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ASSESSMENT PROCESSES

Progress report on ongoing assessment processes

Note by the Executive Secretary

Executive summary

The present note has been prepared in response to decision V/20 of the Conference of the Parties to the Convention on Biological Diversity, in which the Conference of the Parties requested the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to undertake a limited number of scientific assessment projects and invited relevant bodies to work together with the Subsidiary Body in this area. The note describes the scope, expected outputs, approaches, methodology and the progress made by the three major scientific assessment activities of relevance to the Convention on Biological Diversity: the Millennium Ecosystem Assessment; the Global International Waters Assessment (GIWA); and the Forest Resources Assessment 2000. It briefly highlights the opportunities for collaboration with the Millennium Ecosystem Assessment and also identifies some other assessments relevant to the work of the Convention.

Suggested recommendations

The Subsidiary Body on Scientific, Technical and Technological Advice may wish to take note of the progress report on ongoing assessments of relevance to the Convention on Biological Diversity, including, in particular, the Millennium Ecosystem Assessment; the Global International Waters Assessment (GIWA); and the Forest Resources Assessment 2000, bearing in mind that the substantive discussions on the subject are to take place under item 5.1 of the provisional agenda (Scientific assessments).

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* UNEP/CBD/SBSTTA/6/1.

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CONTENTS

I. INTRODUCTION

1. At its fifth meeting, the Conference of the Parties decided, in paragraph 27 of its decision V/20 that "in its scientific, technical and technological work and, in particular, scientific assessments, the Convention should make use of existing programmes and activities of the Convention or of other bodies and of expertise made available by Parties". By paragraph 29 (a) of the same decision, the Conference of the Parties requested SBSTTA "to identify and, where needed, further develop, procedures and methods to undertake or participate in scientific assessments, or make use of existing ones, taking into account considerations of participation, effectiveness and costs".

2. More specifically, in paragraph 10 of its decision V/21, the Conference of the Parties requested the Subsidiary Body on Scientific, Technical and Technological Advice to identify opportunities for collaboration with the Millennium Ecosystem Assessment in contributing to the assessment needs of the Convention, in particular through the pilot scientific assessment projects referred to in paragraph 29 (b) of decision V/20.*

3. The purpose of the present note is report on the current status of ongoing and planned scientific assessment initiatives that will significantly contribute to the assessment needs of the Convention and to consider the opportunities for collaboration with the Millennium Ecosystem Assessment, which will be launched during the first half of 2001. The document is not intended to give an exhaustive list of all ongoing and planned assessments. Rather, the Executive Secretary has invited three major assessment initiatives to report** in some detail on the scope, planned outputs and approaches to enable SBSTTA to identify opportunities for collaboration with these initiatives (to respond to the assessment needs of the Convention and for the pilot projects requested by the Conference of the Parties)

4. Section II summarizes the information regarding these assessments and identifies a number of assessment initiatives of relevance for the work of the Convention.

II. BRIEF OVERVIEW AND LIST OF INDICATIVE ONGOING AND PLANNED ASSESSMENTS OF RELEVANCE TO THE CONVENTION

A. The Millennium Ecosystem Assessment

1. Background

5. The Millennium Ecosystem Assessment is a four-year process designed to improve the management of the world's natural and managed ecosystems by helping to meet the needs of decision-makers and the public for peer-reviewed, policy-relevant scientific information on the condition of ecosystems, the consequences of ecosystem change, and response options. At least six different institutions will provide core administrative, logistical, and technical support to the process. These institutions will provide support as needed to the working groups that will undertake the assessment (see para. 14 below) and include the United Nations Environment Programme (UNEP), the UNEP World Conservation Monitoring Centre (WCMC), the ICSU Scientific Committee on Problems of the Environment (SCOPE),

* By paragraph 29 (b) of decision V/20, the Conference of the Parties requested SBSTTA to undertake a limited number of pilot scientific assessment projects, in preparation for the sixth meeting of the Conference of the Parties, and to invite, among others, the Millennium Ecosystem Assessment to work closely together with SBSTTA in this area, to facilitate and support the implementation of these projects, and, at an appropriate stage, to carry out an evaluation of them.

** The text of the summaries on the Millennium Ecosystem Assessment, the Global International Waters Assessment and the Forest Resource Assessment 2000 have been reviewed and cleared by the bodies or organizations responsible for the respective assessments.

and the World Resources Institute, in partnership with the Meridian Institute in the United States of America. It is proposed that the Director of the Assessment be based in Malaysia. Two additional institutions, one in Latin America and one in Africa, will be selected to support the work of the remaining two working groups.

