Sustentabilidade em Debate

The Nagoya Protocol on the use of genetic resources:one embodiment of an endless discussion*

Catherine Aubertin[1], Geoffroy Filoche[2]

[1] Doutora em economia, diretora de pesquisa do Institut de recherche pour le développement (IRD - UMR GRED -France). Trabalha sobre a economia política da biodiversidade e do desenvolvimento sustentável. Também faz parte do comitê editorial da revista Natures, Sciences, Sociétés (http://www.nss-journal.org). Contato : catherine.aubertin@ird.fr

[2] Doutor em direito pela Universidade de Nantes (França), pesquisador do Institut de recherche pour le développement (IRD – UMR GRED). Trabalha sobre o direito da proteção e valoração da biodiversidade e dos conhecimentos tradicionais. Contato: geoffroy.filoche@ird.fr

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RESUMO

O objetivo deste artigo é destacar o processo de negociação do Protocolo de Nagoya sobre a utilização dos recursos genéticos, adotado em outubro de 2010. Ao abordar os mitos e realidades associados à exploração da biodiversidade em uma perspectiva mais ampla, busca-se discutir como e por que os argumentos utilizados por países desenvolvidos e em desenvolvimento foram finalmente conciliados, resultando em um novo quadro jurídico internacional. O artigo demonstra em que medida este Protocolo permite aplicar o disposto na Convenção sobre a Diversidade Biológica de forma coerente à legislação internacional pertinente (por exemplo, referente à propriedade intelectual). Também pretende avaliar se o protocolo permitirá reduzir a sempre existente lacuna entre os conceitos jurídicos construídos pela «biodiplomacia» e as necessidades reais e práticas de cientistas e empresas. Por último, procura estimar o impacto deste documento e sua aplicação sobre as estruturas já existentes, com foco na experiência brasileira.

Palavras-chave: Biodiversidade, Recursos genéticos, Acesso e Repartição de Benefícios, Biodiplomacia

ABSTRACT

The purpose of this article is to highlight the process of negociation of the Nagoya Protocol on the use of genetic resources, adopted in october of 2010. While providing an overview of the myths and realities of biodiversity exploitation, it discusses how and why the arguments used by developing and developed countries were finally conciliated, resulting in a new international legal framework. The article shows wether the Protocol manages to implement Convention on Biological Diversity and to be consistent with relevant international law (on intellectual property for instance). It also aims at assessing if the Protocol is likely to reduce the everlasting gap between the legal concepts built by « biodiplomacy » and the actual needs and practices of scientists and companies. It finally estimates the impacts on the already existing frameworks, focusing on the Brazilian experience.

Key-words: Biodiversity, Genetic Resources, Access and Benefit-Sharing, Biodiplomacy, Brazil

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Introduction

The Convention on Biological Diversity (CBD) was adopted at the Earth Summit in Rio de Janeiro in 1992. Article 1 sets out three objectives: the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Despite being initially designed as an international convention whose purpose was to ensure the preservation of the environment and, at the same to apprehend the diversity of its constituent elements and their interactions, the CBD has for the most part become an instrument which crystallizes dreams of planetary equity and hopes of economic prosperity, founded on the use of "green gold" from which it is envisaged that biotech industries will develop the medicines of tomorrow. Nevertheless, three instruments were adopted in Nagoya: in addition to the "Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization", a strategic action plan with 20 objectives to 2020 (which are assumed to address the first two objectives of the CBD: conservation and sustainable use) and a financial mechanism for implementation of the Convention.

The 10th Conference of the Parties to the CBD was held in Nagoya from October 18 through into the small hours of October 30, 2010. It brought together 173 participating countries. Against a backdrop of continuing erosion of biodiversity, despite 18 years of international negotiations, the results of COP 10 were assessed largely in terms of the development of a Protocol on Access and Benefit-Sharing (ABS). And so it was that a commercial and industrial agreement was hailed as a victory for biodiversity, even if questions remain as to whether it really addressed any significant economic issues.

