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Item 3.2 of the provisional agenda*

REPORTS: ASSESSMENT PROCESSES

Progress report on ongoing assessment processes

Note by the Executive Secretary

Executive summary

The present note, prepared in response to decision V/20 of the Conference of the Parties and recommendation VI/5 of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), describes the progress made by the Executive Secretary on the issue of scientific assessments.

(a) An assessment procedure has been developed and is being used. This procedure will be refined in light of experience with ongoing assessment processes, and guidance from SBSTTA would be welcomed in the further refinement of the procedure;

(b) Project briefs detailing the work to be undertaken by the Executive Secretary in initiating scientific assessment projects of relevance to the Convention have been developed for the following topics: Development of rapid assessment methods for biological diversity of inland water ecosystems, and marine and coastal biological diversity; and the development of assessments for evaluating the impacts of invasive alien species, and for interlinkages between biological diversity and climate change. SBSTTA may wish to endorse the project briefs contained in annex II;

(c) A list of ongoing and proposed assessments has also been prepared as an information document.

This document also reports on progress made by the following global assessment procedures: The Millennium Ecosystem Assessment (MA), the Global International Waters Assessment (GIWA), the FAO Global Forest Resources Assessment (FAO GFRA), FAO State of World's Plant and Animal Resources

* UNEP/CBD/SBSTTA/7/1.

(FAO SWPAR), the World Water Assessment Programme (WWAP), and the IUCN Red List of Threatened Species.

(a) The Millennium Assessment has held a technical design workshop and has undertaken consultation with the Convention on Biological Diversity. Four working groups have been established, and a second workshop is planned;

(b) The Global International Waters Assessment is due to commence assessments during 2001 and to disseminate results in 2003-2004. A memorandum of cooperation and a joint work programme with the Convention on Biological Diversity is being finalized;

(c) The FAO Global Forest Resources Assessment 2000 has been completed and was used by the Ad hoc technical expert group in forest biological diversity;

(d) The FAO State of World's Plant and Animal Resources will produce the second report on plant genetic resources in 2006-2007. The report on farm animal genetic diversity is underway, with publication expected in 2006;

(e) The World Water Assessment Programme will make the first volume of the World Water Development Report (WWDR) available during the 3rd World Water Forum in Kyoto from 8 to 23 March 2003;

(f) The most recent IUCN Red List of Threatened Species was completed in 2000. Taxonomic coverage of the list will be progressively increased in the coming years.

Suggested recommendations

The Subsidiary Body on Scientific, Technical and Technological Advice may wish to:

(a) Agree that the procedure outlined in annex I to this note, provides a sound basis for undertaking the approved assessments as steps towards furthering understanding of biodiversity, its value and its rates of loss, especially at ecosystem levels; biodiversity thresholds in relation to ecosystem functioning; and the effectiveness of measures to address biodiversity loss; and recommend that the Executive Secretary continue to develop this procedure, in particular to elaborate further the identification or development of criteria and indicators for the topics listed in paragraph (a) above;

(b) Endorse the project briefs contained in annex II below;

(c) Invite those participating in these assessments to keep the Subsidiary Body informed of their work, and further invite them to report to the Subsidiary Body at its eighth meeting;

(d) Welcome in particular the contribution that the assessments listed in section III of the present note have made to the work of the Subsidiary Body on Scientific, Technical and Technological Advice and the Convention;

(e) Request the Executive Secretary to report to the sixth meeting of the Conference of the Parties on the progress of pilot assessments, and in consultation with relevant organisations to identify any important assessment gaps in the work of the Convention and advise the Subsidiary Body on Scientific, Technical and Technological Advice at its eighth meeting on ways and means to address such gaps.

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I. INTRODUCTION

1. In paragraph 25 of its decision V/20, the Conference of the Parties recognized that there is a need to improve the quality of the scientific, technical and technological advice provided to it, and to undertake sound scientific and technical assessments, including in-depth assessments of the state of knowledge on issues critical for the implementation of the Convention on Biological Diversity. In paragraph 29 (a) of the same decision, the Conference of the Parties requested the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to identify, and where needed, further develop procedures and methods to undertake or participate in scientific assessments, or make use of existing ones.

2. In response to this decision, SBSTTA, at its sixth meeting, adopted recommendation VI/5, on the development of methodologies and identification of pilot studies for scientific assessments. This recommendation provides for, *inter alia*, the furthering of scientific assessments, methods and procedures as part of the work of the Convention.

3. The present note addresses the implementation of those provisions. Section II reports on the progress made by the Executive Secretary on activities relating to scientific assessments. These activities include the development of an assessment procedure, the development of project briefs for initiating assessments within the various thematic areas and cross-cutting issues of the Convention, as well as the development and maintenance of a list of assessments. Section III reports on the progress made by major external global assessment programmes of relevance to the Convention.