6. The Millennium Assessment will provide information and also build human and institutional capacity to provide relevant information. More specifically, it will:

(a) Significantly increase understanding of the linkage between ecosystems and the goods and services they provide;

(b) Build human capacity and the capacity of global, regional, national and local institutions to undertake integrated ecosystem assessments and act on their findings;

(c) Strengthen international environmental agreements and improve environment-related decisions of national Governments by improving access to the best scientific information;

(d) Support ten regional, national, and local integrated assessments that will directly contribute to local, national, and regional planning and capacity-building needs;

(e) Enhance efforts by civil society to promote sustainable development by enabling ready access to peer-reviewed data and information;

(f) Increase the incentives and information available to guide change in private-sector actions;

(g) Develop methodologies to undertake cross-sectoral assessments and to effectively integrate information across scales from the local to the global;

(h) Identify important areas of scientific uncertainty and data gaps hindering decision-making that deserve greater research support.

7. The 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, and then submitted to the conventions' scientific bodies. Parties to the conventions will then determine which findings will be formally accepted into the individual convention process, based on their specific information needs.

8. Other important audiences include national Governments, non-governmental organizations, civil society, business, and indigenous peoples. Representatives of the conventions and other audiences will determine the specific focus and products of the Millennium Assessment through their representation on the Board. An Advisory Group of some 80 individuals from 35 countries has been established, and the Millennium Assessment will also establish links to the national focal points for the ecosystem-related conventions in all countries.

2. Scope

9. The Millennium Assessment will provide scientific underpinning to a wide range of national and international efforts to address environment and development challenges. These environmental challenges are interlinked, and therefore an integrative assessment process is necessary that can highlight the linkages among questions relevant to decision makers addressing climate, biodiversity, freshwater, marine and forest issues.

10. The Millennium Assessment will focus on the capacity of ecosystems to provide goods and services important to human development, including consideration of underlying ecosystem processes of which these goods and services depend. Within this broad focus, the users of the Millennium Assessment will help to shape the specific content to ensure that the Millennium Assessment provides them with the information needed.

3. Expected outputs and products

11. The global assessment and each of the ten pilot assessments will respond to the needs of decision makers by:

(a) *Providing information requested by decision makers*, through, for example:

(i) Assessing the condition, pressures, trends and change in ecosystems and the current economic and public health consequences of those changes;

(ii) Assessing the state of scientific knowledge,

(iii) Assessing the ecosystem (and consequent economic and public health) impacts of various future scenarios of change in "driving forces" such as population, consumption, climate, technology, and economic growth;

(iv) Assessing the strengths and weaknesses of various policy, legislative, technological, or other actions that have been taken or proposed to improve the management of ecosystems;

(b) *Building human and institutional capacity*. The specific capacity needs will be identified during the first year of the Assessment, but capacity-building is likely to take place through at least the following basic approaches:

(i) Increasing skills and expertise of the individuals and institutions involved in all scales of the Assessment;

(ii) Increasing access to technical tools and scientific models for undertaking integrated assessments by all interested experts and institutions;

(iii) Increasing access to data and indicators for use in local and national assessments;

(iv) Developing and disseminating new approaches for linking local level expertise and assessments with national, regional, and global expertise and assessments;

(v) Increasing experience with the design of technical assessments that fully involve "stakeholders" at the local, national, and regional scale;

(vi) Increasing international stature and access to international sources of support, through involvement in a high profile international process.

12. The global and subglobal assessments will result in technical reports. Summaries of these reports will be developed for the needs of specific target audiences and the reports and summaries will be widely disseminated in multiple languages. In addition to the printed products, the Millennium Assessment will reach a broad public audience through a dynamic outreach strategy involving workshops, briefings, and extensive use of the Internet.

4. Approaches and methodology

13. The Millennium Assessment will be undertaken at multiple spatial scales. It consists of a global assessment as well as ten "pilot assessments" of conditions and change in ecosystems in individual communities, nations, and regions. Assessments at these subglobal scales are needed because ecosystems are highly differentiated in space and time and because sound management requires careful local planning and action. Local assessments alone are insufficient, however, because some processes are global and because local goods, services, matter and energy are often transferred across regions. The pilot assessments will be designed to foster and build capacity for the widespread adoption of integrated assessment approaches in other regions and countries.

14. The Millennium Assessment will be carried out through six expert working groups:

(a) *Design Working Group*. The Millennium Assessment will develop an internally consistent set of methodologies for conducting the assessment at local, national, regional and global scales;

(b) *Current Ecosystem Extent, Trends, Conditions and Value Working Group*. The Millennium Assessment will provide "baseline" information on the geographic extent of different ecosystems—including terrestrial, freshwater, and marine ecosystems—and the patterns of use associated with them. It will present information on trends in ecosystem goods and services, their conditions and value, their contributions to human development, and the pressures affecting them;

(c) *Ecosystem Scenarios Working Group.* The Millennium Assessment will present 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. It will assess the trade-offs among various goods and services;

(d) *Response Options Working Group*. The Millennium Assessment will identify policy, institutional, legislative or technological changes that could improve the management of ecosystems, thereby increasing their contributions to development and maintaining their long-term sustainability;

(e) *Pilot Assessment Working Group*. The Millennium Assessment will involve a set of ten pilot assessments at local, national and regional scales. Each pilot assessment will examine conditions, scenarios, and response options;

(f) *Outreach and Engagement Working Group*. The Millennium Assessment will design and implement a process for engaging users in the Assessment and communicating the findings in a way that meets users' needs.

