

# Implementation and Further Development of the Biodiversity Convention

## Access to Genetic Resources, Benefit Sharing and Traditional Knowledge of Indigenous and Local Communities

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### I. Introduction

The Johannesburg Declaration on Sustainable Development identifies a continued loss of biological diversity.<sup>1</sup> In its plan of implementation, the Johannesburg Summit underlines the critical role of biodiversity in overall sustainable development and poverty eradication and stresses the need to achieve by 2010 a significant reduction in the current rate of loss of biological diversity.<sup>2</sup> While the exact rate at which biological diversity, i.e. the diversity of genes, of species and of ecosystems, actually irreversibly disappears is hard to determine, the fact that a continuous decline is taking place is undisputed and has increasingly alarmed the world's public. The growing awareness of biological diversity as an essential resource had eventually led to the negotiation of the Convention on Biological Diversity (CBD) that was opened for signature at the Rio Summit and entered into force on 29 December 1993.<sup>3</sup>

The Johannesburg Summit calls for a more efficient and coherent implementation of the three objectives of the Convention, namely the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.<sup>4</sup>

With these objectives, the Convention differs in several ways from precedent conventions on the protection of single species of flora and fauna.<sup>5</sup> While older environmental agreements strictly aim at the conservation of species and their habitats, the CBD goes beyond the idea of mere conservation and also emphasises biological diversity's sustainable use.<sup>6</sup> Combining the idea of conservation and sustain-

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<sup>1</sup> Johannesburg Declaration on Sustainable Development, Annex to Resolution 1, A/CONF.199/20, para. 13.

<sup>2</sup> Plan of Implementation of the World Summit on Sustainable Development, Annex to Resolution 2, A/CONF.199/20, para. 44.

<sup>3</sup> Convention on Biological Diversity (CBD) of 5 June 1992, reprinted in: I.L.M. 31 (1992), 822-841.

<sup>4</sup> Plan of Implementation of the World Summit on Sustainable Development, Annex to Resolution 2, A/CONF.199/20, para. 44. For the objectives of the Convention, see Article 1 CBD.

<sup>5</sup> For an overview of such conventions, see e.g. Philippe Sands, *Principles of International Environmental Law*, Manchester, New York 1994, 368 et seq.

able use, the CBD contains a broad catalogue of obligations on conservation measures and sustainable use of biological diversity and its components within the territories of Contracting States.<sup>7</sup>

As a second tier, the Convention introduces provisions on access to genetic resources and benefit sharing, which clearly leave the area of conventional environmental agreements. The increasing interest in genetic resources and the subsequent inclusion of provisions on access to genetic resources within the Convention were due to the rapidly growing progress in life sciences, especially in the area of genetic engineering, and to its growing commercial weight. Biotechnological research was using genetic information derived from biological resources; and the wealth of genetic information that was seen as a potential foundation of future research was realized to be directly dependant on the diversity of existing species. This has led, on the one side, to an even increased interest in the conservation of biological diversity, and, on the other side, to the call for participation in the new scientific progress in return for conservation efforts.

In the negotiation of the Convention, biodiversity rich developing countries insisted on their sovereign right to genetic resources in order to strengthen their position towards the industrialized North who benefited from the scientific progress and to a large extent excluded developing countries. In exchange for the access to genetic resources, the Convention includes provisions on benefit sharing and technology transfer.<sup>8</sup>

Against this background, and considering the present importance of the biotechnological sector, especially the provisions of the Convention on access to genetic resources and benefit sharing have retained their importance over the ten years of their existence. The implementation plan of the Johannesburg Summit reflects this importance by devoting a number of paragraphs to requests for action in the area of access and benefit sharing.<sup>9</sup>

## II. Access to Genetic Resources, Benefit Sharing and Traditional Knowledge of Indigenous and Local Communities

### 1. Access to Genetic Resources and Benefit Sharing

The central provision regarding access to genetic resources is Art. 15 CBD. Art. 15 para. 1 CBD refers to the sovereign right of states over their natural re-

<sup>6</sup> Ulrich Beyerlin, *Erhaltung und nachhaltige Nutzung als Grundkonzept der Biodiversitätskonvention*, forthcoming.

<sup>7</sup> See, in particular, Articles 6-10 CBD.

<sup>8</sup> Rüdiger Wolfrum/Peter-Tobias Stoll, *Access to Genetic Resources Under the Convention on Biological Diversity and the Law of the Federal Republic of Germany*, Berlin 1996, 16.

<sup>9</sup> Plan of Implementation of the World Summit on Sustainable Development, para. 44 *lit. m - r*.

sources, which includes the right to determine conditions for the access to genetic resources – a subset of natural resources – within the state's territory.<sup>10</sup> In its succeeding paragraphs, Art. 15 CBD lays down a framework for implementing an access regime for genetic resources that are defined by the Convention as a component of biological diversity, namely as genetic material of actual or potential value.<sup>11</sup> The framework of Art. 15 CBD does not allow states to interdict access to genetic resources and in this sense can be regarded as narrowing the sovereign right of states towards their natural resources as existing under international law. Contracting Parties are held, according to Art. 15 para. 2 CBD, to facilitate access and not to impose restrictions with regard to granting access to genetic resources beyond those resulting from the implementation of the other objectives of the Convention. On the other side, legal conditions are set forth that have to guide any access activity. Under Art. 15 para. 5 CBD access to genetic resources only has to take place after having obtained the prior informed consent of the Contracting Party providing access. Art. 15 para. 4 CBD, furthermore, confirms that access has only to be granted on mutually agreed terms.

In return for having obtained access to genetic resources, benefits arising out of the utilization of these resources have to be shared equitably. The Convention namely asks for participation in research work and the shifting of such activities to the countries of origin,<sup>12</sup> for technology transfer<sup>13</sup> and for participation in the results and benefits of genetic resources.<sup>14</sup>

The regime on access and benefit sharing lays down basic obligations for the Party providing genetic resources on the one hand, and the Party or its nationals who want to use genetic resources on the other hand. It does not specify details of these obligations; for example, no further guidance is made with regard to the content of the mutually agreed terms required. Instead, the provisions describe a framework that has to be further implemented.

