, animals, and microorganisms interacting with each other within ecosystems, and with the physical environment.’<sup>1</sup> Scientists and researchers take an interest in plants, animals and microorganisms since they contain genes of scientifically demonstrable value, which explains why they have always been of interest to industries in developed and developing countries.<sup>2</sup>

A ‚gene’ is defined as being a very small portion or piece of matter situated in cells, which is found in chromosomes and is made of ‚DNA’<sup>3</sup>. Those DNA contain information for building proteins received by each animal or plant from its parents, and manage its physical development, behaviour and so on.<sup>4</sup> As stated by the Convention on Biological Diversity (CBD), ‚genetic resources’ means genetic material of actual or potential value, and ‚genetic material’ means any material of plant, animal, microbial or other origin containing functional units of heredity.’<sup>5</sup>

Most crop plants were developed over millennia in territories of the world today considered as developing countries and farmers and breeders have traditionally relied on ‚open access’ to genetic resources from these products.<sup>6</sup> Indeed, genetic resources are among the world’s most important resources and they are used for many important purposes, e.g., in the form of life-support systems, ecosystem services and cultural objects, but also as production inputs and goods.<sup>7</sup> Genetic resources have economic value as food, medicines, chemicals, fibres, structural materials, fuel, and other purposes.<sup>8</sup> They continue to be the main constituent for the improvement of agricultural crops and 75 percent of the world’s population that relies

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<sup>1</sup> Wilson, E.O (ed.) *Biodiversity*, (1988), at 1-18. Available online: [http://www.nap.edu/openbook.php?record\\_id=989&page=78](http://www.nap.edu/openbook.php?record_id=989&page=78). Date of access 12/12/2011.

<sup>2</sup> Ibid., at 1-18.

<sup>3</sup> DNA is the initials of deoxyribonucleic acid that is the chemical at the centre of the cells of living things, which controls the structure and purpose of each cell and carries the genetic information during reproduction; see Good, M (ed) *Cambridge Advanced Learner’s Dictionary*, Third Edition, (2008), at 412.

<sup>4</sup> See Onions, C.T *The shorter Oxford English Dictionary*, Third Edition, (1973), at 840. Oxford University Press; Breastcancer.org, ‚Genetics,’ available online at: [http://www.breastcancer.org/risk/factors/genetics?gclid=CN7\\_y](http://www.breastcancer.org/risk/factors/genetics?gclid=CN7_y). Date of access 21/09/2012; Good, M, above n9, at 596; Glawzeski, J *Environmental Law in South Africa* (2000), at 300-301. Butterworth Publishers.

<sup>5</sup> Article 2 of the Convention on Biological Diversity.

<sup>6</sup> Ranganathan, R, ‚Plant Genetic Resources for Food and Agriculture: A Common Heritage of Mankind,’ (2007) *Panel discussion on Making Intellectual Property Work for Development*, at 1. Available online at: [http://www.iccwbo.org/uploadedFiles/ICC/policy/intellectual\\_property/pages/R\\_Ranganathan26April07.pdf](http://www.iccwbo.org/uploadedFiles/ICC/policy/intellectual_property/pages/R_Ranganathan26April07.pdf). Date of access 12/04/2012

<sup>7</sup> Ibid.

<sup>8</sup> Guruswamy, L, *International Environmental Law*, (2003), at 127-129.

upon traditional largely plant-based treatment for its primary healthcare and for other products such as pharmaceutical, crops protection products and perfume.<sup>9</sup> Thus, issues appeared relating to controlling the utilization of and safeguarding genetic resources.

Indeed, the management and protection of genetic resources have always constituted a significant challenge that both countries that are poor in genetic resources and those that are rich in genetic resources face. Historically, the ‚open access’ to these resources incurred as a consequence not only their depletion, but also the impoverishment of the countries that provided biological resources, and added to that, the environmental degradation which has led to species extinction.<sup>10</sup>

In the early 1990s, genetic resources were already considered as ‚green gold’ that had high economic value due to their genetic potential.<sup>11</sup> As developed countries are technologically wealthy, many genetic resources are commercialized outside the countries where they were originally accessed.<sup>12</sup> It was hoped that if a share of the benefits arising out of their utilization went back to gene rich countries, this would create incentives for conservation and reduce destructive activities which are less economically beneficial.<sup>13</sup>

As countries with rich endowments of natural genetic resources became aware that most of the genetic resources in the world exist in the South, they understandably wanted to behave as the true owner of these resources.<sup>14</sup> Even though they accepted the importance of taking care of biodiversity, they considered outside attempts to impose a limit on internal development as an intrusion on sovereignty; in addition, as these nations experience conditions of real poverty, the delimitation of large areas of land for conservation or protection of biological resources or for so-called ‚sustainable development’ suddenly appeared to be something invented to hinder their economic progress;<sup>15</sup> meanwhile, this could be an obstacle to the exercise of sovereignty over their biological resources.

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<sup>9</sup> Ten Kate, K, and Laird, S.A *The Commercial Use of Biodiversity: Access to Genetic Resources and Benefit-Sharing*, (1999), at 1.

<sup>10</sup> Cairns, J, ‚Reparations for environmental degradation and species extinction: A moral and ethical imperative for human society,’ (2003) *Ethics in Sciences and Environmental Politics* (ESEP). Available online at: <http://www.int-res.com/articles/esep/2003/E31.pdf>. Date of access 24/04/2012.

<sup>11</sup> Ishaq Khan, Y, *Traditional knowledge, genetic resources and developing countries in Asia: The concerns*, (2007-2008) at 94, *Wake forest Intellectual Property Law Journal* Vol. 8 No 1. Available online at: <http://ipjournal.law.wfu.edu/files/2009/09/article.8.81.pdf>. Date of access 31/01/2012.

<sup>12</sup> *Ibid*, at 96.

<sup>13</sup> Richerzhagen, C, *C Protecting Biological Diversity: The Effectiveness of Access and Benefit-Sharing Regimes*, (2010), at 205-208.

<sup>14</sup> *Ibid*, at 135.

<sup>15</sup> *Ibid*, at 135-136.

As a result, the ‚gene rich’ but ‚technology poor’ South raised the bidding, letting the ‚gene poor’ ‚but technology rich’ North know that it would embrace sustainable development only if ‚[t]he North would assume the costs’.<sup>16</sup>

From the above-mentioned development, one may deduce that issues concerning genetic resources could be a matter of difficulty and even of conflict between countries, and there is a need to find an appropriate balance between the interests of developed and developing countries. Furthermore, the management of genetic resources is a global concern because it constitutes an important issue facing both user and provider countries.

The Convention on Biological Diversity (CBD)<sup>17</sup> and related ‚access and benefit sharing’ (ABS) instruments (at both the global and regional levels) have effected an essential and articulated innovation in that they address such issues as ‚access to genetic resources and the sharing of benefits derived from the use of genetic material’, and establish a regulatory system governing the management of genetic resources.<sup>18</sup>

Although the above-mentioned instruments attempted to address the lacunae arising from previous systems, they have not brought sustainable solutions to the issues related to the handling of genetic resources and also associated traditional knowledge. Although the Nagoya Protocol on Access to Genetic Resources and Fair and Equitable Sharing of Benefits arising from their Utilization to the Convention on Biological Diversity<sup>19</sup> was adopted to fill the gaps left by the CBD and related ABS instruments, some questions relating to ABS still remain unresolved.

The main purpose of this dissertation is to critically analyse the contribution of the Nagoya Protocol to the existing international regime (IR) on ABS (Chapters 4 and 5). Nevertheless, this analysis is preceded by background information (Chapter 2), which explains and discusses the definition of relevant concepts such as ‚access to genetic resources’, ‚benefit-sharing’ and ‚traditional knowledge’ (TK); and describes the commercial value of genetic resources. This is followed by a careful examination of the historical treatment of genetic resources at the international level and what has been the behaviour of countries, both rich and poor in genetic resources, regarding ABS issues before the advent of the CBD and related

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<sup>16</sup> Ibid, at 136.

<sup>17</sup> The text of the Convention on Biological Diversity, available online at: <http://www.cbd.int/convention/text/>.

<sup>18</sup> Ten Kate, et al, above n1, at 9.

<sup>19</sup> The text of the Nagoya Protocol on Access to Genetic Resources and Fair and Equitable Sharing of Benefits arising from their Utilization to the Convention on Biological Diversity, available online at: <http://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf>.

ABS instruments. A section showing how countries moved towards the regulation of genetic resources is provided. A short investigation of the existing International Regime closes this part of the dissertation (Chapter 3). Finally, a set of conclusions (Chapter 6) ends the discussions and legal investigations, which constitute the crux of this dissertation.

### 1.2 Research topic and key questions to be answered

The dissertation focuses on assessing the current international access and benefit-sharing (ABS) regime and makes suggestions for its improvement. The key questions considered are: (i) why the CBD and related international instruments have failed in preventing misappropriation of genetic resources and TK; (ii) the extent to which the Nagoya Protocol has addressed these problems; and (iii) the extent to which there are still gaps in the system, and how these can be addressed.

### 1.3 Academic and practical reasons for choosing the topic

The Nagoya Protocol was adopted in 2010 and is thus a recent international instrument. Accordingly, the academic reason for choosing this topic is that there are interesting recent developments in this area that have not yet been the subject of extensive academic analysis. The practical reason is that developing countries (including South Africa) are continuing to experience misappropriation of genetic resources despite the fact that they are Parties to the CBD. While it was hoped that such problems would be combated by the Nagoya Protocol, many countries have highlighted that this Protocol has a number of weaknesses, and should only be viewed as a starting point. Therefore, it is important to analyse the contribution that the Protocol has made to the existing international regime on ABS, and consider where further development is necessary.

### 1.4 Research Methodology

Regarding the research methodology, it must be made clear that the research has been entirely desk based. Information and data relating to the topic were found in both primary sources (international and regional instruments, and national legislation from a variety of jurisdictions) and secondary sources (journal articles, text books, internet sources, and reports from international meetings).

## Chapter Two: Background

The title of this chapter creates the impression that it addresses exclusively the management of genetic resources. While genetic resource issues are central to this chapter, one has to bear in mind that the term „genetic resources’ is surrounded by concepts that necessitate identification and explanation. Genetic resources also have commercial value. The commercial value of these resources is consequently dealt with in this chapter. The second half of the Chapter discusses the historical treatment of genetic resources at international level, as well as domestic moves to regulate ABS.

### 2. 1 Definition of Concepts and Commercial Values of Genetic Resources

First, this section gives and discusses the definition of some concepts extremely important in the framework of this dissertation: „access to genetic resources,’ „benefit-sharing,’ „traditional knowledge’ (TK) and „genetic resources’. The second part of this section is related to the uses of genetic resources with due regard to their commercial values.

#### *2.1.1 Definition of concepts*

##### (a) „Access to genetic resources’

This term refers to the ability of a country or its subjects or representatives to obtain the right to sample or study particular specimens of genetic material.<sup>20</sup> It can also refer to the international movement of genetic material found under one jurisdiction (the „provider country’) to another country (the „user country’) to be used under the jurisdiction of that other country.<sup>21</sup>

(b) „Benefit-Sharing’: the CBD identifies the „fair and equitable sharing of the benefits arising out of the utilisation of genetic resources’ as one of its three most important objectives.<sup>22</sup> For this purpose, the concept of benefit-sharing encompasses numerous other issues relating to genetic resources, transfer of technology,<sup>23</sup> ownership/intellectual property issues, and

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<sup>20</sup> Chishakwe, N, and Young, T.R, „Access to Genetic Resources and Sharing of Benefits of their Use: International and Sub-regional Issues,’ (2003), at 1. Available online at: [http://weavingaweb.org/absdocuments/eng\\_SADC.pdf](http://weavingaweb.org/absdocuments/eng_SADC.pdf). Date of access 17/10/2011.

<sup>21</sup> Tvedt, M.W, „Seeking Appropriate Legislation Regulation Access and Exclusive Rights to Forest Genetic Resources in the Nordic Region,’ (2011), Report 9/2011 FNI (Fridtjof Nansens Institute), at 3. Available online: [http://www.nordgen.org/ngdoc/forest/Publikasjoner/Report\\_ABS\\_ForestGR\\_2011.pdf](http://www.nordgen.org/ngdoc/forest/Publikasjoner/Report_ABS_ForestGR_2011.pdf). Date of access 12/05/2012.

<sup>22</sup>Article 1 of the Convention on Biological Diversity.

<sup>23</sup>Article 16.

financing issues. These issues are all bound together and cannot be disentangled.<sup>24</sup> Under the CBD, benefits arising from the commercial and other utilization of genetic resources must be shared with countries providing such resources.<sup>25</sup> Those benefits to be shared could be monetary or non monetary.<sup>26</sup>

(c) „Traditional Knowledge’ (TK): TK is the result of knowledge or skills that an individual or a group of persons possess or accumulate when interacting with their cultural environment.<sup>27</sup> Nevertheless, TK, as an example of cultural values is often held collectively,<sup>28</sup> and contains a set of beliefs and knowledge that are controlled by the community (e.g. the use of plant resources to heal epilepsy or wounds, for example).<sup>29</sup>

TK is generally transmitted orally from generation to generation and continues to be, to a great extent, undocumented.<sup>30</sup> Though the concept of TK is mentioned in Article 8 (j) of the CBD, the Convention does not explicitly define this term. TK is an important ingredient in the search for interesting biological and other material.<sup>31</sup> It plays an important role in innovative processes or activities, for instance, as source material for some biotechnology invention;<sup>32</sup> and also is used in agricultural biotechnology, animal breeding, the development of herbal medicine, etc.<sup>33</sup>

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<sup>24</sup> Shishakwe, et al, above n20, at 2.

<sup>25</sup> Article 15 of the CBD.

<sup>26</sup> Article 16.

<sup>27</sup> Ten Kate, K, and Laird, S.A, „Biodiversity prospecting: the commercial use of genetic resources and best practice in benefit-sharing’, See in Laird, S.A (ed) *Biodiversity and Traditional Knowledge: Equitable Partnerships in Practice*, (2002) at 270.

<sup>28</sup> Ibid.

<sup>29</sup> International Bureau of WIPO, „WIPO International Forum on Intellectual Property and Traditional Knowledge: Our Identity, our Future’, (2002), available at:

[http://www.wipo.int/arab/en/meetings/2002/muscat\\_forum\\_ip/iptk\\_mcto2\\_i3.htm](http://www.wipo.int/arab/en/meetings/2002/muscat_forum_ip/iptk_mcto2_i3.htm). Date of access 10/04/2012.

<sup>30</sup> Ibid.

<sup>31</sup> Hansen, S.A, and VanFleet, J.W *A Handbook on issues and options for traditional knowledge holders in protecting their intellectual property and maintaining biological diversity*, (2003). Available online at: <http://shr.aaas.org/tek/handbook/handbook.pdf>. Date of access 30/04/2012.

<sup>32</sup> WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, „Traditional Knowledge and Folklore, Technical Study on Disclosure Requirements in Patent Systems related to Genetic Resources and Traditional Knowledge’ (2002), *Contribution of Member States of WIPO*, at 10. Available online at: [http://www.wipo.int/tk/en/publications/technical\\_study.pdf](http://www.wipo.int/tk/en/publications/technical_study.pdf). Date of access 26/06/2012.

<sup>33</sup> Schei, P.J, and Tvedt, M.W, „Genetic Resources in the Convention on Biological Diversity: the Wording, the Past, the Present and the Future’, (2010), at 4-5, available at: <http://www.fni.no/doc&pdf/FNI-RO410.pdf>. Date of access 04/03/2012.; See also International Chamber of Commerce, „Traditional Knowledge associated with Genetic Resources’ (2009), at 2. Available online at: <http://www.ifpma.org/fileadmin/content/Innovation/Biodiversity%20and%20Genetic%20Resources/Traditional%20Knowledge%20Associated%20with%20Genetic%20Resources.pdf>. Date of access 30/01/2012.

(d) „Genetic Resources’: The ABS concept is limited to „genetic resources’.<sup>34</sup> What then are genetic resources? Three CBD definitions are critical to answering this question: biological resources, genetic material, and genetic resources.<sup>35</sup> (i) „Biological resources’ formally defined are resources that include „genetic resources, organisms or parts thereof, populations, any other biotic component of ecosystems with actual or potential use or value for humanity’.<sup>36</sup> They are the tangible or physical components of biological diversity (or „biodiversity’).<sup>37</sup> „Biological diversity’ is the measure of variation in genes, species and ecosystems.<sup>38</sup> The phrase „biological diversity’ thus encompasses three forms of variability: genetic diversity, species diversity and ecosystem diversity.<sup>39</sup> Biological diversity is usually associated with wild animals and plants, but allusion is rarely made to genetic diversity since some people or institutions underestimate the crucial importance of genetic diversity in agriculture for food security and human survival, and for the pharmaceutical and ornamental horticulture industries.<sup>40</sup> (ii) „Genetic material’: means any material of plant, animal, microbial or other origin containing functional units of heredity.<sup>41</sup> (iii) „Genetic resources’ is a recent concept which was not regularly used legally prior to the CBD. The definition of this term is contained in the wording of the CBD and related interpretive materials.<sup>42</sup> The CBD defines „genetic resources’ as follows: „Genetic resources: means genetic material of actual or potential value’.<sup>43</sup>

Upon reading of the above definitions, there appears to be little difference among the two terms („genetic resources’ and „genetic materials’), since all plant, animal, microbial and other living or formerly living matter contains „functional units of heredity’ (DNA and/or other proteins that have an apparent role in genetic/heredity processes). Any plant, animal, microbe, or part thereof, could be considered „genetic material’.<sup>44</sup> Although the definitions of the two

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<sup>34</sup> Article 15 of the CBD.

<sup>35</sup> Article 2.

<sup>36</sup> Glowka, L, Burhenne-Guilmin, F, Synge, H, A, McNeely, J.A, and Gundling, L *A Guide to the Convention on Biological Diversity*, (1994) Environmental Policy and Law Paper No 30, at 19-20, IUCN, for a commentary on this definition.

<sup>37</sup> Ibid, at 19 gives as example a seed or a gene

<sup>38</sup> Laird, above n27, at 144. In the CBD, biodiversity has been described as including flora and fauna, the variety among living organisms and the ecological communities that they inhabit, see Article 2.

<sup>39</sup> Ibid.

<sup>40</sup> Andersen, R, „FAO and the Management of Plant Genetic Resources,’ in Schram Stolle, O, and Thommessem, O.B (eds) *Yearbook of International Co-operation on Environment and Development*, 2003/2004, London: Earthscan Publications at 43-44.. Available at: [http://www.fni.no/ybiced/03\\_03\\_andersen.pdf](http://www.fni.no/ybiced/03_03_andersen.pdf). Date of access 25/2/20012.

<sup>41</sup> Article 2 of the CBD.

<sup>42</sup> Ibid; See also Schei, et al., above n33, at 2.

<sup>43</sup> Article 2 of the CBD.

<sup>44</sup> Chishakwe, et al, above n20, at 5-6.

above-mentioned concepts look similar, the difference between the concepts is that genetic resources must be of actual or potential value.

From the above-mentioned definitions, one can conclude that genetic material may have any biological origin, whether of plant, animal, microbial or other origin. Understandably, 'genetic resources' are part of biological resources. However, this definitional approach is at the heart of the current problems that still constitute an obstacle to the implementation of the CBD's ABS objectives.<sup>45</sup>

In the CBD's definition, it is specified that genetic material, is any material of animal, plant, microbial or other origin containing 'functional units of heredity', which is not further explained in the phraseology of this Convention. However, a functional unit of heredity may mean, a unit that functions to convey heredity information under all circumstances.<sup>46</sup>

In the definition of genetic resources two words, 'actual' and 'potential', are used to describe the value aspects of genetic resources. Actual value is dynamic in the sense that it could change insofar as the material might have one value in some types of uses and a different value in other kinds of uses.<sup>47</sup> The value of the material at any given time of access is potential in that one cannot know the specific value before it has been realised or made known; also the value might prove to be for something else than originally thought.<sup>48</sup>

Nevertheless, since the inclusion of the term 'genetic resources' in the CBD, it has been used with various and different meanings.<sup>49</sup> The followings are examples of the different meanings given to genetic resources:

- Genetic resources are 'the genes, stored as germplasm (seeds, tubers or other reproductive parts of plants), that can be used to develop new crops and crop varieties or to protect existing crops from pests, diseases or environmental stresses'.<sup>50</sup>
- Genetic resources are the 'heritable characteristics of a plant or animal of real or potential benefit to people. The term includes modern cultivars and breeds; traditional cultivars and

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<sup>45</sup> Chishakwe, et al., above n20, at 5-6.

<sup>46</sup> Schei, et al., above n33, at 36.

<sup>47</sup> Ibid, at 3.

<sup>48</sup> Ibid, at 3-4.

<sup>49</sup> Tvedt, above n21, at 9.

<sup>50</sup> American Genetic Resources Alliance, 'What are Genetic Resources?' (1998 ) Available online at: <http://www.amgra.org/grbkgrd.htm>. Date of access 02/03/2012.

breeds; special genetic stocks (breeding lines, mutants, etc); wild relatives of domesticated species; and genetic variants of wild resource species'.<sup>51</sup>

– Genetic Resources are „biological materials of animal, plants, microbial, or other origin that contains the hereditary information necessary for life and are responsible for their useful properties and ability to replicate'.<sup>52</sup>

-Genetic resource is the „total genetic information encoded in the sum total of the genes in all the populations of a species. Thus it is the sum of the genetic information in the gene pools of the species.

Consequently, it appears that there is still a need to develop the existing understanding of „genetic resources' so as to facilitate a well and unchanged comprehension of this above-mentioned concept.

### *2.1.2 The commercial value of genetic resources*

Companies can use genetic resources to develop speciality enzymes, enhanced genes, or small molecules. These can be used in crop protection, drug development, the production of specialized chemicals, or in industrial processing.<sup>53</sup> Genetic resources are used in two sectors: biotechnology industries and ornamental horticulture industries.

#### (a) Biotechnology industries

Biotechnology intervenes in research, development and innovation activities which generates novel products or production in many industrial sectors.<sup>54</sup> The biotechnology industry has developed rapidly since 1992, with USA healthcare biotech revenues increasing from \$ 8 billion in 1992 to \$ 39 billion in 2003.<sup>55</sup> In South Africa, between 2004-2007, the government injected R450 million (approximately USA \$54 million) in public funding for biotechnology

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<sup>51</sup> Dunster, J. & K, *Dictionary of Natural Resource Management* (1996), CAB International. Reference online at: [http://iufro-archive.boku.ac.at/silvavoc/glossary/9\\_0en.html](http://iufro-archive.boku.ac.at/silvavoc/glossary/9_0en.html). Date of access 25/07/2012.

<sup>52</sup> Ten Kate, et al., in Laird, above n27, at 1.

<sup>53</sup> The Secretariat of the Convention on Biological Diversity, „ ABS. The use of genetic resources, <http://www.cbd.int/abs/infokit/revised/web/Fctsheets-uses-en.pdf>. Date of access 16/02/2012.

<sup>54</sup> Thomas, J, „Competitiveness of the European biotechnology industry', (2006) European Commission, Enterprise and Industry DG, available at:

[http://ec.europa.eu/enterprise/sectors/biotechnology/files/docs/biotech\\_analysis\\_competitiveness\\_en.pdf](http://ec.europa.eu/enterprise/sectors/biotechnology/files/docs/biotech_analysis_competitiveness_en.pdf), at 4. Date of access 04/01/2012.

<sup>55</sup> Ibid.

development.<sup>56</sup> The revenue of active firms reached R625 million (approximately USA \$75 million) during 2004, R768 million (approximately USA \$92 million) during 2007.<sup>57</sup>

The global pharmaceutical industry has grown rapidly over the years and emerged as one of the fastest growing industries in the world.<sup>58</sup> The global pharmaceutical market, both in terms of production and consumption, is highly concentrated in the developed regions. In 2010, North America (38%), Europe (29%) and Japan (12%) accounted for nearly 79 percent of the global market.<sup>59</sup>

The botanical medicine industry as part of the biotechnology industry is growing worldwide, and especially in Germany.<sup>60</sup> Besides Germany, the largest markets are found in China, Japan, the US, France, Italy, the UK, and Spain.<sup>61</sup> This industry usually imports the whole body of the plant.<sup>62</sup> It is estimated that Europe annually imports about four hundred thousand tons of medicinal plants, with an average market value of US \$1 billion, from Africa and Asia.<sup>63</sup> According to estimates, the global trade in medicinal plants amounts to US \$800 million per year.<sup>64</sup> In South Africa, the market for complementary medicines and health products at consumer level was, in 2003, approximately R1.9 billion compared to the total of the money spent in medicine by medical programmes or projects which was R8.6 billion.<sup>65</sup>

#### (b) Ornamental horticulture industries

The horticulture market can be divided into the market for vegetables and the market for ornamental products.<sup>66</sup> The former is considerably greater than the latter, as is shown by the relative size of the market for vegetable seed, compared with that for flower seed.<sup>67</sup>

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<sup>56</sup> Uctu, R, and Essop, H, „The role of the South Africa Government in developing the biotechnology industry: From biotechnology regional innovation centres to the technology innovation agency,’ (November 2012), at 1-13, *Stellenbosch Economic Working Papers 19/12*. Available online at: [wp-19-2012\(2\).pdf-AdobeReader](#). Date of access 15/12/2012.

<sup>57</sup> Ibid.

<sup>58</sup> Organization of Islamic Cooperation Statistical Economic and Social Research and Training Centre for Islamic Countries (SESRIC), „Pharmaceutical Industry in OIC Member Countries: Production, Consumption and Trade’ at 2. Available online: <http://.sesric.org/files/articles/433.pdf>. Date of access 15/03/2012.

<sup>59</sup> Ibid, at 3.

<sup>60</sup> Ten Kate, et al., in Laird, S.A, above n27, at 79.

<sup>61</sup> Ibid, at 79.

<sup>62</sup> Ibid, at 78.

<sup>63</sup> Ibid.

<sup>64</sup> Horaeau and Da Silva, (1999), cited by Richerzhagen, above n14, at 29-31.

<sup>65</sup> Gqaleni, N, Moodley, I, Kruger, H, Ntuli, A, and McLeod, H, „Traditional and Complementary Medicine,’ at 182, available online at: [http://www.hst.org.za/uploads/files/chap12\\_07.pdf](http://www.hst.org.za/uploads/files/chap12_07.pdf). Date of access 09/12/2012.

<sup>66</sup> Richerzhagen, C, above n13, at 34-35.

<sup>67</sup> Laird, S.A (ed.), above n27, at 256.

In 1996, annual global sales of horticultural seeds, including flower and vegetable seeds for the commercial and private markets were about US\$1.75 billion.<sup>68</sup> South Africa's floriculture exports include: cut flowers, foliage, bulbs and plants. Total world exports and imports of floriculture products both exceeded US \$9 billion, in 2005.<sup>69</sup> Local floriculture sales were valued at R260 million (US \$37 million) and the export revenue amounted to approximately R371 million (approximately US \$35 million), in 2005.<sup>70</sup>

Despite the apparent revelations of the commercial values of genetic resources, biologically rich countries (more particularly, Indigenous and Local Communities (ILCs) supplying the resources and knowledge) have received insignificant or no benefits,<sup>71</sup> and they have not actively participated in rapid scientific and technological advances that make new and varied use of genetic resources.<sup>72</sup> That is the practical reality on the ground and this appears to be disgraceful of 'gene poor' but 'technology rich' countries. Whereas, if indigenous and local communities, who are the custodians of genetic materials received equitable benefits from their uses, they would have greater incentives to help ensure conservation.<sup>73</sup> Even more, biodiversity rich countries would have resources (money and technology) to decide what to do with their biological resources without the power or the control of someone else, and to concentrate upon the route over which they could naturally move to ensure their development, and become less dependent on the North.

## 2.2 Historical treatment of genetic resources at the international level

Genetic resources (especially plant genetic resources) were already subject to an international law regime long before the advent of the CBD.<sup>74</sup> The various Conventions, understandings and agreements outlined below all reflect a fundamental conflict between, on the one hand, the desire of states (mainly developed countries) to have, free and unrestricted global access

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<sup>68</sup> Ibid.

<sup>69</sup> Mabaya, E, Janjie, A, Toniqua, H, and Struck, T, 'Defining De Fynne: A small wholesale nursery,' at 2-3, *A smart program case study*, Cornell International Institute for Food, Agriculture and Development. Available online: [http://cifad.cornell.edu/downloads/CS\\_SA\\_DeFynne.pdf](http://cifad.cornell.edu/downloads/CS_SA_DeFynne.pdf). Date of access 12/12/2012.

<sup>70</sup> Ibid.

<sup>71</sup> See Chishakwe, et al., above n20.

<sup>72</sup> Laird, S.A, above n27, at 241.

<sup>73</sup> Mugabe, J, Barber, C.V, Henne, G, Glowka, L, and La Vina, A, 'Managing Access to Genetic Resources: Towards Strategies for Benefit-Sharing', (1996) *Biopolicy International Series No 17*, Nairobi: ACTs Press, in Shishakwe, N, and Young, T.R *Covering ABS: Addressing Need for Sectoral, Geographical, Legal and International Integration on the ABS Regime*, (2009), at 4, Paper and Studies of The ABS Project. IUCN-World Conservation Union.

<sup>74</sup> Glazewski, above n4, at 311.

to plant genetic resources, and on the other hand, to protect provider countries' rights (mainly biodiversity rich countries or developing countries) by virtue of the doctrine of sovereignty.<sup>75</sup>

In this section, two international instruments will be discussed, namely (i) the Convention for the Protection of New Varieties of Plants of the Union for the Protection of New Varieties of Plants, 1961 (hereafter UPOV Convention 1961)<sup>76</sup> and (ii) the International Undertaking on Plant Genetic Resources, 1983 (FAO Undertaking). These have been the first international instruments to address specific issues concerning genetic materials (plant genetic resources) at an international level. They show the place from which the conflict between countries rich in genetic resources and „gene' poor but „technology' rich countries comes from; and the extent to which these countries made an effort to sort out this conflict.