The first purpose of this article is to highlight the different dynamics which led to an agreement, and to study the text of the Nagoya Protocol in order to show how the controversies were defused by means of careful wording. The second is to provide a full overview of the new regime. The CBD left a number of issues unclear: does the Protocol resolve these issues, in terms of its field of application and the balance of the rights and obligations of supplier and user countries? While States may have felt that a satisfactory compromise had been achieved with regard to the issues they had identified (derivatives, retroactive application, responsibilities of user States for their nationals, etc.), to what extent is the new framework operational for those actually using the system (companies, scientists, and so on)? What impact will the new rules have on the practices developed since 1992?

Indeed, the majority of CBD negotiations related to the third objective of the Convention: the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. It is hardly surprising that this objective, which is so different from the first two and which brought on board Southern countries reluctant to make environmental commitments with nothing in return, has become a theatre of a North-South confrontation. For Southern countries, benefit-sharing means putting an end to biopiracy (a contemporary version of Third-World plundering): it means at last reaping the benefits of the use of natural resources and of local knowledge by Northern countries. Benefit-sharing also means subscribing to the belief that there is a market for genetic resources capable of fuelling a new economy based on knowledge and biotechnologies,

the effects of which would promote the preservation of biodiversity (Aubertin, Pinton, Boisvert, 2007). This prospect has given rise to considerable speculation, which has in turn generated an atmosphere of suspicion due to poorly defined aims and vague legal frameworks.

The CBD has certainly set out the terms of the debate and affirmed some underlying principles. Southern countries have emphasized their desire to control their genetic resources; they are also seeking to enshrine their right to benefit from a share of the added value created in Northern countries, at the end of the added value chain. For the latter, the objective is to have easy access to resources, be able to rely on a clear legal framework favorable to conflict-free trade, and consolidate the possibility of protecting innovations derived from these resources by intellectual property rights. In 2002, at the Johannesburg Summit, the Southern countries expressed a wish to negotiate an international regime covering ABS, in order to enable better implementation of the principles contained in the CBD. The principle of a Protocol was adopted at the COP 8 in Curitiba. This left everything else open to definition, including the general economy of the Protocol, the tools and procedures to be implemented, and its status.

COP 10's outcome was eagerly awaited. Following the Conference of the Parties to the Copenhagen Convention on Climate Change, many observers felt that the days of major international United Nations conferences organized on the basis of the "one country, one vote" principle were over. Amid the financial crisis and the persistent refusal of the United States to get on board, it appeared that solutions to global environmental problems would have to be found by means of agreements between countries or regions. The France-Norway initiative, an interim partnership for the REDD program[1], which took place on the fringes of the convention's negotiating sessions, offered one example of this.

The COP 10 also opened amid growing concerns about the continued erosion of biodiversity. The most recent *Global Biodiversity Outlook* (GBO-3) sounded an alarm for humanity: *" The action taken over the next two decades will determine whether the relatively stable environmental conditions on which human civilization has depended for the past 10,000 years will continue beyond this century. If we fail to use this opportunity, many ecosystems on the planet will move into new, unprecedented states in which the capacity to provide for the needs of present and future generations is highly uncertain*". (Secretariat of the Convention on Biological Diversity, 2010, p.15). No government admitted to having fully met the objective, set at the World Summit on Sustainable Development in Johannesburg in 2002, of achieving a significant reduction in the current rate of biodiversity loss. One fifth of them expressly stated that this objective had not been met.

At the same time, the Southern nations condemned an absence of binding financial and legal measures. The COP 10 confirmed the rise of major emerging powers (such as Brazil, India, Indonesia and China, already a major presence in Copenhagen) and their intransigence as to the reality of rich countries' commitments. As an opener, Brazil demanded one billion dollars annually to protect flora and fauna through to 2020. It announced that if the Protocol was not adopted, there could be no question of approving the strategic plan for the preservation of biodiversity, or any of the related financial issues. The G77 + China also announced that the three issues were linked: either the "package" as a whole went through, or nothing did. Attention therefore

inevitably focused on discussions on funding and the Protocol, thereby partially obscuring the progress made on the strategic plan.

This article will be organized as follows: The first section will focus on the pros and cons of the need for a Protocol, while the second section will assess to what extent the results of the biodiplomacy bargaining are deemed satisfactory or even "workable" by the actors who are actually confronted with the legal system (scientists, companies, indigenous peoples…).