15. Each working group will be co-chaired by leading natural and social scientists from industrial and developing countries. The working groups will comprise a geographically balanced group of experts from universities, the private sector, government, and civil society. The co-chairs of the working groups will constitute the Ecosystem Assessment Panel. The Millennium Assessment Board will select the working group chairs and will review the working group composition to ensure an appropriate regional, technical and gender balance.

16. In its first year, the Millennium Assessment will focus on the development of an internally consistent set of methodologies for conducting the assessment on local, national, regional, and global scales. The methodologies will define the information that will be produced, questions that will be answered, and capacity needs that will be filled, as well as the products and outreach strategy. The methodologies will identify both common design elements to be applied at all scales from local to global, and features unique to different scales.

17. All of the assessment findings will undergo extensive peer review. Reviewers from all countries will be nominated by scientists, governments, business, and civil society. The review process will be developed and overseen by the Millennium Assessment Board and an independent review body. The review process will be tailored to the unique characteristics of the different scales of the assessment. For example, because the local assessments will rely heavily on unpublished local expertise and knowledge the peer-review process for such assessments will necessarily differ from the global process.

18. The Millennium Assessment will be closely coordinated with other global assessments, including the UNEP Global Environmental Outlook, the Global International Waters Assessment, and the work of the Intergovernmental Panel on Climate Change. It will be designed to strengthen planned and ongoing assessment activities and sustainable development planning activities at regional and national levels. The Millennium Assessment will include new analyses, but it is not a research project. Instead, the Millennium Assessment is a mechanism to bring the findings of research and monitoring to bear on

decision makers' needs. The Millennium Assessment will work closely with research programmes, such as the International Geosphere-Biosphere Programme (IGBP), and with monitoring activities, including the Long Term Ecological Research Network (LTER) and the Global Observing System.

5. Opportunities for collaboration with the Millennium Ecosystem Assessment

19. As noted in paragraph 2 above, the Conference of the Parties has requested SBSTTA to identify opportunities for collaboration with the Millennium Ecosystem Assessment in contributing to the assessment needs of the Convention, in particular through the pilot scientific assessment projects referred to in decision V/20. In addition, in paragraph 11 of decision V/21, the Conference of the Parties decided to accept the invitation of the Millennium Ecosystem Assessment to be represented in the Executive Committee, and nominated for this purpose the Chair of SBSTTA and the Executive Secretary. The Executive Secretary and the Chair of SBSTTA have already participated in several meetings and teleconferences related to the Assessment.

20. The Millennium Assessment will tentatively be launched during the first half of 2001. UNEP has been assigned as the lead agency and an extensive institutional network has been engaged for the implementation of the project. To date, the Millennium Assessment has received considerable funding and support from a number of donors, national agencies and intergovernmental organizations. The implementation of the Millennium Assessment will cover many areas of the assessment needs under the Convention on Biological Diversity and presents a timely opportunity for collaboration taking into account the considerations of participation, effectiveness and costs mentioned in decision V/20.

21. In response to decision V/20, paragraphs 27 and 29, SBSTTA may wish to consider embarking on a joint pilot assessment project with the Millennium Ecosystem Assessment to test how the Convention on Biological Diversity can participate in a joint assessment exercise together with other bodies. This possibility is further elaborated upon in the note by the Executive Secretary on scientific assessments (UNEP/CBD/SBSTTA/6/9) that has been prepared under item 5.1 of the provisional agenda for the current meeting of SBSTTA.

B. The Global International Waters Assessment (GIWA)

1. Background

22. The Global International Waters Assessment (GIWA) is a partnership project that will be implemented in collaboration between UNEP, Kalmar University in Sweden, and a wide range of partners involved in activities related to international waters, including the United States National Oceanic and Atmospheric Administration (NOAA), the Finnish Department for International Development Cooperation, the Swedish International Development Cooperation Agency (SIDA), the World Bank, the United Nations Development Programme (UNDP), and the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP).

23. GIWA is intended to be an effective means of developing well-targeted practical proposals for incremental cost funding under the Global Environment Facility (GEF). GEF has based its decision to fund the assessment on the fact that there is a necessity for a region-by-region assessment of water systems which, taken together, would place these issues within a global context.