### *2.2.1 Convention for the Protection of New Varieties of Plants of the Union for the Protection of New Varieties of Plants, 1961 (hereafter UPOV Convention 1961)*

The Convention for the Protection of New Varieties of Plants of the Union of the Protection of New Varieties of Plants (UPOV) was signed in Paris in 1961 and entered into force in 1968. The 1961 UPOV Convention was amended in 1972, but its first major revision was in 1978 creating the 1978 UPOV text.<sup>77</sup> UPOV 1978 was modified in 1991, which gave origin to the 1991 UPOV Convention.<sup>78</sup> This Convention is a legally binding international instrument.<sup>79</sup> The objective of the UPOV Convention is „to ensure that the members of the Union acknowledge the achievement of breeders of new varieties of plants, by granting to them intellectual property rights (IPRs).'<sup>80</sup> The Convention provides a sui generis form of

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<sup>75</sup> Ibid, at 311.

<sup>76</sup> „UPOV' is short for the initials of the original name in French: „Union pour la Protection des Obtentions Végétales;’ UPOV is an intergovernmental organization with its headquarters in Geneva, See Marin, P.L.C, *Providing protection for plant genetic resources: Patents, Sui Generis Systems, and Biopartnerships* (2002), at 29.

<sup>77</sup> In November 10, 1972, UPOV 1961 was amended and in 23 October 1978 it was first revised.

<sup>78</sup> The text of the UPOV Convention, available online at:

<http://www.upov.int/en/publications/conventions/1991/act1991.htm>; See also Marin, P.L.C *Providing Protection for Plant Genetic Resources: Patents, Sui generis Systems, and Biopartnerships*, 2002, at 30. Kluwer Law International.

<sup>79</sup> Cabrera Medaglia, J, „The Relationship Between The Access and Benefit Sharing International Regime and Other International Instruments: The World Trade Organization And The International Union For the Protection of New Varieties of Plants,’ (Spring 2010) at 29-30 and 50-53, Volume 10 *Sustainable Development Law & Policy*. Available online at: <http://digitalcommons.wcl.american.edu/sdlp>. Date of access 10/12/2012.

<sup>80</sup> Article 10 of the Convention for the Protection of New Varieties of Plants (UPOV) as revised in 1972, 1978 and 1991.

intellectual protection that is suitable for the process of plant breeding and was developed with the aim of encouraging breeders to develop new varieties of plants.<sup>81</sup>

This instrument offers protection to the breeders in the form of a plant breeder's right.<sup>82</sup> A plant breeder's right grants a legal monopoly over the commercialization of new plant varieties to the plant breeder.<sup>83</sup> However, this right is limited by two important exceptions: the first is known as the breeder's exception which permits the use of the propagating material of the protected variety, without prior authorization, for the purpose of breeding other varieties; the second is known as farmers' privilege and tries to obtain the protection of the common practice of farmers saving their own seeds for the purpose of using them for re-planting.<sup>84</sup>

The UPOV 1991 gives assurance to breeders since it reinforces their protection by making plant breeder rights (PBRs) applicable to harvested products, including entire plants and parts of plants, and essentially derived varieties.<sup>85</sup> Furthermore, States are also allowed to include end products of harvested materials.<sup>86</sup> According to the 'Union pour les obtentions végétales (UPOV),' the stronger protection offered by UPOV 1991 to breeders is an incentive for plant breeding.<sup>87</sup>

The plant breeders' rights exemption makes apparent the desire of the Convention to facilitate plant breeders free access to all kinds of materials needed to make possible progress in the field of plant breeding and thus make the best use of genetic resources for the benefit of society.<sup>88</sup> However, the free exercise of a plant breeder's right may be restricted in the public's interest.<sup>89</sup> The Convention provides a disclosure requirement insofar as it states that plant breeders must usually provide information on the origin of the variety on the technical questionnaire accompanying the application for protection.<sup>90</sup> The UPOV Convention

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<sup>81</sup> Article 11 (1) (2), UPOV Convention Revised text.

<sup>82</sup> Article 14; See FAO Corporate Document Repository, 'Intellectual Property Rights in Plant Varieties,' Part 1, *Office of Director-General*. Available online at: <http://www.fao.org/docrep/007/y5714e/y5714e02.htm#TopOfPage>. Date of access 12/04/2012.

<sup>83</sup> International Union for the Protection of New Varieties of Plants (UPOV), available online: <http://www.patentlens.net/daisy/KeyOrgs/1236/428.html>. Date of access 30/05/2012.

<sup>84</sup> Article 15 (1) (2), UPOV Convention.

<sup>85</sup> Article 14. See Marin, P.L.C, above n78, at 38.

<sup>86</sup> Ibid.

<sup>87</sup> Biber-Klemm, S, and Cottier, T (eds) *Rights to Plant Genetic Resources and Traditional Knowledge: Basic Issues and Perspectives* (2006), at 82. Available online at: <http://www.ielrc.org/content/a0609.pdf>. Date of access 23/02/2012.

<sup>88</sup> Article 17 (1) of the UPOV Convention (Revised text)

<sup>89</sup> Article 17 (2).

<sup>90</sup> Article 12.

promotes the principle of transparency and ethical behaviour regarding the legality of access to genetic resources, including proof of PIC.<sup>91</sup>

The holders of the initial varieties are not entitled to any compensation, except in cases of varieties that are essentially derived.<sup>92</sup>

### 2.2.2 *The International Undertaking on Plant Genetic Resources, 1983 (International Undertaking)*<sup>93</sup>

The International Undertaking (IU) contains provisions dealing with the exploration and collection of plant genetic resources for food and agriculture (PGRFA),<sup>94</sup> preservation, evaluation and documentation of PGRFA in situ and ex situ,<sup>95</sup> access to and availability of PGRFA,<sup>96</sup> international cooperation in conservation, exchange and plant breeding,<sup>97</sup> international coordination of gene bank collections and information systems,<sup>98</sup> PGRFA conservation and management activities funding,<sup>99</sup> and activities monitored by the Food Agriculture Organization (FAO).<sup>100</sup>

The International Undertaking (IU) is a legally non-binding international agreement; it addresses access to PGRFA, including pre-existing ex situ collections in gene-banks and botanical gardens.<sup>101</sup> It was adopted in 1983 by the state members of the intergovernmental FAO Commission on Genetic Resources.<sup>102</sup>

This agreement came from a need for facilitating access to genetic resources.<sup>103</sup> It was the first comprehensive international agreement dealing with PGRFA,<sup>104</sup> and was considered as

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<sup>91</sup> Articles 5 and 12; See also Council of UPOV at its thirty-seventh ordinary session on October 23, 2003, 'Reply of UPOV to the Notification of June 26, 2003, from the Executive Secretary of the Convention on Biological Diversity (CBD)', at 1-5, Available online at:

[http://www.upov.int/news/en/2003/pdf/cbd\\_response\\_oct232003.pdf](http://www.upov.int/news/en/2003/pdf/cbd_response_oct232003.pdf). Date of access 21/03/2012.

<sup>92</sup> Article 16 (2).

<sup>93</sup> The International Undertaking on Plant Genetic Resources, 1983 (FAO Undertaking or IU), available online at: <http://www.fao.org/docrep/011/io510e/io510eoo.htm>. Date of access 15/02/2012.

<sup>94</sup> Article 3 of the International Undertaking.

<sup>95</sup> Article 4.

<sup>96</sup> Article 5.

<sup>97</sup> Article 6.

<sup>98</sup> Article 7.

<sup>99</sup> Article 8.

<sup>100</sup> Article 9.

<sup>101</sup> Rose, G.L., 'The International Undertaking on Plant Genetic Resources for Food and Agriculture': Will the Paper be worth the tree? (2004) *Faculty of Law- Papers*, University of Wollongong, at 5. Available online: <http://ro.uow.edu.au/lawpapers/32/>. Date of 28/05/2012.

<sup>102</sup> Laliberté, B, Engels, J, and Fowler, C, 'The International Undertaking on Plant Genetic Resources: Its relevance to Botanic Garden', (2000) Vol. 3 No 5 *Journal Archives > BGC >*. Available online: <http://www.bgci.org/worldwide/article/156>. Date of access 30/05/2012.

<sup>103</sup> Andersen, R, in Schram Stolle, O, and al, above n40, at 45-46.

an instrument to promote international harmony in matters regarding access to PGRFA.<sup>105</sup> Thus, the International Undertaking seeks to „ensure that plant genetic resources of economic and/or social interest, particularly for agriculture, will be explored, preserved, evaluated and made available for plant breeding and scientific purposes’.<sup>106</sup>

This objective was based on the principle that plant genetic resources are a „common heritage of mankind’<sup>107</sup> and consequently should be available without restriction; they should be conserved for future generations; however, no reference is made to sovereignty of countries over their genetic resources.<sup>108</sup>

The Commission on Plant Genetic Resources’ (CPGR) is an intergovernmental forum of donors and users of plant genetic resources, technology and funds.<sup>109</sup> The FAO Fund for Plant Genetic Resources promotes farmers rights, and what it tried to achieve is: to represent a counterpart to „plant breeders’ rights’.<sup>110</sup> The objective of the Fund is to reward the contributions made by generations of farmers to the conservation, selection, domestication and development of plant genetic resources.<sup>111</sup>

A number of countries expressed their desire to adhere to the IU, but made this subject to certain reservations.<sup>112</sup> In fact, eight industrialized countries issued reservations to the IU.<sup>113</sup>

The concern expressed at the time can be summarized along the following lines:

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<sup>104</sup> FAO Conference, Resolution 8/83, 1983, available online at: <http://www.fao.org/docrep/x5563E/X5563e0a.htm>

<sup>105</sup> Commission on Genetic Resources for Food and Agriculture (CGRFA), „International Undertaking on Plant Genetic Resources for Food and Agriculture’: Negotiations; at 1. Available online: <http://www.fao.org/ag/CGRFA/iu.htm>. Date of access 12/01/2012.

<sup>106</sup> Ibid.

<sup>107</sup> The „common heritage of mankind’ is a concept that emerged at the end of the 1960s to challenge older concepts of *res nullius* and *res communis* as a legal approach to common resources. The concept of common heritage of mankind is distinct from both earlier concepts, in part because of its inclusion of the word „heritage’ connoting a temporal aspect in the communal safeguarding of areas incapable of national appropriation. The nature of the common heritage is a form of trust whose principal aims are exclusive use for peaceful purposes, rational utilization in a spirit of conservation, good management or wise use, and transmission to future generation, See Kiss, A, and Shelton, D *International Environmental Law*, (2000), at 249.

<sup>108</sup> Shaw, N.S, ‘Plant Genetic Resources and the Law,’ (May 2004) *Plant Physiology* 135(1): 10–15. Available online at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC429328/>. Date of access 09/12/2012.

<sup>109</sup> Rosendal, G.K, ‘The Convention on Biological Diversity: „A Viable Instrument for Conservation and Sustainable Use?’, (1995) in Ole Bergensen, O, and Parmann *Green Globe Yearbook of International Co-operation on Environment and Development*, (1995), at 72., at 72.

<sup>110</sup> Ibid.

<sup>111</sup> Ibid, at 72.

<sup>112</sup> Ibid

<sup>113</sup> Ibid., at 19.

(i) [s]ome countries argued that the concept of free availability of PGRFA might be in conflict with certain other international commitments they had entered to, namely the UPOV Convention and the plant breeders' rights this convention provides for; (ii) some countries expressed the feeling that the global system of PGRFA envisaged by the Undertaking was somewhat unbalanced. Their argument was that it failed to recognize „clearly and firmly' the important contributions of farmers to the development of PGRFA, while it may allow rewarding the contributions of modern plant breeders through systems of plant variety protection and patents; (iii) Many countries also argued that any system of PGRFA should more fully reflect the sovereign rights that countries have over their genetic resources.<sup>114</sup>

The Undertaking was the subject of a series of agreed interpretations, in the form of three FAO Conference Resolutions which are now annexed to it.<sup>115</sup>

The 1989 agreed interpretation of the International Undertaking (Resolution 4/89), which elaborates on the 1983 International Undertaking on Plant Genetic Resources, was necessitated by the lack of understanding around the meaning of „access without restriction' to plant genetic resources.<sup>116</sup> Although the Commission reaffirmed in the above-mentioned Resolution 4/89 that PGRs were a „common heritage of mankind' to be „freely available for use', however, it made a remarkable rectification by determining that the term „free access' does not mean free of charge.<sup>117</sup> This provision qualified the concept of „common heritage of mankind' and brought more fairness and equity to the International Undertaking.<sup>118</sup>

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<sup>114</sup> See FAO, 1985: Report of the Commission on Plant Genetic Resources, First Session, Rome, 11-15 March 1985, CPGR/85/REP; FAO, 1985: Report of the Conference of FAO, Twenty-Second Session, Rome 7-28 November 1985, C 1985/REP; FAO, 1986: Report of the Working Group of the FAO Commission on Plant Genetic Resources, 2-3 June 1986, CPGR/87/3, October 1986; FAO, 1986: Progress Report on the International Undertaking on Plant Genetic Resources, CPGR/87/4, December 1986; FAO, 1987: 'Report by the Chairman of the Working Group on its Second Meeting', Report of the Second Session of the Commission on Plant Genetic Resources, CL 91/14, Appendix F.

See also FAO/CPGR (1987): Second Meeting of the Working Group of the Commission on Plant Genetic Resources, 12-13 March 1987, Chairman's Report, CPGR/87/3/Add.1, 17 March 1987; FAO, 1987: Report of the Second Session of the Commission on Plant Genetic Resources, 16-20 March 1987, CL 91/14; FAO, 1987: 'Summary Report on the Deliberations of the Contact Group by its Chairman', Report of the Second Session of the Commission on Plant Genetic Resources, 16-20 March 1987, CL 91/14, Appendix G; FAO, 1987: Report of the Council of FAO, Ninety-first Session, Rome, 17-26 June 1987, CL 91/REP. Read also Sullivan, S.N, „Plant Genetic Resources and the Law,' (2004) *Plant Physiol* 135 (1), at 10-14. Available online at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC429328/>. Date of access 15/07/2012.

<sup>115</sup> Commission on Genetic Resources for Food and Agriculture (CGRFA), above n14, at 1.

<sup>116</sup> FAO Conference Resolution 4/89, [http://www.farmersrights.org/about/fr\\_history\\_part4.html](http://www.farmersrights.org/about/fr_history_part4.html). Date of access 23/03/2012.

<sup>117</sup> Ibid.

<sup>118</sup> Marin, P.L.C, above n78, at 49.

An additional annex to the International Undertaking was approved during the same twenty-fifth session of the FAO Conference in 1989. This gave a summary of the concept and implication of farmers' rights.<sup>119</sup> The FAO Resolution 5/89, in defining the concept of farmers' rights, described them as:

[t]he rights arising from the past, present and future contributions of farmers in conserving improving, and making available plant genetic resources, particularly those in the International Community, as trustees for present and future generations of farmers, for the purpose of ensuring full benefits to farmers, and supporting the continuation of their contributions as well as the attainment of the overall purposes of the International Undertaking.<sup>120</sup>

This definition recognizes the significant role farmers play in the conservation and further development of PGRs.

In 1991, the Conference of FAO adopted a third resolution, known as Resolution 3/91.<sup>121</sup> This is the result of the pressure exercised by developing countries, especially when they realized that „bioprospecting’.<sup>122</sup> could be profitable and that monetary and other benefits could be derived from PGRs.<sup>123</sup> The 1991 agreed interpretation sensibly changed the concept surrounding the principle of „free access’ by stating firmly that, although PGRs are regarded as resources to be shared by everyone and available for all to use, they are subject to the sovereignty of states over PGRs.<sup>124</sup> With the third agreed interpretation of the International Undertaking, plant genetic resources ceased to be public domain resources and „gene rich’ but „technology poor’ states claimed property rights over them.<sup>125</sup> Consequently, in 1991, a new annex to the International Undertaking was adopted.<sup>126</sup>

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<sup>119</sup> FAO Conference Resolution 5/89, Twenty-fifth Session of the FAO Conference, Rome, 1989.

<sup>120</sup> At the second meeting of the FAO Commission on Plant Genetic Resources, the idea of promoting the concept of „farmers’ rights’ was raised. Some members of FAO discussed that the term was too broad and therefore, did not adequately characterize the concept. Instead, they suggested the term, „rights of centre of origin countries’. Commission on Plant Genetic Resources; Second Session; 16-20 March 1987; Rome; FAO.

<sup>121</sup> FAO Conference Resolution 3/91 is the third annex to the International Undertaking. It was adopted 25 November 1991. Report of the Conference of FAO. C91/REP, 26 Session, Rome, 9-27 November 1991.

<sup>122</sup> Bioprospecting is the search for wild species, genes and their products with actual and potential use to humans, see Glazewski, above n4, at 299. It played a catalyst role in the enclosure of plant genetic resources based on a widespread belief that plant resources, as found in the wild, could be extremely valuable.

<sup>123</sup> Dutfield, G, „Sharing the Benefit of Biodiversity: Access and intellectual property rights’, at 2. Available online at: [http://www.iatp.org/files/Sharing\\_benefits\\_of\\_Biodiversityaccess\\_regimes.pdf](http://www.iatp.org/files/Sharing_benefits_of_Biodiversityaccess_regimes.pdf).

<sup>124</sup> FAO Conference Resolution 3/91, above n130..

<sup>125</sup> Sullivan, S.N, „Plant Genetic Resources and the Law,’ (2004) *Plant Physiol* 135 (1), at 10-14. Available online at:

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC429328/>. Date of access 15/07/2012.

<sup>126</sup> See FAO Conference Resolution 3/91, above n121.

Against this unexpected circumstance, the FAO members (most developed countries) wanted the conditions for access to PGRs to be clarified further.<sup>127</sup> Indeed, the 1983 International Undertaking and its related resolutions, extended the concept of „common heritage’ in plant genetic resources beyond its conventional usage.<sup>128</sup> The different changes effected upon the IU made that its original purpose, which was to ensure unrestricted access to genetic resources, became unclear.<sup>129</sup> As new elements had been included in the IU, it made this agreement more complex.<sup>130</sup>

Although the Agreed Interpretations of the International Undertaking (signed in 1989 and 1991) could be considered as a success for biodiversity rich countries in that they put on the agenda farmers’ rights and recognized sovereignty, the changes had little practical impact.<sup>131</sup> This may primarily be linked to the inability of the FAO Fund to attract funding, due to widespread scepticism about the FAO among donor countries.<sup>132</sup>

The first Report on the State of the World’s Plant Genetic Resources noted that there was a loss of diversity in both fields and forests of rural people and in gene banks.<sup>133</sup> Furthermore, it shows that the benefits of PGRs are not being fully realized or shared amongst and within countries. Woodliffe provides a clear and basic solution for this impasse, by declaring that what is necessary is:

a legally just accommodation between the interests of the two groups of countries (gene poor and gene rich countries); one that avoids allocating exclusive rights of ownership of products to either side, preserves access to wild genetic resources and the

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<sup>127</sup> The history of farmers rights in the FAO: Conference Resolutions on Farmers Rights, FAO, 1989: Report of the Conference of FAO, Twenty-fifth Session, Rome, 11-29 November 1989, C 1989/REP; See also C 1991/REP, Conference Resolution 3/91, Report of the Conference of FAO. C91/REP, 26 Session, Rome, 9-27 November 199, paragraph d.

<sup>128</sup> Kloppenburg, J.R, Jr, and Kleinman, D.L., „Seed of controversy: National Property versus Common Heritage’, in Kloppenburg, J.R, Jr (ed.), *Seeds and Sovereignty: The use and control of plant genetic resources*, (1988), at 173, Cited by Sedjo, R.A, „Property Rights, Genetic Resources , and Biotechnological Change,’ (1992), at 204-205, Vol. XXXV *Journal of Law and Economics*, University of Chicago. Available online at: [http://heinonline.org/HoL/Page?handle=hein.journals/jlecono35&div=15&g\\_sent=1&collection=journals](http://heinonline.org/HoL/Page?handle=hein.journals/jlecono35&div=15&g_sent=1&collection=journals). Date of access 01/05/2012.; See also Sullivan, S.N, above n134, at 10-14.

<sup>129</sup> Sullivan, above n125, at 10-14.

<sup>130</sup> Kloppenburg, et al, above n128, at 202-206.

<sup>131</sup> Rosendal, G.K, in Ole Bergensen, et al., above n109, at 72.

<sup>132</sup> Ibid.

<sup>133</sup> FAO Fourth International Technical Conference on Plant Genetic Resources: Leipzig, Germany; 17-23 June 1996, available online at: <ftp://ftp.fao.org/docrep/fao/meeting/014/aj614e.pdf>. Date of access 30/02/2012.

technology that makes use of them and, above all, ensures that indigenous peoples are rewarded for their contribution to the development of a new drug or crop.<sup>134</sup>

Although this seems to be a wise thought and looks like an ideal answer to the recurrent problem of injustice surrounding access to and use of genetic resources, this consideration appears not to take into account the arrogance, egotism, and the greed of the „technology’ rich countries, which would always have the desire to gain more and more without sharing with ‚gene’ rich countries. As illustrated later in this dissertation, it has been a struggle to create access and benefit-sharing requirements that are implemented by user countries in a meaningful way.

### 2.3 Domestic moves towards regulations of access to genetic resources

Prior to the CBD, a few countries developed legal provisions for ABS. However, benefits were usually specifically defined as tangible benefits (such as royalties) and benefit-sharing was largely carried out at government level.<sup>135</sup> Benefits did not reach the traditional owners of genetic resources and associated traditional knowledge.<sup>136</sup> Countries of origin and indigenous and local communities were often not informed about the use of their genetic resources and associated traditional knowledge, limiting opportunities and their ability to negotiate, and precluding them from sharing in the benefits of their own resources.<sup>137</sup>

Nevertheless, national governments have made an effort to regulate genetic resources with the intent of ending the ‚common heritage’ regime, which favoured free access to genetic resources. This section discusses examples of countries that took measures to resolve that issue before the advent of the CBD. Accordingly, the study focuses on the regulatory system governing access to genetic resources in that period of time for the Philippines and Costa Rica because they are both rich in terms of biodiversity and represent valuable examples.

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<sup>134</sup> Woodliffe, J, „Biodiversity and Indigenous Peoples,’ in Bowman, M, and Redgwell, C (eds) *International Law and the Conservation of Biological Diversity*, (1996) at 265, Kluwer Law International.

<sup>135</sup> Singh N.G, „Taking active steps towards preserving biodiversity in India’, (2010) *China Law and Practice*. Available online at: <http://www.chinalawandpractice.com/Article/2443458/Taking-active-steps-towards-preserving-biodiversity-in-India.html?Print=true>. Date of access 27/05/2012.

<sup>136</sup> Ibid.

<sup>137</sup> International Center for Integrated Mountains Development (ICIMOD), „ABS Home legislation in the Himalayas CBD-ABS’, available at: <http://www.icimod.org/ABS>, date of access 15/12/2011.

### 2.3.1 The Philippines

Prior to 1987, the National Museum of Philippines was the government agency regulating the collection of biological samples in accordance with the Republic Act No. 4846, as amended by Presidential Decree No. 374 of January 10, 1974.<sup>138</sup>

In 1987, the Protected Areas and Wildlife Bureau (PAWB), under the Department of Environment and Natural Resources (DENR), emerged insofar as it was given a bigger role in regulating collection activities. The PAWB was to receive all the requests for collections involving endangered species of fauna.<sup>139</sup>

In 1990, a memorandum of agreement (MOA) was executed by various government agencies; this memorandum contained the „Guideline for collection of biological specimens in the Philippines’<sup>140</sup> for both local and foreign collectors of biological specimens, including materials for bioprospecting.<sup>141</sup> The MOA provided restrictions and a control mechanism for the entry and exit of biological specimens to prevent „technical smuggling under the guise of educational, scientific, or research purposes’.<sup>142</sup> Among its specific features was that approval of collection had to be obtained from the Director of the National Museum or the head of a collaborating local research institution or University.<sup>143</sup>

The MOA also provided a code of ethics for collections of biological specimens in the Philippines.<sup>144</sup> Other relevant provisions of the MOA included: protection from wanton exploitation of biological resources by limiting collections to the minimum possible number;<sup>145</sup> recognition and respect for indigenous communities, including their customs,

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<sup>138</sup> Benavidez II, P.J, „Philippines: Evolving Access and Benefits-Sharing Regulations’, in Carrisoza, S, Brush, S.B, Wright, B.D, and McGuire, P.E (eds) *Accessing Biodiversity and sharing the benefits: Lessons from implementing the Convention on Biological Diversity*, Environment, Policy and Law, Paper No 54, at 154. IUCN-The World Conservation Unit.

<sup>139</sup> Ibid.

<sup>140</sup> Memorandum of Agreement, available online at: <http://www.ncbi.nlm.nih.gov/pubmed/9213618>, date of access 12/02/2012; See Razal, R.A, Tolentino, E.L, Garcia, Jr. M.U, Fernando,E.S, Baguinon,N.T, Quimado, M.O, Donoso, L.A, and Luna, A.C, „Status of forest genetic resources conservation and management in the Philippines,’ in Country Reports 2000-2006, at 253, College of Forestry and Natural Resources, University of the Philippines Los Baños, Laguna, Philippines. Available online at: [http://www.apforgen.org/pdf\\_files/APFORGEN-IWS-Philippines.pdf](http://www.apforgen.org/pdf_files/APFORGEN-IWS-Philippines.pdf). Date of access 20/07/2012.

<sup>141</sup> Benavidez II, above n138, at 147.

<sup>142</sup> Ibid.

<sup>143</sup> Ibid.

<sup>144</sup> Ibid.

<sup>145</sup> Sub-section 3 (3) (a) of the Memorandum of Agreement.

tradition, and folk knowledge;<sup>146</sup> participation of local counterparts in the collection and sharing of authorship in publications arising from these activities.<sup>147</sup>

However, the Guidelines for the Collection of Biological Specimens in the Philippines fell short of providing the government with a regulatory framework for bioprospecting.<sup>148</sup>

It should be noted that with the entry the implementation of the CBD, the MOA proved to be inadequate in terms of compliance with the provisions of this Convention, because it was principally ‚an administrative coordination and permitting system and not a regulatory framework for bioprospecting’.<sup>149</sup> In other words, the collection of wildlife species, under the supervision of the National Museum of Philippines, was regulated by an administrative coordination and permit system that did not meet the standards and requirements dictated by the CBD. Moreover, the MOA does not contain clear provisions on issues relating to equitable return of benefits to the country and to the indigenous and local communities, transfer of technology and protection of Intellectual Property Rights (IPRs) of the indigenous communities.<sup>150</sup>

The Philippines ratified the CBD on 08 October 1993.<sup>151</sup>

### 2.3.2 Costa Rica

Prior to the advent of the CBD, Costa Rica enacted the Forest Law No 4465 of 1969, that contains in its provisions the chapter relating to the Regulation of Investigations in National Parks Decree 12329-A of 1981.<sup>152</sup> The gathering and research activities on biological diversity were regulated through the Wildlife Conservation Law of 1992.<sup>153</sup>

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<sup>146</sup> Sub-section 3 (2) (b).

<sup>147</sup> Benavidez II, above n138, at 154.

<sup>148</sup> La Viña, A.G.M., Caleda, M.A, and M. L. Baylon, M.L (eds.) *Regulating access to biological and genetic resources in the Philippines* (A Manual in the Implementation of Executive Order No. 247), (1997), at 64, Foundation for Philippine Environment and World Resources Institute, Philippines, cited by Razal, R.A, and al, above n140, at 256-258.

<sup>149</sup> Ibid.

<sup>150</sup> Madulid, D.A *On bioprospecting and collection of biological specimens in the Philippines*, 1995, Philippines Biodiversity Information Center Plant Unit New letter 2:1, cited by Benavidez II, P, above n138, in ‚Assessing Biodiversity and Sharing the Benefits: Lessons from Implementating the Convention on Biological Diversity’, Carrizosa, S, Brush, S.B, Wright, B.D, and McGuire, P.E (eds), 2004, IUCN Environmental Policy and Law Paper No 54, or available online at: [http://www.era.mix.org/biblio/carrizosa\\_et\\_al\\_2004.pdf](http://www.era.mix.org/biblio/carrizosa_et_al_2004.pdf). Date of access 24/02/2012.

<sup>151</sup> Republic of the Philippines *Assessing progress towards the 2010 Biodiversity Target: The 4<sup>th</sup> National Report to the Convention on Biological Diversity*, (2009), at 12. Available online at: <http://www.cbd.int/doc/world/ph/ph-nr-04-en.pdf>. Date of access 02/09/2012.

<sup>152</sup> See the first Forest Law No 4465 of 1969, Costa Rica, available online at:

However, after the forest law, a typical example of Mutual Agreed Terms (MAT) in accordance with the access to genetic resources and benefit-sharing was adopted in Costa Rica. It is the National Biodiversity Institute (INBIO) in Costa Rica, set up in 1989. The concept and practice of „bioprospecting’ and „benefit-sharing’ have been developed by this institution and these serve as one answer to the need for sustainable use of Costa Rica biodiversity to benefit society.<sup>154</sup> INBIO has a formal agreement with the Minister of Environment and Energy (MEE) that allows it to carry out specific national inventory activities and use of the biodiversity in the country’s protected areas.<sup>155</sup> In the framework of research, INBIO works together with investigation centres, universities and national and international private companies by means of investigation agreements.<sup>156</sup> The agreements specify that 10 percent of the research budgets and 50 percent of the future royalties are to be donated to the MEE to be reinvested in conservation issues.<sup>157</sup> The research budget is of great importance since it helps to enhance the scientific infrastructure in the country, and also encourages activities for the conservation and sustainable use of the biodiversity.<sup>158</sup>

Costa Rica ratified the CBD and so became a Contracting Party to it on August 26, 1994.<sup>159</sup>

## 2.4 Conclusion

Chapter 2 reviewed some concepts related to genetic resources and showed that there is still a need to develop the existing understanding of the concept ‚genetic resources’. It has been demonstrated that genetic resources have a commercial value that has always been of interests to countries in the industrial world.

