UNEP

CBD

CONVENTION ON BIOLOGICAL DIVERSITY

Distr.
GENERAL

UNEP/CBD/ISOC/3
11 May 1999

ORIGINAL: ENGLISH

INTERSSESSIONAL MEETING ON THE
OPERATIONS OF THE CONVENTION
Montreal, 28 - 30 June 1999

REVIEW OF OPTIONS FOR ACCESS AND BENEFIT-SHARING MECHANISMS

Note by the Executive Secretary

I. INTRODUCTION

1. In decision IV/16 on institutional matters and the programme of work, th Conference of the Parties decided to include access to genetic resources as one of the topics for in-depth discussion at its fifth meeting, to be held in May 2000. By the same decision, the Conference of the Parties also decided to hold a preparatory discussion of access to genetic resources at the present intersessional meeting on the operations of the Convention. This decision i also reflected in decision IV/8 on access and benefit-sharing, by which the Conference of the Parties requested the present meeting to explore options fo access and benefit-sharing mechanisms. The present document has been prepared by the Executive Secretary in order to assist the intersessional meeting with its consideration of these matters.

2. The Conference of the Parties has addressed access to genetic resource at its last three meetings. For the second meeting, the Executive Secretar prepared two documents, "Access to genetic resources and benefit-sharing: legislation, administrative and policy information" (document UNEP/CBD/COP/2/13) and "Information provided by Governments as well as relevant reports from appropriate international organizations regarding policy, legislative, or administrative measures related to intellectual property right as provided in Article 16 of the Convention on access to and transfer of technology that makes use of genetic resources" (document UNEP/CBD/COP/2/17), to assist the Conference of the Parties with its consideration of these issues. The Conference of the Parties adopted decision II/11, by which it requested the Executive Secretary to further elaborate the survey of measures taken by Governments to implement Article 15. At its third meeting, the Conference o the Parties considered a compilation of views from Parties on possible option for developing national legislative, administrative or policy measures, as appropriate, to

implement Article 15, for which the Executive Secretary prepared a backgroun document "Access to genetic resources" (document UNEP/CBD/COP/3/20). In decision III/15, the Conference of the Parties further urged Governments to submit relevant information and requested the Executive Secretary to prepare a note for its fourth meeting, further summarizing information on measures and guidelines for the implementation of Article 15. Based on this and other decisions adopted at the third meeting of the Conference of the Parties, th Executive Secretary called for case studies on access and benefit-sharing mechanisms in order to prepare a synthesis of such experiences for the fourth meeting of the Conference of the Parties.

3. At its fourth meeting, the Conference of the Parties addressed the issue of access and benefit-sharing under agenda item 16 "Matters related to benefit-sharing", which included three sub-items: "Measures to promote and advance the distribution of benefits from biotechnology in accordance with Article 19" (document UNEP/CBD/COP/4/21); "Means to address the fair and equitable sharing of benefits arising out of genetic resources" (document UNEP/CBD/COP/4/22); and "Compilation of views of the Parties on possible options for developing national legislative, administrative or policy measures, as appropriate, to implement Article 15" (document UNEP/CBD/COP/4/23). In addition, a synthesis of the case studies submitted was prepared (document UNEP/CBD/COP/4/Inf.7). The case studies so far received have been placed o the web-site of the secretariat (http://www.biodiv.org).

4. Through its deliberations at these meetings, the Conference of the Parties has considered the basic elements of access and benefit-sharing from different angles. A further document prepared for the present meeting on the relationship between intellectual property rights and the Convention (document UNEP/CBD/ISOC/5), describes how that issue relates to the issue of access and benefit-sharing. It was thus only at its fourth meeting that the Conferenc of the Parties was able to adopt a unified decision on access and benefit-sharing. In light of this, the present document endeavours to organize the available information and the consideration so far given, with a view to presenting options for access and benefit-sharing mechanisms. The document reviews the work o the Conference of the Parties to date in the area of access to genetic resources and benefit-sharing arrangements, and takes into account newly available information. The document offers an opportunity to streamline the consideration of the related areas, including access legislation, measures to promote fair and equitable benefit-sharing arrangements, the issues related to intellectua property rights, the issue of transfer of technology, and ex-situ collections. The document also highlights the importance of differentiating between access and benefit-sharing arrangements for research purposes and for commercial purposes.