24. The objective is to produce a comprehensive and integrated global assessment of international waters that may be used by GEF and its partners to identify recommendations and priorities for remedial and mitigatory actions in international and transboundary shared water bodies, designed to achieve significant environmental benefits at national, regional and global levels. It will encompass the ecological status, and causes of environmental problems of international waters - marine, coastal and freshwater areas, surface as well as ground waters. It will be a profoundly interdisciplinary study aiming at bridging

social/economic and physical science and integrating seas, coastal areas and associated land-catchment areas.

25. GIWA is designed not merely to analyse the current problems and threats but to develop scenarios of the future condition of the world's water resources and analyse policy options.

26. Ultimately, the aim is to provide sound scientific advice to decision makers and managers concerned with water resources and dealing with global environmental problems and threats to transboundary water bodies.

27. The assessment will be undertaken from the perspectives of water quality and quantity; associated biodiversity and habitats, and their use by society; the societal causes of the regionally identified issues and problems; and scenarios of future conditions based on projections of demographic, economic and social changes associated with the process of human development.

2. Scope

28. The scope of the project will encompass the completion of: a region-by-region assessment of the ecological status and causes of degradation of transboundary water systems, including cross-cutting elements of widespread practices; assessment of societal causes of identified major concerns and principal issues; up-to-date, issue-related global reviews of selected issues of relevance to international waters; a global overview of interregional transboundary issues in the area of international waters; and scenarios of future trends and state of the aquatic environment and resources under various planning bounds of social and economic change and development

3. Expected outputs and products

29. GIWA products will include:

(a) A comprehensible and illustrated report, comparable to the assessments already made for biodiversity, climate and stratospheric ozone. The analysis will consider the incremental cost of measures to encourage the modification of unsustainable social and economic development trends.

(b) Products at the scientific-technical level, including:

(i) A comprehensive bibliography and meta-data catalogue of already completed global and regional programmes related to international waters;

(ii) GIWA assessment protocol, including an agreed methodology for making causal chain analyses to examine societal causes of water-related environmental problems;

(iii) An agreed methodology for making transboundary diagnostic analyses at regional scales;

(iv) Sixty-six subregional and nine megaregional reviews of the ecological status of transboundary waters and major water-related issues, including analyses of their societal causes;

(v) Guidelines for the preparation of causal chain analyses;

(vi) Global thematic reviews;

(vii) Identification of more sustainable approaches to the use of water and its associated resources at national, regional and local levels;

(viii) Megaregional and subregional scenarios for the future state of international waters based on planning boundaries, trends and rates of change in industrialization, population growth and development;

(ix) A global analysis of the societal causes of identified major water-related concerns and principal issues; and a global overview of the relative importance of the various major concerns and principal issues by region;

(x) GIWA reports, databases and information sources available on the Internet and on CD-ROM;

(xi) GIWA input to the Millennium Ecosystem Assessment;

(c) Products for the educational sector and the public:

(i) Popular information, plain-language technical reports published on the GIWA website;

(ii) Popular educational and information materials specific to the megaregions and subregions published on the GIWA website;

(iii) GIWA educational CD-ROM;

(iv) GIWA contribution to the UNDP/IW-Learn Project website.

4. Approaches and methodology

30. GIWA addresses the scientific gap by assessing the key issues and problems facing the aquatic environment. The assessment will focus on the problems of shared waters. Causal chain analyses will be an essential tool used to identify and better understand the links between perceived problems and their societal root causes.

31. The network established to accomplish the work of GIWA will consist of different teams and work at different geographical levels. The overall coordination of the work of the participating individuals and institutions will take place through focal points for each of 66 subregions. They will participate in the work of nine megaregional task teams, supported and assisted by a core team of full-time specialists covering both regional and thematic concerns. The core team, will be advised by and report to a steering group of senior scientists and representatives of the major co-sponsoring organizations.

32. The work will be divided into well defined phases and the output will be specific products from each phase. The initial phase include the establishment of the GIWA core team, as well as a global network of collaborating institutions/organizations and individuals in governmental and non-governmental organizations within the public and private sectors, as well as in the scientific community. During this first phase, the GIWA assessment protocol will also be developed, including an approved methodology for making causal chain analyses.

33. During the following analytical phase, information will be gathered and analysed. After that, there will be a predictive/policy options analysis phase dedicated to scenario development and policy options analyses and evaluation. The analyses will incorporate a number of scenarios developed on the basis of projected actions taken to address the identified societal causes of environmental degradation. The initial starting point for these scenarios will be “current trends”. In effect, from an economic perspective, these analyses will consider the implications of measures to internalize environmental externalities. Different alternative approaches will be considered in order to reach a given objective. From a social perspective, the analyses will consider the incremental cost of measures to encourage the modification of unsustainable social and economic development trends. The uncertainties in the scenarios must also be identified and clearly stated.

