

Regional approaches to implementing the Convention on Biological Diversity: The case of access to genetic resources

Table of contents

1. The Convention on Biological Diversity (CBD): Objectives, nature and obligations
 2. Access to genetic resources under the CBD
 3. Regional approaches on access to genetic resources
 - The Andean Community: Decision 391
 - The OAU Model Law
 - The ASEAN Draft Framework Agreement on Access to Biological and Genetic Resources
 - Developments in the South Pacific
 4. Some conclusions on the impact and effectiveness of regional frameworks to implement the CBD
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I. The Convention on Biological Diversity: Objectives, nature and obligations¹

1.1 History

The international community's concern about the unprecedented loss of biological diversity emerged at the United Nations Conference on the Human Environment held in Stockholm in 1972. The Convention on Biological Diversity (CBD) also resulted from the recognition that damage to biodiversity could only be effectively dealt with in a comprehensive manner, rather than through a variety of individual treaties dealing with specific species or habitats.

In 1989 UNEP established the Ad Hoc Working Group of Technical Legal Experts on Biological Diversity to prepare an international legal instrument for the consensual and sustainable use of biodiversity. By February 1991, the Ad Hoc Working Group had become known as the Intergovernmental Negotiating Committee. After difficult discussions on the exact content of the proposed Convention, it was decided that the text should not only include nature conservation, but also sustainable use and benefit-sharing. Negotiations culminated on 22 May 1992 with the Nairobi Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity.

The Convention was opened for signature on 5 June 1992 at the United Nations Conference on Environment and Development (the Rio "Earth Summit"). It remained open for signature until 4 June 1993, by which time 168 countries had signed. The Convention entered into force on 29 December 1993. As of August 2000, the Convention has been ratified by 178 states, including the European Community. The United States of America signed the Convention but has not yet ratified it, due to a great extent to the Convention's provisions on access and benefit-sharing.

1.2 Scope and objectives

Biological diversity (or 'biodiversity') is defined in Article 2 of the Convention as 'the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems'. Thus, the Convention covers these three levels of biodiversity, both at terrestrial and marine level. It must be noted that protection granted by the CBD extends not only to biodiversity within the national jurisdiction of Parties, but to all processes and activities carried out under the jurisdiction and control of the Parties, regardless of where their effects occur.

The Convention has three main objectives (article 1):

- The conservation of biodiversity;
- The sustainable use of its components; and
- The fair and equitable sharing of the benefits arising from genetic resources.

The Convention is more than a pure conservation treaty, as it covers aspects that had previously not been dealt with by conservationists, such as access to genetic resources, benefit-sharing, traditional knowledge of indigenous and local communities, etc. The CBD

¹ Sections I and II draw on the *Information Package on the Convention on Biological Diversity for Pacific Island Countries* prepared by the South Pacific Regional Environmental Programme (SPREP), WWF-South Pacific Programme and FIELD, and funded by the UK's Darwin Initiative. Full Info Pack available in <http://www.sprep.org.ws> and <http://www.pacificbiodiv.org>

also breaks new ground in introducing the precautionary and ecosystem approaches to the conservation and sustainable use of biological diversity. According to its Preamble, 'where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimise such a threat'.

The ecosystem approach was embodied in Decision II/8 of the Conference of the Parties to the Convention (see section 1.3 below), where it is stressed that "the ecosystem approach should be the primary framework of action to be undertaken under the Convention". This approach requires consideration of the complexity of ecosystems, including their biological and non-biological components, the ecological processes and the interactions with humans. The fourth Conference of the Parties acknowledged that, by virtue of Decision II/8, the ecosystem approach has been adopted as a framework for the analysis and implementation of the Convention's objectives².

The Convention represents a framework for future action, as it:

- adopts a "country-driven" approach, by making its implementation dependent upon national circumstances;
- allows for further development of its provisions through decisions taken at regular meetings of the Parties and through the elaboration of further annexes and protocols to the Convention.

1.3 Institutional arrangements

The three key institutions for the operation of the CBD are:

- The Conference of the Parties (COP);
- The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA);
- The Secretariat.

The Conference of the Parties is the governing and decision-making body of the Convention. It keeps under review the implementation of the Convention and steers its development. It meets every two years and the meetings are open to all Parties, as well as to observers from non-Parties, NGOs and IGOs³.

The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) consists of government representatives from different fields of expertise. Its specific functions include the provision of scientific and technical assessments of the status of biological diversity and of the measures taken to implement the Convention; providing advice on scientific programmes and international co-operation in research and development; and generally responding to scientific, technical and technological and methodological questions asked by the COP.

It submits its advice to the COP as "SBSTTA recommendations". To date, SBSTTA has held five meetings and after COP 5 it will meet annually⁴.

The Secretariat provides administrative support to the COP, SBSTTA and other Convention bodies. It plays an important role in organising the COPs and other meetings, and in co-

² Decision IV/1, Part B 'Ecosystem Approach'.

³ So far the COP has met five times: COP 1 took place in Nassau, Bahamas, in December 1994; COP 2 in Jakarta, Indonesia, in November 1995; COP 3 in Buenos Aires, Argentina in November 1996, COP 4 in Bratislava, Slovak Republic, in May 1998; and COP 5 in Nairobi, Kenya in May 2000. COP 6 will be held in The Hague, The Netherlands, in 2002.

⁴ The next SBSTTA meeting (SBSTTA-6) will be held on 12-16 March 2001.

ordinating its work with other relevant bodies. The Secretariat is hosted by UNEP and located in Montreal, Canada.

The Secretariat also administers the Convention's Clearing House Mechanism (CHM), an important tool for scientific and technical co-operation. The CHM serves as a focal point for CBD-related information amongst Parties and other bodies.

Concerning financial mechanisms, all Parties contribute to the budget of the Convention. Developed country Parties provide "new and additional" resources to help developing countries to implement the CBD: the interim financial mechanism is the Global Environmental Facility (GEF).

Furthermore, there are a number of subsidiary organs, such as the Expert Panel on Access and Benefit-sharing or the Ad Hoc Open-ended Inter-sessional Working Group on Article 8(j) and Related Provisions.

1.4 Key obligations

The CBD translates its guiding objectives into binding commitments in the substantive provisions contained in Articles 6 to 20. However, few precise obligations are placed upon the Parties, as the CBD provides rather for goals and guidelines. Moreover, most of these commitments are qualified: their implementation will depend upon the particular national circumstances and priorities, as well as on the resources available to them.