II. PROGRESS REPORTS ON WORK UNDERTAKEN BY THE EXECUTIVE SECRETARY

A. *Development of an assessment procedure*

4. Annex I to the present note sets out the main points of the procedure being used for assessment processes and mechanisms undertaken as part of the work of the Convention. This procedure draws on several elements of recommendation VI/5, including paragraph 1, where SBSTTA outlined a number of principles to which scientific assessment processes should adhere, and paragraph 9, by which it agreed to improve the scientific assessment processes under the Convention, with regard to the selection of experts, peer review, and approval of findings. The procedure also draws upon the report of the Brainstorming Meeting on Scientific Assessment, held in Oslo from 17 to 19 November 1999 (UNEP/CBD/SBSTTA/6/9/Add.1), as agreed by SBSTTA in paragraph 9 (c) of recommendation VI/5.

5. It should also be noted that determining the best procedure for undertaking assessments for the Convention is still in progress. The broad mandate contained in decision V/20, paragraphs 25-29, sets the framework for undertaking various pilot assessments. By recommendation VI/5 SBSTTA launched several different types of assessments, the project briefs of which are described in annex II and discussed in section B below. Each type of assessment can be considered as a case-study for developing and refining the best procedures to undertake assessments. This work is being undertaken during the period between the sixth and ninth meetings of SBSTTA. At present time, only one of these assessments, the work of the Ad Hoc Technical Expert Group on Forest Biological Diversity, is close to completion. Based on this experience, the broad outline for a recommended procedure, presented in annex I, was developed. The remainder of the pilot assessments will be completed in time for the eighth and ninth meetings of SBSTTA, expected to take place late in 2002 or in 2003. At that time, the procedure can be further refined, based on the pilot project experiences.

6. In paragraph 5 of recommendation VI/5, SBSTTA notes that there is insufficient understanding of biodiversity, its value and its rates of loss, of biodiversity thresholds in relation to ecosystem functioning, and the effectiveness of measures to address biodiversity loss. SBSTTA further agreed to develop a programme to address progressively these topics and reduce the degree of uncertainty associated with them, and to include the identification or development of criteria and indicators of these topics in assessment processes, as appropriate. In this context, SBSTTA may wish to take account of the note by the Executive Secretary on indicators (UNEP/CBD/SBSTTA/7/12). It should also be noted that all the various assessments undertaken as part of the work of the Convention, both those implemented by the Executive Secretary, and those initiated by other organizations and agencies contribute towards this common goal. Guidance is requested from SBSTTA in ensuring that each Convention-related assessment progressively enhances our overall understanding of biodiversity, as outlined in paragraph 5, and that new assessments are planned or ongoing assessments amended as necessary to address gaps in our knowledge of biodiversity.

B. Development of project briefs

7. In paragraphs 6 and 8 of recommendation VI/5, SBSTTA requested the Executive Secretary to initiate pilot projects, drawing on briefs in annex III of UNEP/CBD/SBSTTA/6/9 as appropriate, on the following issues: assessment of forest biological diversity, impacts of invasive alien species, and the interlinkages between biological diversity and climate change; and development of rapid assessment methods relating to inland water ecosystems, and marine and coastal biological diversity. Paragraph 4 further noted the value of well-targeted rapid assessments to address urgent and emerging issues.

8. In response to SBSTTA recommendation VI/5 and to paragraph 29 (b) of decision V/20, the Executive Secretary has developed project briefs detailing the objectives, rationale, specific tasks, time-frames and expected outputs of a few pilot projects. The project briefs address the initiation of the assessments mentioned in paragraph 6 (a)-(e) of recommendations VI/5 and may be found are contained in annex II below. The assessment of forest biological diversity has been conducted through the Ad Hoc Technical Expert Group on Forest Biological Diversity, as decided in paragraph 6 (a) of recommendation VI/5, and the results are incorporated into the documentation prepared under item 4 of the provisional agenda for the seventh meeting of SBSTTA.

9. In addition, the Executive Secretary is preparing for the work of the ad hoc technical expert groups on marine and coastal protected areas, mariculture and climate change, which will also contribute to the scientific assessment needs of the Convention.

C. Progress report on development of a list of ongoing and proposed assessments

10. In response to paragraph 11 of recommendation VI/5, in which SBSTTA requested the Executive Secretary to develop and maintain a list of ongoing and proposed assessments within the various thematic programmes and cross-cutting areas under the Convention, an information document on the subject will be made available to SBSTTA at its seventh meeting.

III. PROGRESS REPORTS ON WORK UNDERTAKEN AS PART OF GLOBAL ASSESSMENT PROCESSES

11. In paragraph 2 of recommendation VI/5, SBSTTA also noted the usefulness of ongoing and planned assessment processes. This section reports on progress made in these global assessment processes, including the Millennium Ecosystem Assessment, and on progress made by the Executive Secretary in developing collaboration with these processes.