## 2. Traditional Knowledge

Benefit sharing is also mentioned in another context of the Convention. Art. 8 *lit. j* CBD, systematically found among other provisions on *in situ* conservation

<sup>10</sup> The Convention assigns individual states the power to determine access to resources provided such resources are located within their national jurisdiction and originate from there or have been lawfully acquired by the state in question, cf. Article 15 para. 1 and 3, Article 2 CBD. See for details, Wolfrum/Stoll (note 8), 33.

<sup>11</sup> Article 2 para. 9 CBD. According to Article 2 para. 2 CBD biological resources "include genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity." Human genetic resources are explicitly excluded, see reaffirmation in Dec. II/11, UNEP/CBD/COP/II/19 of the Second Meeting of the Conference of the Parties to the Convention.

<sup>12</sup> Article 15 para. 6 CBD.

<sup>13</sup> Article 16, especially para. 3.

<sup>14</sup> Article 15 para. 7; Article 19 para. 2 CBD.

measures, provides that Contracting Parties shall, *inter alia*, encourage the equitable sharing of the benefits arising from the utilization of indigenous and local communities' traditional knowledge. Traditional knowledge of indigenous and local communities, i.e. knowledge on the traditional use and breeding of crops, on medicinal plants and on local ecosystems, had been realized as an important factor of traditional lifestyles of these communities. Traditional lifestyles were seen to be able to contribute to the conservation of biological diversity and thus a provision on traditional knowledge was included in the Convention. Beyond its contribution to conservation, traditional knowledge was also seen as a source for research on the resources identified by indigenous and local communities. In this context, demands on the protection of traditional knowledge were articulated.

Art. 8 *lit. j* CBD, as the key provision on traditional knowledge,<sup>15</sup> reflects both the need for conservation of traditional knowledge (Contracting Parties shall "respect, preserve and maintain" traditional knowledge) as well as its potential use subject to the consent of the respective community (Contracting Parties shall "promote [the] wider application [of traditional knowledge] with the approval and involvement of the holders of such knowledge") and in return for benefit sharing. In what way these elements become operative, however, lies within the discretion of Contracting Parties implementing the provision, as Art. 8 *lit. j* CBD – like most the provisions on conservation and sustainable use – only has to be implemented "as far as possible and as appropriate". Furthermore, all obligations of Art. 8 *lit. j* CBD are subject to national legislation. These restrictions together with the rather vague language of the provision (benefit sharing, e.g., shall only be "encouraged"), show that Art. 8 *lit. j* CBD does not provide for any strict obligations on Contracting Parties, but rather is of mere programmatic character.

### 3. Implementation Status at the Regional and National Levels

Generally, different ways of implementing the access and benefit sharing regime of the Convention as well as Art. 8 *lit. j* CBD are conceivable and have been explored. Up until today, however, only a smaller number of Contracting Parties have enacted legislation or taken other initiatives. Many states being countries of origin for biological diversity and therefore destination countries for expeditions collecting genetic resources, who are in need of implementing the access regime of the Convention in order to set forth their conditions for access to their resources and the benefit sharing they require, have not yet taken any action.

As a first possibility, the introduction of specific, stand-alone regulations with detailed provisions on access and benefit sharing, either at the national level (e.g. Philippines) or as a common regional framework (e.g. the Andean Pact), has been

<sup>15</sup> The other provisions mentioning traditional knowledge are Article 10 *lit. c* and Article 17 para. 2 CBD. Indigenous and local communities and their traditional knowledge also find recognition in the preamble to the Convention.

explored.<sup>16</sup> Provisions on access to genetic resources are also included within legislation designed to implement a much broader set of objectives of the Convention or even beyond (e.g. Costa Rica's *ley de biodiversidad*). Another option would be to modify existing sectoral laws in order to incorporate access provisions, for example, adapting regulations governing national parks or forests.<sup>17</sup>

The first country to implement the access and benefit sharing provisions of the Convention was the Philippines. In 1995, a presidential executive order "Prescribing Guidelines and Establishing a Regulatory Framework for the Prospecting of Biological and Genetic Resources, their By-products and Derivatives, for Scientific and Commercial Purposes and for Other Purposes" entered into force.<sup>18</sup> The executive order, as other implementing regulations, broadens the scope of the provisions of the Convention on access not only to include genetic, but, more generally, all biological resources. This practice has been found necessary, because for the collection of genetic resources plant material is needed in the same way as it is needed for the collection of biological resources for other purposes. It is rather only the subsequent use of the material that determines whether the resource is a biological or a genetic resource. Broadening the scope of access regulations captures all access activities.

According to the Philippine executive order an agreement between the party seeking access and the Philippine government is required. This agreement has to comprise minimum standards with regard to information on details of the access activity, on the scope of the specific collection, on technical co-operation and benefit sharing. An inter-agency committee is established, which provides for the institutional framework and is competent for all access activities.

The executive order also includes regulations with regard to indigenous and local communities. The executive order sets forth obligations on information of indigenous cultural communities and other Philippine communities in cases where resources are sought from their territory, as well as on their consent to the respective access activity and on benefit sharing with the community. While the executive order does not directly link any of the access requirements to the utilization of traditional knowledge, it associates indigenous and local communities' interests with the state interest in genetic resources and benefit sharing, and with this points towards the road that some Contracting Parties try to go in setting forth require-

<sup>16</sup> See for a list of these and other options, Carolina Lasén Díaz, *Regional Approaches to Implementing the Convention on Biological Diversity: The Case of Access to Genetic Resources*, paper prepared for the EU Concerted Action Conference on the Effectiveness of International Environmental Agreements, Barcelona, 9-11 November 2000.