One of the most important provisions concerning Party obligations is contained in Article 6 of the Convention. It urges Parties to develop national biodiversity strategies, plans or programmes, and to integrate the objectives of the convention into relevant sectoral or cross-sectoral plans, programmes and policies.

The Convention addresses both *in-situ* and *ex-situ* conservation, but the emphasis is given to *in-situ* measures (Articles 8 and 9). *In-situ* conservation focuses on conserving genes, species and ecosystems in their natural surroundings, for example by establishing protected areas, rehabilitating degraded ecosystems, and adopting legislation to protect threatened species. While prioritising *in-situ* conservation, the Convention recognises the contribution that *ex-situ* facilities and measures, such as gene banks, botanic gardens and zoos, can make to the conservation and sustainable use of biological diversity. It specifies that, where possible, facilities for *ex-situ* conservation should be established and maintained in the country of origin of the genetic resources concerned.

Recognising that the vast majority of the world's remaining biological diversity is found in the south, in return for undertaking conservation obligations, the Convention gives developing countries an opportunity to derive financial and technical benefits from their biological resources.

The Convention provides for scientific and technical co-operation to support the conservation and sustainable use of biological diversity, and a clearing-house mechanism has been established to promote and facilitate such co-operation (Article 18). The provisions on scientific and technical co-operation provide a basis for capacity-building activities. For example, the Conference of the Parties has requested the financial mechanism to support a Global Taxonomy Initiative designed, among other things, to develop national, regional and sub-regional training programmes on taxonomy, and to strengthen reference collections in countries of origin.

In addition to general provisions on research and training (Article 12), the exchange of information (including, where feasible, repatriation of information) (Article 17), and scientific and technical co-operation, the Convention offers developing country Parties potential benefits in three ways:

- Benefit-sharing - access to the benefits resulting from the use of their genetic resources (Articles 15, 16 and 19);
- Technology transfer - access to and transfer of relevant technology, including biotechnology (Articles 16 and 19); and
- Financial resources - access to “new and additional” financial resources for eligible projects, and to bilateral assistance from developed country Parties for implementation of the Convention (Articles 20 and 21)

The extent to which these benefits actually materialise is likely to be a crucial factor in the success or failure of the Convention.

II. Access to genetic resources under the CBD

2.1 Introduction

Before the CBD there was no international legislation linking access to genetic resources with the right to share in the benefits derived from the use of those resources. As a consequence, developing countries often did not receive economic benefits from products that had been developed using genetic resources from their territory. The Biodiversity Convention defines a new relationship between the users and the providers of genetic resources, based on the principle that States have sovereignty over their genetic resources. This gives them the right to control access to those resources and to receive a fair share of the benefits obtained from their use.

Article 15 on access to genetic resources, supplemented principally by provisions of Articles 16 (technology transfer) and 19 (handling of biotechnology), provide a basis to regulate access to genetic resources. National measures implementing those provisions will also need to be consistent with other relevant obligations in the Convention, such as those found in Article 8(j) (traditional knowledge, innovations and practices); Article 10(b) (measures to avoid or minimise impacts on biological diversity from the use of biological resources); and Article 10(c) (protect and encourage customary use).

The Convention requires the Parties to provide and/or facilitate access to technologies and “know-how” that are relevant to the conservation and sustainable use of biological diversity, or which make use of genetic resources. In addition, Article 19 requires Parties to ensure the participation of the provider of genetic resources in biotechnological research activities utilising those resources. Controlling access to genetic resources through benefit-sharing arrangements provides one vehicle for implementing the Convention’s requirements on access to and transfer of technologies (Article 16).

2.2 Scope

Article 2 of the Convention provides a definition of *genetic resources* as 'genetic material of actual or potential value'. *Genetic material* is also defined in the CBD as 'any material of plant, animal, microbial or other origin containing functional units of heredity'.

The Convention’s provisions on access to genetic resources do not apply to:

- human genetic resources: while technically these would appear to be within the Convention’s definition of “genetic resources”, at its second meeting the Conference of the Parties confirmed that human genetic resources are not covered by Article 15;
- genetic resources located beyond the limits of national jurisdiction, such as in the high seas; and
- *ex-situ* genetic resources collected before the Convention entered into force (Article 15(3)): this means that, subject to national regulation and the policy of the *ex-situ* collection itself, a user may obtain access to genetic resources in *ex-situ* collections (e.g., gene banks and botanical gardens) without the obligation to share any benefits with the country of origin of those resources;

Marine genetic resources subject to a country’s national jurisdiction, i.e., internal waters, territorial seas and the exclusive economic zone are subject to the principles and obligations

of the Convention, provided these are consistent with the rights and obligations of States under the law of the sea (Article 22).

Existing regional and national access frameworks have introduced measures that attempt to elaborate upon the definition used by the Convention. For example, some Parties have introduced provisions that cover *derivative, synthesised products, intangible components, and/or ex-situ genetic resources* collected before the Convention's entry into force.

Similarly, access frameworks might specifically exclude certain types, sources or uses of genetic resources, e.g., customary uses of genetic resources, certain uses of biological resources, and genetic resources obtained prior to the legislation's enactment.

2.3 Access requirements

The Convention sets out a number of key elements for access to genetic resources. These include the requirements to:

- obtain the *prior informed consent* of the Party providing the resources;
- negotiate a *fair agreement on mutually agreed terms*;
- agree on the *sharing of the benefits* arising from the use of the resources, including the *participation* of the provider in scientific research utilising the resources; and
- seek to ensure that the resources will be put to *environmentally sound uses*.

2.4 Implementation

Since the entry into force of the Convention, a number of access frameworks have been developed at the regional and national levels. Countries have begun to implement Article 15 of the Convention in a variety of ways⁵, such as by:

- Introducing specific, stand-alone legislation with detailed provisions on access and benefit-sharing – either as a purely national initiative (e.g. Philippines) or as part of a common regional framework (e.g. the Andean Pact).
- Including provisions on access to genetic resources within legislation designed to implement a much broader set of objectives (relating to sustainable development, nature conservation or biodiversity (e.g. Costa Rica's 1998 Law on Biodiversity).
- Including enabling provisions within general environmental framework laws – such provisions may require designated institutions to develop specific access and benefit-sharing regulations.
- Modifying existing sectoral laws in order to incorporate access provisions – for example, adapting regulations governing national parks or forests (e.g., the forest ordinance of Sarawak State, Malaysia, was amended to control access to the genetic resources of trees).