1. The Appropriateness of a Protocol

Should a Protocol have been adopted, and if so, why? The answer is clearly yes for the Southern countries, much less so for the Northern countries. Nevertheless, as discussions progressed, the positions of the various parties developed as others made concessions, so that the adoption of a Protocol became inevitable and indeed beneficial for all. After explaining the initial North-South divide, this section will show how the Protocol came to be seen as an opportunity to extend or clarify the field of application of the CBD, as well as a possibility to expand the ABS logic into fields not strictly envisaged by the CDB (such as intellectual property issues). The last part will expose the private actors' wishes for a new legal framework.

1.1 An Initial Divide

Since 2002, megadiverse[2] countries had been calling for the establishment of an international regime for Access and Benefit-Sharing (ABS). Prior to the COP 9 in Bonn in 2008, negotiations foundered particularly on the issue of whether the text to be adopted by the COP 10 should be legally binding, or whether it should consist solely of proposals to guide action by States. Positions are quite clear in this respect. On the one hand, Australia, Canada and New Zealand felt that most of any ABS regime already existed in the form of national legislation, and that any international regime should be sufficiently flexible to take into account a diversity of national approaches. The Bonn Guidelines (a non-binding text adopted in 2002) were held up as a relevant framework in this respect. On the other hand, most African, Latin American, Asian and Pacific countries argued that only a legally binding international text could ensure equitable benefit-sharing. Ultimately, the European Union positioned itself as an arbitrator, adopting an intermediate position. It held that making international standards official should make it possible to establish standard Material Transfer Agreements (MTAs) and conformity certificates, allowing States a certain degree of room for manoeuvre in terms of implementation, at the same time as ensuring that the objectives of the regime were fulfilled. The coalition of megadiverse countries did not respond unanimously to this proposal: some accepted that the regime could be made up of a mix of binding and non-binding components. At the end of the day, the COP 9 resulted in a relatively insignificant consensus: some components of these national regimes would be legally binding – but it was not specified which ones.

Unlike a framework agreement, which is only binding in nature if a country transposes and clarifies its provisions within national legislation, a Protocol entails a stronger commitment on the part of States. Northern countries felt that it would be enough to use parts of existing international instruments and various agreements, binding or otherwise, such as the large number of initiatives proposing standard access procedures (botanical gardens, International Society of Ethnobiology, International Federation of Pharma-

ceutical Manufacturers and Associations -IFPMA- guidelines, and so on). Before even considering a Protocol, the Northern countries preferred to see the question of ABS dealt with at a national level, thus enabling each State to establish a framework in line with its characteristics and needs, rather than having to fit in with a single international measure. For these countries, the obligations already present in the CBD were sufficient; before adopting any new legislation, countries should comply with Paragraph 1 of article 15 of the CBD[3]. The Northern countries also insisted on the fact that the Parties had committed to simplifying access to genetic resources (Art. 15.2), with no discrimination between foreign and national requesting stakeholders. States could even choose to make their resources freely available, as it had been the case of Austria, Denmark and Sweden.

Southern countries felt that the implementation of the legal framework should not be seen solely in terms of the moment of access, nor should it place all the burden of control on countries supplying genetic resources. They argued that user countries also had their responsibilities, and should have a legal framework to control their nationals and traceability of the resource through patent lodging and product marketing. According to this reasoning, a Protocol would be a way of compelling Northern countries to take this dimension into account.

1.2 The possibility of extending or clarifying the field of application

Since the CBD, the material field of application of ABS has been the subject of many approximations and adjustments. Both Northern and Southern countries have sought to clarify this aspect, which is clearly fundamental. A working group studied various ways of defining biological resources, genetic resources, derivatives and products. Article 15 of the CBD deals only with genetic resources, and not biological resources, but the boundary between the two categories is blurred. Similarly, the distinction between research for commercial and non-commercial purposes is not clear, despite the fact that the latter could be the subject of a much more straightforward authorization procedure (as is the case in many countries), even if the CBD does not specify this explicitly.