<sup>17</sup> E.g. the forest ordinance of Sarawak State, Malaysia, was amended to control access to the genetic resources of trees, see Díaz, *ibid.*

<sup>18</sup> Philippine Executive Order No. 247 of 1995, reprinted in: John Mugabe et al. (eds.), *Access to Genetic Resources, Strategies for Sharing Benefits*, Nairobi, Washington D.C., Bonn 1997, 345-352. In 1996, an administrative order "Implementing Rules and Regulations on the Prospecting of Biological and Genetic Resources" has been adopted, see UNEP/CBD/COP/3/20, para. 20.

ments for the utilization of indigenous and local communities' traditional knowledge when implementing the access and benefit sharing regime of the Convention.

At the regional level, the member states of the Andean Community – Bolivia, Colombia, Ecuador, Peru and Venezuela – adopted a Common Regime on Access to Genetic Resources (Decision No. 391) in 1996.<sup>19</sup> It sets forth provisions on access to genetic resources as well as to their derivatives and to immaterial components of these resources that are directly applicable within the Andean Community member states, but need to be concretized at national level.<sup>20</sup> Prior to any access activity a contract has to be concluded between the respective member state (through its competent national authority) and the entity seeking access; the Decision lays out minimum requirements for such contracts.<sup>21</sup>

Again, the scope of the access and benefit sharing regime of the Convention on Biological Diversity is broadened by including derivatives and immaterial components of genetic resources. Immaterial components are defined as “all know-how, innovation or individual or collective practice, with a real or potential value that is associated with the genetic resource, its derivatives or the biological resource that contains them, whether or not protected by intellectual property regimes”<sup>22</sup> and thus include traditional knowledge. If immaterial components are at stake, a fair and equitable distribution of the profits from the use of the components with the respective indigenous, afro-american or local community needs to be guaranteed.<sup>23</sup>

Costa Rica has gone a different way in not enacting a specific regime on access and benefit sharing but instead including rules on access in its biodiversity law of 1998,<sup>24</sup> its objectives being the conservation of biological diversity, the sustainable use of resources, and an equitable sharing of the benefits and costs arising. The scope of the law extends to all components of biological diversity, and in the context of access refers to genetic and biochemical resources. In contrast to the Philippine or Andean Community solution, the Costa Rican law merely sets out a general framework and leaves detailed provisions to the competent Commission for Biological Diversity. Like the Philippine order, the Costa Rican law requires prior informed consent of indigenous peoples as soon as resources from their territories are at stake. So called *Sui Generis* Community Intellectual Rights of indigenous

<sup>19</sup> Decisión No. 391, Régimen Común sobre Acces a los Recursos Genéticos, for the English translation see <<http://www.COMUNIDADANDINA.ORG/english/Dec/dNr.391e.htm>>.

<sup>20</sup> See Carolina Carbuccia, National Access Legislation: An Updated Survey, in: Rüdiger Wolfrum/Peter-Tobias Stoll (eds.), *European Workshop on Genetic Resources Issues and Related Aspects – Access and Benefit Sharing, Intellectual Property Rights, Ex-Situ Collections, Proceedings and Materials*, Berlin 2000, 19 et seq., (25).

<sup>21</sup> See in detail on Decision No. 391 Monica Rosell, *Access to Genetic Resources: A Critical Approach to Decision 391 'Common Regime on Access to Genetic Resources' of the Commission of the Cartagena Agreement*, RECIEL 6 (1997), 274 et seq.

<sup>22</sup> Article 1 para. 17 of Decision 391.

<sup>23</sup> Article 35 of Decision 391.

<sup>24</sup> Ley de Biodiversidad No. 7788 of 23 April 1998, see <<http://www.biodiversidadla.org/documentos5.html>>.

and local communities are put forward without, however, regulating any content but leaving it to the competent authorities.

In 1998, the Organization of African Unity (OAU) – now African Union – approved a draft of an African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources (Model Law)<sup>25</sup> and recommended the model provisions as basis for national legislation in its member states. The detailed requirements that have to be met before access to biological resources – again not only genetic resources, but biological resources are addressed – can take place also have to be met when traditional knowledge is object of the access activity.<sup>26</sup> Moreover, the Model Law stipulates a – collective – right of local communities to the benefits arising out of the utilization of their biological resources and their traditional knowledge,<sup>27</sup> as well as so-called community intellectual rights.<sup>28</sup> However, no precise consequences are linked to this concept. Farmers' rights are explicitly mentioned, but, again, not substantiated.<sup>29</sup>

In late 1998, the ASEAN member states met in a Working Group on Nature Conservation and Biodiversity in order to discuss a legal framework on access to genetic resources within the ASEAN region. The outcome of this meeting, the Draft ASEAN Framework Agreement on Access to Genetic Resources, is still incomplete and in need of further discussion.<sup>30</sup> It nevertheless sets forth general terms that should guide the granting of access to genetic resources. Reiterating the language of the Convention on Biological Diversity, it is laid down that "member states shall recognize, respect, preserve and maintain the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles to their natural resources, including genetic resources".<sup>31</sup>

<sup>25</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 of the OAU, reprinted in: Organization of African Unity, Regional Workshop on Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and the Regulation of Access to Biological Resources (1-5 November 1999, Addis Ababa, Ethiopia), Report, Appendix 1.

<sup>26</sup> Articles 5 (Part III) and 18 (Part IV) of the OAU Model Law.

<sup>27</sup> Part IV, Article 16 of the OAU Model Law.

<sup>28</sup> Community intellectual rights are those rights held by local communities over their biological resources or parts or derivatives thereof, and over their practices, innovations, knowledge and technologies, Part II, Article 1 para. 4 of the OAU Model Law.

<sup>29</sup> They shall include the right to: (a) the protection of their traditional knowledge relevant to plant and animal genetic resources; (b) obtain an equitable share of benefits arising from the use of plant and animal genetic resources; (c) participate in making decisions, including at the national level, on matters related to the conservation and sustainable use of plant and animal genetic resources; (d) save, use, exchange and sell farm-saved seed/propagating material; (e) use a new breeders' variety protected under this law to develop farmers' varieties. Part V, Article 26 para. 1 of the OAU Model Law. Para. 2 clarifies that "the farmer shall not sell farm-saved seed/propagating material of a breeders' protected variety in the seed industry on a commercial scale".