5. By decision IV/8, the Conference of the Parties also established a Panel of Experts on Access and Benefit-Sharing. The meeting of this Panel is scheduled to take place in October 1999. The present document also proposes for the consideration by the present meeting, modalities of the meeting of the Expert Panel and elements to be included in the agenda of that meeting.

II. OPTIONS FOR APPROACHES FOR ACCESS AND BENEFIT-SHARING

A. National legislation

6. The Convention on Biological Diversity contains provisions on access t genetic resources and the sharing of benefits arising out of their use. Thes are contained in Article 15; Article 16, paragraph 3; and Article 19, paragraphs 1 and 2. These are complemented by Article 8(j), in so far as genetic resources are subject to knowledge, innovation and practices of indigenous and local communities, and by Article 17.2, which deals with the exchange of informatio including knowledge that makes use of genetic resources. The provisions on

access and benefit-sharing of the Convention address both users and provider of genetic resources.

7. In light of Article 15, Governments have reviewed their national legislation and regulations, and some have enacted specific legislation. Th Executive Secretary has reported information on these activities to the past three meetings of the Conference of the Parties based on the submissions by th Governments. Since the fourth meeting of the Conference of the Parties, th Executive Secretary has received submissions from the Governments of Bahrain, China, Kiribati, Morocco, Oman and Ukraine on matters relating to access an benefit-sharing.

8. The Government of Oman reports that the drafting of a new and more comprehensive law for the protection and conservation of wildlife is at an advanced stage of inter-ministerial consultation. This law is aimed at addressing, inter alia, the issue of import and export controls of protected species. The Government of Morocco also reports that the national strategy and action plan is in the last stages of finalization and they are expected to equi the country with modern legislation and regulations, which comply with the obligations of the Convention.

9. The Government of China reports that there is no specific policy or plan concerning access to genetic resources or sharing of benefits arising from their use. Some regulations, such as the Regulation on Seed Management (1991) an the Regulation on Management of Breeding Livestock and Poultry (1994) contai some provisions for regulating import and export, and other exchanges of germplasms. However, these regulations are considered inadequate as they do not specify targets to be protected, measures to be taken, or management mechanisms for genetic resources.

10. The Governments of Bahrain, Kiribati and Ukraine also report that there are no specific laws regarding access and benefit-sharing.

11. From an examination of the available information on legislation, administrative and policy measures, the approaches taken by Governments in introducing these measures can be classified into four broad categories as follows: stand-alone, specific legislation on access and benefit-sharing; framework laws for the implementation of the Convention on Biological Diversit or to ensure sustainable development; modification of existing laws and/or regulations; and those measures intended for other purposes, but which cover some aspects of access and benefit-sharing. The approach that a country may decide to take is likely to depend on the specific conditions of the country and on existing related legislation. Whatever the approach taken, however, th provisions on access and benefit-sharing should share similar features. In order to assist in harmonizing efforts to address access and benefit-sharing through legislation, the Executive Secretary presented both provider-related and user-related guidelines in document UNEP/CBD/COP/4/23, which was prepared for the fourth meeting of the Conference of the Parties.

1. Stand-alone, specific legislation on access and benefit-sharing

12. The examples in this category includes the Philippines Executive Order 247 (1995) and Department of Environment and Natural Resources Administrativ Order 96-20 (Implementing Rules and Regulations on the Prospecting ofBiological and Genetic Resources) (1996), as well as Decision 391 of the Andean Pact o the Common Regime on Access to Genetic Resources, although the latter has th additional feature of representing a regional approach, which is explained below. Among member States of the Andean Pact, Bolivia adopted its own legislation (Supreme Decree No. 24676 of 21 June 1997) to implement Decisio 391 of the Andean Pact.