Conflicts during the Nagoya negotiations came to a head with regard to "products and derivatives". The third objective of the CBD deals with the use of genetic resources. Northern countries argued that derivatives and products fell firmly within the remit of the World Trade Organization (WTO). However, the creation of wealth (and thus of benefits which may be shared) does not take place as result of the use of DNA, or the genes themselves, but (in 89% of cases according to the megadiverse group of countries) as a result of research and development regarding biochemical components (which include not only natural molecules, but also synthetic products which copy a natural molecule, medicines and so on). According to this argument, a Protocol dealing only with the use of genetic resources in the strict sense of the term, and not derivatives, would therefore be meaningless. The issue of access to genetic resources was broadened to include the issue of ownership of products and derivatives (molecules, raw extracts from organisms, any element taken from the metabolism of organisms, etc.), synthetic products copying a natural molecule (biomimetics) and commercial products including medicines. This line of reasoning would mean that requests for compensation could be made for any medicine if it could be demonstrated that it was derived

from molecules extracted from plants which were not declared when the patent was lodged. The Southern countries also demanded that access to herbaria and other collections established prior to the implementation of the CBD should be subject to the Protocol. Their reasoning was that access is always "new" in the sense that it uses new means of research and seeks new types of use. Such demands amounted to the subtle introduction of a certain type of retroactivity into the principles of the CBD, which would thus apply to gene banks, for instance.

1.3 An opportunity to expand into fields not strictly envisaged by the CBD

For Southern countries and NGOs, the Protocol also offered an opportunity to contribute to a reform of intellectual property law, particularly by linking the ABS system to the patent system. As things stand today, patent requests may be lodged for innovations made on the basis of a resource, without the patentability requirements including observance by the inventor of rights engendered by the ABS regime.

One legal instrument in particular was thus the subject of considerable debate. This was the certificate of geographical and/or legal origin, designed to prove that the resource had been acquired pursuant to the CBD and the national legislation of the supplier country (consent by communities and States, benefit-sharing contract), and to be included in patent applications. Certain States have already implemented their own system. For instance, this certificate of origin was deployed in Brazilian patent law in early 2010. International recognition of certificates of origin would require a review of the whole of intellectual property law and the WTO's Trade-Related aspects of Intellectual Property Rights (TRIPS), thereby introducing a new patentability criterion.

1.4 The case of private users and indigenous communities

The Protocol represented both a threat and an opportunity for private stakeholders in the use of genetic resources – a motley category bringing together major pharmaceutical and cosmetics firms as well as public and private sector researchers alongside companies exploiting niche markets. Despite this considerable breadth of objectives and interests, one common desire did appear to emerge: solving ABS issues once and for all, in order to have a clear legal framework allowing stakeholders to act in a proper manner and protect themselves from accusations of biopiracy.

In addition, the CBD offered a magnificent platform on which to highlight conflicting worldviews and focus on the situation of indigenous local communities. Instrumentalizing the issue of biodiversity has enabled considerable progress to be made in national legislation as regards the rights of such communities. Demands regarding "intangible components" (related traditional knowledge) have become a preferred avenue for making communities' voices heard and defending their rights, at the same time as speaking out against the patentability of living organisms, either on principle or in the light of its shortcomings. This is despite the fact that the CBD refers only to the *"knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity"* in Article 8j. Article 10c makes mention

of *"customary use of biological resources in accordance with traditional cultural practices"*. Although these provisions themselves have relatively little legal importance, they have sometimes been interpreted in a way which is favorable to communities in national legislation. For instance, in Brazil, a dual form of Prior Informed Consent (PIC) is required: that of the State, in order to have access to the genetic resource, and that of the local community in question in order to have access to traditional knowledge. Article 15 of the CBD concerns only the Parties, but some States tend to recognize communities as parties which may be involved in benefit-sharing in their own right. The Nagoya Protocol could have either confirmed this trend or weakened it.