A. *The Millennium Ecosystem Assessment*

12. The Millennium Ecosystem Assessment, launched in June 2001, is designed to address both the social-sciences and natural-science aspects of the impact of ecosystem change on people. The Assessment will be undertaken at multiple scales. It consists of a global assessment as well as ten assessments of conditions and change in ecosystems in individual communities, nations and regions. The Millennium Ecosystem Assessment will be carried out through expert working groups focused on (a) conditions: providing baseline information on the geographic extend of different ecosystems, including terrestrial, freshwater, and marine, and the patterns of use associated with them (b) scenarios: presenting a range of plausible scenarios for how the quantity and quality of ecosystem goods and services may change in coming decades in different regions of the world and how this will affect human health and economic development, (c) response options, identifying policy, institutional, legislative or technological changes that could improve the management of ecosystems, and (d) sub-global assessments: involving a set of ten assessments at local, national and regional scales; each will examine conditions, scenarios, and response options. A primary audience for the global findings of the Millennium Assessment will be the parties to the ecosystem-related conventions. A summary for policymakers will be prepared for these conventions, approved by the Millennium Assessment Board, of which the Executive Secretary and the Chair of SBSTTA are members, and then submitted to the conventions' scientific bodies.

13. In line with paragraph 7 of SBSTTA recommendation VI/5, the Executive Secretary invited the secretariat of the Millennium Assessment to contribute to the work of the Convention and to ensure that biological diversity concerns are addressed by the Assessment. In response to this invitation, the Assessment secretariat initiated a consultation process between the Assessment co-chairs and the Secretariat of the Convention, as well as with experts involved in work of SBSTTA, to obtain guidance on the focus of the Assessment. The Secretariat of the Millennium Assessment in collaboration with the Secretariat of the Convention on Biological Diversity are preparing an information document containing a short Millennium Assessment progress report and a work plan, which outlines potential Millennium Assessment interactions with SBSTTA.

14. The secretariat of the Millennium Assessment held the first technical design workshop in Bilthoven, the Netherlands, from 8 to 10 April 2001, and a second such workshop will be held in Cape Town, South Africa, from 8 to 11 October 2001.

15. Participants in the first design workshop reviewed and revised the Millennium Assessment conceptual framework, identified a set of activities to be undertaken during the design process, and core synthesis questions for the Millennium Assessment. They then began to develop outlines for each working group. At the second workshop, participants will help to design the detailed outlines and specific work plans for each of the four working groups for the Assessment. Further information is available on the Millennium Assessment website at <http://www.millenniumassessment.org>.

B. *The Global International Waters Assessment (GIWA)*

16. The Global International Waters Assessment (GIWA) is currently in the process of implementing its scoping and scaling phase, which will lead to the assessment of socio-economic and ecological issues in 66 sub-regions around the world. Most of these assessments will be carried out during 2001. In the next phase, the GIWA subregions will go through a "scenarios and policy options' exercise, which will provide a framework for management decisions, including possible remedial and mitigatory actions. Regular updates and further information are available on the GIWA website at <http://www.giwa.net/>.

17. The Executive Secretary is currently finalizing a memorandum of cooperation and a joint work plan with GIWA. The Executive Secretary will provide assistance to GIWA in development of methodology, and provide input as appropriate throughout the assessment process, particularly in ensuring that biodiversity concerns are adequately included. Input will be provided based on both the marine and coastal and inland waters biological diversity programmes of work, and may include policy and legal input, if required. The Convention Secretariat will assist in dissemination of the results through meetings of SBSTTA and the Conference of the Parties, and through the clearing-house mechanism.

18. The expected results of the collaboration between the Convention on Biological Diversity and GIWA include increased capability of Parties to use monitoring programmes and indicators relating to the marine and inland waters ecosystems; a set of indicators and data on biological diversity included in the GIWA methodological protocol; and input and review within the Convention on Biological Diversity of relevant sections in GIWA products. The indicator set could significantly contribute to the marine and coastal and inland waters biological diversity programmes of work under the Convention, including the development of rapid assessment methods. Dissemination of assessment results is expected to take place in 2003-2004. Progress will be reported on at the eighth meeting of SBSTTA.

C. The FAO Global Forest Resources Assessment

19. The results of the FAO Global Forest Resources Assessment 2000 (FRA 2000) were released in January 2001 and are available at <http://www.fao.org/forestry/fo/fra/index.jsp>. The final report is in press at the time of development of this document. The Global Forests Resources Assessment collected, analysed and compiled a large amount of information on the status and change in forest cover world-wide, on forest management, and on additional forest-related variables. The synthesis was based on existing forest inventory data, and on a satellite remote sensing study to analyse changes in forest cover. The Assessment also provided important findings on the status of forest inventories and other information needed for policy-making and forest-management decisions that underpin countries' efforts to work towards sustainable forest management.