<sup>30</sup> Draft ASEAN Framework Agreement on Access to Genetic Resources, see <<http://www.grain.org/docs/asean-access-2000-en.pdf>>.

<sup>31</sup> Article 1 *lit.* b of the Draft ASEAN Framework Agreement on Access to Genetic Resources. Furthermore, indigenous peoples and local communities shall be involved in decisions regarding ac-

Other initiatives<sup>32</sup> have been taken either specifically dealing with an access and benefit sharing regime, e.g. Brazil,<sup>33</sup> or including such rules within a broader context, e.g. India in its newly passed biodiversity act.<sup>34</sup> All initiatives include provisions on traditional knowledge of indigenous and local communities.

Apart from attempts to introduce provisions on traditional knowledge as part of access legislation, some Contracting Parties have decided to establish separate regimes. The Philippines, for example, has – besides the executive order regulating access to biological resources and in this context including rights of indigenous communities with respect to resources on their territories – enacted an Indigenous Peoples Rights Act addressing a broad range of indigenous peoples' issues and also including rules on the utilization of traditional knowledge and benefit sharing with the respective communities in 1997.<sup>35</sup> In South Africa, a Draft Bill on the Protection and Promotion of South African Indigenous Knowledge is currently under consideration. The most important national initiative with regard to a specific regime addressing traditional knowledge and indigenous and local communities' claim for an involvement in decision making and for benefit sharing, was launched in Peru. In August 2002, a law on a Regime of Protection of the Collective Knowledge of Indigenous Peoples was adopted, which goes well beyond the framework laid out by the Common Regime on Access to Genetic Resources and establishes a register for traditional knowledge as well as a trust fund supporting indigenous and local communities.<sup>36</sup>

The existing regional or national approaches have met with some criticism regarding their practicability. Before access actually can take place, an often rather complicated administrative procedure has to be undergone and in many cases a number of different stakeholders have to be involved and give their consent as well as be considered for the benefit sharing agreements.<sup>37</sup> In some cases, the regional

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cess to genetic resources; they shall also be directly consulted in order to determine benefit sharing. (See Articles 7 and 8).

<sup>32</sup> See also Lyle Glowka, *Emerging Legislative Approaches to Implement Article 15 of the Convention on Biological Diversity*, RECIEL 6 (1997), 249-262, (249).

<sup>33</sup> In Brazil, a proposed law is still pending in parliament. Due to the long lasting legislative process the Brazilian government had adopted a provisional order (Medida Provisória No 2.052) to regulate access to biological resources and to traditional knowledge in 2000. At a state level, two states of the Amazon, Acre and Amapá, have issued laws on the access to genetic resources, see Latin American Weekly Report, 11 July 2000, WR-00-27, 316. *Projeto do Lei do Senado 306/1995* was approved in 1998 by the Senate and has to pass the second chamber of the Brazilian Parliament Carbuccioni (note 20), 35.

<sup>34</sup> The Indian Parliament passed a biodiversity bill in December of 2002, cf. Chandrika Mago, *Rajya Sabha Okays Biodiversity Bill*, *Times of India* of 12 December 2002.

<sup>35</sup> Republic Act No. 8371 of 28 July 1997 (Indigenous Peoples Rights Act) and accompanying administrative order.

<sup>36</sup> Ley N° 27811 (published in the official journal "El Peruano" on 10 August 2002), *Ley que establece el régimen de protección de los conocimientos colectivos de los pueblos indígenas vinculados a los recursos biológicos*.

<sup>37</sup> Peter-Tobias Stoll, *Access to Genetic Resources and Benefit Sharing: Prospects for Guidance by the CBD-system: Assessment – The Current Situation and Shortcomings*, in: Wolfrum/Stoll (eds.), note 20, 15.



or national rules only set out a framework in need of further implementation through designated national authorities which often have not yet been able to come up with a practicable solution.

With regard to the reluctant legislative or other regulative initiatives of resource states on access to genetic resources and benefit sharing, the following difficulties rather than a lack of legislative or administrative capacity have been identified: the uncertainty about the economic value of genetic resources today and in the future; the uncertainty about the revenues that can be realized with bioprospecting activities; internal conflicts on the distribution of benefits within resource states; and the fact that it is often less sensible for the politically responsible within resource states to justify the failure of a certain access activity than the conclusion of a moderate agreement that falls short of the high expectations towards possible revenues.<sup>38</sup>

As the existing access regimes show, indigenous and local communities' interests have been included in national and regional access and benefit sharing regimes. While one option pursued is the introduction of certain requirements that have to be fulfilled before the competent authority will consent in a certain access activity, in some cases separate contracts with the communities involved are required besides the contract with the national authority. The Costa Rican law and the OAU Model Law even proclaim *sui generis* community intellectual rights or community intellectual rights, without, however, giving these concepts any substance.

All these attempts to strengthen indigenous and local communities have not yet resulted in any workable implementation of Art. 8 *lit. j* CBD. A major deficiency is the lack of response to the fact that traditional knowledge very often is publicly known or held by various indigenous or local groups and thus an undifferentiated prior informed consent requirement does not seem to be practical: Why should the consent be necessary when the knowledge is publicly known? Who does have to give consent? The Peruvian law is the only one that addresses these questions and does not follow the path of simply adding a consent and benefit sharing requirement to the generally laid out requirements before accessing genetic or biological resources as such.