2. Clarity and lack thereof in the Protocol

The text of the Protocol, made up mostly of provisions which were not the subject of any prior consensus, was presented on the final day by the Japanese presidency of the COP. The States had a whole day in which they could either accept it en bloc after amendments, or reject it. Agreement was far from certain: nonetheless, it was achieved and despite disappointment on the part of certain Southern nations, it received a favorable welcome. A number of factors contributed to this outcome. One was the skill of the Japanese master of ceremonies. Using a technique that had been tried and tested in Copenhagen, he succeeded in getting together a small group of influential nations (the EU, Brazil, Norway and the African group) which was in a good position to submit a consensus-based text to a majority which could not reach an agreement. There was a common desire not to leave on a note of failure and not to be held responsible for accepting the continuing erosion of biodiversity. Above all, there was a double game being played by those countries that were both users and suppliers of biological materials. These members of both the G20 and the G77 group of nations also had interests in other international negotiations underway, such as those of the WTO, and did not wish the field of application of the CBD to interfere with these other dynamics.

To what extent has the Protocol clarified the CBD? Does it implement any new principles? How did the compromises come about? Do the stakeholders now have a clear framework? To what extent might the Protocol compromise previous gains? This section will answer these questions while considering the diversity of points of view: The States', the genetic resources users' and the indigenous and local communities'.

2.1 From States' point of view

In spite of some condemnation[4] and some rather measured responses (for instance, that of the European Union), the Nagoya Protocol is a genuine compromise text, satisfying both supplier and user States. Working on a traditional basis of "give-and-take", the notions of derivatives and retroactivity were cunningly sidestepped, and the principle of responsibility of user States for their nationals was enshrined.

As we have seen, Northern countries demanded that questions relating to ABS should be regulated by supplier countries. For their part, Southern countries demanded that controls should also be carried out at the other end of the line, at patent and customs offices and research institutes in Northern countries, to check that their researchers had acquired samples legally.

In the end, the Northern countries accepted the principle of an integrated resource control and monitoring procedure being implemented. Article 12 of the Protocol establishes that each Party has to guarantee that the genetic resources used within its jurisdiction have been subject to prior, informed consent and that jointly agreed conditions have been established, pursuant to legislation or internal requirements governing the access to and sharing of the other Party's benefits. At least theoretically, a link has been established between legislation in different States: user States were made responsible for checking that their nationals had properly observed the standards of the supplier State. This principle of dual control will not be without its problems in operational terms: in any event, the Parties are required to co-operate "wherever possible and as appropriate" in the event of an alleged breach of legislation or internal requirements regarding access to and sharing of benefits. To achieve this, control points, in addition to rather than instead of national jurisdictions, will have to be set up by the Parties. A wide range of possibilities may be envisaged: one such idea which has gained traction in certain quarters is for scientific reviews to be required to verify the conditions in which the authors of articles obtained the natural substances which are the subject of their research.

At the same time, the issue of the reform of patent legislation, with the creation of a certificate specifying that the biological substance at the origin of the biotechnological innovation has been acquired pursuant to the Protocol, was not dealt with. Within the Protocol, the Southern nations abandoned the idea of requiring control on the part of patent offices. This issue can probably only be dealt with in negotiations on the Substantive Patent Law Treaty, which is to be negotiated at the World Intellectual Property Organization (WIPO). At present, only procedural aspects are harmonized internationally by the WIPO. For several years now, the latter has sought to harmonize material aspects, including patentability criteria, probably with the intention of competing with the WTO. The certificate referred to in the Protocol (art. 17-1-a-iii3, 17-2, 17-3 and 17-4) is not the certificate of origin, which may be used, in the patent system as lobbied for by the Southern countries. Despite the semantic proximity (which is certainly not accidental), this is nothing more or less than a sort of identity card for resources, destined to be used solely for informational purposes as part of the ABS Clearing-House set up by the Protocol (Art. 14).

Following a major controversy, another concession to Southern nations was made. During the avian influenza epidemic, Indonesia supplied foreign laboratories with strains from which vaccines were manufactured. No benefit-sharing, or even preferential access to vaccines was observed. While this issue relating to pathogens would normally have been the responsibility of the World Health Organization (WHO), the Protocol provides for access to pathogens in the event of medical emergency, and also provides for compensation in this respect.