⁵ Glowka, L., *A Guide to Determining Legal Frameworks to Determine Access to Genetic Resources*, IUCN Environmental Law Centre, 1998.

- Taking measures intended primarily for other purposes but touching on access and benefit-sharing, e.g., the use of permits to control the export of endangered species pursuant to the Convention on the International Trade in Endangered Species (CITES).

Article 15 of the Convention affirms that it is a matter for national governments to determine whether, and how, to develop national legislative, administrative or policy measures to regulate access to genetic resources.

By developing national access legislation or other measures, a country can set out minimum requirements, standards and guidelines for access to genetic resources located within its jurisdiction. Most existing and emerging regional and national access frameworks identify:

- the *scope of the framework*, including the resources and activities regulated;
- the *role of the national government* in authorising access to genetic resources;
- the *procedures* that must be followed for the negotiation of mutually agreed terms (MATs) and the grant of prior informed consent (PIC);
- *minimum terms and conditions for the grant of access*, such as the information that an applicant must disclose in advance; and
- *minimum standards and/or guidance* to assist the negotiation of MATs on benefit-sharing, such as an indicative list of potential benefits.

Access frameworks might also include a number of other important provisions, for example, on the participation of local communities, on monitoring and enforcement, and on penalties for non-compliance.

Experience in a number of countries to date indicates that the benefits of regional co-ordination and co-operation are an important consideration when devising the process by which an access framework is established and implemented.

2.5. Traditional knowledge

The CBD is the first international agreement that acknowledges the role and contribution of indigenous and local communities in the conservation and sustainable use of biodiversity. More specifically, each Party to the CBD has the obligation to develop legislation at national level, ‘as far as possible and as appropriate’, in order to:

- respect, preserve and maintain the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biodiversity;
- promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices;
- encourage the equitable sharing of the benefits arising from the utilisation of their knowledge, innovations and practices.⁶

Another obligation for Parties to the CBD is the protection and encouragement of the customary use of biodiversity, in accordance with traditional cultural practices compatible with the conservation and sustainable use of biodiversity⁷. CBD Parties are also encouraged to develop and use indigenous and traditional technologies to conserve biological diversity and achieve the objectives of the Convention.⁸

⁶ Article 8(j) of the CBD.

⁷ Article 10(c) of the CBD.

⁸ Article 18(4) of the CBD.

III. Regional approaches on access to genetic resources

This section gives an overview of four regional frameworks for access to genetic resources in Latin America, Africa, South East Asia and the South Pacific, each at a different stage in its development and implementation. Only the Andean Community regime is currently in force, although the OAU Model Law has been recently adopted (see below). The ASEAN draft framework is under development, whilst most small islands developing states in the South Pacific have agreed a set of principles or guidelines on access to genetic resources.

3.1 The Andean Community: Decision 391

On 2 July 1996, the Andean Community⁹ Member Countries (Bolivia, Columbia, Ecuador, Peru and Venezuela) adopted Decision 391: 'Common System on Access to Genetic Resources'¹⁰. Decision 391 is the first *sub-regional* access and benefit-sharing legislative measure in response to Article 15 of the Convention on Biological Diversity. It was developed over a three-year period, with initial input and the participation of non-governmental organisations and governmental experts. Decision 391 became legally binding in Member Countries on 17 July 1996.

The entry into force of the CBD at the end of 1993 and the common biological resources shared by the member States had generated a positive political context supportive of regulatory initiatives to implement the access provisions of the CBD.

Decision 391 reaffirms the sovereignty of the Member Countries over their genetic resources, in accordance with the CBD. It provides a common framework to all the Member Countries for regulating access to genetic resources. The Decision requires collectors wishing to gain access to genetic resources within any of the Member Countries to apply for access to the Competent National Authority (designated national authority) in the country where the resources are located, and to enter into certain contractual arrangements. Member countries therefore need to take certain national action to implement the Decision.

Decision 391 promotes co-operation among the Member Countries on matters of mutual interest relating to the conservation and sustainable use of genetic resources, including the establishment of relevant scientific and technical training programmes. It establishes an Andean Committee on Genetic Resources¹¹ to oversee the implementation of Decision 391 and to further its objectives, including by promoting action to manage resources common to two or more Member Countries, and to consider the establishment of an Andean Fund for the conservation of genetic resources.

Decision 391 recognises the rights and decision-making capacities of indigenous, afro-american and local communities with regard to their traditional knowledge, practices and innovations connected with genetic resources and their derivatives. It requires that, where access to genetic resources or their derivatives includes access to traditional knowledge, permission for such access is to be granted only with the prior informed consent of these communities. A process is envisaged in Decision 391 to further develop the rights of indigenous and local communities in relation to the protection of their traditional

⁹ The Andean Community of Nations (previously known as the Andean pact or Cartagena Accord) is a sub-regional political and economic integration treaty adopted in 1969.

¹⁰ Common regimes establish minimum legal requirements that must be met by all Member States.

¹¹ The Committee met for the first time on 1 November 2000 to exchange information on the application of Decision 391. There was agreement to set up a database including access applications, contracts, national regulations and laws.

knowledge, innovations and practices. To that end, each Member Country undertook to draw up a national study.

Scope

The aim of Decision 391 is to regulate access to genetic resources conserved in *ex-situ* and *in-situ* conditions for, among others purposes, research, bioprospecting, conservation, and industrial and commercial applications. The scope of the Decision covers genetic resources, their derivatives and intangible components (knowledge, innovations and practices) provided by the Member Countries from which they originate. It also applies to the genetic resources of migratory species, the natural ranges of which include the territories of Member Countries.

One of the objectives of the Decision is to strengthen the negotiating capacity of the Member Countries. An important element is to prevent member countries from undercutting each other through the conditions they establish for accessing their genetic resources¹². Decision 391 incorporates the requirement that member countries must notify each other immediately of 'all applications, resolutions and authorizations of access and of the suspension and termination of contracts signed'¹³. Member countries must inform each other of 'measures, decisions, regulations, decrees, resolutions and other standards or acts with any bearing on the present Decision' adopted internally¹⁴. The range of activities that must be notified is very broad but there is no time requirement saying that notification must be prior to agreement on the activities.