34. The final phase will comprise preparation and dissemination of the GIWA products, including an illustrated GIWA. Emphasis will be placed on the preparation of reviews that are easily comprehensible to various sectors of society. It is essential that GIWA does not remain a desk exercise but is made available to the public in general, to educational institutions and to national and regional authorities.

35. In the making of the Global International Waters Assessment, full use will be made of existing assessments and all other available information about the 66 subregions. Only data required for a step-by-step, iterative analysis of transboundary water-related problems and their causes will be gathered. The findings of past water-related programmes will be incorporated in GIWA, and the assessment work will be carried out in close partnership with ongoing programmes to maximize the overall benefit. Duplication of work will be avoided.

36. GIWA will depend on access to data and other information from a network of stakeholders in the water sphere, but will in turn provide scientific and other information that may be used by other international, regional and global bodies and activities in the field of international waters.

37. The GIWA causal chain analyses will be clustered into five major problem areas of concern (freshwater shortage, pollution, habitat and community modification, unsustainable exploitation of fisheries and other living resources, and global change), initially divided into 23 issues. An approved methodology for making causal chain analyses to examine societal root causes of water-related environmental problems, and guidelines for the making of transboundary diagnostic analyses, will be designed and offered as a primary GIWA product applicable to GEF international waters projects.

5. Opportunities for collaboration with the Global International Waters Assessment

38. The Secretariat has had contacts with GIWA and received information about their assessment methods, including the "GIWA methodology protocol" to be used. Work is under way to implement paragraph 7 of decision V/2 of the Conference of the Parties, requesting the integration of biodiversity-related considerations in the GIWA protocol.

39. The results of GIWA will considerably contribute towards the assessment needs of the programmes of work on the biological diversity of inland water ecosystems, as well as the programme of work on marine and coastal biological diversity. SBSTTA may wish to consider a pilot assessment project with GIWA, based on paragraphs 27 and 29 of decision V/20.

C. The Forest Resources Assessment 2000

1. Background

40. The Forest Resources Assessment 2000 is implemented by the Food and Agriculture Organization of the United Nations (FAO) and United Nations Economic Commission for Europe (UN-ECE) in cooperation with many partners. The Forest Resources Assessment Programme at FAO headquarters in Rome is responsible for the overall management and coordination of the assessment. The Programme maintains the Forest Resources Information System or FORIS database, where basic forestry data from developing countries is archived. Other units within the FAO Forestry Department also contribute to Forest Resources Assessment, by carrying out special studies related to non-wood forest products, trees outside forests, fellings and removals, plantation surveys and others. The FAO Regional Offices support data-gathering activities in their respective regions.

41. All United Nations and FAO member countries have been formally requested to collaborate in the provision of new data for the assessment, as well as in validation exercises and the consolidation of assessment results. Country involvement is of particular importance for estimating the variables of forest area and their changes.

42. The immediate objectives of the Forest Resources Assessment are to:

(a) Carry out an assessment of forest resources (including information on the products and services provided by forests) on a global basis;

(b) Estimate the changes in forests that have taken place since the last assessment in 1990;

(c) Compare these changes with the results of all past assessments to establish trends;

(d) Provide information that helps understand the reasons for and the effects of change, including the social, economic, and environmental implications;

(e) Disseminate results, databases, and methodologies to interested national and international institutions, world-wide.

2. Scope

43. The Forest Resources Assessment will report on the state of the world's forests by year 2000. Based on the strong need for a set of recent, reliable, and internationally comparable data on the extent, location, nature, condition, and productivity of, and changes to, the forest resource, at the global and regional level, in order to serve as a vital input to any serious discussion of policy and decision-making related to wood supply, industry location, protection of biodiversity, climate change and other issues related to the forest resource

3. Expected outputs and products

44. The results of Forest Resources Assessment will be available both as printed reports and on the World Wide Web in the form of country profiles, synthesis reports and global maps. A large number of documents are available from the World Wide Web and the final reports will soon be published.

45. Country profiles will be prepared for every country, containing a comprehensive presentation of its forest resources. They will include a general description of geography and the ecological setting; forest status in terms of coverage, volume and biomass, protection status and other parameters; an assessment of trends; and the sources and baseline data used.

46. Forest Resources Assessment reports will synthesize regional and global overviews of forest status, including results from the remote sensing survey and the special studies.

47. New global maps will be presented for forest cover, ecological zones and deforestation risks. The maps will have a resolution of 1 kilometres, providing a comprehensive worldwide view of forests.

48. The main interface for Forest Resources Assessment will be through the FAO website. As the Forest Resources Assessment results are made public, FAO encourages comments and contribution to help improve information and knowledge on the world's forest resources.

49. Beyond the strict technical needs for information generation for the 2000 assessment, the Forest Resources Assessment programme conducts country capacity-building activities with participating developing countries. To the extent possible, training and country participation is carried out for all elements of the Forest Resources Assessment through workshops, expert consultations and financial support to national agencies.

