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AIMS, SCOPE, FUNCTIONS AND GOVERNANCE OF A BROAD-BASED
CLEARING-HOUSE UNDER THE CONVENTION
ON BIOLOGICAL DIVERSITY

Note by the Secretariat

At the request of the Swedish delegation to the first meeting of the Conference of the Parties to the Convention on Biological Diversity, the Secretariat is distributing the attached study on the aims, scope, functions and governance of a broad-based clearing-house mechanism for the information of the Parties.

**Aims, Scope, Functions and Governance of a Broad-Based Clearing-House
Under the Convention on Biological Diversity**

INTRODUCTION

The Stockholm Environment Institute (SEI) has carried out a study on the aims, scope, functions and governance of a broad-based clearing-house mechanism under the Convention on Biological Diversity. The study was financed by the Government of Sweden. In collaboration with the International Academy of the Environment, Geneva, extensive consultations on a regional basis, in Latin America and the Caribbean, Africa and Asia have taken place. An informal Workshop on the study was held in Nassau, Bahamas hosted by the Government of Bahamas and Sweden. The study in question follows below.

1. AIMS

The clearing-house mechanism shall, in accordance with Articles 1 and 18 of the Convention, promote and facilitate technical and scientific cooperation in the field of conservation and sustainable use of biological diversity and its components. The cooperation that would be promoted and facilitated shall lead to the fair and equitable sharing of the benefits arising out of the use of genetic resources.

2. SCOPE

The scope of the clearing-house mechanism is laid down in general terms in Article 18 - **Technical and Scientific Cooperation** - of the Convention and embraces both conservation and the sustainable use of resources of biological diversity as well as the equitable sharing of the benefits that arise. The technical and scientific cooperation to be promoted should in particular be with developing countries. Special attention should be given to the development and strengthening of national capabilities by means of human resources development and institution building through technical and scientific co-operation.

The development and use of technologies, including indigenous and traditional technologies, for the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefit arising out of the use of genetic resources are highlighted. Joint research programmes and joint ventures for the development of technologies, particularly in developing countries, should be promoted.

It is important for the clearing-house mechanism to have a clear analysis of the objective of fair and equitable sharing of the benefits. The genetic resources are, to a large extent, found in the developing countries. It is recognised that the best way for these countries to achieve the fair and equitable sharing of the benefits arising out of the use of their rich genetic resources is for them to develop and acquire the knowledge and technologies to add value to those resources. Access to these resources should, in accordance with Article 15, be on mutually agreed terms with the aim of sharing in a fair and equitable way the results of research and the development and the benefits arising from the commercial and other use of genetic resources. Article 19 stresses the importance of biotechnological research and development of biotechnologies based upon genetic resources provided by the developing countries.

These considerations are in addition to the *in situ* continued and long-term use of biodiversity resources by local and indigenous people. The benefits of this use to communities and to the conservation and

sustainable use of these resources needs to be maintained and assisted through the clearing-house, not least because of the support this represents in terms of insights into ecosystem functioning and sustainable management.

For a clearing-house to operate effectively from its inception, initial limitation and prioritization of the scope of its activities will be necessary. But this should not be attempted by an initial limitation of the functions envisaged for the effective operation of the clearing-house when established, but rather by curtailing the scope of some of these functions during the early period of operation of the clearing-house. Curtailment of the functions envisaged for the clearing-house at its outset, for instance the provision of information and referral services, would run the risk of 'freezing' the functional remit of the clearing-house so that it was unlikely ever to develop the full range of functions envisaged as necessary under the Convention to assist in the full, effective and equitable participation of many of the Parties. Limiting the initial scope, rather than the functions, however, has the advantage of enabling the COP to prioritize the level of activity in relation to the effective technical and scientific co-operation.

Against the background of the above, two basic lines of work that should be given priority can be identified.

The first is the value-added process, encompassing a chain of activities, starting with taxonomic field work to identify species and genetic resources, focusing on their role in the ecosystem and progressing to an assessment of their potential value as raw material for new products. This calls for a broader concept of the role of taxonomists (including experts from ethnobotany and phytochemistry), going back to the Linnéan tradition of seeking practical use of micro-organisms, plants and animals and adding to this the scientific study of their role in the ecosystem. The second and third steps in the chain are the characterization of valuable compounds, with due recognition of the knowledge and innovations of indigenous and local communities embodying traditional lifestyles, and the development of products. The final step is the marketing of new products based on identified biological resources. This process is of vital interest to the economic sector with production based on biological resources, including the pharmaceutical and chemical industry and the agricultural, forestry and fisheries and associated products sector.