This Chapter further discussed the historical treatment of genetic resources at international level, highlighting two Conventions, the UPOV Convention and the International Undertaking

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<http://unu.edu/publications/articles/ethics-and-environmentalism-costa-ricas-lesson.html>. Date of access 10/12/2012.

<sup>153</sup> Article 1-18, the 1969 Forest Law, above n160.

<sup>154</sup> Richerzhagen, C, above n13, at 162-164.

<sup>155</sup> ‚Biodiversity, access and benefit-sharing: Weaving a rope of sound;’

Available online: <http://www.ias.ac.in/currensci/10feb2011/290.pdf> author? Date of access 17/05/2012.

<sup>156</sup> Richerzhagen, C, above n13, at 162-164.

<sup>157</sup> Lewis-Lettington, R.J, and Mwanyiki, S (eds) *Cases studies on access and benefits-sharing*, Box. 2, 2006, at 10. Available online at:

[http://www.biodiversityinternational.org/fileadmin/biodiversityDocs/Policy/Access\\_and\\_Benefit\\_Sharing/ABS\\_CaseStudies\\_IPGRI\\_06\\_58.pdf](http://www.biodiversityinternational.org/fileadmin/biodiversityDocs/Policy/Access_and_Benefit_Sharing/ABS_CaseStudies_IPGRI_06_58.pdf). Date of access 17/05/2012. See also Richerzhagen, C, above n13, at 70.

<sup>158</sup> Ibid.

<sup>159</sup> United Nations Development Programme (UNDP) Project: *Costa Rica: Overcoming barriers to sustainability of Costa Rica’s Protected Areas System*, (2008), at 11. Available online at:

[http://www.thegef.org/gef/sites/thegef.org/files/repository/Costa%20Rica\\_09-03-](http://www.thegef.org/gef/sites/thegef.org/files/repository/Costa%20Rica_09-03-08_Overcoming_Barriers_Sustainability_PAS_GEFID2773.pdf)

[08\\_Overcoming\\_Barriers\\_Sustainability\\_PAS\\_GEFID2773.pdf](http://www.thegef.org/gef/sites/thegef.org/files/repository/Costa%20Rica_09-03-08_Overcoming_Barriers_Sustainability_PAS_GEFID2773.pdf). Date of access 02/03/2012.

(IU), that have been the first to deal with issues relating to genetic material, especially, plant genetic resources.

The Philippines and Costa Rica are value examples of countries that made an effort to promote and regulate genetic resources at domestic level, prior to the entry into force of the CBD. The next Chapter will discuss the development of measures to regulate access and benefit-sharing at the international level.

## Chapter Three: International Instruments Designed to Regulate the Use of Genetic Resources

### 3.1 Introduction

A number of legally binding and non-binding global and regional instruments address the management of genetic resources, especially access to genetic resources and the equitable sharing of benefits obtained from their use. In dealing with this issue, those instruments come into play in that they contribute to the efforts provided by countries in possession of genetic resources to bring to an end the problem relating to biopiracy and unsustainable use of these resources.<sup>160</sup> Unfortunately, however, these instruments have not succeeded in eliminating biopiracy. In order to be able to assess the contribution that the Nagoya Protocol makes to the International Regime on ABS, it is necessary to look at the ABS instruments that existed before the Protocol and to evaluate their strengths and weaknesses.

This chapter of the dissertation examines those instruments. At the global level, the most commonly mentioned agreements that contain the international system of governance for genetic resources, in addition to the Convention on Biological Diversity (CBD), are: the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA);<sup>161</sup> the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs)<sup>162</sup> and the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, 2003 (Bonn Guidelines).<sup>163</sup> However, the Seventh Conference of Parties to the CBD (COP7)<sup>164</sup> also recognized other relevant international instruments which will not be analysed within the scope of this work.<sup>165</sup> At a regional level, reference will

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<sup>160</sup> Mumba, L.E, and Marandu, W Traditional Knowledge and Plant Genetic Resources Guidelines, (2012) at 1-2, Southern Africa Network for Biosciences (SANBio). Available online at: <http://naturaljustice.org/wp-content/uploads/pdf/SanBioGuidelines.pdf>. Date of access 01/01/2013.

<sup>161</sup> International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), 2001, available online at: <http://ftp.fao.org/docrep/fao/011/io510e/io510e.pdf>. Date of access 12/12/2011.

<sup>162</sup> Agreement on Trade-Related International Properties (WTO/TRIPS), 1994, available online at: [http://www.wto.org/english/tratop\\_e/trips\\_e/trips\\_e/t\\_agm0\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/trips_e/t_agm0_e.htm). Date of access 12/12/2011.

<sup>163</sup> Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, 2003 (Bonn Guidelines), available online at: <http://archive.defra.gov.uk/environment/biodiversity/geneticresources/documents/bonnguidelines.pdf>. Date of access 05/01/2012.

<sup>164</sup> Decisions VII/26 adopted by the Conference of the Parties to the Convention on Biological at its Seventh Meeting. Available online at: <http://www.cbd.int/decisions/cop/?m=cop-07>. Date of access 20/11/2012.

<sup>165</sup> Decision 486 of the Andean Community, available at: <http://www.wipo.int/wipolex/en/details.jsp?id=9451>; United Nations Convention on the Law of the Sea, available at: [http://www.un.org/Depts/los/convention\\_agreements/texts/unclos/unclos\\_e.pdf](http://www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf); Convention in International Trade in Endangered Species of Wild Fauna and Flora, available at: <http://www.cites.org/eng/disc/text.php>; the Universal Declaration of Human Rights, available at: <http://www.un.org/en/documents/udhr/index.shtml>;

be made to the 1996 Decision 391 of the ANDEAN Pact (Community of Five Nations) on ABS processes and procedure,<sup>166</sup> and the African Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, 1994 (African Model Law).<sup>167</sup> This study will evaluate these abovementioned instruments determining their strengths and weaknesses.

### 3.2 Binding global instruments

#### 3.2.1 *The 1992 Convention on Biological Diversity (CBD)*<sup>168</sup>

Before the arrival of the CBD, the concern of international environmental treaties was mainly concentrated on the issues related to how to bring to an end the excess exploitation of particular species.<sup>169</sup> The focus of both national and international conservation activities was still on wild species of plants and animals;<sup>170</sup> and most of the initial conservation treaties and conservation work at a national level, dealt with specific species and particular ecosystems.<sup>171</sup> In contrast, the CBD, adopted during the 1992 United Nations Conference on Environment and Development (UNCED), was the first effort to address biodiversity<sup>172</sup> as a global issue.<sup>173</sup>

The CBD constitutes a statement by the international community admitting that rich industrialized nations have always exploited poor nations' biological resources without providing sufficient compensation.<sup>174</sup> Thus, the Convention deals not only with protection

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Antarctic Treaty, available at: <http://www.nsf.gov/od/opp/antarct/anttrty.jsp>; the International Covenant on Civil and Political Rights, available at <http://www.globalization101.org/international-covenant-on-civil-and-political-rights/>; the International Covenant on Economic, Social and Cultural Rights. Available online at: <http://www.cbd.int/doc/decisions/cop-07/full/cop-07-dec-en.pdf>. Date of access 20/11/2012.

<sup>166</sup> Decision 391 of the Andean Pact: Common Regime on Access to Genetic Resources, 1996, available online: <http://www.wpo.int/wipolex/en/details.jsp?id=9446>. Date of access 21/03/2012.

<sup>167</sup> African Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, 1994 (African Model Law), available online at: [http://www.opbw.org/nat\\_imp/model\\_laws/oau-model-law.pdf](http://www.opbw.org/nat_imp/model_laws/oau-model-law.pdf). Date of access 21/03/2012.

<sup>168</sup> Convention on Biological Diversity, 1992; available online at: <http://www.cbd.int/convention/text/>. Date of access 12/09/2011.

<sup>169</sup> GBO1 (Global Biodiversity Outlook), „The Convention on Biological Diversity’, See Chapter 2 of the Report. Available online at: <http://www.cbd.int/gbo1/introduction.shtml>. Date of access 12/06/2012.

<sup>170</sup> Rosendal, in Ole Bergensen, et al, above n109, at 70.

<sup>171</sup> Louka, E *International Environmental Law: Fairness, Effectiveness, and World Order*, (2006) at 299. Cambridge University Press.

<sup>172</sup> In a sense the term ‚biodiversity’ or ‚biological diversity’ represents the basis of all life on our planet. Biodiversity covers the diversity of life on all these levels, the diversity within species (genetic level), between species (species diversity level) and the variability of habitats (ecosystems level), see Institute for biodiversity (IB), „What does biodiversity mean?’ (2012) Science and Business Experts Network. Available online at: <http://www.biodiv.de/index.php?id=13&L=1>

<sup>173</sup> Kiss, et al, (2000), above n107, at 358.

<sup>174</sup> Smagadi, A, „National measures on access to genetic resources and benefit sharing- The case of the Philippines’, (2005) 1/1 *Law, Environment and Development Journal*, at 52; available online at: <http://www.lead-journal.org/content/05050.pdf>. Date of access 12/01/2012.

issues but also with the problems connected to how to dispatch benefits from the exploitation and the commercialization of biodiversity resources.<sup>175</sup> However, this Convention shows its limits in that it does not solve all problems related to the management of genetic resources.

The Convention is a „framework Convention”<sup>176</sup> in that it makes an effort to summarize a regime for biodiversity protection by focusing on *in situ* conservation and, to some extent, on the restoration of deteriorated ecosystems and gene bank management.<sup>177</sup>

In this section the following points will be examined: (i) The CBD as a global Convention on biological diversity; (ii) the discussion of ABS in the negotiation of the CBD; (iii) a survey of the provisions related to ABS in the CBD; (iv) the weaknesses of the CBD’s current ABS provisions; and (v) how both user and provider countries have gone about implementing the CBD’s ABS provisions. The study looks at some examples of specific countries.

### *3.2.1.1 The CBD as a global convention on biological diversity*

The CBD, as noted above, is the first international instrument to address the problem of loss of biodiversity<sup>178</sup> on a global scale. Until its adoption, biodiversity issues were addressed through regional conservation treaties and global agreements on the protection of certain species and habitats.<sup>179</sup> Indeed, for many years, aspects of biodiversity management figured on the international agenda, although early international environmental treaties were mainly concerned with controlling the excess exploitation of particular species.<sup>180</sup>

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<sup>175</sup> Louka, above n171, at 299.

<sup>176</sup> A framework Convention is a legally binding international treaty establishing general guidelines and principles for international governance on a particular issue; separate, more detailed legal instruments called Protocols can be attached to a framework convention whose mission is to address specific aspects of an issue, see World Health Organisation (WHO), „Framework Convention on Tobacco Control (FCTC),’ (2012). Available online at: <http://www.who.int/trade/glossary/story031/en/index.html>. Date of access 13/10/2012.

<sup>177</sup> Ibid., at 300.

<sup>178</sup> „Biodiversity „or „biological diversity’ means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems, see Article 2 of the CBD.

<sup>179</sup> See, e.g., Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, 3 March 1973, 12 *Int’l Leg. Mat.* 1085 (1973); Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 23 June 1979, 19 *Int’l Leg. Mat.* 15 (1980); Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Ramasar, 2 February 1971, 11 *Int’l Leg. Mat.* 963 (1972); the 1976 Convention on the Conservation of Nature in the South Pacific; the 1978 Amazonian Treaty, the 1979 Berne Convention on the Conservation of European Wildlife and their Natural Habitats, in Boisson de Chazournes, L, „Convention on Biological Diversity and its Protocol on Biosafety,’ (2009) *United Nations Audiovisual Library of International Law*. Available online at: [http://untreaty.un.org/cod/avl/pdf/ha/cpbcbd/cpbcbd\\_e.pdf](http://untreaty.un.org/cod/avl/pdf/ha/cpbcbd/cpbcbd_e.pdf). Date of access 20/11/2012.

<sup>180</sup> Secretariat of the Convention on Biological Diversity, „Global Biodiversity Outlook 1 (GBO1),’ available online at: <http://www.cbd.int/gbo1/foreword.shtml>. Date of access 02/01/2013.

The Convention is known as the first effort to remedy the lacunae coming from the old system of biological material management by initiating a ‚more comprehensive and inclusive’ system of governance for conservation of biodiversity.<sup>181</sup> Therefore, it is the first global agreement to address comprehensively all aspects of biological diversity: genetic resources, species and ecosystems.<sup>182</sup> As an international treaty, it deals with all aspects of biological diversity, including its conservation, access and sustainable use.<sup>183</sup>

The Convention extends in coverage, from the conservation of endangered species, to protecting indigenous knowledge, to dealing with the safety ramifications of genetic modification, and ultimately, the global phenomenon of bioprospecting.

The Convention contains provisions which, address the issues related to responsibility for and redress of transfrontier damage,<sup>184</sup> cooperation,<sup>185</sup> and access to information.<sup>186</sup>

### *3.2.1.2 The discussion of ABS in the negotiation of the CBD*

In 1989, the UN Environment Programme (UNEP) was given the formal mandate of negotiating what was to become the Convention on Biological Diversity. The negotiation of the CBD began with a UNEP *ad hoc* Working Group of legal and technical experts, and in early 1991, an Intergovernmental Negotiating Committee (INC) was created.<sup>187</sup> However, it is important to underline that the Group of Legal and Technical Experts met three times between November 1990 and July 1991, before it was renamed as the Intergovernmental Negotiating Committee (INC) for a Convention on Biological Diversity, and the group, under this new name, held another four meetings until the Convention text was finally agreed upon on 23 May 1992.<sup>188</sup>

During the negotiations, a very important issue related to the question of property rights over genetic resources.<sup>189</sup> Indeed, the developing countries’ objective was to put an end to the

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<sup>181</sup> Birnie, P, Boyle, A, and Redgewell, C *International Law and Environment*, Third Edition, at 612-613. Oxford University Press.

<sup>182</sup> Glowka, et al., above 36, at 1.

<sup>183</sup> Staianoff, N.P. *Accessing Biological Resources: Complying with the CBD* (2004), at 229. Kluwer Law International.

<sup>184</sup> Articles 3 and 14 of the CBD.

<sup>185</sup> Article 5.

<sup>186</sup> Article 14 and 17.

<sup>187</sup> Rosendal, in Ole Bergensen, et al., above n109, at 73; see also Secretariat of the CBD, ‚History of the Convention.’ Available online at: <http://www.cbd.int/history/>. Date of access 12/10/2012.

<sup>188</sup> Boisson de Chazournes *Biodiversity and the Human Environment*, Audiovisual Library of International Law. Available online at: <http://untreaty.un.org/cod/avl/ha/cpbcbd/cpbcbd.html>. Date of access 02/01/2013.

<sup>189</sup> *Ibid*, at 70.

„common heritage of mankind’ regime. As biologically-rich states, they were claiming national sovereignty over genetic resources that they considered as a heritage of the „gene rich’ South, regarding them „as national assets along the lines of other natural resources, like oil and minerals’.<sup>190</sup>

Taking into account the question concerning the „widening scope of industrial patent’, developed countries advocated the principle that all countries should provide and respect protection of intellectual property in all technical fields, including biotechnology.<sup>191</sup> However, „gene’ rich countries have been strongly opposed to this principle, stating firmly that the patent system benefits only those developed states that are already technologically and ecologically strong.<sup>192</sup>

Another issue was a concern relating to indigenous and local communities. Indeed, genetic resources may have been developed with the contribution, in terms of knowledge, from indigenous and local communities;<sup>193</sup> however, historically, these people have often been neglected in that technology rich countries and even national authorities have failed to take proper care of them.<sup>194</sup>

### *3.2.1.3 A survey of the provisions related to ABS in the CBD*

The CBD provides the conditions under which the benefits obtained from the use of genetic resources should be shared with the countries where the resources are situated.<sup>195</sup> Indeed, the Convention recognized the sovereignty of States over their natural resources and the need to share fairly and equitably the benefits deriving out of the use of genetic resources.<sup>196</sup>

More specifically, Article 15 of the Convention, supplemented by Articles 16 and 19, addresses the terms and conditions for access to genetic resources and benefit-sharing.<sup>197</sup> In addition, the CBD, through Article 8 (j), deals with the knowledge, and practices of

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<sup>190</sup> Ibid, at 71.

<sup>191</sup> Ibid, at 72.

<sup>192</sup> GATT, „Communication from India: Standards and Principles Concerning the Availability, Scope and Use of Trade-Related Intellectual Property Rights’, (1989) GATT Secretariat, NTN GNG/NG11/W/37.

<sup>193</sup> Feris, L, „Legal framework for the protection of biodiversity related traditional knowledge’, (2004) 11 *SAJELP*, at 1-5.

<sup>194</sup> Ibid.

<sup>195</sup> Zedan, H, „Convention on Biological Diversity’ Document presented at the WIPO Seminar on Intellectual Property and Development; (2005), at 3. Available online at: [http://www.wipo.int/edocs/mdocs/mdocs/en/isipd\\_05/isipd\\_05\\_www\\_103974.pdf](http://www.wipo.int/edocs/mdocs/mdocs/en/isipd_05/isipd_05_www_103974.pdf). Date of access 12/05/2012.

<sup>196</sup> See Articles 3 and 15 of the CBD.

<sup>197</sup> See Articles 15, 16, and 19 of the CBD.

indigenous and local communities including their traditional way of life.<sup>198</sup> The following short comments on the above-mentioned Articles will help to shed light on the way in which the CBD deals with the problems relating to the management of genetic resources.

According to Article 15 (1) of the Convention, States have sovereign rights over their natural resources. This authorizes them to decide, in the framework of their national legislation, to grant or not grant access to their genetic resources. However, those rights do not amount to allowing the state a property right over these resources.<sup>199</sup> Indeed, the Convention does not address issues related to ownership; they are dealt with by national law.<sup>200</sup>

Article 15(2) recognizes the authority of each Contracting Party to decide whether to grant access to its genetic resources. It requires each Contracting Party to try ‘to create conditions that facilitate access to their genetic resources for environmentally sound uses by other Contracting Parties,’ and to ‘not impose restrictions that run counter to the objectives of the Convention’. Nevertheless, the Convention does not provide the meaning of the wording ‘environmentally sound uses’. This would be left to the discretion of the Party providing the genetic resources.<sup>201</sup>

Article 15(3) of the CBD restricts the genetic resources covered by Article 15 (as well as Articles 16 and 19) to those provided by Parties that are countries of origin, or provided by Parties that have acquired the genetic resources in accordance with the CBD.

Only these two categories of genetic resources give the provider a right to benefits under the CBD.

Pursuant to Article 15 (4), access to genetic resources requires mutually agreed terms (MAT). MAT encompasses the agreement through which a Contracting Party (provider country) agrees to grant access to genetic resources to another Party (user country) or an entity that expresses the desire to access those resources. Access agreements are the primary means for

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<sup>198</sup> Glowka et al., above n36, at 48.

<sup>199</sup> Ibid.

<sup>200</sup> Ibid, at 20.

<sup>201</sup> Nieto Carrasco, J, Kamau, E.C, Oliva, M.J, Ahren, J.M, Perron-Welch, F, Cabrera Medaglia, J, Ali, N, and China Williams, *C An Explanatory Guide to the Nagoya Protocol on Access and Benefit-sharing*, Draft 1.1 for review, at 6. Available online at: [https://cmsdata.iucn.org/downloads/an\\_explanatory\\_guide\\_to\\_the\\_nagoya\\_protocol.pdf](https://cmsdata.iucn.org/downloads/an_explanatory_guide_to_the_nagoya_protocol.pdf). Date of access 12/05/2012.

Parties not only to authorize access to genetic resources, but also to agree on a return of benefits from subsequent use.<sup>202</sup>

Article 15 (5) provides that access to genetic material shall be subject to the PIC of the Contracting Party providing genetic resources unless otherwise determined by that Party. In other words, the informed consent of this above-mentioned Contracting Party is required prior to access and subsequent export of genetic resources from it.

The sentence „unless otherwise determined by that Party’ means that imposing the PIC requirement is an option for the Contracting Party providing genetic resources rather an obligation.<sup>203</sup> This has an important legal consequence: a user is only required to submit to PIC if the providing Party has come to a decision to establish the necessary procedure in its legal system.<sup>204</sup> If a Party fails to do so, its ability to control the user’s access is lost unless the user voluntarily chooses to ask the Party’s consent.<sup>205</sup> This sentence also demonstrates the freedom that a Party has to decide in which circumstances PIC will apply.<sup>206</sup>

Article 15 (6) urges each Contracting Party to try to develop and carry out scientific research based on genetic resources provided by other Contracting Parties „with the full participation of, and where possible in, such Contracting Parties.’

Article 15 (7) requires each Contracting Party to develop legislative, administrative or policy measures with the objective of ensuring a fair and equitable sharing of benefits with the Contracting Party where the genetic resources come from. This provision requires that sharing of benefits is to be on mutually agreed terms.

Pursuant to Article 16 (3), each Contracting Party is encouraged to create appropriate conditions that permit Contracting Parties providing genetic resources, to have access to and transfer of the technology that makes use of such resources.

Article 19 (1) provides that each Party must take measures to provide for participation in technological research activities by Parties, especially developing countries, which provided the genetic resources for such research.

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<sup>202</sup> Louka, E, above n171, at 304.

<sup>203</sup> Ibid.

<sup>204</sup> Hendrickx, F, Koester, V, and Prip, C, „The Convention on Biological Diversity: Access to Genetic Resources: A legal analysis’, (1993) *Environmental Law and Policy* 23, at 250.

<sup>205</sup> Glowka et al., above 36, at 81.

<sup>206</sup> Ibid, at 81.

State Parties must, according to Article 19 (2), take measures to advance priority access, on a fair and equitable basis by Parties, to benefits coming from technology that is based on genetic resources provided by such Parties.

Article 8 (j) deals with the issue relating to traditional knowledge (TK), while Article 15 of the CBD does not address this issue. Article 8(j) of the CBD requires each Contracting Party, as far as possible and appropriate and subject to its national legislation to: (i) respect, preserve and maintain knowledge, innovations and practices of ILCs embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity; (ii) promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices; and (iii) encourage equitable sharing of benefits derived from their utilization. Thus, through the second and third obligations, this provision (Article 8 (j)) establishes the necessary connexion between genetic resources and traditional knowledge in the context of ABS.<sup>207</sup>

#### *3.2.1.4 The weaknesses of the CBD's current Access and Benefit-Sharing (ABS) provisions*

The reasons why there have been problems with the implementation of the provisions of the CBD related to ABS could include the following :

(a) The use of qualifier language

Certain provisions of the CBD contains qualifier language.<sup>208</sup> The use of terms like 'as far as possible' and 'as appropriate' may be the recognition of the difference in terms of capacities and capabilities of the Contracting Parties.<sup>209</sup>

(b) The CBD does not provide a detailed system for ABS

The CBD is both an international treaty, and thus a source of international law, and an institutional framework for the continual development of legal, policy and scientific initiatives on biological diversity.<sup>210</sup> Indeed, a framework Convention is a legally binding international treaty establishing general guidelines and principles for international governance on a

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<sup>207</sup> Nieto Carrasco et al., above n201, at 8.

<sup>208</sup> Articles 5, 7, 10, 15, 16, and 19, of the CBD.

<sup>209</sup> Frater , L, *Protecting Indigenous Knowledge: The Role of the Convention on Biodiversity and Intellectual Property Rights*, (2009), at 19, Working Paper Series No. 52, The Centre For Business Relationships, Accountability, Sustainability and Society. Available online at: [http://www.brass.cf.ac.uk/uploads/WP52\\_Indigenous\\_Knowledge.pdf](http://www.brass.cf.ac.uk/uploads/WP52_Indigenous_Knowledge.pdf). Date of access 12/09/2012.

<sup>210</sup> Ten Kate, et al., above n9, at 13.

particular issue; separate, more detailed legal instruments, called Protocols, can be attached to a framework convention whose mission is to address specific aspects of an issue.<sup>211</sup>

The complex subject matter of ABS, its potentially important impact on uses of genetic resources and related information as well as the lack of detail and guidance in Articles 15, 16, 19, and 8 (j) of the CBD have caused a low level of domestic implementation by Contracting Parties to the CBD.<sup>212</sup> Assuredly, the Convention did not provide enough details on how transactions of genetic resources (PIC and MAT) are to take place to be consistent with the Convention.<sup>213</sup> The result is that different countries have taken different approaches to ABS, and that very few user side measures have been taken.

(c) Lack of provisions specifically dealing with the monitoring of implementation of the CBD's ABS provisions

The CBD does not contain any provision specifically addressing the „monitoring’ of ABS activities. The Convention does not define „monitoring’, but it does specify that the components of biodiversity that are important for its conservation and sustainable use are to be monitored through sampling and other techniques.<sup>214</sup> Thus, there is a need to monitor ABS activities in particular so as to deter bio-piracy.

(d) The Convention does not contain provisions effectively combating bio-piracy

Bio-piracy is the „commercial development of naturally occurring biological materials, such as plant substances or genetic cell lines, by a technologically advanced country or organization without fair compensation to the people or nations in whose territory the materials were originally discovered’.<sup>215</sup> In other words, bio-piracy is an uncompensated export of indigenous biodiversity.

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<sup>211</sup> World Health Organisation, „Framework Convention on Tobacco Control (FCTC),’ (2012). Available online at: <http://www.who.int/trade/glossary/story031/en/index.html>. Date of access 13/10/2012.

<sup>212</sup> Secretariat of the CBD, „Compilation of submission by Parties on experience in developing and implementing Article 15 of the CBD at the national level and measures taken to support compliance with prior informed consent (PIC) and mutual agreed terms (MAT),’ (2007) UNEP/CBD/WG-ABS/5/INF/2.

<sup>213</sup> Koester, V, „The Nagoya Protocol on ABS: ratification by the EU and its Member States and implementation challenges,’ (June 2012) No 03/12 *Biodiversity*, IDDRI (Institut du Développement Durable et des Relations Internationales), at 7. Available online at: [http://www.iddri.org/Publications/Collections/Analyses/STUDY0312\\_VK\\_nagoya\\_abs.pdf](http://www.iddri.org/Publications/Collections/Analyses/STUDY0312_VK_nagoya_abs.pdf). Date of access 12/04/2012.

<sup>214</sup> Article 7 (b) of the Convention on Biological Diversity.

<sup>215</sup> Science dictionary; available online at: <http://www.science-dictionary.com/definition/biopiracy.html>. Date of access 13/12/2011.

Biodiversity rich states accused their industrialized counterparts of systematically supporting „bio-piracy’, despite the entering into force of the CBD.<sup>216</sup> This is not imaginary insofar as technology rich countries continue to break the principle of benefit-sharing dictated by the Convention. Nevertheless, by requiring PIC, MAT and benefit-sharing, the CBD essentially requires Parties to not engage in bio-piracy.<sup>217</sup>

(e) The lack of understanding and clarification of some key terms and concepts

In a number of instances, potentially useful concepts have been given a short description and few details by the CBD and seem to need to be more concretely clarified:<sup>218</sup>

*(i) Distinction between countries of origin and source countries*

The CBD identifies two categories of countries providing access and receiving a share of benefits, based on their relationship to genetic resources that they provide.<sup>219</sup>

The first is the country of origin of a species: the country which possesses in its conditions where genetic resources exist within ecosystems and natural habitats, and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.<sup>220</sup>

By contrast, the „country providing genetic resources’ (generally referred to as the „source country’) is the country supplying the particular specimens of genetic resources in a particular transaction.<sup>221</sup>

However, the ABS obligations in the CBD are specifically directed at one country (the one in which samples are collected) rather than any country of origin. Hence, the source country definition and its relation to the equity concept that is the heart of ABS implementation, poses one of the most difficult challenges in the CBD.<sup>222</sup>

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<sup>216</sup> From Global Enclosure to Self-Enclosure: „Ten Years After – A Critique of the CBD and the Bonn Guidelines on Access and Benefit Sharing (ABS),’ (January/February 2004) *ETC Group Communiqué Issue #83*, at 2-5. Available online: [http://www.glow-boell.de/media/de/txt\\_rubrik\\_5/Ribeirobiopiracy.pdf](http://www.glow-boell.de/media/de/txt_rubrik_5/Ribeirobiopiracy.pdf). Date of access 14/03/2012. ETC Group replaced the Rural Advancement Foundation International (RAFI), see above n.

<sup>217</sup> In fact, there are not provisions in the CBD dealing specifically with bio-piracy.

<sup>218</sup> See Convention on Biological Diversity, also Schei, et al, above n33, at 1-4.

<sup>219</sup> Tvedt, M.W, and Young, T.R, „Beyond Access: Exploring the implementation of the fair and equitable sharing commitment in CBD’, (2007) at 5-13, *ABS Series* No 2. IUCN-World Conservation Union.

<sup>220</sup> Ibid.

<sup>221</sup> Ibid.

<sup>222</sup> Young, T.R, „Legal Issues Regarding the International Regime: Objectives, options, and outlook’, in Carrizosa, et al., above n138, at 272.