The access regime of Decision 391 encompasses *all* activities that require access to and use of biological materials and provides a single procedure common for all. This lack of flexibility has proved to be a problem as different types of bioprospecting activities (marine, microbial, taxonomic, etc.) benefit from different arrangements¹⁵.

Application

Decision 391 remains an innovative legal instrument in the region and the only sub-regional approach to regulating access to genetic resources. While some action at national level is required to apply Decision 391, Colombia and Venezuela are directly applying the Decision in their national territories. In 1997, Peru and Ecuador launched national processes to develop implementing legislation. The first draft proposal to implement Decision 391 was officially published in Peru in October 1999. Bolivia adopted Supreme Decree 24676 on 21 June 1997 but it is yet to be fully implemented by the national authorities¹⁶.

Information on bioprospecting activities in member countries has not been compiled to date¹⁷. There are only a few well documented cases related to the implementation of Decision 391. The problems experienced in the practical application of this regime could result from the following elements:

¹² Ten Kate, K. *The common regime on access to genetic resources in the Andean Pact*, Biopolicy Journal, Vol.2, Paper 6, 1997 (online journal <http://www.bdt.org.br/bioline/py>).

¹³ Article 48 of Decision 391.

¹⁴ Article 49 of Decision 391.

¹⁵ Ruiz Muller, M. *Regulating bioprospecting and protecting indigenous peoples' knowledge in the Andean Community: Decision 391 and its overall impacts in the region*, paper presented at UNCTAD's Expert Meeting on Traditional Knowledge, Innovations and Practices', Geneva 30 October-1 November 2000.

¹⁶ Id.

¹⁷ IUCN's Regional Office for South America is currently determining the number and key features of bioprospecting projects in South America. The information will be available in late 2000 or early 2001.

- The lack of data and information available on the bioprospecting market and the benefits that could realistically be expected in return;
- the central role of the State over its genetic resources and the little incentive for owners/managers of the biological resources where the genetic material is found to conserve those resources;
- the complex bureaucratic procedure and high transaction costs have been a deterrent to use the regime;
- regional co-operation mechanisms for sharing benefits accruing from common resources have not been explored.

The experience in applying Decision 391 is directly linked with the objectives and rationale behind its adoption which determined this particular approach to regulating access to genetic resources in the sub-region. The policy behind Decision 391 is one of strictly controlling access and ensuring that the States reap most of the benefits derived from those resources. The balance between regulating access and facilitating it¹⁸ is still to be reached through future national implementing provisions or the formal review of Decision 391.

On the positive side, Decision 391 has greatly contributed to raising awareness of access to genetic resources with government officials and civil society in the member countries. This initiative has also had an impact, although difficult to assess, on international regimes and fora such as the CBD COPs, FAO meetings, the WTO and the World Intellectual Property Organisation (WIPO), etc. as these frequently refer to Decision 391 and take into account the experience of its application.

Recent related developments

On 14 September 2000, the Andean Community adopted a new intellectual property rights (IPRs) system: 'Decision 486'¹⁹. This Decision sets out common rules for granting and enforcing a wide range of IPRs in the five Member States and will enter into force on 1 December 2000. The objective of the Decision is to bring the Andean countries in line with the WTO Agreement on Trade-Related Aspects of IPRs (the TRIPS Agreement) and it includes a specific reference to the CBD. It will be the first time that a group of developing countries has set up a sub-regional IPR regime incorporating elements from the CBD:

- patent applications for a product or process obtained from genetic resources, or derivative products, of which the Member State is country of origin, shall include a copy of the access contract (Article 26);
- patent applications for a product or process obtained from traditional knowledge of indigenous, Afro-American or local communities of any of the Member States, and for which the Member State is a country of origin, shall include a copy of the document licensing or authorising its use from the community, in accordance with Decision 391. If the patent is granted without this requirement it will be nullified (Article 75).

In addition, the Andean Committee of Environmental Authorities is considering a Community Action Plan to address the international environmental agenda.

¹⁸ "Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention", Article 15(2) of the CBD.

¹⁹ 'Andean Community Adopts New IPR Law', GRAIN Briefing, 5 October 2000, in <http://www.grain.org/publications/reports/andean/htm>

3.2 The OAU Model Law

The Organisation of African Unity (OAU) was established on 25 May 1963 when 32 Heads of State and Government signed its Charter.²⁰ Its purposes are to promote the unity and solidarity of the African States; defend the sovereignty of members; eradicate all forms of colonialism; promote international co-operation; co-ordinate and harmonise Member States' economic, diplomatic, educational, health, welfare, scientific and defence policies.

The rationale behind the African Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources ('the Model Law') is the need to protect common resources with a common tool, while allowing for flexibility to adapt it to the priorities and needs of each African nation. Some African countries have already started this process by holding consultative processes involving all stakeholders in managing biodiversity. The ultimate aim of the OAU Model Law is to ensure that local communities, farmers and plant breeders, can contribute to and benefit from the sustainable development of the region.

The development of the Model Law is the result of a number of initiatives from the Scientific, Technical and Research Commission of the OUA (OUA/STRC), the Ethiopian Environmental Protection Authority and the Institute for Sustainable Development in Ethiopia. The OAU, through its Scientific, Technical and Research Commission, targeted the problem of ownership, conservation and utilisation of Africa's biological resources at a workshop on "Medicinal Plants" held in June 1997²¹. Policy issues on ownership, access and utilisation of biological resources were discussed. The workshop recommended that:

- The OAU/STRC should initiate and co-ordinate the process of drafting a model law on the protection of indigenous knowledge on medicinal plants.
- Establish a working group of experts to deliberate, co-ordinate and harmonise existing national policies on medicinal plants and put in place a common policy on sustainable use of medicinal plants.
- Assist Member States to ensure that policies on ownership, access, utilisation and conservation of medicinal plants are drawn up in consultation with other member states at sub-regional and regional levels since political boundaries are not necessarily ecological boundaries.
- Encourage Member States to recognise the urgent need to study the implications of the Trade Related Aspects of Intellectual Property Rights (TRIPs) Agreement of the World Trade Organisation (WTO) on Africa's bio-resource heritage, and the expected harmonisation of intellectual property rights by the year 2000 and 2005 respectively.