20. The results of the Forest Resources Assessment, including country profiles, synthesis reports and the maps of global forest cover and global ecological zones, were used by the Ad Hoc Technical Expert Group on Forest Biological Diversity, which was established by the Conference of the Parties at its fifth meeting and will be reporting to SBSTTA at its seventh meeting (see UNEP/CBD/SBSTTA/7/6).

D. FAO State of World's Plant and Animal Resources

21. The Twenty-sixth session of the FAO Conference in 1991, and Agenda 21 of the United Nations Conference on Environment and Development (UNCED) in 1992, called for the development of periodic reviews on the State of the World's Plant Genetic Resources for Food and Agriculture (PGRFA). The first report on the State of the World's Plant Genetic Resources was published in 1996, and is accessible through the FAO web site at http://web.icppgr.fao.org/wrlmap_e.htm. The publication of the second report will take place during 2006 or 2007.

22. The report on the State of the World's Farm Animal Genetic Resources is under preparation by the FAO, under the guidance of its Commission on Genetic Resources for Food and Agriculture (CGRFA). Publication is expected during 2006. The purpose of the report is to collect information from countries on the state of understanding, use, development and conservation of animal genetic resources; of country interdependencies for animal genetic resources and of the state of countries' capacities to effectively manage these resources. This information will lay the foundations for the development of sound and cost-effective plans of action, as part of the Global Strategy for the Management of Farm

Animal Genetic Resources. The work will also serve to promote increased awareness of farm animal genetic resources.

23. The first element of the programme of work on agricultural biodiversity under the Convention on Biological Diversity, on assessments, specifically supports the planned preparation of the report on the state of the world's plant and animal genetic resources for food and agriculture, as an example of ongoing or planned assessments of the different components of agricultural biodiversity, which will lead progressively to a comprehensive assessment and understanding of agricultural biodiversity by 2010.

E. World Water Assessment Programme (WWAP)

24. The World Water Assessment Programme (WWAP), which was launched at the second World Water Forum, held in The Hague 17-22 March 2000, focuses on assessing the developing situation as regards freshwater throughout the world. The primary output of the WWAP is the biennial World Water Development Report (WWDR). The initiative was endorsed by the Ministerial Conference that was held in conjunction with the second World Water Forum. In the following months, this initiative, led by the United Nations Educational, Scientific and Cultural Organization (UNESCO) has received official endorsement by the 23 agencies comprising the Administrative Committee on Coordination/Sub-Committee on Water Resources (ACC/SWR). The Secretariat for the WWAP has been established and is housed within UNESCO.

25. WWDR will be a periodic review, continuously updated, designed to give an authoritative picture of the state of the world's freshwater resources and our stewardship of them. The WWDR will contain indicators and analyses that will identify and diagnose: (a) basic needs, current uses and demands for water and the challenges of extreme events; (b) the broad organizational and socio-economic context of water resource utilization; (c) current problems and emerging threats to the resource base; and (d) approaches to sustainable development, management and use of freshwater resources including the very important issues of conflict resolution and mitigation. The Report will focus on case studies from around the world to illustrate both the problems related to water and the solutions to management dilemmas. A policy overview and global synopsis will be presented at the World Summit on Sustainable Development in Johannesburg in 2002 and the first volume of the WWDR will be available during the 3rd World Water Forum, in Kyoto from 8 to 23 March 2003. More information will be available at CBD website at: <http://www.biodiv.org/areas/water/links.asp>.

26. The CBD Secretariat as a member of the ACC/SWR participated in the Synthesis meeting held in Tokyo, 4-6 April 2001. Participants in this meeting reviewed the WWAP inputs to the World Summit on Sustainable Development and the third World Water Forum; the structure of the WWDR; and case studies which should be included in the first volume of the WWDR. ACC/SWR member agencies held a meeting on 5 April 2001 at the United Nations University in Tokyo after the WWAP Synthesis meeting and discussed the arrangement between the member agencies for coordination of the WWDR Chapters for volume I of the WWDR. The Secretariat of the Convention on Biological Diversity is among the review agencies for themes on protecting ecosystems and managing risks and also among reviewers of indicators for in-stream activities (navigation, fisheries, recreation, etc.), ecosystem coping capacity and ground water resources.