#### 4. Developments at the International Level

In emphasizing the sovereign right of states over their natural resources and stipulating that access is subject to national legislation, Art. 15 CBD primarily formulates a mandate for national implementation measures. However, this does not preclude Contracting Parties from international co-operation. For such co-operation generally different forms are conceivable. While the CBD as a framework

<sup>38</sup> Peter-Tobias Stoll, Gestaltung der Bioprospektion unter dem Übereinkommen für biologische Vielfalt durch internationale unverbindliche Verhaltensstandards: Hintergründe, Möglichkeiten und Inhalte, Berlin 2000, 59 et seq.

agreement theoretically provides the possibility of protocols and amendments to the Convention without restricting these to specific subjects, other means of co-operation are conceivable and have been envisaged by the Conference of the Parties to the Convention. According to Art. 23 para. 4 CBD, the mandate of the Conference is to keep under review the implementation of the Convention. As such a mandate to a large extent entails the gathering and dissemination of information by Contracting Parties in order to share implementation experiences as well as scientific, technical and technological information through the Conference itself or its subsidiary body (SBSTTA), the Conference is also called upon to "consider and undertake any additional action that may be required for the achievement of the purposes of this Convention".<sup>39</sup> In this light, the Conference is also able to request additional implementation measures.

### A. Access and Benefit Sharing

After a period of collecting information on national activities regarding access to genetic resources and benefit sharing and of compiling views of Parties on possible options concerning the implementation of Art. 15 CBD, the Conference of the Parties at its fourth meeting in 1998 decided to establish a regionally balanced panel of private and public sector experts for these issues including representatives of indigenous and local communities. As the above review has shown, still many resource states had not made satisfactory progress with regard to access and benefit sharing legislation. The mandate of the panel was to "draw upon all relevant sources, including legislative, policy and administrative measures, best practices and case-studies on access to genetic resources and benefit-sharing arising from the use of those genetic resources, including the whole range of biotechnology, in the development of a common understanding of basic concepts and to explore all options for access and benefit-sharing on mutually agreed terms including principles, guidelines, and codes of conduct of best practices for access and benefit-sharing arrangements".<sup>40</sup> The panel met twice in 1999 and 2001 and held an intensive discussion on existing experiences resulting in the identification of elements to serve as a basis for the development of international guidelines and other approaches on access and benefit-sharing.<sup>41</sup>

### B. Traditional Knowledge

The expert panel on access and benefit sharing also dealt with questions regarding traditional knowledge. At its first meeting, it stated that "emerging experience with the development of access legislation, as well as international human rights

<sup>39</sup> Article 23 para. 4 *lit. i* CBD.

<sup>40</sup> Dec. IV/8 para. 3 of the Fourth Conference of the Parties to the Convention.

<sup>41</sup> UNEP/CBD/WG-ABS/1/2, para. 44.

legislation pertaining to indigenous peoples has – in those countries where such legislation is enforced – reinforced and extended the obligations of Article 8(j) of the Convention on Biological Diversity”.<sup>42</sup> As a main need the requirement to consult indigenous and local communities prior to access to resources on their territories or lands, as well as to their knowledge, innovations and practices had been identified.

Art. 8 *lit.* j CBD has been on the agenda of the Conferences of the Parties since its third meeting in 1996, where an inter-sessional process was initiated.<sup>43</sup> As a first step, a workshop was convened in 1997, which was to serve government representatives as well as representatives of indigenous and local communities as a forum for a general exchange of views.<sup>44</sup> In 1998, the fourth meeting of the Conference of the Parties decided upon an Ad Hoc Open-ended Inter-sessional Working Group with the general mandate, *inter alia*, to issue advice and develop a program of work on the implementation of Art. 8 *lit.* j CBD and related provisions.<sup>45</sup> It has met twice, in April 2000 and in February 2002.<sup>46</sup>

### C. The Bonn Guidelines

Following the two meetings of the panel of experts on access and benefit sharing, the Conference of the Parties established an Ad Hoc Open-ended Working Group on Access and Benefit-sharing. The working group developed draft guidelines which were adopted by the Sixth Conference of the Parties in 2002 as the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization.<sup>47</sup>

The Bonn Guidelines establish non-binding provisions to guide Contracting Parties in implementing the Convention articles on access and benefit sharing, as well as to serve as a model for private contracts and other agreements. They are neither to be read as changing the rights and obligations of Parties under the Convention nor do they intend to substitute for relevant national legislation.<sup>48</sup> Rather, they aim at facilitating access and benefit sharing in cases where no national legislation exists.

In detail, the Guidelines include elements for consideration when establishing a system of prior informed consent as well as aspects for its actual implementation, i.e. on the appointment of the competent national authority and on the outline of the specific procedure to be followed when consent to an access activity is sought.

<sup>42</sup> UNEP/CBD/COP/5/8, first sentence of para. 121.

<sup>43</sup> Dec. III/14: Implementation of Article 8 (j), UNEP/CBD/COP/3/38, Annex.

<sup>44</sup> For the report of the workshop see UNEP/CBD/TKBD/1/3.

<sup>45</sup> See Dec. IV/9: Implementation of Article 8 (j) and Related Provisions, UNEP/CBD/COP/4/10, Annex.

<sup>46</sup> For the first meeting of the Working Group see UNEP/CBD/COP/5/5; for the second meeting see UNEP/CBD/COP/6/7.

<sup>47</sup> Dec. VI/24 of the Sixth Conference of the Parties to the Convention.

<sup>48</sup> Bonn Guidelines I.A. para. 2 and 3.

It is emphasized that the purpose of the access activity, especially whether research or commercialization is envisaged, needs to be disclosed before consent can be granted. It is further stressed that "permission to access genetic resources does not necessarily imply permission to use associated knowledge and *vice versa*".<sup>49</sup> As in such cases several stakeholders are involved on the side of the country of origin of genetic resources, the Guidelines underscore the need to specify the specific state entities and other stakeholders, possibly indigenous and local communities, whose prior informed consent should be required before the access activity can take place.