*(ii) The concept of potential value and its impact on the definition of genetic resources*

The definition of genetic resources in the CBD is attached to whether the resource has „actual or potential value’.<sup>223</sup> In the world of genes, it is not yet clear whether there are some species whose genes are more valuable and useful than others.<sup>224</sup> Thus, this results in a lack of consensus over the definition of the term „genetic resource’. Visibly, the definition of genetic resource is different from country to country.<sup>225</sup>

*(iii) The Convention does not define ‘fair and equitable’ sharing*

The Convention through Article 15 (7) requires each Contracting Party, whether a developed or developing country, to take legislative, administrative, or policy measures whose goal is the „fair and equitable’ sharing of benefits with the Contracting Party providing genetic resources. However, it does not give the specific meaning of „fair and equitable’ sharing.<sup>226</sup>

In the CBD, the legal meaning of the term „equity’ has not been well explained. Yet, „Equity’ is a legal concept that may have a wide range of meanings. The primary user-side obligations, according to the CBD, are directed at a specific result, „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 utilization of genetic resources...’.<sup>227</sup> This mandate draws special attention to the two equitable aspects of the benefit-sharing concept, fair sharing and equity. The ABS framework, can achieve its true objective only through this „fairness and equity’ element.<sup>228</sup>

*(iv) The concept ‘prior informed consent’ (PIC) is not defined by the CBD*

The CBD provides that „access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resource’.<sup>229</sup> However, the concept of PIC is not defined in the Convention. Several scholars have identified the key elements as being: (i) prior: before access takes places; (ii) informed: based on truthful information about the use that will be made of genetic resources that is adequate for the authority to understand the

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<sup>223</sup> See Article 2 of the CBD.

<sup>224</sup> Young, T.R, in Carrizosa and al., above n222, at 279.

<sup>225</sup> Several national statutes tried to define the concept „genetic resources’ and this shows that there is still a lack of consensus regarding the meaning of this concept.

<sup>226</sup> Executive Secretariat of the CBD, above n226.

<sup>227</sup> Article 15 (7) of the CBD.

<sup>228</sup> Tvedt, et al., above n219, at 24-26.

<sup>229</sup> Article 15 (5) of the CBD.

implications; (iii) consent: the explicit consent of the government (and possibly other stakeholders, according to national law) of the country providing genetic resources.<sup>230</sup>

(f) The ABS related provisions of the CBD do not apply to domestic exchange of genetic resources

The situation that is considered in the CBD is that in which a user from one country seeks access to genetic resources from another country in which those resources are found. Domestic access to and use of genetic resources is not regulated, nor are the domestic issues regarding how benefits are distributed once the user has complied with the requirement to share them with the source country.<sup>231232</sup>

(g) The CBD does not contain a mechanism to address non-compliance

National laws have limitations in ensuring compliance when users are located in other jurisdictions.<sup>233</sup> In other words, the national laws are unable to provide a legal remedy if genetic resources and associated TK are accessed without MAT and PIC, and then utilized in a foreign jurisdiction.

### *3.2.2 International Treaty on Plant Genetic Resources for Food Agriculture, 2003 (ITPGRFA)<sup>234</sup>*

The ITPGRFA is an instrument that firmly adapted the provisions of CBD relating to access to genetic resources to a particular context.<sup>235</sup>

Plant Genetic Resource for Food and Agriculture (PGRFA) are different from other forms of biodiversity. This was recognized by delegates when participating in the drafting of the CBD. They also formally admitted that the status of ex-situ collections of PGRFA gathered prior to the coming into force of the CBD was an „outstanding’ matter to be considered by the UN

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<sup>230</sup> Ten Kate, et al., above n9, at 27.

<sup>231</sup> Article 10 of CBD.

<sup>232</sup> Countries take different approaches to implementing their ABS obligations under the CBD. Some countries have provided elaborate ABS legislation at national level. A good example of a provider country is Costa Rica. Unfortunately, not all provider countries are in a position to develop detailed national ABS regimes, due to lack of resources. Very few user countries adopted appropriate use measures. The best example of a country that did so is Norway.

<sup>233</sup> Joseph, R.K, „International Regime on Access and Benefit Sharing: Where are we now?’ (2010) at 81-82, Vol. 12 No 3 *Asian Biotechnology and Development Review*, RIS.

<sup>234</sup> International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), available online at: <http://ftp.fao.org/docrep/fao/011/io510e/io510e.pdf>. Date of access 12/12/2011.

<sup>235</sup> Guruswamy, above n8, at 138.

Food and Agriculture Organization (FAO).<sup>236</sup> FAO thus initiated the renegotiations of the FAO International Undertaking on Plant Genetic Resources to bring it into harmony with the CBD and to shape an agreement which addressed conservation, sustainable use and benefit-sharing questions in a manner more appropriate to the particular nature of PGRFA,<sup>237</sup> though the CBD itself does also apply to agricultural resources.<sup>238</sup>

In adopting the agreed text of the CBD in May 1992, countries also adopted Resolution 3 of the Nairobi Final Act, which recognized the need to seek solutions to outstanding matters concerning plant genetic resources, in particular: (i) access to *ex-situ* collections not addressed by the CBD, and (ii) the question of Farmers' Rights. It was requested that these matters be addressed within FAO's forum.<sup>239</sup>

The ITPGRFA is the first treaty providing a legal framework that not only recognizes the need for conservation and sustainable use of plant genetic resources for food and agriculture, but also contains a regime for access and benefit-sharing (ABS).<sup>240</sup> It includes a section on farmers' rights and gives recognition to farmers' contribution to conserving and enhancing plant genetic resources for food and agriculture.<sup>241</sup> It further gives broad guidelines to states concerning the scope of the rights to be protected under the treaty, but overall hands over to member states the responsibility for realizing farmers' rights.<sup>242</sup> This includes the protection of TK, farmers' entitlement to a part of benefit-sharing arrangements and the right to participate in decision-making regarding the management of plant genetic resources.<sup>243</sup>

However, the treaty does not address the issue relating to farmers' rights over their landholdings.<sup>244</sup> In fact, the recognition of farmers' contribution to the conservation and enhancement of plant genetic resources does not include any property rights.<sup>245</sup> In this

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<sup>236</sup> Laliberté, et al., above n102, at 1-4.

<sup>237</sup> Ibid.

<sup>238</sup> See CBD COP decision III/11 (UN, 1996); See also Zdanowicz A, Miller C, and Baldock, D, *The Convention on Biodiversity and Its Potential Implications for the Agricultural Sector in Europe*, (2005), at 5-7, *Impact of Environmental Agreements on the Common Agricultural Policy* No WP5 D2. Available online at: [http://www.ieep.eu/assets/227/WP5D2\\_CBD.pdf](http://www.ieep.eu/assets/227/WP5D2_CBD.pdf). Date of access 23/10/2012.

<sup>239</sup> Nairobi Final Act of the Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity, available online at: <http://www.cbd.int/doc/handbook/cbd-hb-09-en.pdf>. Date of access 23/10/2012; Mathieu, D *Intellectual Property, Human Rights and Development: The role of NGOs and social movements* (2011), at 58. Edward Elgar Publishing.

<sup>240</sup> Article 9 of the ITPGRFA.

<sup>241</sup> Article 9 of the ITPGRFA is dedicated to Farmers' Rights. See also Biber-Klemm, et al., above n87, at 63-69.

<sup>242</sup> Article 9 (2). See Biber-Klemm, et al., above n87. At 63-69.

<sup>243</sup> Article 9 (2) (a). Biber-Klemm, et al., *ibid*.

<sup>244</sup> Biber-Klemm, et al., *ibid*.

<sup>245</sup> Cullet, P *Differential Treatment in International Environmental Law* (2002), at 145. Ashgate Publishing.

context, the only rights that are recognized are the residual rights to save, use, exchange and sell farm-saved seeds.<sup>246</sup>

The ITPGRFA deals with the problems of access and benefit-sharing.<sup>247</sup> It provides for a multilateral system which aims at facilitating access to PGRFA listed in Annex I and held in the ex situ collections of the International Agricultural Research Centres of the Consultative Group on International Agricultural Research (CGIAR), as provided in the ITPGRFA,<sup>248</sup> and to ensure that the sharing of benefits is made in a fair and equitable way.<sup>249</sup> The fact that the multilateral system helps facilitate access to PGRFA has been considered by Parties as a major benefit of this system and benefits obtained from those resources have to be shared fairly and equitably.<sup>250</sup>

The benefits arising from the use of PGRFA will be shared fairly and equitably through, *inter alia*, exchange of information, access to and transfer of technology, capacity-building, and the sharing of benefits arising from commercialization.<sup>251</sup>

The ITPGRFA puts the stress on capacity-building. Indeed, under the aegis of this treaty, Parties agree to give priority to scientific and technical education, and training in conservation and sustainable use of PGRFA, and scientific research.<sup>252</sup>

Measures will be taken by Parties, under the Multilateral System, with the aim of achieving commercial benefit-sharing through the commitment of the private and public sectors and also through partnership and collaboration.<sup>253</sup> The treaty, as noted above, focuses on farmers' rights and conservation of PGRFA. Parties to this treaty agree that benefits obtained from the use of PGRFA should steer towards farmers, especially those in developing countries and countries with economies in transition who conserve and sustainably use PGRFA.<sup>254</sup>

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<sup>246</sup> Ibid, at 65. Article 9 (3) of the ITPGRFA.

<sup>247</sup> Article 13 of the ITPGRFA.

<sup>248</sup> Article 15 (1) (a).

<sup>249</sup> Article 10, 11, and 12.

<sup>250</sup> Article 13 (1).

<sup>251</sup> Article 13 (2).

<sup>252</sup> Article 13 (2) (c).

<sup>253</sup> Article 13 (2) (d) (i).

<sup>254</sup> Article 13 (3).

Overall, the treaty, which constitutes the outcome of many years of negotiations,<sup>255</sup> is noteworthy for providing the first international recognition of farmers' rights in a binding instrument.

### 3.2.3 *Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994 (TRIPS)*<sup>256</sup>

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) gives details of a number of obligations that the members of the World Trade Organization (WTO) need to obey when designing their intellectual property regimes.<sup>257</sup> The TRIPS Agreement stipulates the same rules for developed and developing countries.

Access to genetic resources is fundamental for those industries whose activities are related to biotechnology, pharmaceuticals and agriculture insofar as those resources constitute raw material for them. Genetic resources are used to produce useful synthetic chemicals, drugs or other products that companies would like to patent.<sup>258</sup>

The TRIPS Agreement establishes the indispensable constituents related to the minimum protection that countries must give to intellectual achievements.<sup>259</sup> It deals with all areas of intellectual property and defines rights and obligations under different forms of intellectual property.<sup>260</sup> Such rights include the exclusive right to make, use, sell, offer to sell, and import products protected by IPRs.<sup>261</sup>

The TRIPS Agreement has the effect of strengthening global intellectual property protection and this has a positive effect in that it provides incentives for research and development.<sup>262</sup>

The Agreement outlines the minimum rights that a patent owner must enjoy;<sup>263</sup> but it also allows certain exceptions.<sup>264</sup> A situation may arise in which a patent holder uses his or her

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<sup>255</sup> Iglesias, M, „Plant genetic resources as commons: The model of FAO's International Treaty,' available at: [http://www.fundp.ac.be/droit/crid/propriete/M.IGLESIAS\\_FAO%20international%20treaty](http://www.fundp.ac.be/droit/crid/propriete/M.IGLESIAS_FAO%20international%20treaty). Date of access 12/11/2012.

<sup>256</sup> Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994 (TRIPS), available online at: [http://www.opbw.org/nat\\_imp/model\\_laws/oau-model-law.pdf](http://www.opbw.org/nat_imp/model_laws/oau-model-law.pdf). Date of access 21/03/2012.

<sup>257</sup> Carrea, C.M *Trade-Related Aspect of Intellectual Property Rights: A commentary on the TRIPS Agreement*, (2007) at Preface, Oxford Commentaries on International Law. Oxford University Press. Available online at: <http://fds.oup.com/www.oup.co.uk/pdf/0-19-927128-3.pdf>. Date of access 15/12/2012.

<sup>258</sup> Birnie, P, Boyle, et al., above n181, at 803.

<sup>259</sup> Biber-Klemm, S, Cottier, T, Cullet, P, and Szymura Berglas, D, „The current law of Plant Genetic Resources and Traditional Knowledge,' in Biber-Klemm, S et al., above n87, at 74.

<sup>260</sup> Articles 9 to 21 of the Trade-Related Aspect of Intellectual Property Rights Agreement, available at: [http://www.wto.org/english/docs\\_e/legal\\_e/27-trips\\_04\\_e.htm](http://www.wto.org/english/docs_e/legal_e/27-trips_04_e.htm). Date of access 11/07/2012.

<sup>261</sup> Ibid.

<sup>262</sup> Birnie, et al., above n181, at 805.

rights in an improper manner (by, for example, failing to make the product available on the market). To deal with such situation, the Agreement says that governments can issue „Compulsory licenses’,<sup>265</sup> allowing a competitor to manufacture the product or use the process under license. Compulsory licensing could be advantageous for developing countries in that it can help to protect their national interests, by controlling „the monopoly effect of patents on biological material’.<sup>266</sup>

The TRIPS Agreement controls compulsory licensing by WTO members, and it has specific provisions dealing with this issue;<sup>267</sup> whereas, a framework Convention, like the CBD, contains no specific authorization of compulsory licensing, but it does require „legislative, administrative or policy measures, as appropriate’ to provide for access to and transfer of technology (including technology protected by intellectual property rights).<sup>268</sup>

Regarding the inventions that make use of genetic resources, the treaty leaves flexibility for members to adopt different approaches on the patentability of inventions relating to plants and animals, but requires the protection of microorganisms; it also obliges members to introduce some kind of protection for „plant varieties’ by patents or a sui generis system which most developing countries did not provide before the adoption of the TRIPS Agreement.<sup>269</sup>

The TRIPS Agreement, permits „limited exception to the exclusive rights conferred by a patent, provided these do not unreasonably conflict with the normal exploitation of the patent and do not unreasonably prejudice the legitimate interest of the patent owner’.<sup>270</sup> However, the treaty offers the possibility to patent applicants from user countries to be granted IPRs relating to genetic resources without respecting the PIC and the benefits-sharing obligations as established in the CBD. The main concern of developing countries is that the TRIPS

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<sup>263</sup> Article 28 (1) (2) of the TRIPS Agreement; See „Understanding the WTO: The Agreements- Intellectual property: protection and enforcement.’ Online Press Document; available at: [http://www.wto.org/English/hewto\\_e/whatis\\_e/agrm7\\_e.htm](http://www.wto.org/English/hewto_e/whatis_e/agrm7_e.htm). Date of access 23/03/2012.

<sup>264</sup> Article 30 of the TRIPS Agreement.

<sup>265</sup> But the term „compulsory licensing’ does not appear in the TRIPS Agreement. Instead, the phrase „other use without authorization of the right holder’ appears in the title of Article 31.

<sup>266</sup> Marin, P.L.C, above n78, at 27.

<sup>267</sup> Article 31 (b) and (h) of TRIPS Agreement.

<sup>268</sup> See Articles 16 (3), of the CBD; See also Federal Republic of Germany submission to the Executive Secretary of the CBD, „Regulating access and benefit sharing: Basic issues, legal instruments, policy proposals,’ at 28, UNEP/CBD/WG-ABS/1/INF/4, 4 October 200. Available online at: <http://www.cbd.int/doc/meetings/abs/abswg-01/information/abswg-01-inf-04-en.pdf>. Date of access 10/2012.

<sup>269</sup> Article 27 (3) (b) of the TRIPS Agreement.

<sup>270</sup> Article 30.

Agreement is not helpful in combating bio-piracy since it does not require patent applicants to comply with the obligations under the CBD.<sup>271</sup>

### 3.3 Non-binding global instruments

One non-binding global instrument will be explored: the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, 2003 (Bonn Guidelines).

#### *3.3.1 Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, 2003 (Bonn Guidelines)*<sup>272</sup>

The Sixth Conference of Parties to the CBD adopted the Bonn Guidelines as a first step in implementing the ABS related provisions of the CBD, in particular Articles 8 (j), 10 (c), 15, 16, and 19.<sup>273</sup>

The Bonn Guidelines set up a voluntary framework for legislative, administrative or policy measures on access and benefit-sharing as well as ABS contracts and agreements.<sup>274</sup> Due to their broad approach and their non-binding nature, the guidelines represent recommendations which leave room for choice and interpretations.<sup>275</sup> On the other hand, it has been pointed out that the Bonn Guidelines further harmonized the steps for adequate access and benefit-sharing and clarified and complemented existing obligations under the CBD.<sup>276</sup> The Bonn Guidelines support Article 15 (2), (5), and (7) of the CBD as well as Articles 8 (j), 10 (c) and 16 to 19 of the CBD. A number of provisions are borrowed from existing national ABS provisions.<sup>277</sup>

The Bonn Guidelines, though only non-binding suggestions, offer a brief but specific range of actions that may be utilized to comply with Article 15 (7) of the CBD which requires „Parties

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<sup>271</sup> See Roffe, P, and Santa Cruz, M *Intellectual Property Rights and Sustainable Development: A Survey of Major Issues*, at 37, United Nations Economic Commission for Latin America and the Caribbean (ECLAC). Available online at: <http://www.eclac.org/publicaciones/xml/7/W161.pdf>. Date of access 12/11/2012.

<sup>272</sup> Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits arising out of their Utilization, 2003. Available online at: <http://archive.defra.gov.uk/environment/biodiversity/geneticresources/documents/bonnguidelines.pdf>. Date of access 05/01/2012.

<sup>273</sup> Decision VI/24 related to the adoption of the Bonn Guidelines, available online at: <http://archive.defra.gov.uk/environment/biodiversity/geneticresources/documents/bonnguidelines.pdf>. Date of access 15/10/2011.

<sup>274</sup> See the Bonn Guidelines Paragraph 7.

<sup>275</sup> Dross, M, and Wolff, F *New Elements of the International Regime on Access and Benefit-Sharing of Genetic Resources - the Role of Certificates of Origin*, (2005) at 15. Bundesamt für Naturschutz Publisher. Available online at: <http://www.bfn.de/fileadmin/MDb/documents/skript127.pdf>. Date of access 21/03/2012.

<sup>276</sup> O'Connor, B *The Law of Geographical Indications* (2004), at 369. Cameron May Publications.

<sup>277</sup> Namely, provisions from Peru, Brazil, India and the Philippines.

to share in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources'.<sup>278</sup>

The Bonn Guidelines are intended to establish a system of PIC which encompasses: legal certainty and clarity; minimum cost for access to genetic resources; transparency; elements of PIC system; procedure for obtaining PIC.<sup>279</sup> They also intend to assist Parties and stakeholders in the development of MAT to ensure the fair and equitable sharing of benefits.<sup>280</sup>

Since the adoption of the Bonn Guidelines by COP6, they have been criticized on various accounts.<sup>281</sup> Foremost, the voluntary nature of the Guidelines has been judged as insufficient for implementing the ABS provisions of the CBD.<sup>282</sup> Indigenous and local communities (ILCs) have objected to being referred to as „stakeholders’ rather than „rights holders’. That is why representatives of indigenous peoples have criticized, above all, the use of the term „stakeholder’, viewing themselves as rights holders rather than as stakeholders.<sup>283</sup> They judged the voluntary guidelines as too weak and as providing insufficient protection of the knowledge and natural wealth of local people.<sup>284</sup> They also reiterated concerns, previously expressed, that national governments rather than indigenous peoples would benefit from the commercial exploitation of TK.<sup>285</sup> Furthermore, the Guidelines are too focused on the access side and neglect benefit-sharing.<sup>286</sup>

It has been said that the Bonn Guidelines are rather vague with regard to the protection of biodiversity.<sup>287</sup> No explicit provision exists which would connect access and benefit-sharing to the conservation of biological diversity; whereas such a connection need to be drawn. This will be further explained later (Chapter 5.1.4). The Draft Guidelines on Access and Benefit-sharing regarding the Utilization of Genetic Resources, which were presented by Switzerland

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<sup>278</sup> Paragraph 16 (d) of the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization.

<sup>279</sup> See Paragraphs 25, 26 (a) (b) (c) (d), 27 and 36.

<sup>280</sup> Paragraph 41.

<sup>281</sup> There exists also a position, which fundamentally condemns the CBD approach of access and benefit-sharing. The exponents of this position claim that it results in commodifying genetic resources, which contributes to the destruction of biological diversity. Local and indigenous communities would be bound to lose through the commercialization of genetic resources, either because they no longer have access to the resources or by pushing them to “sell out” their traditions and traditional knowledge. See, ETC Group 2004; Friends of the Earth International 2004; Brand/Görg, 2001.

<sup>282</sup> Dross, et al., above n275, at 19.

<sup>283</sup> Ibid; See also Paragraph 17 of the Bonn Guidelines.

<sup>284</sup> Dross, et al., above n275, at 19.

<sup>285</sup> Ibid.

<sup>286</sup> Paragraphs 22-44 of the Bonn Guidelines.

<sup>287</sup> Dross, et al., above n275, at 19.

in 2000, had included in their Annex C as possible elements of benefits-sharing, the transfer of knowledge and technology that are relevant to the conservation and sustainable use of biodiversity as well as trust funds, without specification of their function and use. The Bonn Guidelines do not address the idea of trust funds.<sup>288</sup>

One primary merit of the Bonn Guidelines is that they highlight different interests, legal positions and procedural elements of relevance to ABS.<sup>289</sup> If imparted by the users, this information provides helpful guidance on ABS contracts. Thus, the Bonn Guidelines also represent a valuable basis for a more detailed international regime on ABS.<sup>290</sup>

### 3.4 Binding regional instrument

Regional cooperation needs to be strengthened to address the violation of national laws on genetic resources and associated TK. A regional access and benefit-sharing ABS framework will increase the bargaining power of countries sharing these common resources. By acting regionally, countries can express their priorities more strongly.<sup>291</sup>

This section will discuss one significant binding regional instrument: the Decision 391 of the ANDEAN Pact (Community of Five Nations) on ABS processes and procedure, 1996.

#### *3.4.1 Decision 391 of the ANDEAN Pact (Community of Five Nations) on ABS processes and procedure, 1996<sup>292</sup>*

In 1996, the Andean Community, consisting of Bolivia, Colombia, Ecuador, Peru and Venezuela, enacted Decision 391: Common Regime on Access to Genetic Resources.<sup>293</sup> The Decision provides a detailed list of definitions.<sup>294</sup> From the definition of „access’ it appears clearly that the decision deals with genetic resources in-situ as well as ex-situ.<sup>295</sup>

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<sup>288</sup> Ibid.

<sup>289</sup> Ibid, at 20.

<sup>290</sup> Ibid.

<sup>291</sup> International Center for Integrated Mountains Development (ICIMOD/Publisher), above n137.

<sup>292</sup> The text of the Decision 391 can be found online at:

<http://www.sice.oas.org/trade/JUNAC/decisiones/DEC391e.asp>. Date of access 05/06/2012. For further analysis of the Andean Pact compare Chaves, in: Stoianoff 2004. For an in-depth analysis of access and benefit-sharing in Colombia compare Ferreira-Miani, in: Carrizosa et. al., 2004, at 79 et. seq.

<sup>293</sup> WIPO Lex, Decision 391 No. 391, July 1996. Available online at:

<http://www.wipo.int/wipolex/en/details.jsp?id=9446>. Date of access 05/06/2012.

<sup>294</sup> Article 1 of the 1996 Decision of the Andean Pact.

<sup>295</sup> Ibid. According to Article 1 of the Decision 391, Andean Pact, „access is the getting and use of genetic resources conserved in situ and ex situ, with the aim of utilizing them as inputs for research, biological prospecting, conservation, industrial application and commercial use, etc.’

As to the access procedure, this is provided by title V of the Decision. It provides that all „access procedures require the presentation, admittance, publication and approval of an application, the signing of a contract, the issuing and publication of a corresponding resolution and the declarative registration of the acts connected with that access’.<sup>296</sup> The content of the application for access and of access contracts is explained.<sup>297</sup>

The 1996 Decision establishes rules for the application for access to genetic resources.<sup>298</sup> The application must be addressed to the Competent National Authority (CNA), designated by the member countries.<sup>299</sup>

The Decision itself does not regulate the benefit-sharing; nor does it contains provisions concerning PIC. The Decision contains restrictions on the use of genetic resources: the use of genetic resources in biological weapons and for practices that are harmful to the environment or to human health are forbidden.<sup>300</sup> Additionally, authority is given to the member countries to establish, by means of an express legal rule, further limitations on access to genetic resources in specific cases, e.g. danger of extinction of species or undesirable environmental effects of access activities on ecosystems.<sup>301</sup>

The Decision also deals with the enforcement of its provisions. In the event that genetic resources are accessed without authorization, the competent national authority (CNA) may apply administrative sanctions; those sanctions shall be applied without interfering with the suspension of the access, the payment of compensation and civil and criminal sanctions that may be in order.<sup>302</sup>

Furthermore, it provides that no rights, including intellectual property rights, over genetic resources shall be acknowledged in cases in which they were obtained by means of an access activity that does not comply with the provisions of the Decision.<sup>303</sup>

The Andean Pact provides that any person performing access activities without the respective authorization shall be liable for punishment.<sup>304</sup> The particularity of the Andean Pact is that it

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<sup>296</sup> Article 16.

<sup>297</sup> Article 17.

<sup>298</sup> Article 26.

<sup>299</sup> See fifth temporary provisions; functions of the Competent National Authority are scheduled in Article 50, above.

<sup>300</sup> Article 24.

<sup>301</sup> Article 45.

<sup>302</sup> Article 47.

<sup>303</sup> Article 35 of the Decision 391 of the Andean Pact.

<sup>304</sup> Title viii of the Decision 391.

provides criminal, administrative, and civil sanctions in cases of violations of the provisions of the Pact.<sup>305</sup>

Finally, the Pact recognizes that there is a need to value the rights and the authority of the ILCs and to favour the establishment of scientific and technical training programmes with the aim of strengthening the capacity of the ILCS to discuss issues relating to ABS.<sup>306</sup> However, no power is given to stakeholders and ILCs.

### 3.5 Non-binding regional instrument

#### *3.5.1 The African Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, 1994 (African Model Law)*

The merit of the African Model Law could be appreciated through its ability to institute a legal framework for access to biodiversity, benefit-sharing and intellectual property that responds to the needs and requirements of African States insofar as it alleviates the existing conflict between „the monopoly rights of breeders and the rights of indigenous communities’.<sup>307</sup>

The Organization of African Unity (OAU, now the African Union) drafted its Model Law in response to the potential for conflicts between the CBD, particularly Article 15, and the TRIPS Agreement, particularly Article 27 (3) (b) that provides that Members Countries may exclude from patentability plants and animals other than microorganisms, however, they shall provide for the protection of plant varieties.<sup>308</sup>

African countries did not accept the idea of patenting of life forms since it is very controversial.<sup>309</sup> The Model Law was thus an effort to create a *sui generis* form of plant protection that complies with the requirements of Article 27 (3) (b) of the TRIPS Agreement but also integrates the goals of the CBD.<sup>310</sup> The Model Law is not binding on member states;

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<sup>305</sup> Ibid.

<sup>306</sup> Article 7 and 8 of the Decision 391 and the Temporary Provisions on point 9.

<sup>307</sup> Ibid, at 493.

<sup>308</sup> Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, 2000 (Model Law).

<sup>309</sup> Cabrera et al., above n261, at 44.

<sup>310</sup> Ibid, at 44.

rather it works as a model, that is to say, as a guide and resource tool for African countries as they create their own national systems on ABS.<sup>311</sup>

Under the Model Law, access requires the written PIC of a country's national competent authority (NCA) as well as the concerned local communities.<sup>312</sup> The NCA is to consult with the local communities to determine that their consent has been sought and granted.<sup>313</sup> The Model Law does not provide details on how an applicant should go about soliciting PIC.<sup>314</sup>

The Model Law reflects the main provisions contained in the CBD reinforcing the rights of local communities over their biological resources.<sup>315</sup> Indeed, the CBD timidly mentioned the rights of local and indigenous peoples.<sup>316</sup> For this reason, and for the fact that the majority of the people living in Africa are local and indigenous peoples, the Model Law focuses primarily on the interests and rights of this category of people.<sup>317</sup>

Collectors have the commitment to provide duplicates of specimens, records of the community knowledge collected and information on research and development on the resources.<sup>318</sup> There is also the commitment not to transfer collected biodiversity and traditional knowledge to third parties without prior authorization of the national competent authority and concerned local community.<sup>319</sup>

The Model Law allows the NCA to set different terms and conditions in the access agreement depending on whether the user is a research institution, a public agency, or an inter-governmental institution.<sup>320</sup> Finally, it provides for three types of access permits: the academic research permit, the commercial research permit, and the commercial exploitation permit.<sup>321</sup> The Model Law does not, however, elaborate as to what different rights and responsibilities might accompany each type of permit.<sup>322</sup>

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<sup>311</sup> Ibid.

<sup>312</sup> Section 5 (1) of the African Model Law.

<sup>313</sup> Cabrera, et al., above n79, at 79.

<sup>314</sup> Ibid.

<sup>315</sup> Read the African Model Law.

<sup>316</sup> See Article 8 (j) of the Convention on Biological Diversity.

<sup>317</sup> See African Model Law, Part I.

<sup>318</sup> Article 4 (3)(b)(c) and (g) of the African Model Law, See also Articles 15 (7) and 17 (2) of the Convention on Biological Diversity.

<sup>319</sup> Article 4 (3)(d) of the Model Law; Article 15 (5) of the CBD.

<sup>320</sup> Section 11.

<sup>321</sup> Section 13.

<sup>322</sup> Cabrera , et al., above n79, at 45.