A second line of work is the development of methods for ecological resource management. This encompasses also a chain of activities. It starts with ecological research, incorporating indigenous and local community knowledge, focused on developing a better understanding of ecosystem function and the processes that shape ecosystem structure and determine biodiversity under management regimes. The second step is the application of ecological research to land-use, forestry and other uses of forests, agriculture, fisheries and coastal-zone management, developing new ecologically sustainable production methods. The final step is the introduction of new production methods in the above sectors. This line of work calls for capacity building through fruitful co-operation between ecological scientists and industrial research. Cross-discipline research can be promoted by the creation of biodiversity research centres, programmes and networks.

The two lines of work can be linked through the fruitful exchange of information and scientific knowledge

3. FUNCTIONS

The range of clearing-house functions required to implement effectively and in full the degree of technical and scientific cooperation envisaged by the Convention are listed below. The level of implementation of each would be determined by the COP as the need became apparent and resources available.

- Provision of information and promotion of information access and transfer;
- Promotion of cooperative, technical and scientific development, including capacity building by technology sharing and transfer including promoting the development and use of indigenous and traditional technologies;
- Promotion of partnerships for the conservation and sustainable use of biological resources;
- Brokering of financial and other arrangements, risk-sharing and policy-option identification;
- Provision of advice on sources of assistance and information on contractual agreements, including arbitration;
- Advising on assistance with environmental-impact assessment and biosafety procedures;
- Seeking funds for co-operative ventures and projects; and
- Taking initiatives in supplying information and assistance to parties seeking to implement co-operative arrangements.

The activities described and amenable to cooperative efforts can be implemented at different levels of clearing-house involvement. Activities from information acquisition to arbitration and conciliation in the course of realizing and promoting commercial ventures may all progress from referral, through advice, to a supply level. Immediate realization of a full participation in all of these aspects is not feasible in a newly established clearing-house but, according to priorities established by the Conference of the Parties to the Convention, involvement would expand as experience and resources are developed and demand dictates. The gradual build-up of involvement would create a basis for confidence building. When realizing the brokering and negotiations of deals, the parties must have full confidence in the clearing-house mechanism as a neutral institution. The main functions of a clearing-house are elaborated below.

3.1 Provision of information and referral services

A wealth of information relating to biodiversity already exists both in printed form and on electronic media. This includes information on biodiversity itself (e.g. on genotypes, ecosystems and their properties and interactions) and on biodiversity issues such as *in situ* and *ex situ* conservation, sustainable development and use, commercialization and many other relevant topics. Access to information on technology can provide a valuable component in technology transfer, particularly if accompanied by capacity-building. It is extremely important that this information be collated, assessed and made available to the Parties and, as direct support for the activities of the clearing-house, both in an accessible medium and a digestible, meaningful format aiming at presenting the information necessary for decision-making regarding action. However, achieving this is not straightforward and will, for instance, require both technical and

intellectual cooperation with the providers, and a quality review process and assessment. As a part of the development, it will be possible to identify gaps, identify and avoid potential duplication, and establish information priorities.

The clearing-house will have to provide information network services to the Parties, including the delivery of information retrieval and referral service to other information sources, and the facility for open exchange of information. The facilities would be operated using a range of electronic networks and printed means.

The clearing-house will need to address the complex legal questions arising from open exchange of information. The system needs to be organized in such a way as to respect the protection of intellectual rights and other rights of the suppliers of genetic material and resource data, as well as the suppliers of technology.

3.2 Promotion of technical and scientific co-operation

Technical cooperation will be concerned inter alia with sustainable agriculture, forestry and aquatic resources utilization, conservation (including taxonomy) and sustainable use including value-adding research and bioprospecting (including biochemical and molecular analysis of samples) and skills associated with it such as downstream processing and industrial and marketing skills. The evolution of methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, should be encouraged. Joint research programmes and joint ventures for the development of technology, including biotechnology, should be promoted. A roster of experts (individuals and institutions) could be established at a regional or global level so as to make technical development possible. Cooperative technical and scientific development should include the provision of legal advice to the suppliers of genetic resources.

Guidance on the promotion of scientific cooperation is provided by Article 12.(b). The priorities for research which contributes to the conservation and sustainable use of biological diversity, particularly in developing countries, should be laid down by the Conference of the Parties based on recommendations by the Subsidiary Body on Scientific, Technical and Technological Advice. Cooperation in the scientific and technical spheres is required to provide the scientific basis for the information and expertise to implement priorities under the Convention.

In addition to the provision of research results and information for immediate use, it may be necessary to move beyond this and identify gaps in knowledge. Also consultation and co-operative procedures for arriving at appropriate knowledge bases (through both research and training) are required for capacity-building and human-resource development. The clearing-house could initiate the formation of, or tap into existing, networks of experts including individual, subject groups and institutions.