F. The IUCN Red List of Threatened Species

27. The IUCN Red List of Threatened Species provides taxonomic, conservation status and distribution information on taxa that have been evaluated using the 1994 IUCN Red List categories. The main purpose of the IUCN Red List is to catalogue and highlight those taxa that are facing a higher risk of

global extinction (i.e. those listed as “critically endangered”, “endangered” and “vulnerable”). The IUCN Red List also includes information on taxa that are categorized as extinct or extinct in the wild; on taxa that cannot be evaluated because of insufficient information (i.e., are data deficient); and on “lower risk” taxa that are either close to meeting the threatened thresholds or that would be threatened were it not for an ongoing taxon-specific conservation programme. The list of threatened taxa is maintained in a searchable database by the Species Survival Commission (SSC) Red List Programme. IUCN Red Lists are considered important tools for the incorporation of biodiversity considerations in environmental impact assessment and strategic environmental assessment procedures (UNEP/CBD/SBSTTA/7/13). The IUCN 2000 Red List is the most recent version of the list.

28. In order to develop the biodiversity indices from the IUCN Red List, taxonomic coverage of the list will be expanded in the future to include:

- (a) Amphibians by 2001 (approximately 5,000 species to be assessed);
- (b) Reptiles by 2002 (approximately 8,000 species);
- (c) Freshwater fish by 2003 (approximately 10,000 species);
- (d) Sharks, rays and chimaeras by 2003 (approximately 1,000 species); and
- (e) Freshwater molluscs by 2003 (approximately 5,000 species).

29. More information, including a searchable database of species conservation status, can be found at <http://www.redlist.org/>.

*Annex I***THE ASSESSMENT PROCEDURE**

1. The following two different types of assessments can be considered to meet the needs of the Convention:

(a) An assessment process undertaken by an ad hoc technical expert group, liaison group, or similar expert group; or

(b) An “external” assessment undertaken by another organisation or agency, for example the Millennium Ecosystem Assessment, the Global International Waters Assessment, or the FAO Global Forest Resources Assessment 2000.

2. The assessment procedure discussed here relates to the first type of assessment, that undertaken by an expert group, and is initiated by a decision of the Conference of the Parties or by SBSTTA within a mandate provided by a decision of the Conference of the Parties. Such assessments may be free-standing or part of a thematic programme of work or cross-cutting issue. The following steps would be taken as part of the assessment process:

(a) Following the decision to undertake an assessment, SBSTTA will determine the terms of reference for the expert group;

(b) The expert group is established. Parties and other Governments are asked to nominate experts to the group. Experts already listed in the Convention’s roster of experts may be drawn upon. The expert group will be selected with due regard to regional balance, scientific skills, biogeographic balance, gender balance, and with regard to the special conditions of least-developed countries and small island developing states, in accordance with section VI of the *modus operandi* of SBSTTA (decision IV/16, annex I);

(c) The Secretariat will prepare background documentation for the expert group. Ideally, the expert group will meet at least twice. The first meeting of the group will review the background documentation, discuss the substantive issues, define the scope of the work within the terms of reference, and set a schedule for the inter-sessional work;

(d) During the inter-sessional period, the lead authors selected by the group will write and develop chapters of the report. The draft chapters will be circulated for comments.

(e) The second meeting of the expert group will agree on steps to finalize the chapters, and prepare a summary for policy makers;

(f) Following the meeting, the report will be edited, and a first draft sent for review by technical experts and Convention focal points. At the same time, the draft will be posted on the Secretariat’s website for comments by stakeholders. Upon receipt of comments, the lead authors will produce a final report;

(g) The final report will be distributed to SBSTTA as an information document, while the summary for policy makers will be distributed as a SBSTTA working document. SBSTTA will consider the summary for policy makers for endorsement. In some cases, the expert group may also prepare recommendations for policies and actions.

(h) The reports from the assessment may be reviewed by SBSTTA prior to consideration by the Conference of the Parties for endorsement or action. This process would close the loop between the governmental authorizing environment for the assessment process, the scientific independence, and the ownership, endorsement and political commitment to the findings of the assessment.

*Annex II***PROJECT BRIEFS OF PILOT ASSESSMENTS***A. Development of methods**1. Development of rapid assessment methods for biological diversity of inland water ecosystems****Objective***

To evaluate the existing methods for rapid assessment of biological diversity of inland waters on the level of ecosystem and species and prepare guidance for application of existing methods.

Background/rationale

The Executive Secretary in his note on ways and means to implement the programme of work on inland water biological diversity, prepared for the fifth meeting of SBSTTA (UNEP/CBD/SBSTTA/5/6), specified that rapid assessment is needed when threats require urgent actions and as a tool for policy makers. He further indicated that although rapid assessment methodologies do not provide as much information as would a thorough survey, they remain useful tools for providing an overview of the biological diversity in a region.

In its decision IV/4, approving the programme of work on biological diversity of inland water ecosystems, the Conference of the Parties requested SBSTTA to develop and disseminate regional guidelines for rapid assessment of inland water biological diversity for different types of inland water ecosystems, in cooperation with relevant organizations, Governments and Parties and building upon the ongoing efforts in inland water ecosystem conservation. At its fourth meeting, the Conference of the Parties requested the Executive Secretary and SBSTTA, in the development of rapid assessment methodologies, to pay special attention to early cooperation with small island States, and States suffering from ecological disasters.