The Model Law includes provisions on sanctions and penalties which complement earlier provisions on PIC.<sup>323</sup> A section of this part makes it an offence to carry out access without PIC of the state and the concerned local communities.<sup>324</sup> The Model Law includes a list of possible sanctions such as warnings, fines, confiscation of collected material, and a permanent ban from future access in the country.<sup>325</sup>

This Law is intended to provide a general set of guidelines for national governments to consider in developing access and benefit-sharing regimes.<sup>326</sup> Moreover, the African Model Law is not a binding piece of legislation, and it is not compulsory for African Union members to adopt either this law or national frameworks based on it.<sup>327</sup>

Thus, while the African Model Law represents perhaps the most comprehensive attempt to articulate a regime capable of addressing the conflicting demands of intellectual property and benefit-sharing with respect to biodiversity, it has not yet been widely adopted across Africa.<sup>328</sup>

### 3.5. Conclusion

The above survey of the CBD, especially its sections related to the access and utilization of genetic resources,<sup>329</sup> and the analysis of the other global and regional instruments related to ABS, highlights the problems that the ABS systems gives rise to. For years, biologically wealthy developing countries and industries of the developed world have debated how best to provide for access to genetic resources and the sharing of benefits from their utilisation. The CBD gave cause for hope to the extent that it intends to resolve the recurrent problems relating to ABS. However, this Convention has shown its limits in dealing with these problems. The CBD provides a solid base on which the Bonn Guidelines have built. The Bonn Guidelines try to improve and develop the ABS principles introduced by the CBD; for instance, benefits-sharing, transfer of knowledge and technology, etc. The strength of the Bonn Guidelines is, however, undermined by their non-binding nature. They have also been

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<sup>323</sup> Part VIII, of the African Model Law.

<sup>324</sup> Part VIII, section 5.

<sup>325</sup> Part VIII, section 6.

<sup>326</sup> Zerbe, N, „Biodiversity, ownership, and indigenous knowledge: Exploring legal frameworks for community, farmers, and intellectual property rights in Africa’, (2005) *Ecological Economics* 53, at 502. Available online at: <http://www.sciencedirect.com>. Date of access 24/02/2010.

<sup>327</sup> *Ibid.*

<sup>328</sup> *Ibid.*

<sup>329</sup> Articles 8 (j), 15, 16 and 19 of the CBD.

criticised for failing to provide appropriate recognition to the rights of ILCs, providing insufficient user-measures and failing to link ABS and conservation.

The ITPGRFA, the TRIPS Agreement, the Decision 391 of the Andean Pact and the African Model Law, entered the game, but the way in which they play reveals that they do not address all of the gaps left by the CBD. Undoubtedly, each of the above mentioned instruments has its particular field of concern: the ITPGRFA stresses the farmers' rights and contributes to the implementation of the CBD's third objective through a multilateral approach to ABS; the TRIPS Agreement, in its turn, focuses on private rights and permits appropriation of genetic resources through the patenting of life forms, while failing to ensure that patent applicants comply with the CBD's provisions on PIC, MAT and benefit-sharing. Decision 391 directs its attention to the procedure to access to genetic resources and advocates sanctions in case of non-compliance.

As to the African Model Law, the aim is to create a *sui generis* form of protection for plant genetic resources taking into account the requirements of the CBD and the TRIPS Agreement. The African Model Law places a strong emphasis on ILCs, but has not had much impact in practice.

As one can notice, the ABS issue still remains without sustainable solutions, and this is why additional legally binding ABS instrument was proposed.

## Chapter Four: The Nagoya Protocol<sup>330</sup>

### 4.1 Introduction

The attempts by the international instruments, discussed in Chapter 3, to achieve the implementation of ABS in practice have shown how complex this problem is, and revealed the need for specific guidelines in order to succeed when addressing ABS issues.<sup>331</sup> From the adoption of the CBD in May 1992 until the adoption of the 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) in October 2010 in Nagoya, Japan, the CBD's Contracting Parties „studied, discussed, elaborated and further negotiated the ABS concept'.<sup>332</sup> Understandably, Nagoya was not easy to reach, as it was necessary to deal with many complex issues at different stages.<sup>333</sup>

This chapter discusses the following significant steps that led to the adoption of the Nagoya Protocol: (i) calls for the negotiation of an International Regime (IR) particularly by „Like Minded Mega-Diverse Countries' (LMMCs); (ii) the decision at the World Summit on Sustainable Development (WSSD) to negotiate an International Regime on ABS; (iii) the negotiations leading to the adoption of the Nagoya Protocol; and (iv) a survey of the Nagoya Protocol's provisions closes this chapter.

### 4.2 Decision to negotiate an International Regime on ABS

#### 4.2.1 ABS Developments Prior to the Negotiation of an International Regime

The issue of ABS was addressed by the CBD's Conference of the Parties (COP) from the early days of the Convention.<sup>334</sup> The first COP (1994, Nassau, Bahamas) included ABS in agenda item 6.6 of the Medium-term programme of work of the Conference of the Parties.<sup>335</sup> In the coming years, CBD COP 2 (1995, Jakarta, Indonesia) and CBD COP 3 (1996, Buenos Aires, Argentina) requested, took into account and analysed compilations of national, regional, and sectoral legislative, administrative and policy measures, participatory processes

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<sup>330</sup> Text of the Nagoya Protocol, available online at: <http://www.cbd.int/abs/text/>. Date of access 10/10/2010.

<sup>331</sup> See above discussion of the development related to the existing International Regime and its strengths and weaknesses.

<sup>332</sup> Herkenrath, P, and Harrison, J, „The 10<sup>th</sup> meeting of the Conference of the Parties to the Convention on Biological Diversity: a breakthrough for biodiversity?' (2011), Fauna & Flora International, *Oryx/Cambridge Journals* 45 (1), at 1-2. Available online at: <http://journals.cambridge.org>. Date of access 28/02/2012.

<sup>333</sup> For more detailed information on the ABS history, see the CBD website at: <http://www.cbd.int/abs/background/#timeline>. Date of access 12/07/2012.

<sup>334</sup> All decisions of the CBD COP are available at <http://www.cbd.int/decisions/cop/> .

<sup>335</sup> See CBD COP 1 Decision I/9.

and guidelines for activities covered by Article 15 of the CBD, including information on the interpretation of ABS key terms, case studies, experiences with implementation, etc.<sup>336</sup>

ABS developments moved speedily after CBD COP 4 (1998, Bratislava, Slovakia) when a regionally-balanced expert panel on ABS was constituted and formally caused the beginning of the Convention's work on ABS.<sup>337</sup> CBD COP 5 (2000, Nairobi, Kenya) gave formal status to the ABS process, which was already in progress, by setting up the Ad Hoc Open-ended Working Group on ABS (AHWG) with a mandate to „[d]evelop guidelines and other approaches on prior informed consent (PIC) and mutually agreed terms (MAT), the participation of stakeholders, benefit-sharing mechanisms, aspects of ex-situ and in-situ conservation and sustainable use, and the preservation of TK for submission to the COP.’<sup>338</sup>

At its first meeting (2001, Bonn, Germany), the AHWG prepared the draft Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising Out of Their Utilization (Bonn Guidelines)<sup>339</sup> which were later adopted with some changes at CBD COP 6 (2002, The Hague, Netherlands).<sup>340</sup>

#### 4.2.2 *The Mandate to Negotiate an International Regime on ABS*

It was under the driving force of the Like Minded Megadiverse Countries (LMMC)<sup>341</sup> that at the United Nations World Summit on Sustainable Development (WSSD),<sup>342</sup> the international community committed to „[a]ction to negotiate an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources within the framework of the CBD, taking the Bonn Guidelines into account’.<sup>343</sup>

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<sup>336</sup> See CBD COP 2 decision II/11, and COP 3 Decision III/15.

<sup>337</sup> See COP 4 Decision IV/8.

<sup>338</sup> See COP 5 Decision V/25.

<sup>339</sup> Adoption of the Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of their Utilization, COP 6 Decision VI/24.

<sup>340</sup> See COP 6 decision VI/24 above n573; and See a critical analysis of the Bonn Guidelines above in Chapter 3.

<sup>341</sup> The Group of Like Minded Megadiverse Countries includes Bolivia, Brazil, China, Colombia, D.R. Congo, Ecuador, India, Indonesia, Kenya, Madagascar, Malaysia, Mexico, Peru, Philippines, South Africa and Venezuela. It was created by the Cancun Declaration of February 2002 as a mechanism to promote a common agenda relating to the conservation and sustainable use of biological diversity. See Cancun Declaration of the Like Minded Megadiverse Countries, available online at:

[http://www.weltvertrag.org/e375/e719/e1045/CancunDeclarationonLikeMindedMegadiversityCountries\\_2002\\_g er.pdf](http://www.weltvertrag.org/e375/e719/e1045/CancunDeclarationonLikeMindedMegadiversityCountries_2002_g er.pdf).

<sup>342</sup> United Nations World Summit on Sustainable Development (WSSD), held in 2002 in Johannesburg, in South Africa.

<sup>343</sup> Paragraph 44(o) of the WSSD Plan of Implementation; See also in Third World Network *The road to anti-bio-piracy agreement: The negotiation under the United Nations Convention on Biological Diversity*, Second Edition, (2011), at 4. Available online at: <http://www.twinside.org.sg/title2/books/pdf/The.Road.to.an.Anti-Biopiracy.Agreement.pdf>. Date of access 15/08/2012.

In point of fact, it is important to remember that during the final negotiations of the Bonn Guidelines, developing countries realized that more needed to be done in order to ensure that users of genetic resources met their obligations under the CBD as set out in its provisions.<sup>344</sup> Certainly, the LMMCs became aware of the weaknesses of the Bonn Guidelines in that they did not sufficiently address the obligations of users of genetic resources.<sup>345</sup> In other words, developing countries were worried about what they felt was the incessant misappropriation of their genetic resources and associated traditional knowledge, and were concerned that Governments with users under their jurisdiction had failed to take adequate measures to stop unauthorized access and use of their genetic resources.<sup>346</sup> This situation may have been made worse by a number of cases of activities commonly referred to as „biopiracy’ involving unauthorized access and use of genetic resources and associated TK.<sup>347</sup>

Following the adoption of the Bonn Guidelines, the LMMCs, who hold a great majority of the world’s biological resources, being home to 60-70% of the Earth’s biodiversity,<sup>348</sup> argued that there was a need to go a step further to ensure the fair and equitable sharing of benefits.<sup>349</sup> Their desire to go ahead and to do better could be read through a series of declarations made at the end of different Ministerial meetings they held in Cancun, Cusco and New Delhi respectively.

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<sup>344</sup> Zedan, H, above n195, at 4; See also Articles 15, and 16 of the CBD.

<sup>345</sup> Ibid.

<sup>346</sup> Ibid.

<sup>347</sup> Ibid. Biopirates are mainly pharmaceutical, cosmetic and agri-food firms. They draw on biodiversity hotspots in order to create supposedly innovative products and guarantee their monopoly on them through the patent system. These products are often inspired by techniques and knowledge that have already been known and collectively managed by local communities, sometimes for thousands of years. High levels of biological diversity and endemism are found in Madagascar and the Indian Ocean Islands, not only at the species level, but at the genus and family levels as well. Current estimates put the number of plant species, in Madagascar somewhere between 10,000-12,000, of which more than 80% (8,000-9,600 or 3.2% of the world total) are endemic. Uncontrolled international trade in plants and animals is a serious problem in Madagascar and the Indian Ocean Islands. This threat presents a serious challenge that needs to be addressed if biodiversity conservation and sustainable use of those resources is to be achieved, See FeiFei Jiang, „The Problem with Pate,’ (2008), Global Education, World in Review, available online at: <http://hir.harvard.edu/global-education/the-problem-with-patents>. Biopiracy in Madagascar and Indian Ocean Island involve the Rosy Periwinkle, see online at: <http://www.absoluteastronomy.com/topics/Biopiracy>; Another example involved Hoodia cactus from the Kalahari Desert. For many years, the San people of Southern Africa ate pieces of the cactus to stave off hunger and thirst. Campaigners say the cactus has attracted the interest of the Western drug industry, which exploits developing countries through the international patent system, See SOS-arsenic.net, „To Save Herbs and Traditional Plants from Extinction,’ available online at: <http://www.sos-arsenic.net/english/homegarden/index.html>. Date of access 25/11/2012.

<sup>348</sup> Delhi Declaration of Megadiverse countries, available online at:

New\_Delhi\_Ministerial\_Declaration\_on\_ABS[1].pdf-AdobeReader.

<sup>349</sup> Ibid.

The 2002 Cancun Declaration was the fruit of the first meeting organized by the LMMCs.<sup>350</sup> At the end of this meeting, these countries, through the declaration, decided to create the „Group of Like-Minded Megadiverse Countries,‘ the mission of which is to function as a mechanism for consultation and cooperation to „[p]romote their interests and priorities related to the preservation and sustainable use of biological diversity‘.<sup>351</sup>

In the Cusco Declaration (also adopted in 2002), the LMMCs agreed to:

[f]ormulate a strategy and action plan to develop joint coordination, to establish an ad hoc working group on mechanisms for fair and equitable sharing of benefits derived from the use of biodiversity and associated traditional knowledge, and to demand insistently the CBD to start immediately the negotiations within the framework of the Convention, for an International Regime which mission will be to promote and safeguard the equitable sharing of benefits arising out of the utilization of genetic resources, called for by the World Summit on Sustainable Development.<sup>352</sup>

In 2005 in the New Delhi Declaration, the LMMCs stated that the suggested international regime on ABS should include a „[m]andatory disclosure of the country of origin of biological material and associated traditional knowledge in the IPR (intellectual property rights) application, along with some proof to attest that the prevalent laws and practices of the country of origin have been taken into account and mandatory specific consequences in the event of failure to reveal the country of origin in the IPR application‘.<sup>353</sup>

Furthermore, the New Delhi Declaration stresses the need to ensure that benefit-sharing occurs and indicated that the onus of ensuring benefit-sharing must also be shared by the user country which must adopt legislative measures to achieve this purpose.<sup>354</sup> However, the New Delhi Declaration focuses on sharing genetic resources and money generated from them, and does not emphasize the associated TK. Thus, it is not clear whether the approach advocated by the Declaration would increase or decrease access to the associated traditional

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<sup>350</sup> Cancun Declaration, available online at:  
[http://www.weltvertrag.org/e375/e719/e1045/CancunDeclarationonLike-MindedMegadiversityCountries\\_2002\\_ger.pdf](http://www.weltvertrag.org/e375/e719/e1045/CancunDeclarationonLike-MindedMegadiversityCountries_2002_ger.pdf).

<sup>351</sup> Cancun Declaration, above, Decision point 1.

<sup>352</sup> Cusco Declaration, November 29<sup>th</sup>, 2002. Available online at:  
<http://www.comudadandina.org/ingles/documentos/documentos/cusco29-11-02.htm>. date of access 21/01/2012; See also <http://biodiversity-I.iisd.org/news/meeting-of-like-minded-megadiverse-countries/>. Access at the same date.

<sup>353</sup> New Delhi Declaration, February 01, 2005, see agreement point 3. Available online at:  
<http://www.earlham.edu/~peters/fos/2005/02/delhi-declaration.html>. Date of access 22/01/2012.

<sup>354</sup> Annex of New Delhi Declaration (as finalized during meetings of LMMCs in Bangkok in February 2005).

knowledge.<sup>355</sup> Following the WSSD, CBD COP 7 (2004, Kuala Lumpur, Malaysia) gave the official authorization to:

the AHWG 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 organizations, industry and scientific and academic institutions, as well as intergovernmental organizations, 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 Article 15 and Article 8(j) of the CBD and the three objectives of the Convention.<sup>356</sup>

Furthermore, CBD COP 7 accepted the terms of reference of the AHWG for the negotiation of the international regime which were previously discussed at its second meeting (2003, Montreal).<sup>357</sup>

#### 4.3 Negotiation of the Nagoya Protocol

##### 4.3.1 Overview of negotiations

At its third and fourth meetings (ABS 3 and 4, February 2005, Bangkok, Thailand, and January 2006, Granada, Spain), the ABS Working Group produced draft text compilations to serve as the basis for future negotiations. It also considered additional approaches to complement the Bonn Guidelines on ABS, including an international certificate of origin/source/legal provenance.<sup>358</sup>

The COP, at its eighth meeting (COP 8, March 2006, Curitiba, Brazil), directed the ABS Working Group to finish its work with regard to the international ABS regime before COP 10 in 2010; The ABS Working Group was also given the mandate to deal with the issues relevant to TK, jointly with the Working Group on Article 8 (j) of the CBD.<sup>359</sup>

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<sup>355</sup> Suber, P, „The Delhi Declaration,‘ (2005), available online at: <http://www.earlham.edu/~peters/fos/2005/02/delhi-declaration.html>. Date of access 22/01/2012.

<sup>356</sup> See COP 7 decision VII/19, D. 1.

<sup>357</sup> See COP 7 decision VII/19, Annex.

<sup>358</sup> Conference of the Parties to the Convention on Biological Diversity, „Report of the Eighth Meeting of the Parties to the Convention on Biological Diversity,‘ UNEP/CBD/COP/8/31, 15 June 2006. Available online at: <http://www.cbd.int/doc/?meeting=cop-08>. Date of access 09/12/2012.

<sup>359</sup> Ibid.

The ABS Working Group, at its fifth and sixth meetings (ABS 5 and 6, October 2007, Montreal, Canada, and January 2008, Geneva, Switzerland), directed its attention to the main components of the international regime on ABS, including fair and equitable sharing of benefits, access to genetic resources, compliance, traditional knowledge and genetic resources, and capacity-building.<sup>360</sup>

At its ninth meeting (COP 9 May 2008, Bonn, Germany), the COP adopted a plan for achieving the negotiation of the international regime, making certain that the ABS Working Group would meet three times before the 2010 deadline for completion of negotiations.<sup>361</sup> The COP also set up three expert groups, and directed the ABS Working Group to put the international regime into its final form and to submit an instrument/instruments for consideration and adoption by COP 10.<sup>362</sup> The three expert groups (that concentrated on issues related to concepts, terms, working definitions and sectoral approaches; compliance; and traditional knowledge associated with genetic resources) each met once between December 2008 and June 2009.<sup>363</sup>

The ABS Working Group met four times between COPs 9 and 10 (April 2009, Paris, France, November 2009, Montreal, Canada; March 2010, Cali, Colombia; and July 2010, Montreal), assisted by experts, informal and regional consultations.<sup>364</sup> In Paris and Montreal, delegates spent their time working on a draft, trying to make it stronger and more certain. In Cali, the Working Group Co-Chairs sent a draft protocol text to interested Parties, but due to a quarrel over procedure the meeting was suspended. The meeting recommenced in Montreal (second time), and using the interregional negotiating group (ING)<sup>365</sup> format established in Cali, worked on the draft Protocol text, reached agreement on non-controversial provisions, and

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<sup>360</sup> Ibid, See also Zedan, H, above n195, at 5.

<sup>361</sup> Conference of the Parties to the Conference on Biological Diversity, „Report of the Conference of the Parties to the Convention on Biological Diversity on the work of its Ninth Meeting,‘ UNEP/CBD/COP/9/29, 9 October 2008 available online at: <http://www.cbd.int/cop9/doc/>. Date of access 05/12/2012.

<sup>362</sup> Ibid.

<sup>363</sup> Ibid.

<sup>364</sup> Earth Negotiations Bulletin, „Summary of the resumed Ninth Meeting of the Working Group on Access and Benefits Sharing of the Convention on Biological Diversity,‘ (July 2010) Volume 09 Number 527. Available online at: <http://www.iisd.ca/vol09/enb09527e.html>. Date of access 07/12/2012.

<sup>365</sup> The Interregional Negotiating Group (ING) comprised five representatives for each UN region; two representatives each for ILCs, civil society, industry and public research; and the representatives of the current and upcoming Conference of Parties Presidencies. The ING was co-chaired by the ABS Working Group (Canada and Colombia) The ING recovered during the resumed session of ABS 9, from 10-16 July 2010 in Montreal, Canada, during which it proved to be an efficient negotiation setting. See International Institute for Sustainable Development (IISD) Reporting Service, „Interregional Negotiating Group of the Ad-Hoc Open Ended Working Group of Access and Benefits Sharing,‘ (September 2010), *Briefing Note*, available online at: <http://www.iisd.ca/biodiv/absing/>. Date of access 07/12/2012.

made progress on certain difficult issues, including the relationship with other instruments and compliance with domestic ABS requirements.<sup>366</sup> Delegates also identified key issues that required further compromise, including scope and pathogens, derivatives and the concept of utilization of genetic resources, and mechanisms to support compliance. An additional meeting of the ING was convened in September 2010, in Montreal. The outcome of the work of the ING is set out in the annex to the report of that meeting.<sup>367</sup> Nevertheless, several key issues were not addressed.<sup>368</sup> Thus, negotiations had to continue throughout COP10, and the Nagoya Protocol was eventually adopted at the end of the Conference.

However, there were issues that caused tense discussions during the negotiations and both developed and developing countries were engaged to resolve them.

#### *4.3.2 Contentious issues during the negotiations*

This section of the dissertation highlights a number of the contentious issues that arose during the negotiations of the Nagoya Protocol. Such a discussion is necessary in order to understand why certain provisions in the Protocol are as weakly formulated as they are.

##### *4.3.2.1 Issues related to the scope of the Protocol*

During the negotiation of the Nagoya Protocol, Parties were engaged in debates relating to the (i) substantive, (ii) temporal and (iii) geographic scope of the Nagoya Protocol.<sup>369</sup>

#### (i) The substantive scope of the Nagoya Protocol

For years, Parties engaged in fruitless discussions on whether the International Regime should apply to derivatives of genetic resources. Derivatives are „results of metabolism of genetic material and industry uses derivatives for creating new and commercially valuable products,

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<sup>366</sup> Ibid.

<sup>367</sup> Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing, Ninth Meeting (second resumed session), UNEP/CBD/WG-ABS/9/ING/1.

<sup>368</sup> Ibid.

<sup>369</sup> Buck, M, and Hamilton, C, „The 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,’ (2011) *Review of European Community and International Environmental Law (RECIEL)* 20 (1), at 50-51.

examples for these so-called derivatives include aromas, biochemical in cells, resins and snake venoms among others'.<sup>370</sup>

Certainly, developing countries, which suffered from wanton exploitation of their biological resources, wanted the scope of the International Regime to include the derivatives of genetic resources in addition to genetic resources themselves, since piracy has also been extended immoderately to derivatives of genetic resources.<sup>371</sup> Industrialized countries maintained to the end that the focus of Article 15 of the CBD is on access to genetic material as defined in the CBD.<sup>372</sup> To be sure, the CBD defines 'genetic material' with reference to 'functional units of heredity', which not all derivatives possess.<sup>373</sup>

Undoubtedly, the survey of the CBD's provisions shows that this Convention provides only for genetic resources and does not recognize their derivatives under the definition of genetic resource.<sup>374</sup> In order to overcome the industrialized countries' arguments, developing countries maintained that the actual or potential value of genetic resources would be linked foremost to the '[n]aturally occurring compounds that result from the activity of the genes, whether these are found within or outside of genetic material'.<sup>375</sup>

Economically speaking, this way of understanding raised by nations that are rich in genetic resources seems well founded and logical. Certainly, since the adoption of the Convention in 1992, the primary interest of modern sciences related to biological materials has changed; it has moved from research on genes themselves to research and development on naturally occurring compounds that result from gene expression.<sup>376</sup> However, trying to understand the reaction of industrialized countries in relation to the claim of 'technology' poor countries, one could say that the interpretation given by those economically strong countries was legally sound, given that the related provision of the CBD only mentions access to genetic resources.<sup>377</sup>

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<sup>370</sup> Joseph, above n233, at 81-82; See also Article 2 (e) of the Nagoya Protocol.

<sup>371</sup> Ibid, at 80.

<sup>372</sup> Article 2 of the CBD; See also Buck, M, and al., above n597, at 56.

<sup>373</sup> See Article 2 of the CBD; See International Center for Trade and Sustainable Development (ICTSD), 'Agreement Reached on Access and Benefit-sharing,' (December 2010) *News and Analysis* Vol. 14 No 4. Available online at: <http://ictsd.org/i/news/bridges/98768/>. Date of access 04/12/2012.

<sup>374</sup> Ibid.

<sup>375</sup> Buck, et al., above n369, at 56,

<sup>376</sup> Ibid.

<sup>377</sup> Article 15 of the CBD.

The issue of micro-organisms that are pathogenic was also among the most contentious issues in the debate over the scope of the Protocol.<sup>378</sup> Indeed, regarding „pathogens’, developed countries wanted all these to be excluded from the Protocol, whereas, according to developing countries, this would result in „an empty and meaningless Protocol’.<sup>379</sup> Most developed countries, under the impetus of their pharmaceutical/vaccine industries, aggressively tried to exclude pathogens from the legally binding benefit-sharing treaty, but they were ultimately unsuccessful.<sup>380</sup>

In addition, parallel to the ABS negotiations under the CBD, negotiations took place within the World Health Organization (WHO) regarding access to pathogens, in particular influenza viruses, and the distribution of the resulting advantages, in particular vaccines.<sup>381</sup>

Indeed, the WHO sought to achieve equitable use of influenza virus samples; such equitable use encompasses timely sharing of samples for global surveillance (Global Influenza Surveillance Network of the WHO),<sup>382</sup> and more effort to ensure that developing countries share in the benefits of knowledge and technologies derived from the samples, especially influenza vaccine.<sup>383</sup>

What was voiced by developing countries, during the negotiations of the International Regime, was the need for a more transparent, fair and equitable system for the sharing of influenza viruses’ samples, additionally the benefits derived from the use of such viruses.<sup>384</sup> Thus, it is recommended that developing countries examine the Nagoya Protocol closely, and

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<sup>378</sup> Third World Network Biosafety Information Service, „The Nagoya Protocol and Pathogens’ (2011) South Centre. Available online at: <http://www.biosafety-info.net/article.php?aid=779>. Date of access 17/07/2012.

<sup>379</sup> Pathogens are viruses used to develop vaccines and diagnostic kits, See also Buck, M et al., above n369, at 58; and Josphe, above n233, at 85.

<sup>380</sup> Buck, et al., above n369, at 58.

<sup>381</sup> World Health Assembly Resolution 60.28, of 23 May 2007. Pandemic influenza preparedness: sharing of influenza viruses and access to vaccines and other benefits. (Sixtieth World Health Assembly, 2007), WHA60.28, Agenda item 12.1, available at [http://apps.who.int/gb/ebwha/pdf\\_files/WHASSA\\_WHA60-Rec1/E/reso-60-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHASSA_WHA60-Rec1/E/reso-60-en.pdf). Date of access 06/11/2012.

<sup>382</sup> World Health Organization, ‘Strengthening the WHO Global Influenza Surveillance Network (GISN),’ *Report of the 3rd meeting with National Influenza Centres (NICs)*, held in Hammamet, Tunisia, 30/12/2010, at 5-6. Available online: [http://www.who.int/influenza/gisrs\\_laboratory/GISN\\_Meeting\\_Report\\_apr2011.pdf](http://www.who.int/influenza/gisrs_laboratory/GISN_Meeting_Report_apr2011.pdf). Date of access 06/11/2012.

<sup>383</sup> World Health Assembly’s 2007 Resolution on Media Centre, ‘Agreement reached on influenza virus sharing, intellectual property,’ World Health Assembly, 23/05/2007, available online at: <http://www.who.int/mediacentre/news/releases/2007/wha02/en/index.html>. Date of access 06/11/2012. See also Filder, D.P, ‘Influenza Virus Samples, International Law, and Global Health Diplomacy,’ Centers for Disease Control and Prevention 24/7, at 1-9. Available online at: [http://wwwnc.cdc.gov/eid/article/14/1/07-0700\\_article.htm](http://wwwnc.cdc.gov/eid/article/14/1/07-0700_article.htm). Date of access 06/11/2012.

<sup>384</sup> Brief history of the development of the Framework on Sharing influenza viruses and access to vaccines and other benefits, available online at: [http://wwwlive.who.int/influenza/pip/Framework\\_History\\_2011.pdf](http://wwwlive.who.int/influenza/pip/Framework_History_2011.pdf). Date of access 09/12/2012.

exercise their full rights to enact and implement national ABS laws that cover all micro-organisms including, pathogens. In this way the full range of benefits that are due to developing countries can be ensured.<sup>385</sup>

#### (ii) The temporal scope of the Nagoya Protocol

The temporal scope of the Protocol formed the subject of tense discussions insofar as provider countries felt that the CBD did not resolve this issue. Provider countries demanded that the scope of the Protocol be extended to include benefits from genetic resources accessed before the entering into force of the CBD, in 1993.<sup>386</sup> The alternative was to include benefits from continuing and new uses of genetic resources and TK accessed pre-CBD; or include benefits from genetic resources accessed pre-ABS Protocol where no benefit-sharing agreement had been established in accordance with the CBD.<sup>387</sup> Certainly, developed countries resisted this way of thinking that was not favourable for them and took as a means of defence the principle of non-retroactivity of treaties as enounced in the Vienna Convention on the Law of Treaties.<sup>388</sup>

#### (iii) The geographic scope of the Nagoya Protocol

The CBD applies to genetic resources over which States exercise sovereign rights,<sup>389</sup> this is only the case for genetic resources found within the limits of national jurisdiction.<sup>390</sup> But during the negotiation of the Protocol, a major subject of discussion centred on benefits originating from resources collected in areas outside a national jurisdiction such as the high seas and the Antarctic region.<sup>391</sup> The Africa Group in particular argued that while it is difficult

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<sup>385</sup> Third World Network, „TWN Info Service on Intellectual Property Issues,‘ (2011). Available online at: [http://www.twinside.org.sg/title2/intellectual\\_property/info.service/2011/ipr.info.110405.htm](http://www.twinside.org.sg/title2/intellectual_property/info.service/2011/ipr.info.110405.htm). Date of access 20/09/2012.

<sup>386</sup> Kamau, E, C, Fedder, B and Winter, G *The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What is new and what are the implications for provider and user countries and scientific community*, (2010) Vol. 6/3 *Law, Environment and Development Journal*, at 255. Available online at: <http://www.lead-journal.org/content/10246.pdf>. Date of access 12/09/2012.