3.3 Promotion of partnerships for the conservation and use of biological resources

Fair and equitable partnerships are essential for the conservation and sustainable use of biological resources. *In situ* conservation and sustainable use are mutually supportive concepts dependent on knowledge and management. Knowledge of the biological resource, as well as an understanding of ecosystem function and dynamics in which the resource resides, are critical. Management of the resource with appropriate

infrastructure, skills and feed-back mechanisms are also critical. With appropriate knowledge and management, value-adding to a biological resource through sustainable use can provide an incentive for its long term conservation.

Cooperative technical and scientific development by way of information gathered through institutional linkages to effect collaboration, harmonization and complementarity would avoid unnecessary duplication and identify existing knowledge, skills and areas for new collaborative research and development work in the conservation field. The clearing-house should identify potential entrepreneurs where conditions are advantageous to commercial enterprises based on sustainable utilization of a biological resource. In creating these linkages, a range of partnership mechanisms can be considered. This could involve linking together groups at the national or local level, including indigenous peoples, that are seeking advice from the clearing-house. Partnerships should also consider options where returns under partnership agreements could be directed to research, management, infrastructure development and capacity-building.

Some Parties to the Convention may experience difficulty in the commercialization of the products developed from sources of biodiversity and will require assistance in identifying and contacting partners to match their requirements. The clearing-house could be instrumental in meeting this need. The partners may represent expertise from the more scientific aspects of development of a resource, mentioned above, through financial and contractual arrangements to marketing.

3.4 Brokering of financial and other arrangements

The brokering of cooperative deals between source countries and Parties making use of genetic resources requires expertise with a range of skills including those of the technical, financial and legal professions. Normally honest brokering relies on legal services. The neutral, honest broker takes overall responsibility for the deal brokered *vis-à-vis* the Parties. Brokering activities are based on equitable principles for the generation of fair agreements.

The resource demands of undertaking a full brokering service are considerable and involve a high degree of responsibility. The undertaking of a full service by the clearing-house, which is extremely resource-demanding, might be considered by the COP at a later stage, when experience has developed, before taking any decision.

3.5 Advice on assistance with contractual agreements

Contractual agreements which provide access to genetic resources should abide by the principles and objectives of the Convention. To this end the clearing-house would make available to Governments and/or the owners of and those with access to the genetic resources all relevant information for assuring the equitable sharing of the corresponding benefits among the parties to any such agreement.

In providing advice, due consideration would be given to the rules and principles of Articles 15, 16 and 19 of the Convention on access to genetic resources, access to and transfer of technology and on the handling of biotechnology and the distribution of its benefits. The clearing-house would seek to collect information and recommendations from legal and scientific experts, academic, research, private, public and international institutions. In performing this function, a check-list of model agreements, the organisation of seminars, training programmes and/or publications on contract negotiations would be undertaken. Advice on related subjects such as the need to protect the integrity of the diverse

knowledge systems, rights and culture of indigenous peoples, public participation, access, confidentiality of information and on situations where a biological resource is common to several countries would also be included.

3.6 Advice on assistance with environmental impact assessment (EIA) and biosafety procedures

Certain activities and projects that the clearing-house may be promoting and/or arranging may have an impact on the environment in general and on biodiversity in particular. In accordance with Article 14, by which Contracting Parties are requested to ensure that the environmental consequences of its programmes do not have negative environmental impacts, the clearing-house would provide Governments and any other interested parties, with relevant expert information on EIA. This system of information collection and diffusion would encourage institutional linkages, have built-in quality controls and provide for expert referrals in this area to supply advice and to assist, where appropriate, in the development of relevant EIA policies and procedures.

In terms of biosafety, three considerations underline the clearing-house services in this area. First, many projects may involve the application of modern biotechnology applications. Secondly, in Article 8.(g) governments are requested to establish effective biosafety regulations at the national level. Thirdly, other activities of the Convention may involve biosafety considerations (e.g. Article 19.3). Hence the clearing-house will play an active role in promoting linkages between parties and institutions with scientific and practical expertise in biosafety. The clearing-house will initially undertake a comprehensive review of existing institutional activities and databases, make them available to interested parties, set up an expert referral system, and facilitate the provision of training and capacity-building in these areas.

3.7 Mobilizing financial resources in support of technical and scientific cooperative ventures

In many cases, the technical cooperative ventures and projects linked to access to genetic resources will be mutually beneficial for the partners and would need no financial support. Projects on scientific cooperation and some technical cooperation projects will, however, depend on external funding. Information provision and cooperative technical and scientific development, including promising research along with proactive initiatives by the clearing-house mechanism, would have to be financed from the budgets of the implementing agencies of the clearing-house and from external sources.