The OAU Model Law was developed with a view to²²

- a) preventing the disruption of African rural life and Africa's food production that would result from the loss of:

²⁰ The OAU currently has 53 Member States.

²¹ OAU/STRC/DEPA/KIPO Workshop on Medicinal Plants and Herbal Medicine in Africa: Policy Issues on Ownership, Access and Conservation, Nairobi 14-17 April 1997.

²² Tewolde B.G. Egziabher, 'Major Issues in Biodiversity, Community Rights and IPRs', paper delivered at the Regional Workshop on Legislation for the Recognition and Protection of the Rights of Local Communities, Farmers and Breeders, and the Regulation of Access to Biological Resources, United Nations Economic Community for Africa, 1-5 November 1999.

- seeds: the foundation of all agriculture
 - traditional medicinal plants: the basis of health care for the majority of the African population
 - natural fibres and colours: the basis of arts and crafts of Africa's local communities
- b) promoting a sharing of the benefits that biodiversity, knowledge and technologies of Africa's local communities provide to multinational corporations, mostly from the North.
- c) safeguarding the vital interests of Africans against the consequences of globalisation..
- d) helping the OAU Member States members of the WTO fulfil one of their obligations – that of Article 27(3)(b) of the TRIPS Agreement.

The African Model Law highlights the need for African countries to legislate in the area of access to genetic resources in order to achieve the necessary protection for the rights and heritage of their communities and to safeguard the rich biological resources of the continent for the benefit of its peoples. The Model Law is now the basic document enabling Member States to formulate their national law in accordance with their national interest, economic development objective and political orientation.

The draft model law was sponsored by the Government of Ethiopia and tabled for discussion at the 68th Ordinary Session of the Council of Ministers of the OAU held in Ouagadougou, Burkina Faso, in June 1998. The Member States Council, in adopting the Model Law, decided that Member State Governments:

- i. Give due attention as matter of priority to the need for regulating access to biological resources, community knowledge and technologies and the implications of intellectual property rights as entrenched in the international trade regime of the TRIPs Agreement;
- ii. Adopt the OAU Model Legislation on access to biological resources and call on Member States to initiate the process at national level involving all stakeholders in accordance with national interest and enacted into law.
- iii. Initiate a process of negotiation among African countries to formulate and adopt an African Convention on Biological Diversity (revised Algiers Convention, 1968) with emphasis on conditions for access to biological resources and protection of community rights;
- iv. Develop an African Common Position to safeguard the sovereign rights of Member States and the vital interests of their local communities and forge alliance with other countries of the South on the revision of TRIPs in 1999;
- v. Requests the Secretary General to designate the OAU/STRC as the focal point for the co-ordination and follow-up activities including the convening of African Regional and Sub-regional meetings on issues of biological resources and community rights.

The OAU meeting in Algiers, in June 2000, harmonised the English and French versions of the OAU Model Law, both in language and content.

Scope

The African Model Law is an ambitious legal instrument and tackles access to genetic resources from a broad perspective. This is why it does not contain just provisions on access to biological resources, but also includes legislation on community rights (Part IV), farmers' rights (Part V), and plant breeders' rights (Part VI). The main objective of the Model law is *'to ensure the conservation, evaluation and sustainable use of biological resources, including agricultural genetic resources, and knowledge and technologies in order to maintain and improve their diversity as a means of sustaining all life support systems'*²³. The Model Law incorporates key principles not so explicitly recognised in other access laws, such as the need to strengthen food security²⁴; the major role played by women²⁵; full participation in decision-making²⁶; and the ban on patents over life forms and biological processes²⁷.

Access requirements

The African Model Law refers to access to biological resources and to community knowledge and technologies as 'the duty of the State and its people'²⁸. In this context, it is a specific objective of this Model Law to provide a system of access subject to the prior informed consent of the State and the concerned local communities.

African countries are given a broad definition of 'access' they can use in their national laws. The Model Law defines it as 'the acquisition of biological resources, their derivatives, community knowledge, innovations, technologies or practices as authorised by the national competent authority'. It is important to note that the Model Legislation includes the provision that the law will not affect traditional systems of access, use or exchange of biodiversity. Access to knowledge and technologies by and between local communities is also safeguarded.

Very detailed provisions on access to biological resources, community knowledge and technologies are found in the Model Law. These include the requirements that need to be fulfilled when applying for access, the information that needs to be provided to the national competent authority, the process to grant access and the types of access permits. Prior informed consent is at the heart of the access process. Detailed provisions on prior informed consent are also included in Part III of the Model Law.

The African Model Law has several provisions on prior informed consent, and includes it as both a specific objective and the cornerstone of its access system. It is important to note that the African Model Law requires the consent of both the State and the local communities affected before granting access to biological resources.

Part III of the Model Law sets out the procedure for regulating access to biological resources. Prior informed consent and a written permit are needed for:

- any access to biological resources, knowledge or technologies
- in any part of the country
- including in protected areas

²³ Part I 'Objectives' of the African Model Law.

²⁴ Part I, (k) of the African Model Law.

²⁵ Part I, (h) of the African Model Law.

²⁶ Part I, (e) of the African Model Law.

²⁷ Part III, Article 9 of the African Model Law.

²⁸ Preamble, fifth paragraph.

Each country, when developing national legislation on access, must designate a National Competent Authority to act as the focal point for receiving and processing the applications for access.

The African Model Law contains specific provisions for consultation with the communities concerned on applications being made for access. It places the obligation to ensure that the consultation takes place on the National Competent Authority. Access to biological resources is considered invalid when either no prior informed consent has been granted or when there had been no consultation before it was granted.

The Model Law recognises benefit-sharing as a 'right' of local communities. One of the three objectives of the CBD is to achieve a fair and equitable sharing of the benefits, monetary as well as non-monetary, arising out of the utilisation of genetic resources. This provision is also included in the OAU Model Law.

Benefit-sharing is defined in the Model Law as "*the sharing of whatever accrues from the utilisation of biological resources, community knowledge, technologies, innovations or practices*". The State must guarantee that a specific percentage (minimum 50%) of any financial benefits returns to the local community. This right to a share of the benefits is equally recognised for farmers.

Non-financial benefits are perhaps more important in determining benefit-sharing arrangements. These may include participation in research and development in order to develop capacity, the repatriation of information on the biological resources accessed, and access to the technologies used to study and develop the biological resource.