4. Approaches and methodology

50. An expert consultation in Kotka, Finland agreed on terms and definitions to be applied in all parts of the global Forest Resources Assessment. Data is collected from officially designated national correspondants through questionnaire. Original country data, collected on the basis of national definitions, measuring and sampling techniques have often been adjusted to fit the international definitions for the sake of comparability. The main information in the Forest Resources Assessment is as follows:

(a) Land classification, i.e., land cover (forest and other wooded land), protected areas, land ownership, ecological zones, and forest area for wood supply;

(b) Forest parameters, i.e., volume, biomass, felling and removal, non-wood forest products and forest services;

(c) Changes, i.e., forest cover, forest degradation, and forest fires.

51. For land cover, a scheme for classification was defined composed of four classes, namely forest, other wooded land, other land, and inland water. The major classes of forest and wooden land were further divided into sub-classes. The primary objective of the Forest Resources Assessment forest classification is to allow standardized and comparable reporting on the world's forests, and it is not meant to replace existing national classification schemes. The Forest Resources Assessment will attempt to report not only on the quantity but also on the condition of forests.

52. For protected areas, the Forest Resources Assessment will be using the IUCN categories for nature protection. The Assessment will group these categories into two main classes: strictly protected areas (IUCN categories 1 and 2), and protected areas with integrated management (IUCN categories 3, 4, 5, and 6).

53. Land ownership in the Assessment will be reported for forest area as a whole or by natural forest and plantations, respectively.

54. The Assessment will analyse and report forest state and change by ecological zone. The classification is based on climatic factors and altitude, which to a large extent determine distribution of forest formations. The generated information will help to assess and analyse forest changes, i.e. impacts of deforestation or reforestation on ecosystem biological diversity, and the impacts of biomass changes on the carbon cycle.

55. The Assessment will report on forest available for wood supply as well as forest where legal, economic or specific environmental restrictions prevent any significant supply of wood.

56. Information on volume and biomass of trees is important to indicate the role of forests in carbon storage. The growing stock of forest available for wood supply is also an important indicator of the forest's economic potential.

57. Information on felling and removals is important to provide information on the volume of wood being cut and harvested annually, as an indicator of the wood utilization of the forest.

58. The section on non-wood forest products and forest services will provide qualitative and, where available, quantitative information on the importance of the role of forest and other wooded land in providing non-wood products for human consumption (food, beverages, medical plants, and extracts), fodder and forage (grazing, range), and other products (for example, cork, resin, tannins, industrial extracts, wool and skins, hunting trophies, Christmas trees, decorative foliage, mosses and ferns, essential and cosmetic oils, etc); as well as forest services such as protection (against soil erosion by air and water, avalanches, mud and rock slides, flooding, air pollution, noise, etc), social and economic values (eg. hunting and fishing, other leisure activities including recreation, sport and tourism), and aesthetic, cultural, historical, spiritual and scientific values.

59. The section on changes will address two major categories, namely deforestation, and forest-plantation establishment.

60. The section on forest fires is intended to provide information about the extent of fire damage and the average fire size in forest areas and to provide information on historical trends regarding fires.

61. Given the scope and complexity of the Forest Resources Assessment, various approaches to data capture are needed to cover all aspects of the assessment. Three basic and complementary information generation mechanisms available to the Assessment are:

(a) Assessment based on existing information;

(b) Assessment based on newly generated information through a global remote sensing survey; and

(c) Special studies.

62. The assessment based on existing information will generate estimates of forest cover, volume and biomass, and other parameters for individual countries. The Forest Resources Information System (FORIS), referred to in paragraph 40 above is based on existing national forest inventory information to derive estimates using international classification standards for a common point in time. With the introduction of new elements of information under the thematic areas (economic potential of forests, forest ownership and forest degradation) this module will now need to rely on a wide variety of information sources and expert opinions, which will require increased contact and dialogue with individual countries. Major activities include:

(a) Dialogue and agreements for information sharing with national organizations of all countries;

(b) Collection, archiving and database development of incoming inventory information**;**

(c) Analysis and "adjustment" of the information in cooperation with countries for generating assessments according to common standards for a common reference year;

(d) Dialogue and approval process with national organizations concerning results;

(e) Technique development for assessment of new forest/environmental parameters.

63. State and change assessments using remote-sensing will complement the FORIS information by newly generated information on current deforestation rates and, most importantly, recent trends, based on the results of the remote sensing survey. Survey results will also describe the associated processes and biomass fluxes, and provide information on the underlying cause-effect mechanisms; thematic and consistent information that only the remote-sensing survey has the capacity to generate. Results will be produced at global, regional and ecological levels since reporting at the country level is not practical with the remote-sensing survey. The survey provides as well spatial information necessary for analyses of biological diversity and forest fragmentation.