The Protocol was also an opportunity to discuss the competencies of various international institutions. Its field of application is immediately restricted by a plethora of multilateral initiatives, including the International Treaty of the FAO, which deals with plant resources for food and agriculture – this already includes some 60 plants in its multilateral system and could cater for others; the FAO Commission on Genetic Resources for Food and Agriculture (CGRFA), which deals with resources of plant and animal origin; the FAO's International Plant Protection Convention (IPPC); the International Union for the Protection of New Varieties of

Plants (UPOV), which offers legal protection for those who obtain new plant varieties, and which is also seeking to cover other improved plants; and the World Intellectual Property Organization (WIPO), which has started examining the issue, setting up an intergovernmental committee on intellectual property and genetic resources, traditional knowledge and folklore (IGC). There is thus a considerable amount of overlap. Ultimately, negotiations relating to the Protocol allowed a degree of order to be brought to the way international instruments dovetail, even if diverging interpretations are likely to emerge as new, more specialized standards are adopted. The Protocol does not apply to human genetic resources or to genetic resources over which sovereign States do not exercise sovereign rights (for instance, in international waters). In particular, the Protocol does not apply to genetic resources covered by sectoral ABS instruments (particularly those used for food and farming covered by the FAO), nor does it apply to genetic resources used as raw materials (i.e. with no research and development activity) for the purposes of food or farming.

At the same time, concepts felt to be unacceptable by Northern countries were also left out. There is no direct reference to all the discussions relating to retroactivity (a word which is conspicuously absent from the Protocol) fuelled by the African group, which was lobbying for compensation for the exploitation of the continent's resources during the colonial period. While it may still be argued that access to herbaria and other collections established prior to 1993 is always new in the light of scientific progress and new uses, in this case compensation is provided for through a multilateral benefit-sharing mechanism, with funding to be incumbent on companies.

Similarly, the issue of derivatives was also sidelined. Derivatives are defined in Article 2e as *"a naturally occurring biochemical compound resulting from the genetic expression or metabolism of biological or genetic resources, even if it does not contain functional units of heredity."* However, no further mention is made of them. This definition was probably kept for political reasons, but it can be assumed that it will have little effect, since the Protocol contains no obligations in this respect. By presenting derivatives as nothing more than a biochemical compound from a living organism, claims relating to synthetic molecules with a structure similar to a natural substance fall outside the scope of the Protocol. It would therefore appear that a natural molecule which has been synthesized and altered does not fall within the scope of the Protocol, even if it was "inspired" by nature.

The issue of whether derivatives are included in the scope is therefore moot. However, it can nevertheless be argued that the field of application of the CBD has been expressly broadened. Indeed, genetic resources are no longer viewed solely as genetic information or material containing the functional units of heredity. The use of genetic resources is defined as "*to conduct research and development on the genetic and/or biochemical composition of genetic resources, including through the application of biotechnology as defined in Article 2 of the Convention*" (Art. 2c). This broadening out from the field of genetics in the strict sense of the term to that of biochemicals is in line with industrial and commercial realities, research practices, and at the end of the day, the demands of the Southern countries.

2.2 From the point of view of users

The Protocol may represent a good compromise for States, in which responsibilities have been balanced and concepts perceived as dange-

rous have been avoided. We now examine the situation for users who, at least in their official capacity, are seeking a framework which is sufficiently clear to conduct and determine which activities which may be covered by ABS.

It would appear that unless and until further clarification is added at a national level, the Protocol cannot address the practical questions which may be raised by users. For instance, where is the limit between the use of resources in the context of ABS (research and development) – and thus within the scope of the Protocol – and the creation of added value on the basis of commodities which are traded daily in large quantities? Gum arabic, which is used for the manufacture of labels, paint and as a food thickener, is one instance of this. Similarly, how can products which are already manufactured but which are of biological origin (such as fibers) be dealt with? Do they require an ABS contract, or is a standard commercial contract enough? A different case again is that of intermediaries who trade in plants without knowing whether they will be subsequently used in research and development. The issue then becomes one of knowing whether each contract in the chain should provide for a return of any benefits to the start of the chain. The unrealistic and unlikely consequences of such an approach are clear.