13. Enacting specific, stand-alone legislation is the most straightforward way to address access and benefit-sharing. However, since this approach involves enacting new legislation, it may take longer to finalize such legislation tha other approaches, such as modification of existing laws and regulations. I this regard, it should be emphasized that multi-stakeholder participation is a key element for addressing access and benefit-sharing, whichever approach is taken, and should not be curtailed as a way to expedite the process.

2. Framework laws for the implementation of the Convention on Biological Diversity or to ensure sustainable development

14. Such framework laws tend to be designed to implement a much broader se of objectives, including access and benefit-sharing. The examples include the Draft Sustainable Development Bill of Fiji (1997), and the Wildlife Conservation Law (1992) and the Biodiversity Law (1998) of Costa Rica. Within a broader framework, these laws tend to contain specific provisions on access and benefit-sharing, including concepts of mutually agreed terms and prior informed consent.

15. A sub-set of this category includes general framework environmental laws. These laws tend to be enabling in nature and designate a competent national authority to examine the issue in order to provide more specific measures i the future. For example, the National Environment Management Act, 1994 (La No. 13/94) of The Gambia states, in its article 15 on access to genetic resources, that "the Council may make regulations and prescribe guidelines regarding access to the genetic resources of The Gambia."

3. Modification of existing laws and/or regulations

16. This approach represents modification of closely-related legislation, such as conservation, wildlife or forestry laws, to better reflect the issue of access to genetic resources and benefit-sharing. To take an example of thi approach at the sub-national level, Western Australia passed the Conservatio and Land Management (CALM) Amendment Act 1993 to modify the CALM Act 1985. The 1993 Act empowers the Department of Conservation and Land Management to enter into exclusive agreements to commercialize flora, but did not alter the existing permit or benefit-sharing requirements.

4. Measures intended for other purposes, but covers some aspects of acces and benefit-sharing

17. China's case mentioned above on the Regulation on Seed Management (1991) and the Regulation on Management of Breeding Livestock and Poultry (1994) offers an example of this approach. Another example is the Regulation on Plant See Management of Indonesia. The objective of this regulation is to ensure the quality of seed, but its provisions on plant seed management contain clause concerning the introduction and supply of seed and propagating material to and from, as well as within, the country. This approach is obviously limited i scope.

B. Regional approach on legislation

18. Decision 391 of the Andean Pact on the Common Regime on Access to Geneti Resources provides an example of this approach. Upon its publication in Jul 1996, the Decision became law in all five member States: Bolivia, Colombia, Ecuador, Peru and Venezuela. The decision provides a minimum set of rules fo each member state to implement. When countries in a region share similar endowments of genetic resources, a common approach within the region may offe some advantages. The most significant advantage is that it will avoid unnecessary competition among these countries in setting conditions for access and benefit-sharing. At the same time, a common regional approach will provide a common enforcement mechanism. The member States themselves may also decide to agree on reciprocal treatment as well as on less restrictive movement of genetic resources among the member States. For example, the countries of th South Asian Association for Regional Cooperation (Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka) agreed in late March 1999 not t transfer plant genetic resources to non-member countries, whilst allowing fre exchange among the member countries for research purposes. A regional approac also offers an opportunity for the member States to develop a regional strategy regarding access and benefit-sharing, including identification of genetic resources and their sustainable use, identification of capacity-building needs, and promotion of research, training and technology transfer. In a stronger cooperative agreement, special regional mechanisms, such as a common fund an a common registry database, could be developed.

