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**ROLE OF THE CLEARING-HOUSE MECHANISM IN FACILITATING
AND PROMOTING TECHNICAL AND SCIENTIFIC CO-OPERATION IN
RESEARCH AND DEVELOPMENT**

Note by the Secretariat

I. INTRODUCTION

1. The first meeting of the Conference of the Parties decided to implement the provisions of Article 18, paragraph 3, of the Convention for the establishment of a clearing-house mechanism (CHM) to promote and facilitate technical and scientific co-operation (Decision I/3).
2. For the second meeting of the Conference of the Parties the Secretariat prepared, in accordance with Decision I/3, a comprehensive study containing concrete, costed recommendations for the establishment of the clearing-house mechanism (document UNEP/CBD/COP/2/6).
3. At its second meeting, the Conference of the Parties decided that the clearing-house mechanism should be developed starting with a pilot phase for 1996-1997 (Decision II/3, paragraph 4(a)). The Conference of the Parties also decided to review the implementation of the pilot phase of the clearing-house mechanism at its third meeting and requested the Executive Secretary of the Convention to submit a progress report (decision II/3, paragraph 10).
4. The present Note reports on progress made by the Secretariat and by the active partners in the development of the pilot phase of the clearing-house mechanism. It recalls the guidance provided by the Conference of the Parties before providing: a) a description of the operational framework for the pilot phase; b) an update on the current status of the work; and c) a description of the activities envisaged for achieving the objectives of the two-year pilot phase. Progress reported upon in this Note refers to activities undertaken during the period from January to August 1996.

5. A list of National Focal Points (NFPs) for the clearing-house mechanism is contained in document UNEP/CBD/SBSTTA/2/Inf.9.

II. GUIDANCE PROVIDED BY THE CONFERENCE OF THE PARTIES

6. In Decision II/3, the Conference of the Parties indicates that the clearing-house mechanism should be developed:

- (a) Starting with a pilot phase for 1996-1997;
- (b) Through specific and focused areas of activities related to the promotion of international technical and scientific co-operation;
- (c) By gradually building up its functions in response to clear and identified demand based on experience gained and resources available;
- (d) In a neutral, transparent, cost-effective, efficient and accessible manner;
- (e) As a decentralised mechanism using such resources as print and electronic media, including the Internet;
- (f) By making full use of existing facilities, which will avoid any duplication or overlap of activities and allow for the early implementation of the mechanism;
- (g) In close co-operation with relevant international organisations and entities as active partners in the clearing-house mechanism in order to maximise the existing experience and expertise;
- (h) By enhancing networking between existing national, regional, subregional and international centres of relevant expertise, as well as governmental and non-governmental institutions and the private sector.

7. The Conference of the Parties decided that, during the pilot phase, the Secretariat should act as a focal point and should:

- (a) Encourage the development of a network of active partners. These partners should focus initially on:
 - (i) developing national capabilities through exchanging and disseminating information on the experiences and lessons learned by the Parties in the implementation of the Convention. This can be done through guidelines, training programmes, seminars, workshops -- where appropriate -- and, upon request, by using the clearing-house mechanism;
 - (ii) facilitating access to and dissemination of research relevant to the objectives of the Convention;
 - (iii) facilitating the transfer of technology through exchanging and disseminating information on experiences and technologies relevant to the conservation and sustainable use of biological diversity;
- (b) Provide information on and facilitate access to these operating active partners;
- (c) Support the active partners in developing specific training for the effective participation of users in the clearing-house network.

III. OPERATIONAL FRAMEWORK

8. In accordance with the guidelines provided, the Secretariat has consulted with active partners who have indicated their interest in assisting with the start-up of the pilot phase. These active partners include the World Conservation Monitoring Centre (WCMC), the Commission of the European Communities, and the focal points in Australia, Brazil, Canada, and Germany. As a result of these discussions, an operational framework has been agreed upon for implementing the pilot phase of the clearing-house mechanism by means of a decentralised structure.

9. This framework provides the means by which access to, and the inter-active nature of, an information-exchange system can be maximised during the pilot phase of the clearing-house mechanism. Such an approach takes into account the complexity of the many Convention-related topics and is especially relevant when considering the demands for inputting and updating the different types of information to be submitted by a growing number of partners and participants.