There is also the question of the impact of the Protocol on legal frameworks which have already been developed on the basis of a certain interpretation of the CBD. For instance, Brazil treats essential oils and raw extracts in a particular way. Resolution 29 of December 6, 2007 by the *Conselho de Gestão do Patrimônio Genético* (CGEN) removes from the field of application of ABS the development of "fixed oils, essential oils and extracts" when these are the results of isolation, extraction or purification, and when the characteristics of the final product are "substantially equivalent to the original raw material". This means that if a firm wishes to market an essential oil using resources located on private land, it does not need to request any authorization from a public authority. Could the Protocol call this practice into question?

Similarly, there is the question of whether the leeway granted in a number of cases by States following assessment of the implications of certain scientific activity could be compromised. For instance, in Brazil, CGEN Resolution 21 (of August 31st, 2006) removes from the scope of ABS certain types of research and scientific activity (taxonomy, systematics, phylogeny, etc.) which use molecular methodological tools in a "circumstantial" manner but whose objective is not access to genetic heritage *per se*. This resolution has relieved congestion in access procedures and facilitated the work of researchers. Is Article 6a of the Protocol liable to call into question this "entitlement" granted for the purposes of research? It is not possible to presume so on the basis of the letter of the clause[5]: it will be up to States to decide.

2.3 From the perspective of indigenous and local communities

The fact that traditional knowledge was included in the Protocol was not a foregone conclusion. Indeed, some hoped that a further Protocol would deal with the rights of local communities to their resources and knowledge. The Protocol scrupulously avoids defining the latter. In particular, the scope of obligations on States with respect to this knowledge is very limited, a fact which is little different in substance from the CBD. Even if "dual PIC" has

now become official, as has the scenario in which communities to have rights not only to knowledge but also to genetic resources present on their territory, all this remains at the discretion of States. A Protocol with a stronger normative emphasis could have placed certain countries such as France in a delicate position: for the latter, despite certain contortions to deal with issues such as those of Native Americans in French Guiana, the recognition of specific rights to the benefit of indigenous communities remains theoretically unconstitutional. Consequently, the Protocol follows the line taken in Article 8j of the CBD, applied "subject to national legislation" – something which has been seen by many as an aberration in terms of international law, with States being able to declare that their law took precedence over the international convention they were ratifying (Filoche, 2009).

Similarly, four draft decisions were submitted to the COP by the chair of the Article 8j Working Group. The most important of these related simply to taking into consideration – with a view to an as yet highly theoretical adoption – of an ethical code of conduct suitable for ensuring respect for the cultural and intellectual heritage of indigenous and local communities. As things stand, the code of conduct clearly specifies that its provisions are discretionary in nature. Consequently, there is no legal obligation, and they cannot be interpreted as affecting international or national law. The purpose of these provisions is to provide guidance in the drafting of frameworks governing interactions between communities, ministries, researchers, industry and so on. They list fairly general principles such as transparency, prior consent, the recognition of communities' social structures, and so on.

Conclusion: The Long and Winding Road

The Protocol was opened for signature on February 2, 2011, for a period of one year. It will become effective once 50 countries have ratified it. The CBD Secretariat expects it to become effective by 2015. However, a number of problems have already arisen. For instance, the French Ministry of Foreign and European Affairs has rejected the French version of the Protocol as translated by the CBD's Secretariat. During the course of a three-month "observation" procedure, no fewer than 115 observations and requests for changes have been sent to the Secretariat. Even if the answers from the Secretariat are deemed satisfactory, France will not be signing the Protocol before mid-May.

Brazil, on the other hand, has already signed the text and stated that it is highly satisfied, despite having arrived at the bargaining table with a large number of demands. In general, the Protocol has been celebrated as the greatest success in the history of the CBD. In France, the Secretary of State for Ecology, Chantal Jouanno, announced that it was the first major agreement on the environment since Kyoto. Strangely enough, the EU responded with only very faint praise, along with proposing some steps[6]. Nothing has been heard from the United States and few NGOs have condemned the agreement. Statements have been couched in terms such as "a masterpiece of creative ambiguities" (Earth Negotiations Bulletin, 2010) or emphasized the fact that the glass may be seen as half full or as half empty, but at least it has not been broken. Be that as it may, the Protocol has served as a diversion, to the detriment of the binding commitments to combat the erosion of biodiversity, which should have been made by the international community. The

Protocol does nothing more than record a trade agreement on the use of genetic resources that addresses the problems involved in implementing the third objective of the Convention.