C. Measures to promote access to genetic resources and fair and equitable sharing of benefits, by addressing "mutually agreed terms" and "prior informed consent"

19. Article 15, paragraph 7 and Article 16, paragraph 3 of the Convention call for legal, administrative and policy measures, and Article 19, paragraph 2 fo practicable measures. Article 1 mentions appropriate access to genetic resources, appropriate transfer of relevant technologies and appropriate funding as a means for benefit sharing. Policy measures include incentive measures and other economic measures such as industrial policies. A first ste is a review of existing legislation in order to identify how this can be use best for access and benefit-sharing arrangements. It is important that these legal measures create or designate appropriate authorities to implement the access legislation (see document UNEP/CBD/COP/4/23). They should also includ provisions for prior informed consent as the central procedural device. The provisions for mutually agreed terms should include elements that comply wit the Convention. Finally, access legislation should ensure fair and equitabl access and benefit-sharing arrangements. In addition, the involvement of all stakeholders in the process of setting up the legislation is crucial for it success.

20. An important aspect of the existing legislative, administrative and policy measures in any country will be existing intellectual property rights. These will need to be reviewed in order to assess how they might be used to support benefit-sharing and to protect indigenous and local knowledge. The protectio of indigenous and local knowledge, innovations and practices through sui generis systems is another way of ensuring benefit-sharing for those stakeholders. This issue is addressed in another document prepared for the present meeting (document UNEP/CBD/ISOC/5).

21. One key component of benefit-sharing is technology transfer. In order to enhance meaningful technology transfer, developing countries will need to build broad-based capacity, encompassing human, scientific, technological, organizational, institutional and resource capabilities. With respect to biotechnology, which is essentially multidisciplinary, training in a wide rang of subjects is necessary, including genetics, microbiology, molecular biology

biochemistry, process engineering and economics, among others. Measures to promote these capacities and training constitute incentive measures. Furthermore, legal provision can be geared to emphasize the development and utilization of local resources, including human resources, in technology transfer contracts. One such example can be seen in the requirement for loca contents, whereby the percentage of locally manufactured inputs to the final products is specified.

22. With regard to funding, the requirements range from those in the public domain, such as support for drawing up access legislation, building scientific capacity and infrastructure investment, to those in the private-sector domai required to finance investments and other necessary expenses. The Global Environment Facility, as the operator of the financial mechanism of the Convention, can assist in various ways to address the needs of the developing countries to implement the Convention, and specific measures to promote access and benefit-sharing are discussed in document UNEP/CBD/COP/4/22. In this regard, it should be noted that the Conference of the Parties at its fourth meeting gave specific guidance to the financial mechanism in decision IV/13, which reflecte its decision IV/8. Other development agencies, both bilateral and multilateral, such as development banks, can also play a role in assisting in the promotio of benefit-sharing. Regarding plant genetic resources for food and agriculture, the negotiations to revise the International Undertaking on Plant Genetic Resources include mechanisms to share benefits and discussions about a possibl fund. As for the private sector, if it is in accordance with their national policy, Governments may consider providing subsidized funds for targeted sectors for their investment, including research and development. Foreign direct investment also provides opportunities for the private sector. Measures to promote foreign direct investment in a manner that promotes benefit-sharing could also be considered as incentive measures.

23. "Levelling the playing field" is an important aspect when considering measures to promote benefit-sharing. It is, therefore, important to increase the capacity of genetic-resource provider countries, as mentioned above. Thi can include entrepreneurial development. Small enterprise development is considered as an effective measure in this regard. In order to promote smal enterprises specialized in biotechnology, additional specific measures may be considered. Measures towards this end include building a stable capital market, provision of funds through development banks and other targeted funds and loans, tax breaks and provisions of seed money targeted at related industries and their research and development activities. Governments can also ease the burdens o small firms by identifying excessive transaction costs, including market regulations, legal costs and government services.

24. In addition, more efforts should be made to raise public awareness in order for the value of genetic resources to be fully appreciated.

D. Voluntary approaches to promote "mutually agreed terms" and "prior informed consent": Codes of conduct

25. Access to genetic resources and benefit-sharing arrangements normally involve the private sector and other research and academic institutions. Whil Governments provide legislative, administrative and policy measures, the othe sectors involved can formulate their codes of conduct in order to provide a voluntary framework for access and benefit-sharing in accordance with the Convention on Biological Diversity.