<sup>387</sup> Singh, N.G, „The Nagoya Protocol on Access and Benefit Sharing: An analysis,‘ (2011), at 25-26. Available online at:

<http://biogov.uclouvain.be/multistakeholder/presentations/Gurdial-Nijar-NagoyaProtocolAnalysis-CEBLAW-Brief.pdf>.

<sup>388</sup> Article 28 of the Vienna Convention on the Law of Treaties, available online at: [http://untreaty.un.org/ilc/texts/instruments/english/conventions/1\\_1\\_1969.pdf](http://untreaty.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf)

<sup>389</sup> Article 15 (1) of the CBD.

<sup>390</sup> Article 4 (a).

<sup>391</sup> South-North Development Monitor, „Mixed reactions on new access and benefit-sharing treaty,‘ October-November 2010 *Third World Network/ Third World Resurgence/ Archive* No. 242/243, at 16-25. Available online at: <http://www.twinside.org.sg/title2/resurgence/2010/242-243/world6.htm>. Date of access 12/08/2012. Accordingly, the CBD also applies to processes and activities taking place in ABNJ, provided that such

to regulate access in this specific situation, „no one should be allowed to benefit from these resources without sharing with the rest of the world’.<sup>392</sup> At the time of the preparatory work for the entry into force of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation,<sup>393</sup> the Africa Group proposed a multilateral fund for the benefits that cannot be linked to a specific country of origin or providing country under the CBD.<sup>394</sup>

#### 4.3.2.2 Issues relating to indigenous and local communities

The unauthorized appropriation of TK associated with genetic resources has also been an important source of concern among provider countries and ILCs.<sup>395</sup> Thus, one of the challenges in the negotiation of the International Regime was to determine how it would address the protection of TK.<sup>396</sup>

At its seventh meeting (COP 7 February 2004, in Kuala Lumpur, Malaysia) the COP agreed that the negotiation of the regime should take into account measures to ensure the prior informed consent (PIC) of the ILCs that are custodians of TK associated with genetic resources.<sup>397</sup>

Subject to the national legislation of the countries where ILCs are located, the recognition and protection of the rights of these communities over their TK were also to be considered in the elaboration of the regime, while also taking into account the customary law and traditional cultural practices of ILCs.<sup>398</sup> By all means, indigenous peoples disapproved the clause „in accordance with domestic law’ saying that domestic law and regulations do not often refer to

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processes or activities are carried out under the jurisdiction or control of a state, see Greiber, T *Access and Benefit Sharing in Relation to Marine Genetic Resources from Areas Beyond National Jurisdiction: A possible way forward*, (2011), at 15-16. Federal Agency for Nature Conservation (BfN) Publisher.

<sup>392</sup> Buck, et al., above n369, at 59.

<sup>393</sup> Third World Network, „Nagoya Protocol on Access and Benefit Sharing inches on,’ (July 2012) *TWN Info Service on Biodiversity and Traditional Knowledge*. Available online at: <http://www.twinside.org.sg/title2/biotk/2012/biotk120702.htm>. Date of access 09/12/2012.

<sup>394</sup> Buck, et al., above n369, at 59.

<sup>395</sup> Frein, M, and Meyer, H, „The Nagoya Protocol on access and benefit sharing (ABS) under the convention on biological diversity (CBD),’ (2011) at 13., *Evangelischer Entwicklungsdienst (eed)*, WWF Deutschland. Available online at: <http://www.cbd.int/abs/side-events/icnp2/abs-wwf-eed-2011-en.pdf>. Date of access 12/08/2012.

<sup>396</sup> CBD-WG ABS 2009a, Annex, para. 21; See also Zedan, H, above n282, at 7.

<sup>397</sup> See decision VII/ 19 D of the Conference of the Parties to the Convention on Biological Diversity.

<sup>398</sup> See decision VII/19D above, Annex, (d); See also Tauli-Corpuz, V, „Biodiversity, Traditional Knowledge and Rights of Indigenous Peoples,’ (2005), at 16, PFII/2005/WS.TK/5, available online at: [http://www.un.org/esa/socdev/unpfii/documents/workshop\\_TK\\_taulicorpuz.pdf](http://www.un.org/esa/socdev/unpfii/documents/workshop_TK_taulicorpuz.pdf). Date of access 24/08/2012.

customary law.<sup>399</sup> They argued that the disclosure requirement should ensure that genetic resources or associated knowledge held by indigenous peoples be accessed in accordance with their customary law.<sup>400</sup>

The ILCs' claims are focused on a state of balance between the State sovereignty over natural resources, as mentioned in the CBD, and their rights.<sup>401</sup> Indigenous peoples feel that the undue emphasis on State sovereignty could undermine the gains achieved in the recognition and protection of indigenous peoples rights in international and regional human rights fora.<sup>402</sup> In fact, the CBD was already accused in some human rights meetings of denying indigenous peoples their rights over resources found within their lands and territories.<sup>403</sup>

Indigenous peoples maintain that sovereignty is not absolute.<sup>404</sup> The CBD itself, acknowledges that sovereignty is limited by the United Nations Charter and the principles of international law.<sup>405</sup> The vast majority of States Parties to the CBD have signed international human rights instruments.<sup>406</sup> Thus, it is argued that the CBD must respect indigenous peoples' rights, as must the vast majority of its States Parties when giving effect to the Convention at the domestic level. And it is submitted that this must also be reflected in the implementation of the Nagoya Protocol.

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<sup>399</sup> Josph, above n233, at 89.

<sup>400</sup> Saez, C, 'Protocol on ABS Could Further Impoverish Indigenous Peoples, Groups Claim,' (26/10/2010) *Intellectual Property Watch*. Available online at: <http://www.ip-watch.org/2010/10/26/protocol-on-abs-could-further-impoverish-indigenous-peoples-groups-claim/>. Date of access 21/09/2012.

<sup>401</sup> Article 3 of the CBD.

<sup>402</sup> Tauli Corpuz, J, 'Is there space for indigenous peoples in the negotiations on access and benefit-sharing?' Indigenous Peoples' International Centre for Policy Research and Education; available online at: [www.twinside.org.sg/title2/resurgence/186/cover06.doc](http://www.twinside.org.sg/title2/resurgence/186/cover06.doc). Date of access 21/08/2012.

<sup>403</sup> Ibid.

<sup>404</sup> Harry, D, 'Indigenous Peoples Critical of the Proposed ABS Protocol,' (2010), in Pan-Tribal Confederacy of Indigenous Tribal Nations. Available online at:

<http://www.pantribalconfederacy.com/confederacy/News/pdf/pressRelease.pdf>. Date of access 21/08/2012.

<sup>405</sup> Article 3 of the CBD.

<sup>406</sup> Carino, J, 'Indigenous peoples' rights and the international regime on access and benefit-sharing,'; available online at: [www.twinside.org.sg/title2/resurgence/206/cover9.doc](http://www.twinside.org.sg/title2/resurgence/206/cover9.doc). Date of access 10/09/2012. Through its adoption of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP, however, a non-binding instrument), in September 2007, the UN General Assembly has also gifted the CBD negotiations with an important framework instrument on the rights of indigenous peoples to be respected in a future international regime, though at the end of the day, there were countries that did not even want the UNDRIP mentioned in the Protocol's preamble. in a future international regime, See Carino, J, above, n406.

#### 4.3.2.3 Compliance and monitoring issues

Compliance and monitoring issues were among the most important issues addressed during the negotiations. More particularly, an embarrassing situation arose over the requirement of mandatory checkpoints to monitor biopiracy resulting from non-compliance with the national ABS laws of a country of origin/provider country of genetic resources.<sup>407</sup> Developing countries had insisted that patent and other intellectual property offices be the minimal mandatory checkpoint, and this was not supported by developed countries except for Norway.<sup>408</sup> An additional point of debate was the mandatory disclosure of information related to prior informed consent of a government and/or that of indigenous or local communities.<sup>409</sup>

Therefore, this section of the dissertation discusses the salient points of these issues: (i) The creation of a mechanism to ensure compliance with provider country ABS laws once genetic resources are exported to a foreign jurisdiction; (ii) The creation of checkpoints and disclosure of information at these points; (iii) The creation of an international certificate of compliance.

*(i) Mechanism to ensure compliance with provider country ABS laws once genetic resources are exported to a foreign jurisdiction*

The starting point of the bioprospecting chain and of genetic resources misappropriation obviously begins with the access to genetic resources. Developing countries with abundant genetic materials are aware of this problem and consequently have developed laws relating to ABS. However, it often appears that these countries experience difficulties when it comes to enforcing those laws once a resource has been exported for development abroad.<sup>410</sup>

Thus, during the negotiations of the Protocol, the issue related to a mechanism ensuring compliance with domestic legislation was of great importance to developing countries.

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<sup>407</sup> Third World Network (TWN), „Mixed reactions on new access and benefit-sharing treaty,’ *Third World Resurgence* No. 242/243, (October-November 2010), at 16-25. Available online at: <http://www.twinside.org.sg/title2/resurgence/2010/242-243/cover02.htm>. Date of access 15/08/2012.

<sup>408</sup> Singh, above n387, at 5-6. See also Josph, above, n233, at 90.

<sup>409</sup> Third World Network, „TWN Info Service on Intellectual Property Issues (Nov10/05),’ (November 2010), available online at: [http://www.twinside.org.sg/title2/intellectual\\_property/info.service/2010/ipr.info.101105.htm](http://www.twinside.org.sg/title2/intellectual_property/info.service/2010/ipr.info.101105.htm). Date of access 13/08/2012.

<sup>410</sup> Twarog, S and Kapoor, P (eds) *Protecting and promoting traditional knowledge: Systems, national experiences and international dimensions*, (2004) at 85-89. United Nations Conference on Trade and Development. Available online at: [http://unctad.org/en/docs/ditcted10\\_en.pdf](http://unctad.org/en/docs/ditcted10_en.pdf). Date of access 05/12/2012.

*(ii) Creation of checkpoints and disclosure of information at these points*

An area of serious contention between developed and developing countries related to the requirement of mandatory checkpoints to monitor biopiracy resulting from non-compliance with the national ABS laws of a country of origin. Developing countries consistently argued throughout the negotiations that user countries must establish effective checkpoints.<sup>411</sup> These would be places to which a user would need to go with regard to the research and development (R&D) of the resource or for claiming a right in relation to the innovation made from such R&D, or for the commercialisation of any resultant product.<sup>412</sup> During the negotiating process, proposed checkpoints included customs authorities, patent offices, market approval offices, research funding agencies, and indigenous and local community (ILCs) representatives.<sup>413</sup>

It was argued that the user should be obliged to provide pertinent information at such checkpoints. This information would include, *inter alia*, the country of origin of the resource or the associated TK, that the PIC of that country had been obtained, that MAT had been established and its essential terms adhered to, such as, whether the user had the right to the particular resource and whether a particular use was permitted by the grant of the access.<sup>414</sup> Without such a checkpoint(s), developing countries argued that compliance could well be rendered ineffectual and illusory.<sup>415</sup>

The fact that there have been a number of cases of misappropriation of genetic resources by firms based in the developed countries<sup>416</sup> made a strong case for the demand of developing countries on the disclosure of origin. The developing countries wanted other Parties to have in

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<sup>411</sup> Singh, above 387, at 8.

<sup>412</sup> *Ibid.*

<sup>413</sup> „Report of the Meeting of the Group of Technical Experts on an Internationally Recognized Certificate of Origin/Source/Legal Provenance,‘ UNEP/CBD/WG-ABS/5/7 20 February 2007.

<sup>414</sup> *Ibid.*

<sup>415</sup> *Ibid.*

<sup>416</sup> For instance, International Plant Medicine Corporation (USA) for Ayahuasca Banisteriopsis Caapi, found in Ecuador; RiceTec Inc. (USA) for Basmati, found in India; Biolink Ltd, Corp. (Canada) for Cunani and Tipir, found in Brazil; Unilever/Monsanto Corp. (Multinational, EU patent) for Nap Hal wheat variety used in chapatis, found in India, etc, see in Young, T, R (ed) *Covering ABS: Addressing the Need for Sectoral, Geographical, Legal and International Integration in the ABS Regime: Papers and Studies of The ABS Project* (2009, Chapter 9, Environmental Policy and Law Paper No. 67/5. IUCN Environmental Law Centre. Available online at: <http://data.iucn.org/dbtw-wpd/html/EPLP-067-5/cover.html>. Date of access 07/11/2012.

place a mechanism wherein the users are required to disclose the origin of genetic resources and evidence for PIC and fair and equitable sharing of benefits.<sup>417</sup>

*(iii) International certificate of compliance*

Developing countries also suggested the notion of an „internationally recognized certificate of compliance’.<sup>418</sup> In that case, to demonstrate the legal status of genetic resources, users would furthermore need to provide, to relevant national authorities of the Party providing PIC and to an ABS Clearing House, an internationally recognized certificate of compliance covering the specific genetic resource under consideration.<sup>419</sup> However, some developed countries, such as Canada and Australia, wanted to make use of the certificate voluntary and not mandatory, and the biotech industry opposed the notion of certificates in the negotiations.<sup>420</sup>

4.3.2.4 Publicly available TK<sup>421</sup>

Developing countries argued that publicly available knowledge was not freely accessible and the PIC and MAT requirements should also apply; and further, where the knowledge was diffused and/or there was no identifiable holder of the TK, PIC had to be obtained from, and MAT established with, the Party.<sup>422</sup> Developed countries opposed this. Some of them argued that the State had no role in such instances;<sup>423</sup> others said that this was outside the scope of the CBD as it only dealt with holders of TK, namely ILCs.<sup>424</sup> The developed countries' reliance

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<sup>417</sup> Von Bieberstein, R.K, and Koutouki, K, „The Nagoya Protocol: Status of Indigenous and Local Communities,’ (2011) at, Centre for International Sustainable Development Law (CISDL). Available online at: [http://cisdl.org/public/docs/news/Koutouki\\_and\\_Von\\_Bieberstein\\_THE\\_NAGOYA\\_PROTOCOL\\_STATUS\\_OF\\_INDIGENOUS\\_AND\\_LOCAL\\_COMMUNITIES.pdf](http://cisdl.org/public/docs/news/Koutouki_and_Von_Bieberstein_THE_NAGOYA_PROTOCOL_STATUS_OF_INDIGENOUS_AND_LOCAL_COMMUNITIES.pdf). Date of access 12/09/2012.

<sup>418</sup> The outcome of the eighth meeting as reported by the CBD Secretariat (in doc. UNEP/CBD/WG-ABS/5/2). The report is also available at: <http://www.biodiv.org/doc/meetings/abs/abswg-05/official/abswg-05-02-en.doc>. See also Third World Network *The road to an anti-biopiracy agreement: The negotiations under the United Nations Convention on Biological Diversity*, (2011), Second Edition, at 29. Available online at: <http://www.twinside.org.sg/title2/books/pdf/The.Road.to.an.Anti-Biopiracy.Agreement.pdf>. Date of access 02/09/2012.

<sup>419</sup> Article 17 (1) (a) (iii). See also Josph, above n233, at 84.

<sup>420</sup> Ibid.

<sup>421</sup> The fact that the traditional knowledge is in the „public domain’ does not imply that the indigenous community which developed or discovered it no longer has any rights over it. On the contrary, any use of this knowledge for bioprospecting would require the consent of the indigenous community which has developed or discovered it, See for that The Environmental Evaluation Unit, University of Cape Town *South Africa’s Bioprospecting, Access and Benefit-Sharing Regulatory Framework: Guidelines for Providers, Users and Regulators South*, (2012), at 13, Published by: Department of Environmental Affairs. Available online at: [http://www.environment.gov.za/sites/default/files/legislations/bioprospecting\\_regulatory\\_framework\\_guideline.pdf](http://www.environment.gov.za/sites/default/files/legislations/bioprospecting_regulatory_framework_guideline.pdf). Date of access 31/08/2012.

<sup>422</sup> Singh, above n387, at 28-29.

<sup>423</sup> Ibid.

<sup>424</sup> See Article 8 (j) of the CBD.

on the 'public domain' concept to deny the right to PIC and MAT was rejected by developing countries.<sup>425</sup>

#### 4.4 An overview of the Nagoya Protocol

The Protocol is the „instrument for the implementation of the access and benefit-sharing provisions of the CBD’.<sup>426</sup> It contains 27 preambular clauses, 36 operative provisions, and one Annex including an indicative list of monetary and non-monetary benefits. It specifies and details the ABS objective of the CBD.<sup>427</sup>

The Protocol is a new and independent legally binding international instrument for which no reservation is allowed.<sup>428</sup> However, the CBD framework will continue to play an important role as it „provides the substantive, institutional and procedural basis for the Nagoya Protocol’.<sup>429</sup> For instance, „institutional arrangements such as dispute settlement mechanisms and secretariat services for the Nagoya Protocol will also be those already established under the CBD’.<sup>430</sup>

Access to genetic resources, benefit-sharing and compliance are the main subjects of the Protocol.<sup>431</sup> On each of these elements, the Protocol contains specific provisions, „though many of them are formulated more as general principles than as operational rules’.<sup>432</sup>

In this section, the provisions of the Protocol are outlined with emphasis on the above three elements. This section also, in particular, focuses on how the contentious issues identified above have been provided for in Nagoya Protocol’s final text.

##### *4.4.1 A general look of the main provisions of the Nagoya Protocol*

Article 4 includes provisions on the relationship between the Protocol and other instruments. Article 4 (1) regulates the relationship with any existing international agreement, this on the

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<sup>425</sup> Singh, above n387, 28-29.

<sup>426</sup> Article 4 (4) of the Nagoya Protocol.

<sup>427</sup> See Nagoya Protocol on Access to Genetic Resources and Fair and Equitable Sharing of Benefits arising out of their Utilization- Introduction.

<sup>428</sup> Article 34 of the Nagoya Protocol.

<sup>429</sup> Union for Ethical BioTrade, „Nagoya Protocol on Access and Benefit-sharing -Technical Brief’, 2010, found at: [http://ethicalbiotrade.org/news/wp-content/uploads/UEBT\\_ABS\\_Nagoya\\_Protocol\\_TB.pdf](http://ethicalbiotrade.org/news/wp-content/uploads/UEBT_ABS_Nagoya_Protocol_TB.pdf). Date of access 07/08/2012.

<sup>430</sup> Ibid.

<sup>431</sup> 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. Available online at: <http://www.cbd.int/abs/text/> Date of access 10/01/2011. See Articles 24 and 27 of the CBD.

<sup>432</sup> See also Tsioumani, E, *Access and Benefit Sharing: The Nagoya Protocol*, (2010) Environmental Policy Law 40/6, at 288; and Kamau, et al., above n386, at 248-262.

basis of three principles: first that the provisions of the Protocol shall not affect the rights and obligations deriving from other international agreements; second, that this is „except where the exercise of those rights and obligations would cause serious damage or threat to biological diversity’; and third, that no hierarchy between the Protocol and other international instruments is intended. The second part of this paragraph states that if serious damage may be caused, there is in fact a hierarchy in favour of the Protocol. Article 4 (1) is to some extent improved by the positive obligation in the first sentence of Article 4 (3) to the effect that „the Protocol shall be implemented in a mutually supportive manner with other international instruments relevant to this Protocol’. Article 4 (2) protects the rights of Parties to develop and implement „other relevant international agreements, including other specialized access and benefit-sharing agreements’. Article 4 (2) is supplemented by Article 4 (4) which refer to specialized access and benefit-sharing instruments. For instance, the ITPGRFA is undoubtedly a specialized international access and benefit-sharing instrument. Where a specialized ABS instrument exists, the Nagoya Protocol could avoid clashing with, in accordance with the principle „*special generalibus derogant*’ (special departs from general), and insofar as the specialized instrument is not at variance or disagreement with the objectives of the Protocol.

Article 5 contains the main principles on benefit-sharing. This provision includes five paragraphs. Paragraph 1 reaffirms the need for a fair and equitable sharing of the benefits arising from the utilization of genetic resources (as well as applications and commercialization), with the Party providing such resources or a Party that has acquired the genetic resources in accordance with the Convention. Such sharing shall be on „mutually agreed terms’. Paragraph 3 requires that legal, administrative or policy measures be taken to implement this provision. Paragraphs 2 and 5 determine the Parties’ obligation to take legislative, administrative or policy measures with a view to sharing benefits with indigenous and local communities on mutually agreed terms when genetic resources that are held by them, or TK associated with genetic resources is utilized. Paragraph 4 is supplemented by an annex on monetary and non-monetary benefits, which is not an exhaustive list and provides relevant examples.<sup>433</sup>

The main provision on access to genetic resources is Article 6, which contains a sort of summary of CBD Article 15 (1) and (5) on the sovereign rights of states over natural

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<sup>433</sup> Text of Nagoya Protocol, Annex: Monetary and Non-Monetary Benefits.

resources and PIC. Article 6 (1) states that ‚access to genetic resources for their utilization shall depend on the PIC of the Party providing such resources pursuant to its domestic access and benefit sharing legislation or regulatory requirements’.<sup>434</sup>

Article 6 (2) provides certain obligations concerning the PIC or approval and involvement of ILCs ‚where they have the established right to grant access to such resources’. Article 6 (3) contains a list of requirements for the legislation of Parties that choose to subject access to their genetic resources to PIC, the requirements provide for, *inter alia*: legal certainty, clarity and transparency;<sup>435</sup> non-arbitrary rules and procedures on accessing genetic resources;<sup>436</sup> a written decision by a competent authority;<sup>437</sup> ‚the issuance at the time of access of a permit or its equivalent as evidence of the decision to grant prior informed consent and of the establishment of mutually agreed terms’;<sup>438</sup> and clear rules and procedures for requiring and establishing MAT for benefit-sharing.<sup>439</sup> In accordance with Article 6 (3) (g), these terms may contain, *inter alia*, a dispute settlement clause,<sup>440</sup> and conditions concerning benefit-sharing, including in relation to intellectual property rights,<sup>441</sup> subsequent third-party use<sup>442</sup> and change of intent.<sup>443</sup>

These provisions should be read in conjunction with Article 18 (1), which states that each Party shall encourage providers and users of genetic resources (and/or TK associated with genetic resources) to include provisions in mutually agreed terms to cover dispute resolution, jurisdictional rules,<sup>444</sup> the applicable law,<sup>445</sup> etc. Each Party has the obligation to ensure access to justice for the enforcement of the MAT under its legal system.<sup>446</sup>

Obligations concerning ILCs and their rights in relation to genetic resources and TK are included in the Protocol,<sup>447</sup> which contains, *inter alia*, a provision on establishing mechanisms

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<sup>434</sup> Article 6 (1) of the Nagoya Protocol.

<sup>435</sup> Article 6 (3) (a).

<sup>436</sup> Article 6 (3) (b).

<sup>437</sup> Article 6 (3) (d).

<sup>438</sup> Article 6 (3) (e).

<sup>439</sup> Article 6 (3) (g).

<sup>440</sup> Article 6 (3) (g) (i).

<sup>441</sup> Article 6 (3) (g) (ii).

<sup>442</sup> Article 6 (3) (g) (iii).

<sup>443</sup> Article 6 (3) (g) (iv).

<sup>444</sup> Article 18 (1) (a).

<sup>445</sup> Article 18 (1) (b).

<sup>446</sup> Article 18 (2) of the Nagoya Protocol.

<sup>447</sup> Article 12.

to inform potential users of TK associated with genetic resources about their obligations in relation to ABS.<sup>448</sup>

The user Parties' main obligations can be found in Articles 15 and 17. Article 15 establishes that Parties must „take appropriate, effective and proportionate measures to ensure that genetic resources utilized within their jurisdictions have been accessed in accordance with PIC, and that MAT have been established, as required by the domestic ABS legislation or regulatory requirements of the Party of origin'.<sup>449</sup> Furthermore, there is an obligation to address cases of non-compliance and to cooperate on this.<sup>450</sup> Analogous obligations can be found in Article 16 on compliance with domestic ABS legislation regarding TK associated with genetic resources.<sup>451</sup>

Article 17 contains provisions on monitoring the utilization of genetic resources. Therefore, this Article mainly is a supplement to Article 15 and it predominantly targets „user countries'. It contains two important mechanisms: (i) it requires designating one or more so-called check-points, which have to be effective and relevant in relation to the utilization of genetic resources or gathering of relevant information „at any stage of research, development, innovation, and pre-commercialization'.<sup>452</sup> The information, including the relevant permits or equivalent, must be provided to the relevant national authorities, the Party providing PIC and the ABS Clearing House, as appropriate;<sup>453</sup> and (ii) the Protocol institutionalizes an „internationally recognized certificate of compliance'.<sup>454</sup> The certificate serves as evidence that the genetic resource which it covers has been accessed in accordance with PIC and that MAT has been established, as required by the domestic ABS legislation of the Party from which the genetic resource stems.<sup>455</sup>

However, after reading Article 17 carefully one can notice that this provision only concerns the utilization of genetic resources and not the utilization of TK associated with them. Compliance with MAT-related obligations is provided for in the Protocol.<sup>456</sup>

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<sup>448</sup> Article 12 (2).

<sup>449</sup> Article 15 (1).

<sup>450</sup> Article 15 (2).

<sup>451</sup> Article 16 (1).

<sup>452</sup> Article 17 (1) (a) (i).

<sup>453</sup> Article 17 (1) (iii) and 17 (2).

<sup>454</sup> See Article 17 (2).

<sup>455</sup> See Article 17 (3) of the Nagoya Protocol.

<sup>456</sup> Article 18 (2) (3).

Additionally, the Protocol contains provisions on, among other things, considering establishing a Global Multilateral Benefit-Sharing Mechanism;<sup>457</sup> transboundary cooperation;<sup>458</sup> national focal points and competent national authorities,<sup>459</sup> and the establishment of a Clearing House for ABS.<sup>460</sup>

The Nagoya Protocol will enter into force 90 days after the deposit of the fiftieth instrument of ratification.<sup>461</sup> To date, nine (9) countries have ratified the Protocol; those countries are the following: Ethiopia, Fiji, Gabon, India, Jordan, Lao People's Democratic Republic, Mexico, Rwanda and Seychelles.<sup>462</sup>

#### *4.4.2 Responses to contentious issues in the Nagoya Protocol final text*

As discussed above, there were a number of issues on which Parties were divided in the negotiation of the Nagoya Protocol;<sup>463</sup> this section of the dissertation goes through the responses that the Protocol's final text gives to what were considered as contentious issues.

##### (a) Substantive scope

As has been noted above, the scope of the Nagoya Protocol was one of the most difficult issues to resolve during the negotiation process, as some countries desired a broad range of application while others sought to limit the breadth of the Protocol.<sup>464</sup> However, the Protocol's provision on scope (Article 3) does not clarify the situation. When this provision states that „the Protocol shall apply to genetic resources within the scope of Article 15 of the CBD and to the benefits arising from the utilization of such resources,‟ this provision itself fails to resolve the contentious issues concerning the scope of Article 15.

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<sup>457</sup> Article 10.

<sup>458</sup> Article 11.

<sup>459</sup> Article 13.

<sup>460</sup> Article 14. An Access and Benefit-sharing Clearing-House was established under the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (Article 14) to serve as a means for sharing information related to access and benefit-sharing made available by each Party relevant to the implementation of the Protocol. The pilot phase of the ABS Clearing House is at an early stage of development, see ABS Clearing-House-Pilot Phase, find more at: <http://absch.cbd.int/>. Date of access 11/11/2012.

<sup>461</sup> Article 33 (1) of the Nagoya Protocol.

<sup>462</sup> Secretariat of the Convention Biological, „Status of signature and ratification, acceptance, approval or accession,‟ <http://www.cbd.int/abs/nagoya-protocol/signatories/>. Date of access 07/12/2012.

<sup>463</sup> See above, contentious issues during the negotiations of the International Regime.

<sup>464</sup> See also draft of Article 3 in the Draft Protocol in Report of the Second Part of the Ninth Meeting of the Ad Hoc Open Ended Working Group on Access and Benefit-sharing, UNEP/CBD/COP/10/5/ADD4 for some different proposals on the scope of the Protocol. The drafts of Article 3 provided list of inclusions/exclusions to provide clarity on the scope of the Protocol. These were deleted from the final version.

As regards the issues in connection with pathogens, the final compromise provides that:

In the development and implementation of its access and benefit-sharing legislation or regulatory requirements, each Party shall... Pay due regard to cases of present or imminent emergencies that threaten or damage human, animal or plant health, as determined nationally or internationally. Parties may take into consideration the need for expeditious access to genetic resources and expeditious fair and equitable sharing of benefits arising out of the use of such genetic resources, including access to affordable treatments by those in need, especially in developing countries.<sup>465</sup>

Article 8 (b) stress the fact that benefit-sharing from pathogens has to be treated in a special way; this means that it needs to be treated under the auspices of the WHO. Nevertheless, this is not an obvious conclusion.<sup>466</sup> Maybe a solution in respect of pandemic influenza pathogens has been found, but the treatment of other pathogens is probably going to remain a controversial issue.<sup>467</sup>

Regarding derivatives, the Nagoya Protocol contains a definition of derivatives, as „a naturally occurring biochemical compound resulting from the genetic expression or metabolism of biological or genetic resources’.<sup>468</sup> However, the access and benefit sharing requirements in the Nagoya Protocol do not expressly refer to the term „derivatives’. Thus, the Nagoya Protocol did not respond to the disagreement between user and provider countries surrounding derivatives and it remains unclear whether derivatives are covered by the Protocol.

(b) The issues related to the temporal scope of the Protocol

The fact that the agreed Protocol is tacit on temporal scope does not imply that benefit-sharing only relates to benefits from genetic resources and traditional knowledge accessed post-CBD or even post-ABS Protocol.<sup>469</sup> The question must be answered according to general

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<sup>465</sup> Article 8 (b) of the Nagoya Protocol.