10. The clearing-house mechanism will need to function at both national and international levels.

11. At the national level, the clearing-house mechanism will serve the information needs of those organisations involved in implementing the provisions of the Convention. The nature of these needs is complex and multi-faceted. Opportunities for addressing them are offered through ongoing developments in information technology. Increasing numbers of sources of information relevant to the implementation of the Convention are likely to be identified (*inter alia*, local and national government agencies, universities and research centres, indigenous and local communities with traditional ecological knowledge, and non-governmental organisations) and the potential volume of information is such that National Focal Points would need to invest immense amounts of time conducting searches through this mass of information. Further contact with each source holding such information would be likely to reveal a need to distinguish relevant information among the overall information held by the institution and to ensure its availability in an appropriate format.

12. The clearing-house mechanism at the national level therefore needs to support the activities of the National Focal Points and to assist with linking Thematic Focal Points (TFPs) to the wider clearing-house mechanism network. The operational framework presented here is specifically designed to avoid the duplication of effort, and to maximise the exchange of existing knowledge through the development of databases of existing knowledge (or meta-databases) by national-level clearing-house mechanism partners.

13. At the international level, the operational framework provides for the development of a decentralised system of information gathering and retrieval, a visualisation function, and a decision-support function. These functions are explained in paragraph 18 below.

14. The role of the Secretariat should be that of facilitator, ensuring: the dissemination of experience and knowledge amongst all partners; that the system as a whole is learning from shared experience; and that different solutions to similar problems are being recorded and exchanged. As a facilitator, the Secretariat will need to provide learning feedback so that areas of priority interest to the Parties can be identified.

15. A crucial component of the clearing-house mechanism's operational framework is that it is service-oriented. It must be able to link its meta-databases in order to respond to queries on topics relevant to the implementation of the Convention, pointing the users to the location of relevant information, and answering specific scientific and technical questions posed by users. By its interactive nature, the clearing-house mechanism will provide a means for exploring and identifying

topics and issues that will need to be addressed in future stages of the programme, and for identifying and disseminating multiple sources of information in an effective and decentralised way.

16. The process for gathering and organising the information that will feed into the clearing-house mechanism is itself decentralised, with active partners co-ordinating efforts amongst themselves and with the Secretariat to address topics of common interest. The contribution of each active partner will be included in the meta-databases of the clearing-house mechanism and will be made available to all users. In this way, updating the information in the system will not be the responsibility of any one institution, or of a programme officer in the Secretariat. It will be a decentralised activity, to be undertaken by the active partners, with the responsible programme staff at the Secretariat playing a role analogous to that of a "web manager" on the Internet.

17. The following section presents a number of proposals that have been developed in this initial stage of the pilot phase.

IV. CURRENT STATUS 18. The most important feature of the operational framework that has been agreed upon is the identification of three distinct components that constitute the conceptual basis of the activity programme of the pilot phase. These are:

- (i) *the organising and linking of information* relevant to the implementation of the Convention. This is an essential first step in linking scientific knowledge on biodiversity to the policy-making process. In general, information relevant to the implementation of the Convention remains dispersed around the world, often in a form that is only useful to experts in a particular field. This component will begin the process of facilitating access to the information, and will provide the means of identifying the real needs of the user community at the national level;
- (ii) *the visualisation of the information*, which will facilitate the integration of information from many disciplines and domains into formats useful to the design of strategies, plans and programmes relevant to the Convention. Possibly the greatest challenge of the pilot phase lies in making a complex body of information comprehensible by its illustration in visual formats that can best demonstrate the links between the different factors relevant to the objectives of the Convention;
- (iii) *the decision-support function*, which will consist of providing syntheses of global trends and priorities identified by the Parties and others from information provided in national reports, thematic assessments, studies on the regional distribution of the condition of the components of biological diversity, and other information. This component will need to be developed in close collaboration with those involved in country-level decision-making processes in order to assist the development of increased national capacity for the implementation of the strategies, plans and programmes relevant to the Convention.

19. Identifying these three components has helped, in turn, to identify the different types of activities relating to information needs for the implementation of the Convention. It highlights the fact that data gathering, although a valuable activity in itself, does not of itself lead directly to improvements in the development and implementation of the strategies, plans and programmes required under the Convention.