1. User-side code of conduct:

26. As outlined in document UNEP/CBD/COP/4/21, the private sector plays an important role in access and benefit-sharing arrangements, mainly representin the user-side. Research and academic institutions also represent the user-side of genetic resources. A number of companies and institutions, that are major users of genetic resources, have introduced or have announced their intentio to develop their own policies in order to access to genetic resources on mutually agreed terms and to secure prior informed consent. In order to harmonize suc efforts, codes of conduct for specific industry or for academic research ca be considered. Among the case studies submitted to the secretariat on acces and benefit-sharing, the examples of such codes or institutional policies are seen in, for example, DIVERSA, Shaman Pharmaceuticals, National Cancer Institute (NCI) and International Cooperative Biodiversity Group (ICBG). In addition, a case study submitted by the Government of Switzerland (document UNEP/CBD/COP/4/Inf.16) shows a survey in which companies and institutions tha are users of genetic resources consider a voluntary code of conduct as the mos promising instrument to implement incentives to further cooperation between providers and users of genetic resources and that this constitutes the most practical approach. This study found that a restrictive policy of granting access to genetic resources was seen by the experts from industry as well a from universities as having possibly negative effects for the transfer of technology and the attractiveness of natural substances, specially for the chemical and pharmaceutical industry. Since benefits involved differ betwee access for commercial purposes and for pure research purposes, separate code of conduct should be considered for industry and academics.

2. Codes of conduct for ex-situ collection institutions:

27. The ex-situ collection institutions play a unique role in the issue of access to genetic resources and benefit-sharing by being both recipients and providers of genetic resources. Th categories of institutions considered here are botanical gardens, international agricultural research centres, represented by the Consultative Group on International Agricultural Research (CGIAR) Centres, and microbial culture collections. Zoological gardens and academic institutions can also be included. The CGIAR Centres are not ex-situ institutions, but are included here because among various activities, they engage in ex-situ conservation. These institutions mainly operate for the public for the purpose of conservation, research, training and public awareness. Bu sometimes, the materials obtained from these centres, mainly by the private companies, may be developed into commercial products. In accordance with Article 15, paragraph 3, the holdings of these ex-situ collection institutions are not covered under the provisions of the Convention. In addition, the majority o the collections held in these institutions were, however, acquired prior to th entry into force of the Convention. However, the increasing trend among these institutions is to develop policies or codes of conduct that adjust their activities in order to comply with the provisions of the Convention. Since th activities of these institutions are mainly for the public and not for commercial purposes, it is important to make a distinction between the development of such codes of conduct from those that may be developed by industries. It is als important to make a distinction between these acquisitions and exchanges of genetic resource for research purposes and those for commercial purposes. Those collections that pre-date the Convention are not within the scope of the present document. The information regarding those ex situ collections which were acquired prior to the entry into force of the Convention and which are not addressed by the Commission on Genetic Resources for Food and Agriculture o the Food and Agriculture Organization of the United Nations is contained in another document prepared for the present meeting, document UNEP/CBD/ISOC/4.

(a) Botanical gardens

28. There are some 1775 botanical gardens and arboreta in 148 countries world-wide. They maintain more than 4 million living plant accessions, representing about 80,000 species, and manage a wealth of other collections, such as herbaria and seed banks. Activities regarding the development of codes of conduct are laid out in the submission from the Royal Botanic Gardens, Ke and the Botanic Gardens Conservation International to the third meeting of th Conference of the Parties (document UNEP/CBD/COP/3/Inf.46). According to the information available, a growing number of botanical gardens have adopted official policies in respect of benefits from bioprospecting and the transfe of plant material. Conditions upon which botanical gardens gain access to genetic resources will differ according to how the materials are used. Wit regard to the access to the collections held by botanical gardens, it is observed that the conditions will depend on the basis of which the material was collecte from the country of origin. Provider countries may prefer to supply potential recipients directly, or may require the botanical garden to secure undertaking from recipients to share benefits with the provider country.