In its recommendation VI/2, SBSTTA noted the need to facilitate the progress in preparation of guidelines for rapid assessment methodologies of the biological diversity of inland water ecosystems, paying special attention to early cooperation with small island developing States. In recommendation VI/5, SBSTTA decided to initiate assessments on a number of priority issues including development of rapid assessment methods for the biodiversity of inland water ecosystems, in cooperation with the Ramsar Convention on Wetlands.

The following is an outline of the activities that the Secretariat is proposing in response to SBSTTA recommendation VI/5 and the programme of work on the biological diversity of inland water ecosystems.

Outputs

1. A compilation of existing methods for rapid assessment of biological diversity of different types of inland water ecosystems.
2. Guidelines for application of existing rapid assessment methods for evaluation and assessment of inland water ecosystems.

3. Possible recommendations for development of new rapid assessment methods.

Activities and time-frame

1. *Preparation of the first draft of the paper compiling existing methods for rapid assessment of biological diversity of different types of inland water ecosystems, analysis of these methods and first draft of the guidance for application of these methods. (8 months).* The following specific activities will be carried out:
 - (a) Preparation of an inventory of existing assessment methods used in on-going and planned assessment projects and develop, based on the inventory, a list of those assessment methods that are rapid and relevant;
 - (b) Drafting of guidelines for the application of these methods based on a comparative study of those methods, to assist Parties in selecting a particular method or a combination of methods taking into account the purpose of the assessment, management needs and available resources;
 - (c) Identification of possible gaps in the capabilities of existing methods to rapidly assess the status and trends of biological diversity of inland water ecosystems;
 - (d) Drafting of recommendations for the development of new rapid assessment methods, where gaps are identified.

The paper on existing methods and evaluation of the methods for rapid assessment of biological diversity of different types of inland water ecosystems will be drafted by the Secretariat in collaboration with the Secretariat of the Ramsar Convention. Conservation International will be invited to develop the first draft of the guidelines for methods. Input in development of the guidelines will be sought from experts in this field, and ongoing and planned assessment programmes, such as the Global International Waters Assessment (GIWA) and Global Water Assessment Programme (GWAP), the Millennium Ecosystem Assessment (MA) and other relevant international, regional and national organisations particularly those active in the small island States.

2. *Preparation and convening of a liaison group meeting (2 months).* The Convention Secretariat and the Secretariat of the Ramsar Convention will convene a meeting of a liaison group. The liaison group will review the paper on existing methods and the draft guidelines for application of these methods..
3. *Finalization of document (2 months).* The document containing methods, selected and revised by the liaison group, and guidelines for application of these methods will be finalized. The document will be peer-reviewed prior to finalization.
4. *Consideration by SBSTTA at its eighth meeting.* At its eighth meeting, SBSTTA will consider the methods for rapid assessment of biological diversity of inland water ecosystems and the guidelines for their application, and possible recommendations for development of new rapid assessment methods. The final document on existing methods and guidelines will be disseminated as an information document or in the Technical Series of publications produced by the Secretariat.

2. *Development of rapid assessment methods for marine and coastal biological diversity*

Objectives

The objective of this pilot project is to evaluate whether existing rapid assessment methods can provide sufficient information about marine and coastal biological diversity on the level of ecosystems, habitats and species. Guidance for the application of existing ecosystem evaluation and assessment methods will be drafted, and recommendations for the development of new methods to address gap areas provided.

Background and rationale

At its sixth meeting, SBSTTA requested the Executive Secretary to initiate the development of rapid assessment methods for marine and coastal biological diversity, in particular ecosystem evaluation and assessment (UNEP/CBD/COP/6/3). In order to avoid duplication, the development of new rapid assessment methods should only be initiated after a comprehensive inventory and review of existing methods. Through this process, gaps in the ability of the currently available methods to assess marine and coastal biological diversity and to meet the needs of managers and policy makers can be evaluated. The need for further action, including the development of new methods, can subsequently be determined.

Any new methods designed to rapidly assess marine and coastal biological diversity should meet a number of criteria. A given assessment protocol needs to be standardized for comparability of results. The protocol should be such that it can be applied to a large number of ecosystems, habitats or species in a consistent, time efficient manner. The protocol needs to be based on scientific principles, and will need to provide information on the presence, composition and distribution of biological diversity, and the contribution of the biological diversity to ecosystem structure and functioning. The information needs to be presented in a manner that can guide management actions and policy decisions in integrated marine and coastal area management. In designing rapid assessment methodologies, consideration should be given to information needs on local, national, regional and global scales. Ideally, rapid assessment methodologies are cost-effective and their application contributes to capacity-building and to scientific cooperation.