Implementation

This Model Law aims at providing regional coherence but needs to be applied at national level²⁹. The Preamble of Model Law acknowledges that the CBD and its provisions on access and traditional knowledge need to be implemented. It also establishes that 'it is the duty of the State and its people to regulate access to biological resources, and to community knowledge and technologies'.

Public consultations, meetings and other events need to be organised to involve local communities in the design of national access regimes, as they will be directly involved in its implementation. The challenge of setting the rules to access Africa's biological resources, knowledge and technology needs to be tackled with a fully participatory and multidisciplinary approach.

The Model Law establishes a series of institutional arrangements but all of them at national level: National Competent Authority, National Inter-sectoral Co-ordination Body, Technical Advisory Body, National Information System, and Community Gene Fund. There is no reference in the Model Law to regional mechanisms to inform on and co-ordinate access activities.

²⁹ The OAU and The Gaia Foundation have produced an Explanatory Booklet on the African Model Law to raise awareness about this law amongst government officials and civil society, and promote its application. The Explanatory Booklet will be published in 2001.

3.3 The ASEAN Regional Framework Agreement on Access to Biological and Genetic Resources

South East Asia is one of the world's richest regions in term of biological and natural resources. The region contains four major biodiversity "hot spot" areas and is also the habitat of more than 500 million people which puts a lot of pressure on the region's biodiversity. Over-exploitation of resources in the region has placed great pressure on ecosystems, resulting in resource degradation and biodiversity loss.

The Association of Southeast Asian Nations (ASEAN)³⁰ was established in Bangkok, on 8 August 1967, by its five founding Member Countries: Indonesia, Malaysia, Philippines, Singapore, and Thailand³¹.

ASEAN's highest decision-making organ is the Meeting of the ASEAN Heads of State and Government. The ASEAN Summit is convened every three years with Informal Summits held in between. The ASEAN Ministerial Meeting (Foreign Affairs Ministers) is held on an annual basis. Ministerial meetings on several other sectors are also held, including agriculture and forestry, environment, law, rural development and poverty alleviation, science and technology, etc. Supporting these ministerial bodies are 29 committees of senior officials and 122 technical working groups.

The Hanoi Plan of Action

The Second ASEAN Informal Summit, held in Kuala Lumpur on 15 December 1997, adopted the ASEAN Vision 2020 which sets out a broad vision for ASEAN in the year 2020. In order to implement this long-term vision, action plans are being drawn up. The Hanoi Plan of Action (HPA) is the first of the action plans envisaged to achieve the goals of the ASEAN Vision and has a six-year timeframe (1999-2004).

The HPA included the mandate to formulate and adopt an ASEAN Protocol on access to genetic resources by the year 2004. Pursuant to this directive, the Philippines hosted a workshop in December 1998, which formulated a draft text of an ASEAN framework agreement on access to genetic resources.

ASEAN has adopted the Strategic Plan of Action on the Environment (SPAEE)³² to support the objectives laid down in the Hanoi Plan of Action. The 1999-2004 Strategic Plan covers Nature Conservation and Biodiversity; (c) Coastal and Marine Environment; (d) International Environment Issues; and (e) Other Environment Activities.

The need to co-ordinate action with other sectoral bodies in the implementation of the SPAEE in the region has also been recognised. Similarly, environmental considerations should be incorporated into the development plans of the other sectors if the goals of sustainable development are to be achieved.

Access to Genetic and Biological Resources

South East Asia is home to biological and genetic resources that have potential for the development of products, compounds and substances with medicinal, industrial, agricultural

³⁰ The ASEAN region has a population of about 500 million, a total area of 4.5 million square kilometres, a combined gross domestic product of US\$737 billion, and a total trade of US\$ 720 billion. (<http://www.aseansec.org>).

³¹ **Brunei Darussalam** joined on 8 January 1984; **Vietnam** on 28 July 1995; **Laos** and **Myanmar** on 23 July 1997; and **Cambodia** on 30 April 1999.

³² ASEAN annual report 1999-2000, see website (<http://www.aseansec.org>)

and other applications. The local communities have gradually developed and accumulated traditional and indigenous knowledge on the use of these resources.

The ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB) organised and convened technical experts' meetings to develop an ASEAN Framework Agreement on Access to Genetic and Biological Resources³³. Experts from different sectors, including representatives from government agencies, academic institutions, indigenous groups, the private sector and NGOs, were invited. A draft ASEAN Framework Agreement on Access to Genetic and Biological Resources is now under consideration by regional bodies.

The Draft text of the ASEAN Framework Agreement³⁴ refers to the common interest of ASEAN countries on their ecosystems and the urgent need to protect ASEAN interests in these biological and genetic resources 'from biopiracy'. The scope of the Framework Agreement covers all biological and genetic resources including the associated traditional knowledge.

One of the objectives of the ASEAN framework is to ensure that national access regulations are uniform and consistent in accordance with the minimum requirements set out in the Framework Agreement. Article 1 of the Draft ASEAN Framework lists a Declaration of Principles that includes the rejection of patents on biological and genetic resources and the need to recognise and respect the traditional knowledge of indigenous and local communities.

The nature of the access instrument will be determined by each Member State based on their respective national policies and legislation and in accordance with the minimum terms and conditions laid down in the Framework Agreement³⁵. The draft text envisages the future consideration by ASEAN countries of the need to create a separate regional body if necessary to achieve the objectives of the Framework Agreement.

A Common Fund for Biodiversity Conservation for ASEAN countries is established in the draft Framework Agreement. The Fund will receive the revenues accruing from commercialising the use of common and shared resources among the member countries as well as from charges and fees imposed on access applications.

Recent developments

The latest ASEAN ministerial meeting on the environment was held in Kota Kinabalu, Sabah (Malaysia) on 6-7 October 2000. The Meeting reviewed the progress and the implementation of the ASEAN Strategic Plan of Action on the Environment (SPAEE). One of the areas of regional co-operation included in the SPAEE is nature conservation and biodiversity.