In summary, the Protocol, strategic action plan and financial mechanism lead to the following conclusions. When the litany of objectives is observed[7], it is easy to understand how the signature of a Protocol including binding financial and legal commitments can be interpreted as a victory. A concrete result has been obtained and the framework for negotiations has been preserved. Although it is more ambitious than the 2010 objective and deals with indirect causes of biodiversity loss, the strategic plan remains non-binding and somewhat imprecise. Similarly, there are funding proposals: $2 billion worth of aid and loans from Japan, but few other new commitments; renewal of $1 billion worth of annual aid from the EU; an increase to an annual •500 million of Public Development Aid commitments on the part of France from 2013 compared to •100 million at present; but all this remains somewhat vague.

In addition, the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), a panel of experts designed to complement that of the IPCC and negotiated within the framework of the CBD and the United Nations Environment Programme (UNEP), was ratified by a resolution of the United Nations General Assembly on December 21, 2010. It may be hoped that this scientific platform can acquire the legitimacy required to influence conservation policies.

The outcome of Nagoya is probably best understood in terms of the economics of convention, political science and study of the dynamics at work in negotiations. Analysis in terms of a North-South confrontation is rendered more complex by the ambivalent stance of emerging nations, while a gap is widening between ideological-based demands and legal formalism, with the latter ultimately taking precedence at the negotiating table. There may have been disappointment on the part of some that indigenous peoples did not obtain more rights by means of the Protocol; it is highly likely that those concerned will continue lobbying for more within the framework of the CBD. In addition, it is clear that this Protocol alone cannot solve all the major issues facing the stakeholders.

It is nonetheless surprising that this issue of benefit-sharing continues to arouse so many passions when, at the end of the day, there are so few benefits to share, since natural substances in tropical forests (with or without additional knowledge) are no a longer anything like a major focus of the strategy of major pharmaceutical companies. Even for ETC – the NGO, which devised the concept of biopiracy, with the Captain Hook award going to the worst offender at each COP – the issues now lie elsewhere. To defend biodiversity, ETC (2010) is now speaking out against synthetic biology, bionanotechnologies and the evils of climate geoengineering.

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Notes

[1] A financial mechanism designed to encourage a reduction in deforestation and damage to forests in developing countries. In the wake of the Copenhagen climate conference, the REDD program appears as the kind of solution for which progress in terms of practical implementation is possible – in parallel to, if not altogether independently from, the climate convention.

[2] This group was set up following the Cancun meeting in February 2002. The original participants were Brazil, China, Colombia, Costa Rica, Ecuador, India, Indonesia, Kenya, South Africa and Venezuela. DR Congo, Bolivia, Malaysia, Madagascar, Peru and the Philippines joined subsequently.

[3] This recognizes "the sovereign rights of States over their natural resources" and therefore goes on to assert that "the authority to determine access to genetic resources rests with the national governments and is subject to national legislation".

[4]The Bolivarian Alliance for the Peoples of Our America – Peoples' Trade Treaty (ALBA - TCP) (*"Alianza Bolivariana para los Pueblos de Nuestra América - Tratado de Comercio de los Pueblos"* in Spanish), a group sponsored by Bolivia and Venezuela, appears to condemn the Protocol because it enshrines the principle of commoditization of living organisms.

[5] "In the development and implementation of its access and benefit-sharing legislation or regulatory requirements, each Party shall… Create conditions to promote and encourage research which contributes to the conservation and sustainable use of biological diversity, particularly in developing countries, including through simplified measures on access for non-commercial research purposes, taking into account the need to address a change of intent for such research."

[6] In 2011, the European Commission will launch a study on the impact of the Protocol on the EU system. In particular, it will seek to determine how competencies are allocated between the Union and Member States, as well as the legal form (a Directive or a Regulation) action by the Union should take.

[7] The halving or halting of the destruction of natural habitats; the extension of protected areas from 13% to 17% for land and internal waters, from 1% - 10% for seas and coastal areas; restoration of 15% of damaged ecosystems; elimination of subsidies which are harmful to the environment; fish stocks managed sustainably by 2020, etc.