The following specific activities will be undertaken:

(a) Preparation of an inventory of existing assessment methods used in on-going and planned assessment projects, such as the Global International Waters Assessment, the Global Coral Reef Monitoring Network, the Ad Hoc Benthic Indicator Group of the Intergovernmental Oceanographic Commission, and others. In order to make the inventory as complete as possible, input from experts will be sought by electronic means. Conclusions of the ad hoc technical expert groups on marine and coastal protected areas and on mariculture will be utilized as appropriate;

(b) Development, based on the inventory, of a list of those assessment methods that are truly rapid. The list will consider rapid assessments on the level of ecosystems, habitats, species and genes. The main focus of the inventory will be on ecosystem assessment;

(c) Identification of possible gaps in the capabilities of existing methods to rapidly assess the status of marine and coastal biological diversity;

(d) Drafting of recommendations for the development of new rapid assessment methods, where gaps are identified. Development of any methods will be considered in collaboration with existing assessment processes and qualified agencies or institutions. It is also important that the new

methodologies be tested, that they provide data to answer policy-relevant questions, and opportunities for cooperative ventures and capacity-building;

(e) Development, as a final step in the process, of guidelines for the application of existing rapid assessment methods for ecosystem evaluation and assessment. Guidance will include the resources required (time, financial considerations, institutional and human resources considerations), the suitability of a particular method for addressing the data needs of a management application, and other relevant factors. Such guidance will assist Parties, other Governments, and interested organizations in selecting a particular method or a combination of methods based on their biodiversity assessment needs and available resources. Input in guideline development will be sought from a liaison group or through informal consultation. Peer review will be undertaken prior to finalizing the guidelines.

Outputs

1. An inventory of existing assessment methods.
2. Guidance for the use of existing rapid assessment methods for ecosystem evaluation and assessment.
3. Possible recommendations for development of new rapid assessment methods.

Activities and timeframe

1. Inventory of assessment methods (7 months).
2. Identification and compilation of rapid assessment methods (3 months).
3. Convening of a liaison group meeting or an informal consultation in order to assist in (2 months):
 - (a) Identification of gaps;
 - (b) Drafting of recommendation for the development of new methods;
 - (c) Preparation of guidance for application of existing methods.
4. Development of guidance and possible recommendations (4 months).
5. Peer review (1 month).
6. Finalization of documents (prior to the eighth meeting of SBSTTA) and dissemination as an information document or a volume in the Technical Series of publications produced by the Secretariat.

B. Assessments

1. Evaluating the impacts of invasive alien species

Objectives

Prepare an ecosystem-approach assessment of the impacts of invasive alien species, supplanting existing anecdotal evidence and specific studies. The project will also contribute to the development of risk assessment and management methods, by identifying key threats and their most important impacts.

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Rationale and background

At its sixth meeting, SBSTTA, in paragraph 6 (d) of its recommendation VI/5, called for scientific assessment of the impact of invasive alien species that should be based on existing knowledge and address knowledge gaps, and be management- and/or policy-oriented. It should contribute to capacity-building and enhancement of institutions, promoting scientific cooperation, education and public awareness.

Invasive alien species poses serious threats to biodiversity, sustainable development and environmental conservation. Awareness of the severity of invasive alien species problems remains poor in many countries. A growing number of case studies illustrate the severity of particular invasive species problems. However, this kind of information remains largely anecdotal and site- or species-specific. Governments require a better understanding of the invasive alien species problem as it affects, or may affect, important ecosystems and human activity.

To provide this information, it is planned to select ecosystems, including geographically and evolutionarily isolated ecosystems, where there exist a number of case-studies from different continents and islands that detail the ecological, social and/or economic impact of invasive alien species. The analysis of these studies will identify major invasive alien species threats to the ecosystem and the nature and scale of potential impacts. The product will be a global impression of the ecological, social and economic impacts, existing and potential, posed by key invasive alien species groups to specific ecosystems, their patterns and relative magnitude, and their relation to other environmental processes affecting those ecosystems.

The thematic areas selected for this initial study are: biodiversity of dry and sub-humid lands, biodiversity of inland water ecosystems and forest biodiversity. The study will focus on specific biomes/habitats/ecosystems depending on availability of data. The impact of invasive alien species on marine and coastal biodiversity and agricultural biodiversity will be considered if resources become available. For dry and sub-humid lands, there is quantitative information from Africa, North America and other continents on the impact of alien trees and herbaceous plants on biodiversity, water resources and associated human activities, which can serve as a basis for analysis. For inland waters, detailed studies, sufficient to serve as a basis for analysis, exist from several continents on the impact of alien water weeds (e.g., the water hyacinth), fish and invertebrates (e.g., zebra mussels). Quantitative information on biodiversity and socio-economic impacts of invasive alien species in forests is more limited, with the exception of a few countries (e.g., India and some small island developing States), but the focus of the seventh meeting of SBSTTA on forest biodiversity makes an effort in this area desirable.