<sup>466</sup> See Singh N.G, „The Nagoya Protocol and Pathogens,’ (2011) *South Centre Policy Brief 4*. Singh is more critical to the conclusion of the European Union (EU) about Article 8 (b).

<sup>467</sup> Ibid.

<sup>468</sup> Article 2 (e).

<sup>469</sup> Kamau, et al., above n386, at 255.

international law.<sup>470</sup> Having recourse to the Vienna Convention on the Law of International Treaties, it appears that the provisions of the CBD and the new Protocol „do not bind a party in relation to any act or fact which took place or any situation which ceased to exist before the date of the entry into force of the treaty with respect to that party’.<sup>471</sup>

Understandably, this means that any genetic resource or traditional knowledge accessed before that date cannot retroactively be made subject to PIC requirements; similarly, any benefits obtained before that date cannot retroactively be subjected to a benefit-sharing obligation. However, it can be argued that the generation of benefits after that date is a new act according to the Vienna Convention, or that the holding of the genetic resource or traditional knowledge is a situation which has not ceased to exist.<sup>472</sup>

Is there now anything stipulated by the Protocol about this issue related to its temporal scope? Unfortunately, despite intense debates on the subject during the negotiations, the Protocol does not specifically address the problem of temporal scope, except indirectly and partially in Article 10,<sup>473</sup> which envisages the possible creation of a global multilateral benefit-sharing mechanism and is discussed below.

#### (c) Benefits derived from resources collected in areas outside national jurisdiction

The Protocol now contains a provision that responds to this issue which states that:

Parties shall consider the need for and modalities of a global multilateral benefit-sharing mechanism to address the fair and equitable sharing of benefits derived from the utilisation of genetic resources and traditional knowledge associated with genetic resources that occur in transboundary situations or for which it is not possible to grant or obtain prior informed consent. The benefits shared by users of genetic resources and TK

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<sup>470</sup> UNCTAD, „Implications for BioTrade of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization,’ (2011) at 19-20. United Nations New York and Geneva. Available online at:

[http://www.biobio.org/ResourcesPublications/UNCTAD\\_DITC\\_TED\\_2011\\_9.pdf](http://www.biobio.org/ResourcesPublications/UNCTAD_DITC_TED_2011_9.pdf). Date of access 12/12/2012.

<sup>471</sup> Article 28 of Vienna Convention on the Law of Treaties, Vienna, 23 May 1969.

<sup>472</sup> Ibid. See also Heintschel von Heinegg, 'Die völkerrechtlichen Verträge als Hauptrechtsquelle des Völkerrecht', cited by Kamau, et al., above n386, at 255.

<sup>473</sup> Article 10: „Parties shall consider the need for and modalities of a global multilateral benefit sharing mechanism to address the fair and equitable sharing of benefits derived from the utilization of genetic resources and traditional knowledge associated with genetic resources that occur in transboundary situations or for which it is not possible to grant or obtain prior informed consent;’ see also Union for Ethical Bio Trade, „Nagoya Protocol on Access and Benefit Sharing -Technical Brief ,, available online at: [http://r0.unctad.org/biobio/congress/BackgroundDocs/UEBT%20ABS%20Nagoya%20Protocol\\_FINAL.pdf](http://r0.unctad.org/biobio/congress/BackgroundDocs/UEBT%20ABS%20Nagoya%20Protocol_FINAL.pdf). Date of access 11/11/2012.

associated with genetic resources through this mechanism shall be used to support the conservation of biological diversity and the sustainable use of its components globally.<sup>474</sup>

However, it is not certain that this mechanism will be established and, if it is, it is not certain that it will be used for resources from outside national jurisdictions.

The above-mentioned mechanism would operate on a multilateral based approach which would be different from the bilateral approach to benefit-sharing adopted by the CBD and the Nagoya Protocol.<sup>475</sup> Rather, it bears a resemblance to the approach that was adopted in 2003 by the ITPGRFA, which set up the multilateral system for access to and use of plant genetic resources for food and agriculture.<sup>476</sup> However, it will take time to see if a similar system could work in the context of the CBD/Nagoya Protocol, and if this could be a significant step forward.

Secondly, the benefits shared by users of genetic resources and TK would constitute a fund that would promote biodiversity conservation on a global basis and not only nationally.<sup>477</sup> Lastly, the meaning being attributed to ‚situations for which it is not possible to grant or obtain PIC’ is also very unclear; it seems that the provision may cover *inter alia*, ‚the use of genetic resources obtained ‚ex situ’ (outside their place of origin) or in a manner not compliant with the CBD’.<sup>478</sup>

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<sup>474</sup> Article 10 of the Nagoya Protocol.

<sup>475</sup> The CBD and Nagoya Protocol adopt a bilateral contractual-based approach to ABS. The Nagoya Protocol also, however, calls on countries to consider the need for and modalities of a global multilateral benefit-sharing mechanism. This mechanism would facilitate fair and equitable sharing of benefits in transboundary situations or other cases in which it is not possible to grant or obtain prior informed consent, see Union for Ethical BioTrade, ‚Nagoya Protocol on Access and Benefit Sharing: Technical Brief,’ available at:

[http://r0.unctad.org/biotrade/congress/BackgroundDocs/UEBT%20ABS%20Nagoya%20Protocol\\_FINAL.pdf](http://r0.unctad.org/biotrade/congress/BackgroundDocs/UEBT%20ABS%20Nagoya%20Protocol_FINAL.pdf)

<sup>476</sup> Part IV - The Multilateral System Of Access And Benefit-Sharing, Article 10-13, available online at: <http://www.tematea.org/?q=node/8136&PHPSESSID=ef263dc83b078c5bd1b5771824adbbfa>. Date of access 12/11/2012. See also Commission on Plant Genetic Resources, ‚International Treaty on Plant Genetic Resources for Food and Agriculture.’ Available online at: <http://www.fao.org/AG/cgrfa/itpgr.htm>. Date of access 12/01/2012.

<sup>477</sup> Oliva, M.J, ‚Sharing the Benefits of Biodiversity: A New International Protocol and its Implications for Research and Development’, in ‚Nagoya Protocol on Access and Benefit Sharing opened for signature,’ (2011) *IUCN news story*, at 1226. Available at:

<http://www.iucn.org/iyb/resources/news/?6950/Nagoya-Protocol-on-Access-and-Benefit-Sharingopened-for-signature>. Accessed in November 2012; See also Article 10 of the Nagoya Protocol.

<sup>478</sup> International Institute for Sustainable Development (IISD), ‚Summary of the second meeting of the Intergovernmental Committee for the Nagoya Protocol on access and benefit-sharing to the Convention on Biological Diversity,’ (July 2012), Volume 09 No 579 *Earth Negotiations Bulletin*. Available online at: <http://www.iisd.ca/vol09/enb09579e.html>. Date of access 21/09/2012.

Continuing and new uses of genetic resources acquired between the entry into force of the CBD and the Protocol's entry into force, ABS could also be provided for through the creation of the global multilateral benefit-sharing mechanism.<sup>479</sup> It remains to be seen whether or not genetic resources found in areas beyond the jurisdiction of sovereign states (e.g. Antarctica or the high seas) may be covered by the global multilateral benefit-sharing mechanism.<sup>480</sup>

However, Article 10, which relates to the global multilateral benefit-sharing mechanism, has also showed some flaws. Indeed, it talks about a 'mechanism' and it is not clear if this means an actual fund; secondly, the mandate is to 'consider the need for and modalities of' such a mechanism'.<sup>481</sup> The Protocol did not require that it must be established.

#### (d) Issues related to indigenous and local communities (ILCs)

Parties shall take appropriate measures in accordance with domestic law 'with the aim of ensuring that traditional knowledge associated with genetic resources that is held by individual and local communities is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established'.<sup>482</sup>

What is for certain, in the CBD, the role of indigenous and local communities has been only expressly recognized in relation to TK.<sup>483</sup> The Protocol, however, gives more consideration to ILCs in that it states that the use of genetic resources should take place with the prior informed consent of indigenous and local communities, in cases where they have the right to grant access to such resources.<sup>484</sup>

Regarding the issue related to the clause 'Subject to national law' (Reference made to Article 8 (j) of the CBD) and compliance with customary laws and community protocols; indeed, in the negotiations ILCs expressed their desire to see the Article 8 (j)'s term 'subject to national law' be removed from the Protocol provisions addressing rights of communities over their TK

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<sup>479</sup> Ibid, at 57.

<sup>480</sup> It has to be clarified whether those resources, beyond the scope of the Protocol, may be covered by a mechanism created by the same Protocol. This remains a delicate issue to be resolved by future COP/MOPs.

<sup>481</sup> Article 10 of the Nagoya Protocol.

<sup>482</sup> Article 6 (2) and Article 6 (3) (e) of the Nagoya Protocol.

<sup>483</sup> Article 8 (j) of the CBD.

<sup>484</sup> Article 7 of the Nagoya Protocol.

and genetic resources;<sup>485</sup> another wish expressed by ILCs was to retain reference to compliance with customary laws and community protocols of communities in the text of the Protocol thereby securing obligations of states to respect community systems of governance.<sup>486</sup>

The negotiation of the Protocol removed the term „subject to national law’, rearranged Article 8 (j) in favour of community rights and a new legal term, „in accordance with domestic law’, was created with the possibility to be used in other parts of the Protocol and future COP decisions instead of the Article 8 (j) wording, „subject to national law’.<sup>487</sup> However, what could the difference be between the terms „subject to national legislation’ and „in accordance with domestic law’? The reading of Article 8 (j) of the CBD and Articles 7 and 12 of the Nagoya Protocol demonstrates that there is no difference between the two terms. Indeed, they are two different terms, but with the same meaning. However, the situation is still confusing and it may be asked why the same term '...to national legislation' (see Article 8 (j)) is not used in Articles 7 and 12 instead of '...with domestic law'. Is there a difference between the two terms, in the context of the CBD and Nagoya Protocol?

Undeniably, the wording is confusing, and it is not sure what the intention of the negotiators was in changing the wording in this way. Nevertheless, it is probably sufficient to highlight that, although the Nagoya Protocol does contain more detailed provisions on ILCs and TK than the CBD, there remains deference to state sovereignty in this regard. The Protocol, thus, does not appear to give ILCs 'rights' as such, as the entitlements of such persons remain subject to the domestic laws of the countries where they live.

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<sup>485</sup> Bavikatte, J.K.H and Robinson, D.F, „Towards a people’s history of the law: Biocultural jurisprudence and the Nagoya Protocol on access and benefit sharing,’ (2011) Vol. 7/1 *Law Environment and Development Journal*, at 44-46. Available online at: <http://www.lead-journal.org/content/11035.pdf>. Date of access 30/08/2012.

<sup>486</sup> Bavikatte, J.H.K, and Shrumm, H, „Community Protocols and Access and Benefit Sharing,’ (2010), Vol. 12 No. 3 *Asian Biotechnology and Development Review*, at 63. Available online at: [http://naturaljustice.org/wpcontent/uploads/pdf/community\\_protocols\\_and\\_ABSAsian\\_biotech\\_devt\\_review.pdf](http://naturaljustice.org/wpcontent/uploads/pdf/community_protocols_and_ABSAsian_biotech_devt_review.pdf). Date of access 08/2012. Community protocols assist communities to establish a firm foundation upon which to develop the future management of their natural resources by setting out their values and customary procedures that govern the management of their natural resources. They also provide a vehicle for articulating their procedural and substantive rights to, among other things, be involved in decision-making according to the principle of free, prior and informed consent, develop the specific elements of projects that affect their lands, and ensure that they are involved in the monitoring and evaluation of such projects, see Natural Justice, „Biocultural Communities Protocol,’ *Lawyers for Communities and the Environment*. Available online at: <http://naturaljustice.org/context/biocultural-community-protocols>. Date of access 07/12/2012.

<sup>487</sup> See Article 12 (1) of the Nagoya Protocol.

(e) Issue related to the mechanism to ensure compliance with provider country ABS laws

The Protocol requires each Party to „take appropriate, effective and proportionate legislative, administrative or policy measures to provide that genetic resources utilized within its jurisdiction have been accessed in accordance with prior informed consent and that mutually agreed terms have been established, as required by the domestic access and benefit-sharing legislation or regulatory requirements of the other Party’.<sup>488</sup> Furthermore, the Protocol requires Parties to „take appropriate, effective and proportionate measures to address situations of non-compliance’.<sup>489</sup> However, the Protocol does not specify what the measures are.<sup>490</sup> As one could notice, the Protocol seems to be too indulgent to non-compliance insofar as it does not contain strict provisions on how those who infringe the domestic ABS law of provider countries should be dealt with.

(f) Issues related to checkpoints and disclosure requirements

The final text of the Protocol requires one or more 'effective' checkpoints to be designated but leaves it to a Party to choose what that may be.<sup>491</sup> There is no specificity or explicit obligation to designate a specific type of checkpoint, nor does the Protocol prescribe any specific obligation as to the type of information that would be collected or received by the designated checkpoint.<sup>492</sup> The Protocol only states in an indicative manner that relevant information related to PIC, to the source of the genetic resources, to the establishment of MAT, and/or to the utilization of genetic resources, could as appropriate, be collected or received by a designated checkpoint.<sup>493</sup> The Protocol also does not say anything about consequences of non-compliance.

Regarding the matter relating to the disclosure of origin of TK, the Protocol does not provide for the disclosure of origin of TK associated with genetic resources and of evidence for fair

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<sup>488</sup> Article 15 (1) of the Nagoya Protocol.

<sup>489</sup> Article 15 (2).

<sup>490</sup> Joseph, R.K, above n359, at 90.

<sup>491</sup> Article 17 (1) (a) (i) (ii).

<sup>492</sup> Cabrera, M.J, Perron-Welch, F, and Olivier Rukundo, O, *Overview of National and Regional Measures on Access to Genetic Resources and Benefits-Sharing: Challenges and Opportunities in Implementing the Nagoya Protocol*, 2011, First Edition, at 71, CISDL Biodiversity & Biosafety Law Research Programme. Available online at: [http://www.sib.admin.ch/uploads/media/Overview\\_of\\_ABS\\_Measures\\_2011.pdf](http://www.sib.admin.ch/uploads/media/Overview_of_ABS_Measures_2011.pdf). Date of access 12/03/2012.

<sup>493</sup> Article 17 (1) (a) (i) of the Nagoya Protocol.

and equitable sharing.<sup>494</sup> In addition, no provision has been made for sanctions to remedy non-disclosure.<sup>495</sup>

#### (g) The international certificate of compliance

The Protocol includes an obligation on the provider country (only if this country requires PIC) to issue a permit, which would serve as evidence of the decision of a country to grant PIC and MAT.<sup>496</sup> Once the permit is made available to the ABS Clearing House, it would acquire the status of an international certificate of compliance.<sup>497</sup>

As one may notice, the wording „...where they are available...’ from Article 17 (1) (a) (i) shows that it is not a requirement to have such certificate; in other words not all genetic resources used in a Party have to be accompanied by the internationally recognized certificate of compliance. Nevertheless, according to Article 17 (3), all genetic resources which have been acquired from a Party to the Protocol will be subject to the requirement of that provision of the Protocol. The two provisions taken together seem to be in contradiction.

#### (h) Publicly available TK

At the end of the discussions, a provision on publicly available TK was drafted, but unfortunately was not included in the final version of the Protocol.<sup>498</sup> Ultimately, the crucial concerns that were expressed by developing countries in these negotiations concerning publicly available TK consequently were not reflected in the Protocol. All that remains now in the Protocol are references in the preambular paragraphs to the recognition of unique and diverse circumstances whereby TK is held.<sup>499</sup>

### 4.5 Conclusion

The adoption of the Nagoya Protocol was preceded by several years of intense negotiations around the necessity of an International Regime on ABS. These negotiations were generated by the inability of existing ABS Instruments to combat bio-piracy. Thus, the Nagoya Protocol provides for a far more elaborate ABS regime than that provided by previous instruments.

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<sup>494</sup> Ibid.

<sup>495</sup> Ibid.

<sup>496</sup> Article 17 (3) of the Nagoya Protocol.

<sup>497</sup> Article 17 (2) and Article 6 (3) (e).

<sup>498</sup> Ibid, at 29.

<sup>499</sup> See the Preamble of the Nagoya Protocol.

Nevertheless, debates during the course of the negotiation resulted in many vague and unsatisfactory provisions. This is discussed in the following Chapter.

## Chapter Five: Critical Analysis of the Nagoya Protocol

### 5.1 Introduction

In Chapter 3, it was demonstrated that the existing international regime on ABS suffers from various weaknesses. The gaps that Chapter 3 identified in the international regime include, inter alia, (i) the use of qualified language; (ii) the lack of understanding and clarification of key terms and concepts (for instance, distinction between countries of origin and source countries, the definition of genetic resources and of Prior Informed Consent, the meaning of potential value, the definition of traditional knowledge associated with genetic resources, indigenous and local communities, monitoring, equitable sharing), (iii) domestic access to and use of genetic resources is not regulated, nor are the domestic issues regarding how benefits are distributed once the user has complied with the requirement to share them with the provider country; (iv) lack of provisions to effectively combat bio-piracy; (v) lack of measures that address non-compliance; (vi) incentives for conservation and sustainable use of biological resources; (vii) lack of provisions specifically dealing with monitoring of utilization of genetic resources; (viii) the issue of recognizing indigenous peoples' rights and the protection of TK, and natural wealth of local people; and (ix) the issue related to benefits from continuous and new uses of previously acquired genetic resources and TK.

While these gaps have been addressed by certain instruments, these have invariably been regional and/or non-binding in nature (eg. Andean Pact, African Model Law and Bonn Guidelines). There is a need for them to be addressed by a binding global instrument.

After summarizing the gaps left by other ABS instruments, one could ask whether the Protocol addresses these sufficiently, or whether there are gaps that still remain. Incontestably, the Protocol displays a number of strong contributions that are worthy of praise. Nevertheless, this does not mean that the Protocol is free from criticisms.

### 5.2 The responses of the Nagoya Protocol to the gaps left by other ABS instruments

#### 5.2.1 *Use of qualified language*

Developing countries and some technology rich countries of the industrial world pointed to some of the Nagoya Protocol's imperfections. These include its ample use of qualifiers, such as „as appropriate', „where applicable', „as far as possible', and „if available' that could

impact on the obligations that Countries Parties would have once they ratify the Protocol.<sup>500</sup> The Protocol also suffers from weak language, using terms such as „endeavour’, „encourage’, „consider’, and „promote’ in central provisions.<sup>501</sup> The use of aspirational terms to qualify obligations impacts negatively on the Protocol.<sup>502</sup> These taken together undermine the strength of the Protocol. Once the Protocol enters into force, it will be governed by the COP to CBD, acting as the MOP to the Nagoya Protocol (COP/MOP). The COP/MOP is unlikely to amend the Protocol’s provisions. It can, however, adopt resolutions to give guidance on the above-mentioned issue.

### *5.2.2 The lack of understanding and clarification of key terms and concepts*

Though some concepts have been clarified, for example „utilization of genetic resources’ and „derivatives’, there is still a need for clarification of some potentially useful concepts, which were not elaborated upon in the CBD and other international instruments: the Protocol does not define fair and equitable sharing (though detail is provided about the type of benefits that may be shared...), „potential value’, and „prior informed consent’. There is still a need for clarification for the distinction between countries of origin and source country. It should be interesting that these problems be meticulously addressed in a possible third meeting of the Intergovernmental Committee for Nagoya Protocol (ICNP), before the first COP/MOP, and that the CPO/MOP provides Parties with further guidance on these terms through resolutions.

### *5.2.3 User measures to support compliance with PIC and MAT for using genetic resources*

The Protocol obliges Parties (users of genetic resources) to „take appropriate measures to provide that genetic resources utilized within their jurisdiction have been accessed in accordance with PIC and that MAT have been established, as required by the domestic access and benefit-sharing legislation or regulatory requirement of the other Party’.<sup>503</sup> This provision of the Protocol is important to the extent that it aims to support the integrity of domestic access and benefit-sharing frameworks of other Parties (providers of genetic resources) insofar as these Parties require PIC and MAT for access to their genetic resources.<sup>504</sup>

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<sup>500</sup> See for that Articles 5, 6, 7, 11, 12, 13, 14, 15, 16, 17, 18, 19...

<sup>501</sup> See Articles 8, 9, 11, 12...

<sup>502</sup> Mafuratidze, R, „Critical Review of the Nagoya Protocol on Access and Benefit-Sharing: Analysis of its provisions against the African Model Law and possibilities for its implementation at national level,’ *RAEIN-Africa* at 18. Available online at: [http://www.ctdt.co.zw/attachments/079\\_NAGOYA%20PROTOCOL.pdf](http://www.ctdt.co.zw/attachments/079_NAGOYA%20PROTOCOL.pdf). Date of access 12/08/2012.

<sup>503</sup> Article 15 (1) of the Nagoya Protocol.

<sup>504</sup> Buck, M, and al, above n454, at 53.

However, there will always be problems in the case of non-compliance, and on this point the Protocol is a bit timid, whereas this would encourage bio-piracy. In cases of alleged violation of domestic ABS legislation or regulatory requirements, the Protocol does not provide a way in which to respond coercively to a lack of cooperation by a user country. It is desirable that the COP/CBD take this issue seriously and develop a suitable non-compliance mechanism under the Protocol, as required by Article 29.

At present, cases of non-compliance with the national legislation of the country of origin of the genetic resources are still overabundant. On the provider side, the Protocol requires an elaborate domestic ABS legislation. However, many developing countries are still struggling to elaborate ABS legislation. This seems to be challenging insofar as many of these countries lack substantial resources and are in need of capacity-building.<sup>505</sup>

The Protocol also requires Parties to address situations of non-compliance of users under their jurisdiction.<sup>506</sup> Assuredly, the detection of such situations will in practice benefit much from the cooperation of Parties,<sup>507</sup> since pertinent information about illegal access activities will generally exist in countries where genetic resources are acquired rather than in the jurisdiction where they are utilized. The Protocol emphasizes that user countries shall ensure that users adhere to the legislation of provider countries and that user countries address situations of non-compliance.<sup>508</sup> The Protocol itself ultimately does not contain an effective compliance mechanism as developing countries had pushed for. The developed countries once again objected to a legally binding mechanism, this being the position held throughout the Protocol negotiations. Some developing countries have concerns over a legally binding mechanism due to their lack of capacity to comply with the Protocol,<sup>509</sup> (though Article 30 does require Parties to develop a non-compliance mechanism).

#### *5.2.4 Incentives for conservation and sustainable use of biological resources*

„By promoting the use of genetic resources and associated TK, and by strengthening the opportunities for fair and equitable sharing of benefits from their use, the Protocol will create incentives to conserve biological resources, sustainably use its components, and further

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<sup>505</sup> Ibid.

<sup>506</sup> Article 15 (1) of the CBD.

<sup>507</sup> Article 15 (3) of the Nagoya Protocol.

<sup>508</sup> Articles 15 (2) and 16.

<sup>509</sup> COP 11, Hyderabad, India, „Nagoya Protocol on ABS: A tool to fight biopiracy?“ (October 2012), UNEP/CBD/COP/11/6, UNEP/CBD/COP/11/11), UNEP/ICNP/1/6, UNEP/CBD/ICNP/2/L.9, UNEP/CBD/ICNP/2/L.3. Available online at: [http://www.wrm.org.uy/actors/BDC/COP11/briefing\\_notes/1.pdf](http://www.wrm.org.uy/actors/BDC/COP11/briefing_notes/1.pdf). Date of access 09/11/2012; see also Article 30 of the Nagoya Protocol;

enhance the contribution of biological materials to sustainable development and human well-being.<sup>510</sup> This wording is from the CBD Secretariat's introduction to the Protocol. Nevertheless, this is a very controversial statement. There is evidence that suggests that ABS is not necessarily beneficial to conservation and can in fact be detrimental to conservation.<sup>511</sup> Indeed, there are some instances in which bioprospecting can be beneficial to conservation, and others in which it can be detrimental to conservation.

ABS can be beneficial to conservation in that, it could give rise to awareness of the value of genetic resources and encourage the holders of such resources to take care of these resources. Benefit-sharing may include „sample fees, training and better income opportunities for local communities, scientists training, and research support, and technology transfer to and in the provider country, infrastructure and capacity building’.<sup>512</sup> It may also include monetary benefits (even if sometimes this depends upon the whim of users of genetic material). All together these benefits could be incentives to conserve biological diversity.

Additionally, partnerships between specialized firms desiring to explore or exploit biological resources and stakeholders would provide the latter with incentives and funds for their activities. Thus, entering into a partnership, both interested parties would benefit from the business transaction: firms, by having access to important sources of biological resources that could be beneficial for the development of their activities; and organizations or stakeholders by receiving financial resources, technology and training to support their conservation activities and make use of their resources.

On the other hand, ABS could be detrimental to conservation in that the focus of international law relating to ABS is on user and provider countries, and ILCs and other stakeholders are often ignored, whereas they play an important role in the conservation of biological resources. They are stewards of those resources and have the rights to be considered and encouraged in order to enable them to continue as stewards of biological resources and to take care of those resources. If the involvement of ILCs in the conservation of biological resources is not adequately rewarded and not supported, this could impact negatively upon the conservation of biological resources. In other words, when ILCs and other stakeholders are excluded from the

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<sup>510</sup> Nagoya Protocol, Introduction, at 1. See also Article 1.

<sup>511</sup> Kohsaka, R., „The Negotiating History of the Nagoya Protocol on ABS: Perspective from Japan,’ at 63, (2012), Vol. 9 No. 156-166 (Contributed Papers). Available online at: [http://www.ipaj.org/english\\_journal/pdf/9-1\\_Kohsaka.pdf](http://www.ipaj.org/english_journal/pdf/9-1_Kohsaka.pdf). Date of access 23/11/2012.

<sup>512</sup> Ibid, at 64.

sharing of benefits or are insufficiently rewarded for their effort, this can be a tragedy for the conservation of biological diversity. Another reason for which ABS may be detrimental to conservation is related to the demand for genetic resources which may be unsustainable.

The Protocol offers some leads to achieve sustainable conservation of biological material, especially when it advocates the strengthening of opportunities for fair and equitable sharing of benefits which can serve as incentives for conservation. However, this seems to be theoretical insofar as in the field, there is no mechanism to monitor whether the fair and equitable sharing of benefits actually incentivizes conservation. The Protocol urges „users and providers to direct benefits arising from the utilization of genetic resources towards the conservation of biological diversity and the sustainable use of its components; and the benefits shared by users of genetic resources and TK associated with genetic resources through a global multilateral benefit-sharing mechanism shall be used to support the conservation of biological diversity and the sustainable use of its components’.<sup>513</sup>

#### *5.2.5 Provision specifically dealing with monitoring of utilization of genetic resources*

Developing countries desire to combat bio-piracy by making the granting of IPRs/patents dependent on compliance with a mandatory requirement to disclose the origin of any genetic resources or TK associated with genetic resources in patent applications. Under the Nagoya Protocol, Parties agree to designate one or more „checkpoints’ to collect or receive relevant information so as to monitor the uses of genetic resources or TK associated with genetic resources.<sup>514</sup> Thus, the mission assigned to checkpoints is to monitor the utilization of genetic resources by verifying whether a user of genetic resources acquires PIC and establishes MAT with the provider in their countries.<sup>515</sup> However, the question to be asked is whether the designation of check points is a panacea when combating bio-piracy. The Protocol does not specify the types of checkpoints to be designated, the information to be disclosed at checkpoints, or the consequences for non-compliance.<sup>516</sup>

As noted above, to demonstrate that genetic resources have been legally accessed, users can present an internationally recognized certificate of compliance covering the specific genetic

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<sup>513</sup> Article 9 and 10 of the Nagoya Protocol.

<sup>514</sup> See Article 17 of the Nagoya Protocol.

<sup>515</sup> Kohsaka, R, above n511, at 63.

<sup>516</sup> Certain user countries may still require ABS-related information from patent applicants, even though this is not a requirement of the Protocol (eg. Norway).

resource under consideration.<sup>517</sup> This certificate shall serve as evidence that the genetic resource which it covers has been accessed in accordance with PIC and that MAT has been established, as required by the national ABS legislation of the country providing PIC.<sup>518</sup> However, the Protocol raises the issue related to the availability of this certificate through the following wording: „... including from internationally recognized certificates of compliance where they are available’.<sup>519</sup> Thus, from the wording it appears that presentation of the internationally recognized certificate of compliance is not a requirement.<sup>520</sup> One thinks that this could result in biopiracy.

### *5.2.6 Recognizing indigenous peoples’ rights*

The Nagoya Protocol refers to the utilization of genetic resources held by ILCs,<sup>521</sup> whereas in the CBD, the role of ILCs is only expressly recognized in relation to TK.<sup>522</sup> The Protocol, also states that the use of genetic resources should take place with the PIC of ILCs, in cases where they have the right to grant access to such resources.<sup>523</sup>

Clearly, the Protocol goes further than article 8(j) of the CBD in that it establishes an obligation to take measures in accordance with domestic law for obtaining PIC or prior approval and involvement of ILCs for access to genetic resources where they have the established rights to grant access to those resources.<sup>524</sup>

Indeed, for centuries, ILCs have learned, used and passed on knowledge about local biological resources and how they can be used for a range of purposes; they, to date, rely on genetic resources and have helped to conserve biological resources over the centuries.<sup>525</sup> The notions or ideas provided by TK in identifying the properties of genetic resources have enabled industries to develop new products and have helped scientists to understand biological materials.<sup>526</sup> However, despite this, ILCs have historically been considered of low

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<sup>517</sup> Article 17 (1) (a) (iii) of the Nagoya Protocol.

<sup>518</sup> Article 17 (3).

<sup>519</sup> Article 17 (1) (a) (iii).

<sup>520</sup> Article 6 (2).