Following prior informed consent, mutually agreed terms need to be established that lay out details for the contractual relationship between provider and user of the resources. Typical terms are, *inter alia*, specifications on type and quantity of the envisaged genetic material and of its future use or on the location where the access activities will take place.<sup>50</sup> In order to minimize costs, the Guidelines stress the need for the establishment of framework agreements, under which repeat access under expedited arrangements can be made, as well as standardized material transfer agreements for similar resources and similar uses.<sup>51</sup>

Mutually agreed terms finally need to include details on benefit sharing, i.e. "conditions, obligations, procedures, types, timing, distribution and mechanisms of benefits to be shared".<sup>52</sup> The Guidelines include a broad list of monetary as well as non-monetary benefits that might be envisaged by the Parties involved.

The Guidelines are primarily designed to provide assistance for Contracting Parties, which are countries of origin of genetic resources, in establishing the appropriate measures. However, it has been emphasized especially by these Contracting Parties that compliance with access and benefit legislation in countries of origin of genetic resources is hard to control and secure due to the nature of the resource, i.e. the fact that only a small sample of material is sufficient and that the resources often occur in many different locations. Consequently, the Guidelines also call upon Contracting Parties with users of genetic resources under their jurisdiction to take appropriate legal or other measures, as appropriate, to support compliance with the prior informed consent requirement and with the respective mutually agreed terms.<sup>53</sup>

The Bonn Guidelines explicitly refer to indigenous and local communities and name as an objective that the development of mechanisms and access and benefit-sharing regimes under the Guidelines should also recognize the protection of traditional knowledge, innovations and practices of indigenous and local communities, in accordance with domestic laws and relevant international instruments.<sup>54</sup>

<sup>49</sup> Bonn Guidelines, para. 37.

<sup>50</sup> See for the whole list: Bonn Guidelines, para. 44.

<sup>51</sup> See para. 42 *lit. b. iii.*, iv of the Bonn Guidelines. In an appendix suggested elements for such standardized Material Transfer Agreements are laid out.

<sup>52</sup> Bonn Guidelines, para. 45.

<sup>53</sup> Bonn Guidelines, para. 16.

<sup>54</sup> Bonn Guidelines, para. 11 j.

To what extent the user of genetic resources has to obtain the prior informed consent of indigenous and local communities besides the consent of the relevant national authority of the provider country depends on the circumstances and the respective national legislation.<sup>55</sup> The guidelines emphasize, however, that

“Respecting established legal rights of indigenous and local communities associated with the genetic resources being accessed or where traditional knowledge associated with these genetic resources is being accessed, prior informed consent of indigenous and local communities and the approval and involvement of the holders of traditional knowledge, innovations and practices should be obtained, in accordance with their traditional practices, national access policies and subject to domestic laws.”<sup>56</sup>

The interests and concerns of indigenous and local communities should also be considered when reaching mutually agreed terms on access and benefit sharing,<sup>57</sup> including benefit sharing directly with indigenous and local communities, if they have contributed to the resource management, scientific and/or commercial process.<sup>58</sup>

In contrast to the Convention itself, which only contains very vague obligations towards indigenous and local communities and lists them among other conservation measures, the Guidelines clearly set traditional knowledge in context with access to genetic resources and puts forward options how to include indigenous and local communities in the process. This could lead, in the long run, to a broadened understanding of the obligations under the Convention towards indigenous and local communities and strengthen their position towards possible users of traditional knowledge as well as towards their home countries.

## 5. Relationship with Other International Regimes

Access to genetic resources, benefit sharing and indigenous and local communities' traditional knowledge are not only addressed within the framework of the Convention on Biological Diversity but reach into the scope of international organizations, namely the FAO, the WIPO and the WTO.

Recognizing these linkages, the Bonn Guidelines call for its application in a manner that is coherent and mutually supportive with the work of other relevant international agreements and institutions. The Guidelines emphasize, *inter alia*, that they are “without prejudice to the access and benefit-sharing provisions of the FAO International Treaty for Plant Genetic Resources for Food and Agricul-

<sup>55</sup> Bonn Guidelines, para. 26 *lit. d*.

<sup>56</sup> Bonn Guidelines, para. 31.

<sup>57</sup> E.g. mutually agreed terms should take into account, *inter alia*, ethical concerns of indigenous and local communities (Para. 43 *lit. a* of the Bonn Guidelines). Mutually agreed terms could further give, *inter alia*, information about whether “the knowledge, innovations and practices of indigenous and local communities have been respected, preserved and maintained, and whether the customary use of biological resources in accordance with traditional practices has been protected and encouraged”. (Para. 44 *lit. g*, taking up the wording of Article 8 *lit. j* CBD).

<sup>58</sup> Cf. Bonn Guidelines, para. 48.

ture".<sup>59</sup> The International Treaty was adopted by the FAO conference in November 2001<sup>60</sup> and marks the result of a long process under the auspices of the FAO, which began in the early 1980s with the adoption of non-binding International Undertaking on Plant Genetic Resources (International Undertaking). The early engagement for conservation and access to plant genetic resources for food and agriculture was due to their crucial importance of the world's major food crops for breeding and scientific purposes. After the CBD was signed, the FAO conference adopted a resolution for the revision of the International Undertaking in order to adapt the Undertaking, in harmony with the CBD. The revision process of the Undertaking began in 1994 and after long lasting negotiations the International Treaty was finally concluded.

The International Treaty, *inter alia*, establishes a so-called "Multilateral System of Access and Benefit-Sharing", which aims at securing unrestrained access to a number of plant genetic resources by defining access and benefit sharing conditions at the international level and thus can be regarded as *lex specialis* over the general access and benefit sharing regime of the CBD. The International Treaty further includes so-called farmers' rights and in this context calls for the protection of traditional knowledge and benefit sharing without, however, giving precise guidance as how to implement the provision. Rather, "the responsibility for realizing Farmers' Rights, ..., rests with national governments".<sup>61</sup> An obligation for realizing such rights is not formulated as the content of the envisaged rights remains rather vague and they only need to be realized in accordance with the needs and priorities of Contracting Parties, and only as appropriate, subject to national legislation.<sup>62</sup>

A second international organization, which has recently begun to address issues of genetic resources and traditional knowledge is the World Intellectual Property Organization (WIPO). Since 1998, WIPO has conducted information gathering on different intellectual property aspects in the context of international environmental agreements as well as traditional knowledge. Two years later, WIPO member states decided to create an intergovernmental body to discuss intellectual property issues related to genetic resources, traditional knowledge and folklore. The body was named 'Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore' and convened four times until the end of 2002.<sup>63</sup> Topics for the Intergovernmental Committee are, *inter alia*, the development of model clauses for genetic resource contracts as well as work on a possible *sui generis* system for the protection of traditional knowledge. So far, the meetings have not yet led to any concrete results.