Output

Three reports addressing actual and potential biological and socio-economic impacts of invasive alien species in each of the following thematic areas: dry and sub-humid lands; inland water, and forest biological diversity.

Activities and timeframe

1. Identify for specific ecosystems/habitats within each of the thematic areas, with particular attention to small islands, key invasive groups from existing literature. Assemble case studies on these groups, which give data on ecological, social and economic impact. General conclusions will be drawn about the nature and scale of impact of these invasive alien species groups. (4 months).

2. Organize inputs from ecologists and economists to extend these conclusions to ecosystem-wide and inter-continental scales, with particular attention to other processes affecting these ecosystems and their interaction with invasive alien species. In forestry, for example, invasive alien species will not only have important impacts on biodiversity, productivity and nutrient cycling in forests, but may affect other current processes affecting forests, such as deforestation, reforestation and international trends in social and agroforestry, which will need inclusion in impact assessment. (2-3 months).
3. Preparation of a report on each of the areas studied. (2–3 months).
4. Organize a peer-review process and finalize a consolidated report. (2 –3 months).
5. Finalize reports and prepare summaries for policy makers (2 –3 months).

Partners

It is planned to request the Global Invasive Species Programme (GISP) to be the lead partner on this project to take advantage of its network of experts and databases. Collaboration will be sought with the research centres of the Consultative Group on International Agricultural Research (CGIAR) for impacts on agricultural biodiversity and, in particular, with the International Maritime Organisation (IMO) for assessment of impacts of invasive alien species on marine and coastal biodiversity.

2. *Assessment of the interlinkages between biological diversity and climate change*

Objective

To prepare scientific advice to integrate biodiversity considerations into the implementation of the United Nations Framework Convention on Climate Change and its Kyoto Protocol.

Background/rationale

At its fifth meeting, the Conference of the Parties to the Convention requested SBSTTA to consider the impact of climate change on forest biological diversity, and to prepare scientific advice in order to integrate biodiversity considerations, including biodiversity conservation, into the implementation of the United Nations Framework Convention on Climate Change and its Kyoto Protocol. This was to be carried out, where appropriate and feasible, in collaboration with the appropriate bodies of the climate change convention and the Intergovernmental Panel on Climate Change (IPCC).

In response to this request, SBSTTA, at its sixth meeting, in its recommendation VI/7, noted the interlinkages between biological diversity and climate change, and decided to promote, on the basis of the ecosystem approach, a wider assessment of these inter-linkages. As a first step in this wider assessment, SBSTTA decided to carry out a pilot assessment to prepare scientific advice to integrate biodiversity considerations into the implementation of the Framework Convention on Climate Change and its Kyoto Protocol and, for this purpose, established, an ad hoc technical expert group in accordance with its *modus operandi*.

Outputs (based on the terms of reference adopted by SBSTTA)

1. An assessment of the relevant inter-linkages between biological diversity and climate change, in the context of the ecosystem approach, including:
 - (a) An analysis of the possible adverse effects on biological diversity of measures that might be taken or are being considered under the UNFCCC and its Kyoto Protocol;
 - (b) Identification of factors that influence biodiversity's capacity to mitigate climate change and contribute to adaptation and the likely effects of climate change on that capacity;
 - (c) Identification of options for future work on climate change that also contribute to the conservation and sustainable use of biological diversity.
2. Recommendations based upon a review of possible approaches and tools such as criteria and indicators, to facilitate application of scientific advice for the integration of biodiversity considerations into the implementation of measures that might be taken under the United Nations Framework Convention on Climate Change and its Kyoto Protocol to mitigate or adapt to climate change.

Activities and time-frame

1. Initial preparations (April–May 2001)
2. Establishment of the expert group (June–August 2001)
3. Preparation for the first meeting (August–October 2001)
 - * Draft of IPCC technical paper available for review
4. First meeting of expert group: scoping of the report (suggested dates: 26–30 November 2001)
5. Inter-sessional work: drafting of the report (December 2001–April 2002)
 - * Final IPCC technical paper available
6. Second meeting of expert group: finalization of the draft report (suggested dates: 6-10 May 2002)
7. Review of draft report by national focal points, technical experts and stakeholders:
 - * Joint Convention on Biological Diversity/United Nations Framework Convention on Climate Change workshop (tentative dates: June 2002)
 - (a) Provide inputs to the work of the expert group;
 - (b) Discuss a joint programme of work between the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change.
8. Finalization of the report of the expert group (May – September, 2002)

9. Approval and distribution of the final report (November 2002 or later, depending on date of SBSTTA):
 - (a) Consideration and approval by SBSTTA of summary for policy makers;
 - (b) Dissemination of the final report and the summary for policy makers, and submission of summary for policymakers to the Conference of the Parties at its seventh meeting.