The clearing-house mechanism would assist the developing countries' partners in mobilising financial support for such projects, from bilateral as well as multilateral agencies, for development cooperation, including international financial institutions, and, where appropriate, from industry and private financial concerns. Biological and genetic resource development, venture promotion and risk sharing, formation of financial arrangements and advice on contractual agreements would be amenable to funding from development assistance sources, commercial commissions or other private arrangements. The projects of the clearing-house should be included under the programme priorities of the financial mechanism of the Convention.

The clearing-house mechanism would proceed against this background and need to develop good relationships with sources of funding. The membership of UNDP in the clearing-house would facilitate such contacts.

3.8 Taking initiatives in approaching and encouraging parties

A purely passive or responsive role for a clearing-house mechanism would run the risk of dealing only with those countries or country groups already actively, or at least partially aware of the critical issues that need attention in conservation, utilization and sharing of the benefit of natural resources. The clearing-house should actively assist Parties on arrangements relating to product development and commercialization and actively seek to encourage equitable partnerships where conditions for effective conservation and sustainable use require it.

The clearing-house should also strive to achieve geographical balance in its activities.

4. GOVERNANCE AND FUNDING

4.1 Governance

The scope of a fully developed clearing-house mechanism, encompassing all the functions for active promotion and facilitation of technical and scientific cooperation for the conservation and sustainable use of biological diversity and its components, is such that it demands a joint cooperative venture with intergovernmental organisations carrying out operations in this field. Relevant organisations include UNDP in capacity-building with a wide global network, the International Centre for Genetic Engineering and Biotechnology (ICGEB) of UNIDO, FAO with its regional commissions, the International Agricultural Research Centres financed by the Consultative Group (CGIAR), UNEP with regional offices and WHO (pharmaceuticals and traditional medicine). A collaborative working arrangement between these organisations that may jointly carry out the tasks of a broad-based clearing-house mechanism is essential for the success of such a mechanism. The Interim Secretariat should contact these in order to develop the modalities for the establishment of such a collaborative arrangement.

The arrangement should be based on equality between the implementing agencies. The experience from the establishment of the Tropical Forest Action Programme (TFAP) and the Global Environmental Facility (GEF) could furnish indications for the implementation of the process. Other relevant international organizations, including internationally networked organizations dealing with environment and development such as the World Resources Institute (WRI) and the Stockholm Environment Institute (SEI), should be invited to offer their participation in the clearing-house mechanism.

In the field of the provision of information and referral services, such organizations include the World Conservation Monitoring Centre (WCMC), the World Federation of Culture Collections (WFCC) and the Commonwealth Agricultural Bureaux International (CABI). The International Council of Scientific Unions (ICSU), the regional councils of Scientific Unions and the International Union on Biological Sciences (IUBS) promote and organize scientific cooperation in this field. The International Chamber of Commerce, the Business Council on Sustainable Development, the World Federation of Chemical Industries and the International Service for the Acquisition of Agri-Biotech Applications (ISAAA) would mobilize the participation of the corporate sector.

The clearing-house would operate under the policy-guidance of the Conference of the Parties to the Convention on Biological Diversity. It would work under a Governing Board of 12-15 members established in a way that would reflect the collaborative working arrangements of the participating intergovernmental organizations. The staff of the clearing-

house would be assisted by *ad hoc* panels of Experts from Governments, academia, the corporate sector and other non-governmental organizations. These panels should have a regional balance.

The clearing-house mechanism would seek partners at the regional level. Different forms might be appropriate for different regions. In certain cases, it will be necessary to assess the competence and legitimacy of the organizations and bodies acting as regional arms of the clearing-house. The intergovernmental organizations within the collaborative working arrangement of the clearing house might take on this assessment.

All regional arms of the clearing-house mechanism, including facilitating mechanisms on a regional basis, would be responsible to the Governing Board and ultimately to the Conference of the Parties on matters concerning the clearing-house operations. Examples of regional partners are:

- The use of an existing intergovernmental agency or consortium of agencies. Such bodies have experience of the regional approach to specific issues, are already in existence and have well-developed and accepted methods for interacting with national Governments.
- A specific, well-found regional institution could undertake a regional clearing-house function either for profit or in a non-profit making capacity or a private sector firm or institute acting in similar manner.
- An autonomous organization set up by Governments of the region (or perhaps, by certain agencies within Governments). This could be set up as a regional cooperative facilitator, where benefits and risks are shared between the corporate sector and countries in the region.
- A regional expression (node) of the Convention's clearing-house mechanism.
- Other existing internationally-recognized centres of expertise (such as the International Agricultural Research Centre and the International Centre for Genetic Engineering.)

4.2 Funding

The administrative costs of the clearing-house will be recovered in a flexible manner from the budget of the Convention and from other sources, including contributions from the other implementing agencies and service fees, when these become available. Expansion of the clearing-house activities will depend on its ability increasingly to recover costs and raise funds.