The Ministers adopted the 'Kota Kinabalu Resolution on the Environment' where they recognise the need to strengthen the institutional and organisational capacity within the ASEAN member countries, and emphasise the need to enhance ASEAN co-operation to address common environmental problems. The environmental ministers agreed to:

- sustainably manage and use their diverse biological resources and to exchange information on biodiversity conservation issues, including biosafety ***and access to biological and genetic resources***;

³³ At its 10th meeting, held in June 2000, the AWGNCB set the aim to finalise the Agreement at its next meeting, in 2001.

³⁴ Version of 24 February 2000.

³⁵ Article 5, Draft ASEAN Framework Agreement.

- intensify co-operation in enhancing national capacities in the negotiation and implementation of the multilateral environmental agreements.

3.4 Developments in the South Pacific

The rich terrestrial, coastal and marine biodiversity of the Pacific region has already attracted bioprospectors looking for new sources of biochemical compounds, genes, proteins, micro-organisms and other products from nature. In a few cases, partnership agreements between the source country and the users of the biological resources have been negotiated, either for research purposes or for use in product development. Such agreements, known as access agreements or Material Transfer Agreements (MTAs) set out the terms under which any transfer of biological resources is to take place, including making provisions for the country of origin to share in any benefits derived from the utilisation of the resource.

Thirteen Pacific island countries³⁶ are Parties to the CBD. A number of these countries are currently considering national frameworks to regulate access to genetic resources. Furthermore, many of those developing National Biodiversity Strategies and Action Plans are incorporating this issue and considering actions needed at a strategic level.

Regional organisations and agencies operate in different sectors and include the South Pacific Regional Environment Programme (SPREP)³⁷, the Secretariat of the Pacific Community, the Forum Secretariat, and the Forum Fisheries Agency.

1998 Nadi Meeting

At the 1998 regional meeting in Nadi, Fiji, on the implementation of the CBD³⁸, participants from Pacific Island countries recognised the importance of regulating access to their genetic resources. The Nadi Statement³⁹, adopted at that meeting, stresses the need for regional mechanisms and measures to support in-country initiatives on access to genetic resources and benefit-sharing.

The 1998 meeting was the first ever Pacific Islands regional meeting on the implementation of the Convention on Biological Diversity and the need to enhance and strengthen co-ordination amongst relevant government agencies, NGOs, local communities and indigenous people to assist national implementation of the CBD was recognised. Pacific Island countries recognised the need to control access to their genetic resources and to derive a fair share of the benefits from the use of these resources at an appropriate level (local, national, regional). They also acknowledged the need for regional mechanisms and measures to support in-country initiatives to control access and benefit sharing,

Some of the specific recommendations agreed at the 1998 regional meeting and addressed to regional agencies were:

³⁶ The Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu.

³⁷ SPREP was established in 1982 as a programme within the now Secretariat of the Pacific Community. In 1993 it was accorded legal status as an autonomous regional organisation. The SPREP Secretariat is located in Apia, Samoa and its website is <http://www.sprep.org.ws>

³⁸ Regional workshop on "Implementation of the Convention on Biological Diversity (CBD) in the Pacific Islands Region" (30 March-3 April 1998). The workshop was organised by SPREP, WWF and FIELD as part of a two-year project on *Building Legal and Institutional Capacity for Implementation of the Convention on Biological Diversity in the Pacific Islands Region* funded by the UK's Darwin Initiative.

³⁹ Nadi Statement, see <http://www.sidsnet.org/pacific/sprep/biodiv/nadistatement.htm>

- to assist with the development and/or adaptation of national regulations for access to genetic resources, including the means to enforce and monitor such regulations;
- to encourage national initiatives to collaborate with local communities with a view to developing rules, information systems, technology and regulating access to their own resources, e.g. at the village level;
- to explore the possibilities of establishing a regional trust fund(s) for the distribution of benefits from regionally shared genetic resources;
- to further support technology transfer, including biotechnology, and training in sampling analysis;
- to investigate the development of regional approaches to regulate access to genetic resources, which must be fair, equitable and transparent to all parties and should reflect countries' specific interests;
- to enhance public awareness programmes regarding any 'unlawful removal' of genetic resources.

Work on this area is continuing in the region as a further workshop was held in March 2000. Discussions at regional and national level are ongoing on legal, policy and administrative measures to regulate access to genetic resources, and ensure appropriate benefit-sharing within the meaning of the Convention, and taking into account developments at the international level.

2000 Nadi Meeting

At a regional workshop⁴⁰, held in Fiji in March 2000, there was an exchange of national experiences on bioprospecting activities and recent legal developments on access to genetic resources. Legislation in this area tends to be addressed through framework environmental laws and specific regulations are not yet in place. Nonetheless, it appears that bioprospecting activities are ongoing in a number of Pacific island countries, generally under contractual arrangements.

The participants of the March 2000 workshop reaffirmed that Pacific Island countries' biodiversity is among the most threatened in the world and that their ecosystems provide ecological corridors linking major areas of biodiversity around the world. They stressed that they bear responsibility for a significant portion of the world's oceans and seas and their resources, and that their efforts to conserve, protect and restore their ecosystems deserve international co-operation and partnership. They adopted recommendations for CBD implementation in Pacific Island countries, including regional guidelines on access to genetic resources addressed to national governments and regional agencies for appropriate action. The regional guidelines include:

- the need for a core set of terms and conditions of access to be made available to each Pacific Island Country to form the basis of an access law;
- a set of core principles to guide national legislation on access;
- rules concerning regional co-ordination in matters of access to genetic resources and benefit-sharing, including:

⁴⁰ This workshop was organised by SPREP, WWF-SPP, the Commonwealth Secretariat and FIELD, and was part of a two-year project funded by the UK's Darwin Initiative to promote the implementation of the CBD provisions on access to genetic resources and benefit-sharing in the Pacific island countries (<http://www.field.org.uk/fieldmain/biodiv.htm>)

- common strategies for adding value to genetic samples, to be facilitated by relevant regional organisations,
- strengthening of relevant regional institutions through capacity building in terms of research, training and technology transfer,
- a harmonised legal regime,
- reciprocal treatment in accessing each other's germplasm,
- the creation of a common fund for to which contributions can be made when a common genetic resource is exploited.

Regional diversity

The South Pacific Regional Environmental Programme (SPREP) recognises that the Pacific is a region of great diversity. While there are many common issues and concerns, there are significantly more differences (e.g. size of the islands, natural resources, population sizes and growth rates, levels of economic and social development, etc.). The design of regional programmes and projects that effectively address common problems of the region while providing sufficient flexibility to accommodate national differences and needs has been identified as a challenge for SPREP and its regional partners⁴¹.