<sup>59</sup> Bonn Guidelines, para. 10.

<sup>60</sup> International Treaty on Plant Genetic Resources for Food and Agriculture, see <<http://www.fao.org/ag/cgrfa/itpgr.htm>>.

<sup>61</sup> Article 9.2 of the International Treaty.

<sup>62</sup> Ibid.

<sup>63</sup> For documents on the two meetings of the Intergovernmental Committee, see <<http://www.wipo.int/eng/meetings/2001/igc/document.htm>> (first meeting, 30 April – 3 May 2001) and <[http://www.wipo.int/eng/meetings/2001/igc/index\\_2.htm](http://www.wipo.int/eng/meetings/2001/igc/index_2.htm)> (second meeting, 10 – 14 December 2001).

During the negotiations of the CBD, the relationship between intellectual property rights and the rights to genetic resources was a very divisive issue. Since the coming into force of the CBD and of the TRIPs-Agreement under the newly established WTO shortly afterwards, the interrelationship of the CBD with WTO rules was discussed at the Conference of the Parties to the CBD as well as within the WTO Committee on Trade and Environment. While the rights to genetic resources as emphasized by the CBD could not be found to be in conflict with any rights stipulated by the TRIPs-Agreement, the discussion now revolves around possibilities for strengthening the rights of resource countries to determine the conditions for access to their resources, as well as around possible options for the protection of traditional knowledge. In this context, in particular, possibilities for a requirement or encouragement of the disclosure in patent applications of the country and/or community of origin for genetic resources and/or traditional knowledge used to develop the respective invention have been put forward for discussion.<sup>64</sup> The 2001 Ministerial Conference of the WTO in Doha, Qatar, took note of these issues and instructed the competent subsidiary organ of the WTO, the Council on TRIPs, "... to examine, *inter alia*, the relationship between the TRIPs Agreement and the Convention on Biological Diversity, the protection of traditional knowledge and folklore, and other relevant new developments ...".<sup>65</sup> In its implementation plan the Johannesburg Summit refers to the Doha Ministerial Declaration and emphasizes the need to promote the discussions with regard to the relationships between the CBD and agreements related to international trade and intellectual property rights.<sup>66</sup>

<sup>64</sup> The European Community has enclosed this idea in the preamble of the Biotechnology Directive of 1998, cf. para. 27 of Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions, Official Journal L 213, 30/07/1998, 0013-0021: "Whereas if an invention is based on biological material of plant or animal origin or if it uses such material, the patent application should, where appropriate, include information on the geographical origin of such material, if known; whereas this is without prejudice to the processing of patent applications or the validity of rights arising from granted patents;" This is not a binding obligation, however. In difference, the Andean Community in 2000 has included an obligation to disclose in a patent application procedure information on modalities of the access to genetic resources and traditional knowledge, if relevant, in its Decision No. 486, which was adopted in 2000 and replaces a previous Common Intellectual Property Regime (See Decisión No. 486, Régimen Común sobre Propiedad Industrial, see <<http://www.COMUNIDADANDINA.ORG/english/Dec/DNr.486e.htm>> for the English translation. The decision was adopted on 14 September 2000 and entered into force on 1 December 2000, replacing Decision No. 344).

<sup>65</sup> Para. 19 of the Ministerial Declaration, WTO Doc. WT/MIN(01)/DEC/W/1 of 14 November 2001 reads: "We instruct the Council for TRIPs, in pursuing its work programme including under the review of Article 27.3(b), the review of the implementation of the TRIPs Agreement under Article 71.1 and the work foreseen pursuant to paragraph 12 of this Declaration, to examine, *inter alia*, the relationship between the TRIPs Agreement and the Convention on Biological Diversity, the protection of traditional knowledge and folklore, and other relevant new developments raised by Members pursuant to Article 71.1. In undertaking this work, the TRIPs Council shall be guided by the objectives and principles set out in Articles 7 and 8 of the TRIPs Agreement and shall take fully into account the development dimension."

### III. Conservation and Sustainable Use: Developments in Other Areas of the Convention

Besides access to genetic resources and benefit sharing as well as questions regarding the implementation of Art. 8 *lit. j* CBD on traditional knowledge, certainly politically rather sensitive and much debated issues, the bodies of the Convention have addressed a broad range of other topics during their almost ten years of existence. Among these topics have been, *inter alia*, agricultural biodiversity and sustainable agriculture, forestry-related biodiversity, marine and coastal biodiversity as well as the biodiversity of inland water ecosystems and biodiversity in dryland and sub-humid areas. The Conference of the Parties has promoted implementation of these topics by adopting programs of work for the different thematic areas, often beforehand discussed in the Convention's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) on a more technical level, and thus concretizing the often very general framework set forth by the provisions of the Convention.

Alien species – as introduced to foreign ecosystems, e.g. by international shipping – have been identified by the Convention as potentially threatening native species and destabilizing habitats and ecosystems.<sup>67</sup> After work at the level of SBSTTA, the Conference of the Parties adopted the non-binding Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that Threaten Ecosystems, Habitats or Species, first on an interim basis in 2000 and in a final version in 2002.<sup>68</sup> The Guiding Principles aim at conducting Contracting Parties in developing effective strategies to minimize the spread and impact of invasive alien species by putting forward different measures (like border control and quarantine measures as well as information exchange etc.) that Contracting Parties should undertake.