29. Three examples on policies regarding botanical gardens have been made available to the secretariat. The Royal Botanic Gardens, Kew published "Polic on access to genetic resources and benefit-sharing" in November 1997. Rio de Janeiro Botanic Garden has submitted a case study, which contains its own polic on material transfer as well as a collection policy for Rio de Janeiro Botani Garden Research Institute. This case study has been posted on the web-site of the secretariat. In addition, the secretariat received from the Government of Germany a third draft of "Policy of participating Botanic Gardens on access to genetic resources and benefit-sharing", which is being developed by a group o botanical gardens worldwide.

30. Through its policy, the Royal Botanic Gardens, Kew intends to implement the specific provisions of the Convention on access to genetic resources an the third objective of benefit-sharing. The policy covers the acquisition o genetic resources, the supply of genetic resources, the fair and equitable sharing of the benefits arising from their use, the commercial use of geneti resources and further development of the strategy on access and benefit-sharing. With regard to acquisition, through material acquisition agreements, the Roya Botanic Gardens, Kew (RBG Kew) intends to clarify the respective roles, right and responsibilities of RBG Kew, the source country, and relevant stakeholders in activities involving the collection of genetic resources. With regard t the supply of genetic resources, RBG Kew will use material transfer agreements. With regard to benefit-sharing, RBG Kew is committed to making reasonable efforts towards this aim and the efforts are extended to the use of genetic resource whose acquisition was not covered by the provisions of the Convention. The collection policy of the Rio de Janeiro Botanic Garden Research Institute als states that its aim is harmonization with the Convention. It also sets out the procedure for acquisition and supply of the genetic resources and clarifies the designated authority for approval. It designates National Research and Biotechnology Council for access to Brazilian genetic resources by the foreign institutions, in accordance with the Federal Law number 55 (14 March 1990). Th policy also establishes the Permanent Commission on Collection and Access to Genetic Resources as the central organ to implement the policy. The effort by the group of botanical gardens world-wide in developing "Policy of participating Botanic Gardens on access to genetic resources and benefit-sharing" can be considered as consolidation of efforts by each individual botanical garden with the aim of setting a standard.

(b) The Consultative Group on International Agricultural Research (CGIAR) Centres

31. CGIAR is an association of countries, international and regional organizations, and private foundations dedicated to supporting a system of international agricultural research centres around the world. Sixteen Centre

are currently supported by the CGIAR. As noted above, however, they are not ex-situ institutions and come Centres do not engage in ex-situ conservation activities. The CGIAR Centres provide a framework for a global system for multilateral exchange of genetic resources, important for food and agriculture The Centres exchange landraces, promising varieties and elite breeding lines with national agricultural research systems and other partners for their evaluation and use in different ecosystems. One of the CGIAR Centres, the International Plant Genetic Resources Institute (IPGRI) submitted an information document on its activities on access and benefit-sharing to the fourth meeting of the Conference of the Parties (document UNEP/CBD/COP/4/Inf.24). According to the document, nearly 150,000 germplasm accessions from the in-trust collections of the CGIAR and approximately 500,000 samples of improved materials are distributed by the Centres each year. Th large majority of these materials are going to developing countries. In addition to genetic resources themselves, related passport, characterization and evaluation information is available without restriction.