20. The implementation of the pilot phase during the period in question has therefore focused on activities that enhance the value of existing data and information by improving access to that information "on-line" and, in particular, by developing ways of visualising the data and information to make it more useful to those involved in the decision-making process.

V. THE CLEARING-HOUSE MECHANISM'S WORLD WIDE WEB HOMEPAGE

21. The first product of the pilot phase has been the clearing-house mechanism's World Wide Web homepage, which can be explored on the Web (URL: <http://www.istar.ca/biodiv/>). (It is important to emphasise that this in itself is not the clearing-house mechanism, which is more than an Internet homepage or a database stored on a computer. The purpose of the clearing-house mechanism is to develop a self-sustaining process of information exchange to promote and facilitate technical and scientific co-operation for the implementation of the three-fold objectives of the Convention.)

22. Even though the CHM Web page is different from the traditional tree-based information-providing structure, this feature is still part of the system, and certainly has a place as a viable solution for providing information that is more specifically defined within a certain discipline or topic. In addition to this feature, however, it was felt that there is a need for an interactive system that can go directly to the information that users consider useful, going through the minimum number of intermediate pages on the Web.

23. To achieve this, the CHM Web page needs to include a number of features that are already freely available, but that are not common on most Web pages. Such features include interactive, multiple-field search engines directly included in the page; a self-indexing feature (this feature will be explained and illustrated below); the capacity to post up-to-date documents and texts concerning current activities relevant to the Convention; a question and answer service whereby users can ask a voluntary panel of recognised experts questions on a range of topics identified by the partners themselves.

24. In addition to these features, the CHM Web page includes a number of the elements seen in conventional Web pages, such as links to existing CHM focal points in all the countries, links to relevant international organisations, conventions, sectorial focal points, regional focal points, other World Wide Web engines, and the CBD Secretariat.

25. Features of the *Interactive Services* component of the clearing-house mechanism Web page include:

- (i) The *Question and Answer* feature mentioned above. It is envisaged that this service will have a volunteer moderator, assisted by a group of experts from around the world for each of the topics and themes suggested by the active partners. Those using this service can pose questions to the moderator, who will answer them with the assistance of the team of experts. It is hoped that moderators will come forward on a voluntary basis, motivated by the opportunity for involvement in an international network of interested partners, with potential benefits for the development of research or collaborative links around the topic of discussion;
- (ii) The *On-line meta-databases* feature includes an up-to-date written information service, comprising "grey literature" relevant to the Convention, reports and documents arising out of Convention-related activities,

summaries of workshops, or calls for papers. Such written information can be made immediately available, providing an up-to-date information service for the Convention. The second service included in the on-line meta-database feature is the URL Internet Addresses service, which includes a self-indexing feature. This service indicates the Web addresses of useful sites identified by active partners, including the title, key words, summary, and author. The self-indexing feature is a sophisticated sorting system that can organise the records in the database according to user-defined criteria. Other meta-databases will be included in this feature, including the European Tropical Forest Project and Species 2000 databases, which have similar meta-database query capabilities.

26. The *Information exchange service* of the clearing-house mechanism Web page provides links to other relevant Web sites, including national, regional, international and sectorial organisations relevant to the implementation of the Convention. It is worth emphasising that responsibility for the accuracy and updating of the data and information found at any of these sites lies with the relevant institution. The clearing-house mechanism only provides a road-map to facilitate access to information and will not be in a position to verify the quality of the data.

27. The clearing-house mechanism Web page includes listings with links to recognised scientific and technical international organisations relevant to the CBD, regional centres or focal points, sectorial focal points, other conventions, other World Wide Web engines, and a link to the main Convention homepage.

28. The different features described above are not fixed or permanent components of the clearing-house mechanism Web page. These features have been included as part of the preliminary experimental phase of the clearing-house mechanism in order to provide good examples of how the service-oriented nature of the clearing-house mechanism Web page might be fulfilled. As innovative ideas arise, or in response to suggestions from the active partners on improvements to the service, these can and will be included. For this reason, one of the boxes has been left open, signalling to all users that this Web page will constantly be under construction. The same is also true for the items currently included under each section of the Web page. For example, as new organisations are identified, they will be added to the existing list of International Organisations or Sectorial Focal Points, and the appropriate link will be made to their Web page, if this exists, or to the appropriate e-mail address.