The Convention on Biological Diversity included a mandate for consideration of the need for and modalities of a protocol to the Convention in the field of safe transfer, handling and use of any living modified organism resulting from modern biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity.<sup>69</sup> After long lasting, difficult negotiations, the Conference of the Parties adopted the Cartagena Protocol on Biosafety to the Convention on Biological Diversity in January 2000.<sup>70</sup> With the adoption of the protocol, the institutional possibilities of the CBD as a framework agreement have been fully ex-

<sup>66</sup> Plan of Implementation of the World Summit on Sustainable Development, Annex to Resolution 2, A/CONF.199/20, para. 44 *lit. r*.

<sup>67</sup> Article 8 *lit. h* CBD.

<sup>68</sup> See Decision V/8 (UNEP/CBD/COP/5/23, Annex III) and VI/23 (UNEP/CBD/COP/6/20, Annex I).

<sup>69</sup> Article 19 para. 3 CBD.

<sup>70</sup> On the Cartagena Protocol on Biosafety see Markus Böckenförde, The Operationalization of the Precautionary Approach in International Environmental Law Treaties – Enhancement or Facade Ten Years After Rio?, in this volume, 313 et seq.



plored, which provides for the option of additional protocols and annexes besides decisions by the Conference of the Parties within the context of the Convention and its implementation.

## IV. Conclusion

The Convention on Biological Diversity was adopted as an answer to the growing awareness of the alarming loss of biological diversity and of the deficiencies identified in existing conservation agreements that only addressed specific flora, fauna or habitats. Besides conservation and sustainable use of biological diversity, the Convention also aims at creating just and equitable rules for a sharing of the costs of conservation and the benefits arising out of the utilization of biological diversity. In particular genetic resources have been found to be of high scientific and economic interest and specific rules on access to genetic resources and benefit sharing arising out of the utilization of genetic resources have been included in the Convention.

Most of the Convention's provisions on conservation and sustainable use are broadly formulated and only have to be implemented "as far as possible and as appropriate",<sup>71</sup> which limits the strength of obligation for the individual Contracting State. The Conference of the Parties to the Convention thus has successively adopted programs of work. These concretized the broad language of the Convention and laid out more detailed guidance as to how the provisions need to be implemented. The access and benefit sharing regime of the Convention does not include such limitations. Nevertheless, the first decade of the Convention's existence has not resulted in workable implementation solutions of its access and benefit sharing regime. While some Contracting Parties have adopted national or regional legislation, the vast majority of Parties have not yet done so. This has led Contracting Parties to develop, under the Convention, the Bonn Guidelines, which are designed to assist in and facilitate national implementation efforts as well as serving as a model for contractual agreements. The Johannesburg Summit points towards these guidelines and calls upon states to promote their application.<sup>72</sup> The Bonn Guidelines can be regarded as quite an achievement in the efforts to path the way for national access laws. Their legally non-binding nature does not have to be seen as an obstacle, as they provide for detailed instructions and might in fact form thinking on the side of Parties who implement the access and benefit sharing provisions of the Convention as well as on the side of private companies seeking access in a country where no access legislation is in place.

The Johannesburg Summit in its implementation plan calls for the negotiation "within the framework of the Convention on Biological Diversity, bearing in mind

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<sup>71</sup> Articles 5-11; 14 CBD.

<sup>72</sup> Plan of Implementation of the World Summit on Sustainable Development, Annex to Resolution 2, A/CONF.199/20, para. 44 *lit.* n.

the Bonn Guidelines, of an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources".<sup>73</sup> This has led a number of developing countries at the latest intersessional meeting of the Conference of the Parties to the Convention on Biological Diversity<sup>74</sup> to call for negotiations on an international legally binding instrument, and to emphasize the understanding that the Bonn Guidelines only were a first step towards a legally binding instrument.<sup>75</sup> A legally binding agreement, however, has to be seen with reluctance. Although with the Multilateral System established by the FAO International Treaty such a legally binding agreement has been created, it cannot serve as a model for a general instrument on benefit sharing. It is limited to a specific subset of resources and is the result of a long grown tradition of resources exchange in the field of food and agriculture. There are preponderant reasons against a binding agreement at this stage. The uncertainty about the economic value of genetic resources and the prevailing high expectations towards possible revenues make permanent regulations seem premature and improbable. Furthermore, a separate agreement on access and benefit sharing would not be able to accomplish the deficiencies identified especially regarding compliance. Rather, legislative possibilities reaching into the intellectual property regime need to be further explored.

With regard to traditional knowledge it has to be noted that the integration of this issue in the discussion of access and benefit sharing has enhanced the position of indigenous and local communities. It has to be kept in mind, however, that needs and expectations of countries of origin of genetic resources on the one hand and indigenous and local communities on the other are not always identical. In contrast to the ownership of genetic resources, which depends on the territory where the resource is found, traditional knowledge is often publicly known or known by a large group of communities and thus informed consent prior to its use in practice is not a sufficient or even reasonable requirement. So far, only the Peruvian law on traditional knowledge has adequately addressed this problem.

<sup>73</sup> Plan of Implementation of the World Summit on Sustainable Development, Annex to Resolution 2, A/CONF.199/20, para. 44 *lit. o.*

<sup>74</sup> Open-ended Intersessional Meeting on the Multi-Year Programme of Work for the Conference of the Parties to the Convention on Biological Diversity up to 2010 (MYPOW), held from 17-20 March in Montreal, Canada. For the Report of the Meeting see UNEP/CBD/COP/7/5.

<sup>75</sup> Earth Negotiations Bulletin, Summary of the Open-ended Intersessional Meeting on the Multi-Year Programme of Work for the Conference of the Parties to the Convention on Biological Diversity up to 2010: 17-20 March 2003, Vol. 9 No. 256 of 24 March 2003, available at <http://www.iisd.ca/biodiv/mypow>.