<sup>521</sup> Article 5 (2) of the Nagoya Protocol.

<sup>522</sup> See Article 8(j) of the CBD.

<sup>523</sup> Article 7 of the Nagoya Protocol.

<sup>524</sup> Article 6 (2).

<sup>525</sup> Secretariat of the Convention on Biological Diversity, „Access and Benefit-sharing information kit,’ available online at: [http://www.environment.gov.za/sites/default/files/docs/babs\\_information\\_traditional\\_knowledge.pdf](http://www.environment.gov.za/sites/default/files/docs/babs_information_traditional_knowledge.pdf). Date of access 12/09/2012.

<sup>526</sup> Ibid.

importance when attending international meetings and even at a national level, governments do not often take into account the needs of ILCs when PIC is sought or MAT negotiated.<sup>527</sup>

Yet, one should remember the importance of ILCs. The ILCs are dedicated custodians of biological resources, yet are not encouraged in their daily efforts in protecting biological resources at a local level in that they generally receive very little support or nothing for conservation. This situation can be changed by allowing ILCs to benefit from the utilization of genetic resources.

Although TK and the rights of ILCs have been given stronger recognition in the Protocol compared to the CBD provisions, the compliance provisions on checkpoints do not cover TK.<sup>528</sup> Also, it is stated by the Protocol that „to support compliance, each Party shall take measures, as appropriate, to monitor and to enhance transparency about the utilization of genetic resources’.<sup>529</sup> Unfortunately, this provision of the Protocol relating to monitoring measures does not apply to TK associated with genetic resources.<sup>530</sup> This is as a result of major unresolved questions in the negotiation, for instance, on the feasibility of including TK in the internationally recognized certificate of compliance.<sup>531</sup>

One can conclude that though the Protocol stresses the rights of ILCs, much remains to be done for this category of holders of genetic material.

### *5.2.7 The issue related to intellectual property rights (IPRs)*

After a reading of the text of the Protocol, one notes that the Protocol timidly makes reference to intellectual property rights.<sup>532</sup> Nevertheless, the work of the WIPO on TK, for example, is

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<sup>527</sup> Oberthur, S, Gerstetter, C, Lucha, C, McGlade, K, Pozarowska, Justyna, R, Florian Tedsen, E *Intellectual Property Rights on Genetic Resources and the fight against poverty*, (2009) at 7, Directorate-General for External Policies of the Union EP/EXPO/B/DEVE/FWC/2009-01/Lot5/20. Available online at: [http://www.ecologic.eu/files/attachments/Projects/2610/2610\\_20\\_ipr\\_study\\_final.pdf](http://www.ecologic.eu/files/attachments/Projects/2610/2610_20_ipr_study_final.pdf). Date of access 21/12/2012.

<sup>528</sup> See Article 17 of the Nagoya Protocol. Indeed, this provision of the Protocol only refers to genetic resources.

<sup>529</sup> Article 17 (1) of the Nagoya Protocol.

<sup>530</sup> See, e.g, Report of Meeting of the Group of Technical Experts on Internationally Recognized Certificate of Origin/source/legal. Provenance (UNEP/CBD/WG-ABS/5/7, 20 February 2007), para. 19.

<sup>531</sup> Ibid.

<sup>532</sup> There are some references: see Article 6 (3) (g) (ii) [providing that MAT may include terms on benefit sharing in relations to IPRs.]; See also Annex, par 1 (j) and 2 (q) [providing that the benefits shared under the Protocol may include joint ownership of IPRs.]. Of course, none of these provisions create mandatory requirements related to IPRs.

to be considered in the context of the Protocol insofar as it is not at variance with its objectives.<sup>533</sup>

The Protocol also does not include a list of mandatory checkpoints, among which many biodiversity-rich developing countries had proposed patent offices be included.<sup>534</sup> The Protocol consequently does not resolve the gaps left by the TRIPS Agreement. Nevertheless, it is clear that there is building pressure for both patent rules and practices to take into account access and benefit-sharing requirements.<sup>535</sup>

#### *5.2.8 Benefits from continuous and new uses of previously acquired genetic resources and TK*

The issue of whether new benefits from continuous and new uses of previously acquired genetic resources should be covered by the Protocol, was on the agenda during the Nagoya negotiations, but remains unresolved so far.

The retrospective protection of genetic resources was not supported by developed countries that relied on the VCLT. On the basis of the Vienna Convention, they argued that the provisions of the Protocol, as those of the CBD, do not bind a party in relation „to any act or fact which took place or any situation which ceased to exist before the date of entry into force of the treaty with respect to that party’.<sup>536</sup> Thus, logically, any genetic resource accessed before the coming into force of the Protocol cannot retroactively be made subject to the Nagoya Protocol’s requirements.

This situation reflects the glaring injustice that has been maintained by the industrialized world around the management of biological material. Undeniably, industries of the developed world benefited substantially from the ‚common heritage of mankind’ principle that gave the right to developed countries to obtain and freely use the genetic material of developing countries. Some of those resources are still kept in ex-situ collections and continue to be beneficial to industries. There are no returns in terms of benefit-sharing and this is an enormous loss to developing countries

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<sup>533</sup> Kuei-Jung Ni, ‚Traditional Knowledge and Global Law-making,’ (2011), Volume 10 > Issue 2 *University Journal of International Human Right*. Northwestern University School of Law, Northwestern. Available online at: <http://www.law.northwestern.edu/journals/jihr/v10/n2/3/index.html>. Date of access 04/09/2012.

<sup>534</sup> UNCTAD & ICTSD side event, ‚What comes after Nagoya? Addressing developing country needs in intellectual property rights and biodiversity,’ (March 2011) *Report of the Panel Discussion*. Available online at: <http://ictsd.org/downloads/2011/05/ictsd-unctad-what-comes-after-nagoya-report.pdf>. Date of access 09/2012.

<sup>535</sup> Ibid.

<sup>536</sup> Article 28 of the Vienna Convention on the Law of the Treaties. Text is available online at: <http://www.jus.uio.no/lm/un.law.of.treaties.convention.1969/>.

### 5.2.9 Fair and equitable sharing of benefits

The problem that is raised by the principle of ‚fair and equitable sharing of benefits‘ as applied to contractual agreements between users and providers of genetic resources is the difficulty of evaluating what is ‚fair and equitable‘ when executing those agreements. As noted above, industries of the developed world make large sums of money from biological material found in developing countries. Thus, it would be reasonable that provider countries expect to benefit from those amounts. The problem is how to ensure fairer partnerships between industries of the developed world and the developing countries. This issue has not been sufficiently provided for in the Nagoya Protocol.

## 5.3 Other merits and weaknesses of the Nagoya Protocol

### 5.3.1 Merits of the Protocol

#### (a) Legal certainty and transparency for both providers and users of genetic resources

The Nagoya Protocol significantly improved upon the CBD’s ABS provisions in that it provides a strong basis for greater legal certainty and transparency for both providers and users of genetic resources.<sup>537</sup> To date, the Protocol has 92 signatures and 11 ratifications.<sup>538</sup> However, it will enter into force 90 days after the deposit of the 50<sup>th</sup> instrument of ratification.<sup>539</sup>

#### (b) Obligations on dispute settlement

‚While dispute settlement provisions must generally be included in all contractual agreements, the Nagoya Protocol provides a specific mandatory requirement for Parties to ensure that an opportunity to seek recourse is available under their legal systems in cases of disputes arising from mutually agreed terms‘.<sup>540</sup> This provision is especially important to the extent that it provides opportunities for providers to ‚access to justice‘.

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<sup>537</sup> Global Environment Facilities (GEF), ‚A new legal instrument at the service of sustainable development opens for signature,‘ (2010), *Press Release*. Available online at: [http://www.thegef.org/gef/press\\_release/ABS\\_protocol\\_2011](http://www.thegef.org/gef/press_release/ABS_protocol_2011). Date of access 21/08/2012.

<sup>538</sup> Secretariat of the CBD, ‚Status of Signature, and ratification, acceptance, approval or accession,‘ (December 2012). Available online at: <http://www.cbd.int/abs/nagoya-protocol/signatories/>. Date of access 02/01/2013.

<sup>539</sup> Article 33 (1) of the Nagoya Protocol.

<sup>540</sup> Article 18 (2).

### (c) Designation of national focal points

The CBD urges Contracting Parties to pay attention to the „development and strengthening of national capabilities, by means of human resources development and institution building’.<sup>541</sup>

National focal points from the perspective of user countries would, in addition to the CHMs, serve to increase transparency and trust, especially in cases where information deficiencies may compromise the relationships between providers and users.<sup>542</sup>

The Protocol stipulates that „each party shall designate a national focal point on access and benefit-sharing and one or more competent national authorities on access and benefit-sharing’.<sup>543</sup> On the side of user countries, national focal points in provider countries could inform potential users about the ABS regulations in provider countries. Furthermore, they could provide documents to the user that can serve as proof that access requirements have been met.<sup>544</sup>

National focal points and ABS CHMs in user countries can also support the exchange of information on and experience with ABS issues; they can establish contacts to national focal points and authorities in provider countries and in this way facilitate the establishment of contacts among the users and providers.<sup>545</sup> In many instances, users are not sufficiently informed about their obligations in connection with ABS in a provider country, so the national focal points appear to be of great significance.

### (d) Advocating of capacity-building

The Protocol recognizes the need to build capacity, and additionally it advocates the need to strengthen human resources and institutional capacities.<sup>546</sup> Thus, the Protocol requires Parties to cooperate on these issues to effectively implement the Protocol, particularly in the least developing countries and small-island developing States.<sup>547</sup> It further calls for the needs of

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<sup>541</sup> Article 18 (2) of the CBD.

<sup>542</sup> Article 13 (1) (a) (b) of the Nagoya Protocol.

<sup>543</sup> Article 13 (1) (2).

<sup>544</sup> See Article 13 (2).

<sup>545</sup> Secretariat of the CBD, „ICNP 1 Recommendation 1/1: 1/1. Modalities of operation of the access and benefit-sharing clearing house,’ ICNP Recommendation. Available online at:

<http://www.cbd.int/recommendation/icnp/?id=12890>. Date of access 30/09/2012.

<sup>546</sup> Article 22 (1) of the Nagoya Protocol.

<sup>547</sup> Ibid.

developing countries, including the least developed countries, for capacity building and development to be taken fully into account in implementing the Protocol.<sup>548</sup>

Capacity building aims at confronting problems related to policy and methods of development, while considering the potential, limits and needs of the people of the country concerned.<sup>549</sup> Experience shows that when capacity is weak, a country is unable to effectively carry out its own laws and policies and method of development (it may not even be able to develop ABS laws to begin with).<sup>550</sup> The consequences for the country can be costly.

According to the Protocol, „needs shall be taken into account for capacity building and development to implement this Protocol’.<sup>551</sup> Nevertheless, needs vary from country to country; certain areas of institutional capacity and development need urgent attention in many developing countries, and merit special mention.<sup>552</sup> Often, when developing countries are identifying their national capacity needs, they do not prioritize the capacity needs of ILCs.

### 5.3.2 Weaknesses of the Protocol

#### (a) The eventual effectiveness of the Nagoya Protocol

It is obvious that the functionality of ABS and the success of the Nagoya Protocol rely on the involvement of all users.<sup>553</sup> In other words, for the Protocol to be more effective and to prevent biopiracy, it must be ratified by the major user countries.<sup>554</sup> However, no one can predict the extent to which user countries will contribute to the effectiveness of the Protocol to combat biopiracy.<sup>555</sup> The Protocol is less advantageous to user countries, especially if one considers the obligations that the Protocol will force them to accept. This cannot encourage user countries to action.

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<sup>548</sup> Article 22 (2).

<sup>549</sup> International Monetary Fund (IMF), „The Role of Capacity-building in Poverty Reduction,’ Research at the IMF. Available online at: <http://www.imf.org/external/np/exr/ib/2002/031402.htm>. Date of access 31/10/2012.

<sup>550</sup> Ogunsola, L.A., „Libraries as Tools for Capacity Building in Developing Countries,’ (2011), *Library Philosophy and Practice*. Available online at: <http://www.webpages.uidaho.edu/~mbolin/ogunsola.htm>. Date of access 05/01/2013.

<sup>551</sup> Article 23 of the Nagoya Protocol.

<sup>552</sup> International Monetary Fund (IMF), above n549.

<sup>553</sup> Tvedt, M.W, and Fauchald, O.K, *Implementing the Nagoya Protocol on ABS: A Hypothetical Case Study on Enforcing Benefit Sharing in Norway*, (2011), Vol 14, No 5 *The Journal of World Intellectual Property*, at 383-402. Available online at: <http://www.fni.no/publ/biodiversity.html>. Date of access 12/10/2012.

<sup>554</sup> See Lewis, M, „Access and Benefit-Sharing in the Wake of CBD COP 10: The Nagoya Protocol and its Potential Implementations for South Africa,’ (2010), *The South Africa Journal of Environmental Law and Policy (SAJELP)* Volume 17 No. 2, at 93-94.

<sup>555</sup> *Ibid.*

A number of states from the industrial world have already signed the Nagoya Protocol.<sup>556</sup> This suggests that the Protocol will receive strong support from countries from the industrial world. However, a high number of user countries signing and expressing their desire to ratify the Nagoya Protocol is not a guarantee for success. It must be remembered that a country cannot become a Party to a Protocol adopted under the CBD unless it is already, or becomes at the same time, a Party to the CBD itself.<sup>557</sup> For instance, the USA is not a party to the CBD and is consequently unable to become a party to the Protocol.

(b) The problem of sharing benefits accessed outside of national jurisdictions

The Protocol is silent on this point. Nevertheless, the multilateral benefit-sharing mechanism<sup>558</sup> could be used to share benefits accessed outside of national jurisdictions.

#### 5.4 Conclusion

Chapter 5 starts by summarizing the flaws left by the existing international regime on access and benefit-sharing. The aim of this Chapter was to critically analyse the way in which the Nagoya Protocol has dealt with these flaws and what has been the outcome. The Protocol is far from resolving all the issues relating to the ABS system that the previous international regime on ABS did not respond to. Unfortunately, this will continue to undermine the effectiveness of the ABS system.<sup>559</sup> The above analysis demonstrates that the provisions of the Protocol exhibit a number of weaknesses. One believes that the COP/MOP still has the responsibility to overcome these problems, for sure, by elaborating guidance on the interpretation and implementation of the Protocol.

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<sup>556</sup> Secretaria of the CBD, „Status of Signature, and ratification, acceptance, approval or accession,‘ (December 2012). Available online at: <http://www.cbd.int/abs/nagoya-protocol/signatories/>. Date of access 02/01/2013.

<sup>557</sup> Article 32 (1) of the CBD.

<sup>558</sup> See Article 10 of the Nagoya Protocol.

<sup>559</sup> Tvedt, et al, above n553, at 383-402.

## Chapter 6: General Conclusion, and Recommendations

The topic of the dissertation highlights the significant problems that both provider and user countries encounter when addressing issues concerning genetic resources. After almost two decades of international meetings debating ABS, one has no choice but to accept that the results have not been encouraging. Undeniably, the CBD and other international instruments related to genetic resources and associated TK, have not had the desired effect of preventing the misappropriation of genetic resources and associated TK. Although the provisions of the CBD dealing with ABS were firmly supported by certain international instruments (such as the ITGRFA and the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits arising out of their Utilization),<sup>560</sup> these did not significantly contribute to overcoming the disgraceful situation of misappropriation. Furthermore, due to the absence of strong compliance incentives, implementation in both nations that are rich in genetic resources and technology rich countries of the industrialized world remained insufficient.<sup>561</sup>

The advent of the Nagoya Protocol brought a glimmer of hope. Its mission is to facilitate the implementation of the third objective of the CBD: the fair and equitable sharing of benefits arising from the utilization of genetic resources. Nevertheless, the question that has to be asked is: will the Protocol successfully achieve that aim? This does not appear to be so. The Protocol has various flaws, as has been demonstrated above. It contains critical weaknesses that undoubtedly will affect its efficiency, once entered into force.

However, it should be remembered that the Protocol is only a starting point.<sup>562</sup> As a negotiated text with intentionally vague phraseology, one observes that the Protocol leaves a number of questions unresolved, and answers others only in part. There is a range of mechanisms to be further defined, elaborated and put into effect.<sup>563</sup> A lot of the meaning and

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<sup>560</sup> Guruswamy, above n8, at 138-139. See also provisions of Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits arising out of their Utilization, Articles 9 and 10.

<sup>561</sup> European Parliament, „Intellectual property rights on genetic resources and fight against poverty,‘ (2011) at 15, *Directorate-General for external policies*. Available online at:

[http://www.ecologic.eu/files/attachments/Projects/2610/2610\\_20\\_ipr\\_study\\_final.pdf](http://www.ecologic.eu/files/attachments/Projects/2610/2610_20_ipr_study_final.pdf). Date of access 09/2012.

<sup>562</sup> Union for Ethical BioTrade (UEBT), „Nagoya Protocol on Access and Benefit Sharing -Technical Brief,‘ (2012) The International Treaty for Plant Genetic Resources for Food and Agriculture. Available online at: <http://www.planttreaty.org/content/nagoya-protocol-access-and-benefit-sharing-technical-brief>

<sup>563</sup> For example the need for and modalities of a global multilateral benefit-sharing mechanism to address the fair and equitable sharing of benefits derived from the utilization of genetic resources and TK associated with genetic resources that occur in transboundary situations or for which it is not possible to grant or obtain prior informed consent (Article 10).

practical consequences of the Protocol's provisions will depend on its further development, as well as its implementation at the national level.<sup>564</sup>

At the Tenth Meeting of the Conference of Parties to CBD (COP10), Parties decided to establish an Open-Ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol on ABS as an interim governing body for the Nagoya Protocol (ICNP).<sup>565</sup> This committee met twice during the inter-sessional period. The mission given to the ICNP was to undertake, with the support of the Executive Secretary of the CBD, the preparations necessary for the first meeting of the Conference of Parties serving as the Meeting of the Parties to the Protocol (COP/MOP).<sup>566</sup> On the agenda of issues for consideration during these meetings (ICNP1 and ICNP2)<sup>567</sup> figured some of the key elements of the Nagoya Protocol that were left open to further international negotiations, among them: the modalities of a global multilateral benefit-sharing mechanism, the modalities of operation of the ABS Clearing-House, and mechanisms to promote compliance and address cases of non-compliance.<sup>568</sup>

As has been discussed above, Article 10 of the Protocol, that addresses the issue related to that multilateral benefit-sharing mechanism, does not call for the establishment of this kind of mechanism; it simply urges Parties to consider „the need for its establishment’.<sup>569</sup> Meanwhile, interpretations of Article 10 are still inconstant;<sup>570</sup> this could impact negatively on the willingness of Parties to ratify the Protocol, and delay the entry into force of the Protocol.

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<sup>564</sup> European Parliament, above n561, at 47.

<sup>565</sup> In Decision X/1, Tenth Meeting of the Conference of Parties to CBD, UNEP/CBD/COP/DEC/X/1; see also Secretariat of the CBD, „Intergovernmental Committee for the Nagoya Protocol on ABS,’ available at: <http://www.cbd.int/abs/icnp/>. Date of access 11/11/2012.

<sup>566</sup> Paragraph 8 of Decision X/1, Tenth Meeting of the Conference of Parties to CBD.

<sup>567</sup> The issues on the agenda of ICNP 1 and 2 were relating to: Elaboration of guidance for the financial mechanism, guidance for resource mobilization for the implementation of the Nagoya Protocol on Access and Benefit-sharing, the need for and modalities of a global multilateral benefit-sharing mechanism (Article 10), modalities of operation of the Access and Benefit-sharing Clearing-house, measures to assist in capacity-building, measures to raise awareness of the importance of the genetic resources and associated traditional knowledge, cooperative procedures and institutional mechanisms to promote compliance with the protocol and to address cases of non-compliance, See Secretariat of the CBD, COP to CBD, Eleventh Meeting, Report of the Second Meeting of the Open-Ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, available online at:

<http://www.cbd.int/doc/meetings/abs/icnp-02/official/icnp-02-cop-11-06-en.pdf>. Date of access 15/11/2012.

<sup>568</sup> See Secretariat of the CBD, COP to CBD, Eleventh Meeting, Report of the Second Meeting of the Open-Ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, available online at:

<http://www.cbd.int/doc/meetings/abs/icnp-02/official/icnp-02-cop-11-06-en.pdf>. Date of access 15/11/2012.

<sup>569</sup> See Article 10 of the Nagoya Protocol.

<sup>570</sup> Parties still have to decide upon the actual need for and the modalities of such a mechanism, it could potentially be used to address issues of temporal and geographical scope. Article 10 distinguishes between three situations: where genetic resources are located across national boundaries (geographic scope); where it is not

The ICNP had taken into account this state of affairs,<sup>571</sup> and decided that this issue should be dealt with at the ICNP3. Consequently, what could be recommended to the COP/MOP1 through the ICNP3 is to secure clear interpretation of Article 10, the aim being to establish a global multilateral benefit-sharing mechanism by way of a consensus so as to render this provision operational and its implementation possible.

Regarding the ABS Clearing-House, it has a pilot phase not already been initiated per recommendation of the ICNP. It will be necessary to develop and render effective this mechanism as it seems to be an important piece of the functioning of the Protocol and the CBD Clearing-House mechanism insofar as it serves as a way by which users and providers of genetic materials could share information related to ABS.

Regarding the important issues surrounding the development of a compliance mechanism, the ICNP decides to forward the draft „Cooperative Procedures and Institutional Mechanisms to Promote Compliance with the Protocol and to Address Cases of Non-compliance’ to a future meeting of the Intergovernmental Committee, or the first meeting of the Conference of the Parties serving as the meeting of the Parties to the Protocol to enable the first meeting of the Parties to consider and approve it.<sup>572</sup>

The ICNP in its two meetings, June 2011 and July 2012, did not specifically address the issues relating to publicly available TK and derivatives. These are still unresolved. It is desirable that those issues be taken for consideration before the first meeting of the COP/MOP, which will be held eventually in 2014 or 2015.

At the eleventh meeting of the Conference of the Parties, in decision XI/1, Parties decided to direct a third meeting of the Intergovernmental Committee to deal with outstanding issues in its work plan in preparation for the first meeting of the Conference of the Parties serving as the meeting of the Parties to the Protocol. Thus, the „ICNP third round’, will facilitate a review of those issues which, assuredly, still remain object of disagreements, *inter alia*, issues related to: compliance mechanism, a global multilateral benefit-sharing mechanism, the ABS

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possible to grant PIC for genetic resources (for example, for marine genetic resources in areas beyond national jurisdiction since no State has the sovereign right to grant PIC for such material, geographic scope); and where it is not possible to obtain PIC (for example, for pre-Protocol accessions since it is not possible to grant “prior” informed consent for such material, temporal scope), See Nieto Carrasco, et al., above n201, at 24.

<sup>571</sup> See Secretariat of the CBD, COP to CBD, Eleventh Meeting, Report of the Second Meeting of the Open-Ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, available online at:

<http://www.cbd.int/doc/meetings/abs/icnp-02/official/icnp-02-cop-11-06-en.pdf>. Date of access 15/11/2012.

<sup>572</sup> Ibid. This document contains firm recommendations concerning the structure and working of a non-compliance mechanism.

clearing-house, and monitoring and reporting, and will exchange views on the state of implementation of the Protocol, and on sectoral and cross-sectoral model contractual clauses, codes of conduct and guidelines.<sup>573</sup>

Regarding the guidance for resource mobilization for the implementation of the Nagoya Protocol on Access and Benefit-sharing, this issue is substantial, and Parties on this point must accompany their information or proposals with careful consideration of ‚resource mobilization for the Protocol in the implementation of the Strategy for Resource Mobilization in support of the achievement of the three objectives of the Convention for the period 2008-2015‘.<sup>574</sup>

One could say that the Protocol, much like the CBD, represents, in theory, significant progress in the protection of biological resources when dealing with biopiracy.<sup>575</sup> However, the question of its concrete application is still unclear to the extent that many of its provisions are vague and capable of different interpretations.<sup>576</sup>

The rather vague nature of the Protocol constitutes a danger insofar as this can impact negatively on the strength of its provisions. Nevertheless, despite that, the binding rules of the Protocol have to be incorporated into domestic laws of both user and provider countries in order to establish a functional system for ABS.

The Protocol, agreed after tense discussions between developed and developing states’ representatives, does respond, as discussed above, to some specific demands of developing countries, such as the establishment of a binding international regime on ABS. However, the question is whether it deals with the concerns of these countries in a satisfactory manner.

Seen from the user side, the Protocol introduces a change in that governments of developed countries will have to take action against industries (in user countries) that have illegally obtained genetic resources.<sup>577</sup> Nevertheless, this does not appear to be an effective measure

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<sup>573</sup> Secretariat of the CBD, ‚Intergovernmental Committee.‘ Available online at: <http://www.cbd.int/abs/icnp>. Date of access 04/01/2013.

<sup>574</sup> Ibid.

<sup>575</sup> Collectif Alternative Biopiraterie, ‚Understanding, Resisting and Acting against Biopiracy: A guide on how to act in the face of illegal appropriation of life and traditional knowledge‘, at 7. Available online at: [http://www.biopiraterie.org/sites/default/files/etudes/Livret\\_Uk\\_010612.pdf](http://www.biopiraterie.org/sites/default/files/etudes/Livret_Uk_010612.pdf). Date of access 28/09/2012.

<sup>576</sup> Ibid.

<sup>577</sup> See Article 18 (3) of the Nagoya Protocol, and also Rocha-Lackiz, A, ‚The never ending story: access to genetic resources, sharing of benefits and technology Transfer,‘ *SPRU-S&T Policy Research*, University of Sussex. Available online at: <http://www.ungs.edu.ar/globelics/wp-content/uploads/2011/12/ID-225-Rocha-Lackiz-Learning-and-innovation-lessons-from-sectorial-studies.pdf>. Date of access 17/09/2012.

since those industries often have influence on the governments of those technology rich countries and can dictate both their economic and social policies.

There is still a certain lack of trust between user and provider countries of genetic resources; this may be due to the absence of strong and adequate measures from the side of user countries to control and prevent illegal traffic of genetic material. This situation occasions a serious shortfall for ‚gene rich’ countries. In addition, the issue relating to non-compliance with national ABS requirements once genetic resources are outside the provider country, still remains an outstanding problem and what still needs to be clarified in this regard is the way in which to incentivize user countries so as to effectively address the situation of non-compliance through appropriate and proportionate measures; this should be the subject of important debates in the coming COPs.

Thus, the Protocol has put forward an innovative idea of protection, but one that could not constitute a real and strong measuring device of security for countries rich in genetic resources.<sup>578</sup>

Making a comparison between the existing international regime on ABS and the Protocol, this exercise has shown how strongly the Protocol involves indigenous peoples and local communities, and recognizes their contribution when protecting and managing genetic materials. Furthermore, the Protocol is the first international instrument of particular relevance to ILCs negotiated since the adoption of the UN Declaration on the Rights of Indigenous Peoples.<sup>579</sup> However, the problem with this above-mentioned Declaration is that it is not a legally-binding instrument.

It is obvious that some issues of paramount importance have not been addressed in the Protocol while these influence the ABS’s functionality. In particular, the relationship with the IPR regime, and certainly, as said above, the Protocol suffers from some deficits in terms of meaning and of adequate concepts, *inter alia*, use of qualifiers, weak language, etc. Unfortunately, this will also continue to impact negatively on the ABS concept if appropriate measures are not taken in times. However, one thinks that COPs will continue to work on

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<sup>578</sup> Sullivan, S, ‚Salvadoran Proposal To Ratify Nagoya Protocol Highlights Genetic Resources Legal Issues,’ (2012), *Legal News and Analysis SULLIVANLAW.NET*. Available online at: <http://sullivanlaw.net/salvadoran-legislators-consult-with-stakeholders-on-ratification-of-nagoya-protocol/>. Date of access 07/10/2012.

<sup>579</sup> Information provided by the Secretariat of the Convention on Biological Diversity to the Tenth Session of the United Nations Permanent Forum on Indigenous Issues, see information online at: [http://www.un.org/esa/socdev/unpfii/documents/session\\_10\\_SCBD.pdf](http://www.un.org/esa/socdev/unpfii/documents/session_10_SCBD.pdf). Date of access 30/09/2012.

these issues and could adopt a series of resolutions providing great guidance to Parties on how to implement the Protocol.

It would not be erroneous to predict that the implementation of the Protocol at a national level, viewed from the provider country side, would not be without difficulties. Indeed, a number of developing countries, due to a lack of national capacity, would experience the problem of uncertainty and delay. This reveals the problem of capacity-building as has been discussed by developing countries at the ICNP second meeting.<sup>580</sup> Delegates of these countries drew special attention to the need for capacity-building on multiple scales, and they tried hard to convince the ICNP that practical capacity-building activities focused on ratification and implementation could be of paramount importance for countries rich in biological resources.<sup>581</sup> This is an issue that has already been recognized. There have been a series of capacity-building workshops organized by the Secretariats of the CBD and ITPGRFA, which have aimed at encouraging early ratification of the Nagoya Protocol.<sup>582</sup>

Nevertheless, it is important to accept, once again, that the effective implementation of the Protocol, and thus its success in establishing an effectively functioning ABS system and in hindering misappropriation of genetic resources and associated TK (“biopiracy”) will crucially depend on consistent actions both in developing and developed countries.

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<sup>580</sup> Second Meeting of the ICNP, see above n568, or available online at: UNP/CBD/ICNP/2/10.

<sup>581</sup> Ibid.

<sup>582</sup> Secretariat of the CBD, ‘Capacity-building Workshop on Access and Benefit-sharing,’ *International Civil Aviation Organization (ICAO)*, Montreal, Canada, available online at: wcabs-01-01-adds-en [read only]. Date of access 05/12/2013.  
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