32. Agricultural genetic resources have the distinctive feature that, as a consequence of the thousands of years that have transpired since the transitio to agriculture first began, the identification of the precise countries of origin of distinctive properties (as defined by the Convention) within the world's agricultural biological diversity is immensely complicated and in many, if not most, cases, is impossible. Even if countries of origin could be identified further complications would arise in any negotiations over access and benefit sharing. CGIAR Centres, therefore, emphasize the value of non-monetary benefits, including the very access to more germplasm and improved material than can be found in any one country, as well as access to technologies and to information. By the terms and conditions of the agreements signed between the CGIAR Centres and the Food and Agriculture Organization of the United Nations (FAO) in 1994, the accessions of the CGIAR have been placed under the auspice of FAO, in trust for the benefit of the international community, in particular the developing countries. This agreement between FAO and the CGIAR Centres specifies that neither Centres nor subsequent recipients of designated germplasm will seek any intellectual property right over that germplasm or related information. In February 1998, the CGIAR called for a moratorium on the granting of intellectual property rights on designated plant germplasm held in the collections of CGIAR agricultural research centres around the world.

33. By decision II/15, the Conference of the Parties has recognized that the distinctive features and problems of agricultural biodiversity, need distinctive solutions. The Conference of the Parties has welcomed the ongoin intergovernmental negotiations, within the forum of FAO Commission on Geneti Resources for Food and Agriculture, for the revision of the International Undertaking on Plant Genetic Resources for Food and Agriculture, in harmony with the Convention, including for the regulation of access to plant genetic resources for food and agriculture, and the fair and equitable sharing of the benefit driving from their use.

(c) Microbial culture collections

34. Micro-organisms include bacteria (including archaea and cyanobacteria) fungi (including micro- and macrofungi) and algae. Microbial biological diversity plays a key role in the maintenance of the biosphere and as a resourc for human kind. In addition, micro-organisms provide basic material for the development of many pharmaceutical drugs, agrochemicals, bioremediation and biocontrol agents, food and drink agents, toiletries and products for other industries. Micro-organisms that are isolated from the natural (or man-made) environment are typically conserved in culture collections. Some culture collections are International Depository Authorities (IDA) for the purposes o patent procedure (Budapest Treaty). Users of culture collections include research scientists in universities and institutes, educational establishments

and industrial users. Subject to existing regulations, normally safety regulations, essential research material held in public collections is currently made available to any applicant, regardless of country and usually without specification of the ultimate use. It is uncommon for material transfer agreements to be made.

35. One of the special features of microbial genetic resources is that they replicate frequently, leading to changing populations both in the environmen and during conservation. It is therefore necessary to preserve them expertly ex-situ, otherwise it can lead to genetic and phenotypic instability and a failure to conserve the original sample. As many of the centres hold strain for purely research purposes, the cost of maintaining the collections normally exceeds the revenues that may be expected of the services provided by these culture collection centres. Consideration of measures for access and benefit-sharing specifically geared towards these culture collection centre is urgently needed in order for the maintenance of the vast amount of microbia genetic resources they hold, which serve as the basis for various important basic research activities.

36. In 1996 the World Federation for Culture Collections (WFCC) prepared a background document on "Access to Genetic Resources within the Framework of th Convention on Biological Diversity" recommending the development of operationa guidelines or a voluntary code of conduct for the introduction of access an benefit sharing procedures in microbial culture collections. This document wa summarized in document UNEP/CBD/COP/3/Inf.19. The development of a voluntar code of conduct and of model Prior Informed Consent (PIC) and Material Transfer Agreement (MAT) forms are being discussed by a panel of specialists within the framework of the project "Micro-organisms Sustainable Use and Access Regulation International Code of Conduct (MOSAICC)" funded by the European Union.

III. THE MEETING OF THE PANEL OF EXPERTS ON ACCESS AND BENEFIT-SHARING

37. In paragraph 3 of decision IV/8, the Conference of the Parties decide to establish a regionally balanced panel of experts appointed by Governments composed of representatives from the private and the public sectors as well as representatives of indigenous and local communities, operating under the Conference of the Parties and reporting to its next meeting. The mandate o this panel is to draw on all relevant sources, in the development of a commo understanding of basic concepts and to explore all options for access and benefit-sharing on mutually agreed terms including guiding principles, guidelines and codes of best practices for access and benefit-sharing arrangements. The elements for the options are suggested in the annex to th decision.