64. Special studies on topics proposed for Forest Resources Assessment implies a broadening of the assessment into new areas. Much of the information is not available in tropical and subtropical countries in such a way that consistent totals can be produced, nor can it be detected by remote-sensing alone. For a number of parameters, special studies will be carried out, including:

(a) Volume and biomass: state and changes;

(b) Status of protected forests;

(c) Ecosystem biological diversity;

(d) Wood supply/fellings and removals;

(e) Non-wood forest products;

(f) Forest fires.

5. Opportunities for collaboration with the Forest Resources Assessment 2000

65. The Secretariat has met with a number of experts from the FAO Forestry Department with the aim to emphasize the importance of FAO contributions to the work on forest biological diversity under the Convention on Biological Diversity, including the results of Forest Resources Assessment 2000 and forest-fire assessments.

66. The results of Forest Resources Assessment are of great importance for the work of the Convention, in particular for the Ad Hoc Technical Expert Group on Forest Biological Diversity established by the Conference of the Parties at its fifth meeting (decision V/4). This Technical Expert Group will, *inter alia*, carry out a review of available information on the status and trends of, and major threats to, forest biological biodiversity, to identify significant gaps in that information.

D. Other ongoing assessments

67. A number of other assessment activities of relevance to the Convention on Biological Diversity are planned or under implementation. The annex to the present note contains an indicative list of such activities, as well as the lead agency, timeframe, and relevance to the Convention on Biological Diversity. The Convention Secretariat has established working relations with some of these initiatives. The results from a number of assessment activities could be used and significantly contribute to the work under the Convention.

Intergovernmental Panel on Climate Change (IPCC)

68. The Intergovernmental Panel on Climate Change (IPCC) has finalized its Special Report on Land Use, Land Use Change and Forestry. This Special Report examines several key questions relevant to the work of the Convention on Biological Diversity relating to the exchange of carbon between the atmosphere and the terrestrial biosphere through land use, land-use changes and forestry activities. It examines the scientific and technical aspects of carbon sequestration in the agricultural and forestry sectors and their environmental and socio-economic implications on the conservation, and sustainable management and development of biological resources.

69. The aim of the Special Report is to assist the Parties to the Kyoto Protocol by providing relevant scientific and technical information to describe how the global carbon cycle operates. The report also addresses issues related to definitions, accounting rules under the Protocol, methods for measuring and monitoring, and reporting.

World Water Development Report

70. The work on the World Water Development Report (WWDR) carried out by the Subcommittee on Water Resources of the Administrative Committee on Coordination (ACC) responds to a 1998 call by the Commission for Sustainable Development for the United Nations system to undertake periodic assessments of "the sustainable development, management, protection and use of freshwater resources". It requested a monitoring of progress towards universal goals adopted in Agenda 21 at the 1992 United Nations Conference on Environment and Development and "a global picture of the state of freshwater resources and potential problems". The World Water Development Report builds on existing, ongoing initiatives and on the 1997 United Nations Comprehensive Assessment of the Freshwater Resources of the World, the first effort of its kind. The World Water Development Report is envisaged as a joint effort of the United Nations system and its Member States worldwide. It is expected to be finalized in 2002 and will, *inter alia*:

(a) Highlight world progress towards freshwater-related objectives in Agenda 21;

(b) Monitor progress in implementation of the Ministerial Declaration of the World Water Forum, held in The Hague in 2000.

71. The objectives will be achieved by:

(a) Identifying and diagnosing the state of global freshwater – its quantity, quality and use; the organizational, socio-economic and environmental context of its management; current problems and emerging threats;

(b) Monitoring trends at river basin, regional, continental and global levels, improving information for decision making;

(c) Development of indices for comparative analysis and ranking of countries and river basins according to their water sustainability;

(d) Presentation of information easily understood by informed readers, reporting in transparent and non-technical terms;

(e) Contributing over time to the harmonization of national monitoring strategies and standardization of methods, data and indicators;

(f) Publishing the WWDR every two years, with a different global assessment theme for each issue. Potential themes include the interplay of water with health, food security, poverty, natural disasters, ecosystem health, capacity-building, and emerging science and technology issues.

Global Coral Reef Monitoring Network

72. The Global Coral Reef Monitoring Network (GCRMN) has been established under the International Coral Reef Initiative (ICRI) to assess how, where and why damage is occurring to coral reefs and to determine the best methods for prevention, to tackle these problems and to provide valid management data. The GCRMN is hosted by the Australian Institute of Marine Science and the International Center for Living Aquatic Resource Management (ICLARM). It is co-sponsored by the Intergovernmental Oceanographic Commission, UNEP, the World Meteorological Organization (WMO), and IUCN. The Secretariat of the Convention on Biological Diversity has initiated discussions with the GCRMN regarding possible cooperation in the field of coral bleaching and physical destruction.