VI. ACTION PROGRAMME FOR THE NEXT 18 MONTHS OF THE CLEARING-HOUSE MECHANISM PILOT PHASE.

29. This Note has emphasised the service-oriented nature of the clearing-house mechanism and has described the agreed-upon operational framework for implementing the pilot phase of its establishment as a mechanism for promoting and facilitating technical and scientific co-operation.

30. The operational design has paid particular attention to the iterative process of establishing the clearing-house mechanism. In this sense, the pilot phase serves as a way of encouraging partners to contribute their creative resources in order to identify innovative ways of facilitating the exchange of scientific, technical and technological information. The role of the Secretariat in this process will be to provide the learning feedback in order to identify areas considered priorities by the Parties and to ensure the world-wide sharing of experiences in the implementation of the Convention.

a. Organising and linking relevant information

31. In order to implement paragraphs 4(g) and (h) of Decision II/3, it is hoped to organise six regional workshops as part of a pilot-phase process of user-driven development of the clearing-house mechanism. The organisation of these workshops depends upon securing the necessary funding, and details of dates and venues can only be finalised once this has happened. The workshops are intended to assist institutions of the Parties that do not have Internet access and will focus on identifying the key elements in a strategy for supporting clearing-house mechanism implementation needs in such countries.

32. In order to implement paragraphs 5(a)(i), (ii) and (iii) of Decision II/3, several active partners are exploring the possibility of contacting Web Promoters in order to compile a subset of new Convention-related Internet links and pointers. An agreement on the harmonisation of formats and key-words would facilitate both the input of information by active partners and the efficiency of search procedures for users. Guidelines for the usage of such agreed formats, and periodic updates, would then be provided to partners and users.

33. As part of the implementation of paragraphs 4(e), 5(a) and (b) of Decision II/3, the SBSTTA may wish to consider recommending the publication of a clearing-house mechanism newsletter. This could provide a vehicle for reporting on developments such as the creation of National Focal Points, on activities undertaken by the active partners, and for disseminating information on relevant topics, including technologies, methodologies and national experiences.

b. Visualisation of information

34. Active partners will be encouraged to explore options for information-dissemination systems able to present biodiversity information in ways capable of being comprehended by policy-makers, the media and the general public. This will need to focus on flexible methods of generating large-scale meta-information and its summarised expression in spreadsheets or other formats, as well as systems for generating maps at different scales and other visual forms of presenting data.

c. Decision-support functions

35. It is planned that an information service covering topics under consideration at meetings of the COP and of the SBSTTA will be included in the pilot phase. It is envisaged that, as topics are identified and programmed for consideration by the COP and the SBSTTA, active partners will compile subsets of specific pointers leading users to sources of information on that topic. A simple way to avoid duplication of effort would be to set up in the system a single pointer to the active partner responsible for the compilation.

36. With regard to the implementation of paragraph 5(a)(iii) of Decision II/3, the active partners are exploring ways of encouraging agencies and other institutions to use the clearing-house mechanism for promoting and facilitating the access to and transfer of relevant technologies, drawing upon well-developed methodologies used in long-distance learning.

37. Several active partners have proposed the development of an Internet-based training package as part of the implementation of paragraph 5(c) of Decision II/3. It is planned that the Secretariat will co-ordinate and assist the active partners in the development and evaluation of these training

materials, and report on the results at the third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice.

38. A logo has been developed for the clearing-house mechanism and its use will be encouraged. This will provide a distinct identity to all clearing-house mechanism activities and relevant information sources, and will assist in the easy identification of National Focal Points on the Internet. The Subsidiary Body on Scientific, Technical and Technological Advice may wish to consider recommending criteria for the use of the clearing-house mechanism logo.

VII. CONCLUSION

39. In taking note of this progress report, the SBSTTA may wish to provide further guidance on ways and means to implement Decision II/3 and on the preparation of the progress report referred to in paragraph 10 of Decision II/3.

40. In Decision II/3, the COP also decided to review the implementation of the pilot phase at its fourth meeting and requested the SBSTTA to provide scientific and technical advice (paragraph 11). The SBSTTA may therefore wish to consider the preparation of its advice for this second review in 1997.

41. The SBSTTA may also wish to consider how the clearing-house mechanism can contribute to supporting initiatives arising out of other matters under consideration at the present meeting