38. This meeting is scheduled to take place from 4 to 8 October 1999. The venue of the meeting is yet to be decided. The Executive Secretary, in accordance with the decision, called for nominations of experts from Governments in a letter of 27 July 1998, followed by a reminder on 13 November 1998. As of 15 Apri 1999, 24 Governments, of which 13 are OECD countries, have submitted 74 nominations of experts.

39. As the Expert Panel represents a forum to further consider the issue o access and benefit-sharing and will draw on the results of the present meeting, the meeting may wish to provide guidance to the Expert Panel on the modalitie of its meeting in October 1999. In accordance with decision IV/8, the Pane will be regionally balanced and composed of experts representing various sectors. In order to fulfil these conditions, it is proposed that the size of the Panel be approximately 50 experts. In reviewing the nominations so far received, an important gap exists among the categories of experts, that is, experts from international organizations. It is therefore proposed that the Panel also include experts from relevant international organizations. The

Executive Secretary therefore proposes to include one expert from each of the following organizations: the Food and Agriculture Organization of the United Nations, the Global Environment Facility, the Organization for Economic Cooperation and Development, the United Nations Conference on Trade and Development, the United Nations Development Programme, the United Nations Environment Programme, the United Nations Educational, Scientific and Cultura Organization, the United Nations Industrial Development Organization, the Worl Intellectual Property Organization, the World Trade Organization, and the Worl Bank. Decision IV/8 leaves open with regard to the participation of observers.

40. Drawing from the analysis in this document as well as from document UNEP/CBD/ISOC/5, and also taking into account the annex to decision IV/8, the provisional agenda of the meeting of the Panel of Experts may include the following items:

1. Access and benefit-sharing arrangements for scientific research: consideration of guiding principles or voluntary codes of conduct addressing prior informed consent, mutually agreed terms and ways to include a referenc on the country of origin, where applicable, in relevant publications and paten applications; consideration of the benefits to be shared and the mechanisms b which they are shared;

2. Access and benefit-sharing arrangements for commercial purposes: consideration of guiding principles or voluntary codes of conduct addressing prior informed consent, mutually agreed terms and ways to include a reference on the country of origin, where applicable, in relevant publications and patent applications; consideration of the benefits to be shared and the mechanisms b which they are shared; the relationship with the World Trade Organization; interlinkages with the work of the United Nations Conference on Trade and Development, in particular, its BIOTRADE initiative;

3. Role of ex-situ collections: taking into account their special features, consideration of codes of conduct for their activities regarding access and benefit-sharing;

4. Review of legislative measures at national and regional levels: how to address prior informed consent in provider countries for access to genetic resources and research and development; how to address mutually agreed terms for benefit-sharing arrangements, intellectual property rights and technology transfer, where appropriate; consideration of legislation related to intellectual property rights, including sui generis systems; and

5. Review of regulatory procedures and incentive measures: efficien mechanisms that avoid burdensome procedures involving high transaction costs; incentive measures to encourage contractual partnerships; and other measures to promote fair and equitable sharing of benefits.

IV. CONCLUSION AND RECOMMENDATIONS

41. This document has reviewed the work of the Conference of the Parties t date in the area of access to genetic resources and benefit-sharing arrangements, and taking into account newly available information. The document has highlighted the opportunities for streamlining consideration in related areas including access legislation, measures to promote fair and equitable benefit-sharing arrangements, issues related to intellectual property rights, the issue of transfer of technology and ex-situ collections. The document has also highlighted the importance of differentiating between access and benefit-sharing arrangements for research purposes and for commercial purposes. The meeting of the Panel of Experts on Access to Benefit-Sharing will provide a timely opportunity to address and further advance these issues.

42. The intersessional meeting may wish to consider the modalities of the meeting of the Panel of Experts contained in section III above and to provid the Executive Secretary with guidance on organizing the meeting of the Pane of Experts.