The 1993 Agreement Establishing SPREP stipulates that it shall achieve its purposes through an Action Plan setting out its strategies and objectives. Action Plans include the co-ordination of regional environmental activities and the strengthening of national and regional capacities and institutional arrangements.

The review of the 1997-2000 Action Plan has highlighted some important lessons about the region, including the need:

- to recognise differences between Pacific island countries when planning and designing regional activities;
- to put in place effective consultative mechanisms to identify and prioritise the needs of countries; and
- for greater focus of regional activities and interventions to address common needs on the basis of groups of countries.

Regional projects that complement or support national initiatives have been identified as having better chances of success and sustainability. These conclusions from the review have been fed into the 2001-2001 Draft Action Plan.

Recent developments

Two recent regional meetings have considered regional approaches to access to genetic resources:

- One of the items in the agenda⁴² of the 11th SPREP Meeting of Officials, held in Guam on 10-12 October 2000, was a regional framework for access to genetic resources and benefit-sharing. The meeting was invited to note progress made so far in addressing these issues and to encourage Members to consider the regional guidelines adopted at the regional workshop this year.
- The Fifth Meeting of the Parties to the Convention on Conservation of Nature in the South Pacific (Apia Convention) took place in Guam on 9 October 2000. It considered

⁴¹ Draft Action Plan for Managing the Environment of the Pacific Islands Region 2001-2004 (SPREP, July 2000).

⁴² Agenda item 7.3.2.2 (document 11SM/WP.7.3.2.2). See SPREP website: <http://www.sprep.org.ws>

the work done on the region on access to genetic resources, biosafety and intellectual property rights⁴³.

IV. Some conclusions on the rationale, impact and effectiveness of regional action to implement the CBD

Although only individual countries, and not regions, are bound by their commitments undertaken under the CBD, the regional experiences described above show the need of some groups of countries for regional action in approaching and/or regulating access to genetic resources. The countries included in this paper are all developing countries, rich in biodiversity and biological resources that are partly or totally shared with neighbouring countries in the region or sub-region, which they regard as matters of 'mutual interest' (Andean Community).

Another common feature of the four examples included in this paper is the existing pressure on those biological resources and ecosystems due to a variety of factors: population growth, local and indigenous communities' reliance on those biological resources, deforestation, etc. In some cases (South East Asia, South Pacific) the regional initiative follows on the experience of individual countries in entering into bioprospecting agreements and the arrangements (or the lack of them) to share the benefits with the country of origin and/or the local or indigenous community whose biodiversity-related knowledge was used.

Common regional or sub-regional frameworks on access to genetic resources are considered useful tools to avoiding competition between countries that share common or similar resources. Enhancing co-ordination and promoting co-operation between countries in the region are objectives of all the regional initiatives presented in this paper. Another 'benefit' expected from regional frameworks is the strengthening of national capacities and institutions, and the related effects at international level, including in negotiating fora.

A very important 'starting point' for regional regimes is whether there is already a regional organisation with a specific mandate, power, set of institutions, etc behind them (Andean Community, OAU, ASEAN). Existing political and institutional frameworks play an important, and sometimes decisive, role not only in the conception and design of the regional access regime but also in its implementation. The legal status of the regional approach will depend upon the regional organisation or institution behind it and the process followed in its adoption.

The adoption of regional access frameworks does not mean that needs and circumstances are alike in all the countries involved. It is recognised that flexibility is needed to adapt the regional approach to national needs and priorities (OAU Model law). Some regimes favour some minimum requirements to provide a level of harmonisation and consistency in the region, while leaving a certain level of discretion to national governments (ASEAN draft Framework Agreement). On the other hand, regional initiatives to protect common resources bring coherence to national policies and facilitate co-ordination in the implementation of international treaties such as the Convention on Biological Diversity.

⁴³ Agenda item 6.1.1, document 5AC/5SC/WP6.1.1, 'Draft Information Paper on Biosafety, Access to Genetic Resources and Intellectual Property Rights'.

From the only regime which has been in operation for some time (Decision 391 of the Andean Community), some lessons can be learned:

- One of the key conclusions of this regime is the need to undertake a comprehensive **planning process** ahead of designing an access regime. To this end, comprehensive and reliable information and data on the following are needed:
 - The countries' biodiversity, including national priorities and circumstances in relation to biodiversity conservation
 - bio-prospecting markets, including the markets for genetic resources and their derivatives,
 - concerns and needs of traditional knowledge-holders,
 - the variety of possible benefits, monetary as well as non- monetary.

All these elements will be key in designing an 'effective' regime and will facilitate its future assessment and review.

- **Public participation** and consultation on the proposed regime are crucial factors. This particularly includes the need to involve those more directly affected by the access regime: local communities, indigenous peoples, owners and managers of biological resources, government officials responsible for the application and enforcement of the regime, etc.
- Complex access **procedures** with high transaction costs have proved to be a burden for implementing Decision 391.
- The lack of **incentives** in the Andean regime for the owners and managers of biological resources to conserve them, making it very difficult for them to receive part of the benefits deriving from the use of the genetic resources, has also played an important role in its implementation.
- One of the elements that needs further exploration among Andean Member States is the design of **co-operation mechanisms to share benefits** (monetary and non-monetary) derived from genetic resources where more than one Member State is country of origin. Although a regional approach is at the heart of Decision 391, to date this co-operation has been very limited or non-existent, with most of the documented examples of the regime's implementation showing that the national perspective was the only consideration.
- A positive feature of Decision 391 is that it has **raised awareness** on a number of related issues in the region, and on the need for regulation. These include the value of genetic resources, intellectual property rights and biodiversity, the role of indigenous and local communities and the need to safeguard their biodiversity-related traditional knowledge.

With only one regional legal regime in force it is difficult to assess the effectiveness of regional initiatives to implement the access and benefit-sharing related provisions of the Convention on Biological Diversity. Many questions remain unanswered: do regional initiatives promote or delay legislative action at national level? Are the expected benefits of regional frameworks realised in practice? What is the role of the organisations and institutional frameworks that initiate regional regulation on access to genetic resources? Is the experience of different regional initiatives applicable to other regional regimes around the world? Would different regions benefit from co-ordination and exchange of the lessons learned through this process?

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