73. The GCRMN functions through fifteen independent networks, or sub-nodes, in six regions around the world. The regions are:

(a) Western Indian Ocean islands and East African States;

(b) Middle East Gulfs (those countries bordering the Red Sea around to the Persian/Arabian Gulf);

(c) South Asia (India, Sri Lanka and Maldives);

(d) East Asian Seas (from Myanmar and Japan to Indonesia/Philippines);

(e) Pacific island States;

(f) Caribbean and Intra-Americas, including countries with reefs bordering the Atlantic Ocean.

74. In summary, the core objectives of the GCRMN are:

(a) To link existing organizations and people to monitor biophysical and social, cultural and economic aspects of coral reefs within interacting regional networks.

(b) To strengthen the existing capacity to examine reefs by providing a consistent monitoring programme, that will identify trends in coral reefs and discriminate between natural, anthropogenic, and climatic-change factors.

(c) To disseminate results on local, regional, and global scales by providing annual reports on coral-reef status and trends to assist environmental management agencies implement measures for the sustainable use and conservation of reefs. Data will also aid preparation of predictive global climate change models for the coastal zone module of the Global Ocean Observing System.

Mining sector

75. Finally, the Secretariat has established contacts with the mining sector, and discussions are underway about the possibilities to establish cooperation activities in the field of assessments.

III. REFERENCES

	Assessment	*Reference*
1	Barometer of sustainability	http://iucn.org/themes/eval/english/barom.htm
2	Earthwatch	http://www.unep.ch/earthw/introd.htm
3	Forest Resources Assessment 2000	http://www.fao.org/forestry/fo/fra/index.jsp
4	Global Biodiversity Information Facility	http://www.oecd.org/ehs/icgb/biodiv8.htm
5	Global Coral Reef Monitoring Network	http://coral.aoml.noaa.gov/gcrmn/
6	Global Environment Outlook	http://www.unep.org/Geo2000/
7	Global International Waters Assessment	http://www.giwa.net
8	Global Ocean Observing System	http://ioc.unesco.org/goos
9	Global Terrestrial Observing System	http://www.fao.org/gtos
10	IPCC – Special Report: Land Use, Land Use Change and Forestry	http://www.ipcc.ch
11	IPCC- Third Assessment Report	http://www.ipcc.ch
12	Living Planet Report	http://panda.org/livingplanet/pubs.cfm
13	Millennium Ecosystem Assessment	http://www.ma-secretariat.org
14	Reefs at Risk	http://www.wri.org/indictrs/reefrisk.htm
15	State of the World's Animal Genetic Resources	http://www.fao.org/WAICENT/FAOINFO/AGRICULT/cgrfa/AnGR.htm
16	State of the World's Plant Genetic Resources – 2	ftp://ext-ftp.fao.org/waicent/pub/cgrfa8/GS/SwpgrE.pdf
17	Wellbeing of Nations	http://iucn.org/themes/eval/english/samwon.htm
18	World Resources Report	http://www.wri.org/wr2000
19	World Water Development Report	http://www.un.org/esa/sustdev/water.htm#links

Annex

INDICATIVE LIST OF ONGOING ASSESSMENTS OF RELEVANCE TO THE CONVENTION ON BIOLOGICAL DIVERSITY

Name	*Lead agency*	*Relevance to CBD*
Barometer of sustainability	IUCN	Tool for measuring and communicating a society's well-being and progress toward sustainability.
Earthwatch	UNEP	Coordinates, harmonizes and integrates environmental observing, assessment and reporting activities within the United Nations system
Forest Resources Assessment 2000	FAO	Forest ecosystems
Global Biodiversity Information Facility	OECD	Information and database relevant to biodiversity (research, inventories, access, etc.)
Global Coral Reef Monitoring Network	ICRI	Monitoring network for coral reef ecosystems
Global Environment Outlook	UNEP	Comprehensive assessment of environmental crisis
Global International Waters Assessment	UNEP	Assessment of inland waters and coastal/marine ecosystems
Global Ocean Observing System	IOC	Permanent global system for monitoring and modelling ocean data
Global Terrestrial Observing System	FAO	Permanent global system to provide data on changes of terrestrial ecosystems
IPCC – Special report: Land Use, Land Use Change and Forestry	IPCC	Climate change and how the carbon cycle is influenced by changes in land-use, in particular forests
IPCC- Third Assessment Report	IPCC	Climate change
Living Planet Report	WWF	Annual index on forest and marine and freshwater species as well as human consumption
Millennium Ecosystem Assessment	UNEP	Integrated ecosystem assessment
Reefs at Risk	WRI	Map-based indicator of threats to coral reefs
State of the World's Animal Genetic Resources	FAO	Planned assessment of genetic diversity in livestock
State of the World's Plant Genetic Resources – 2	FAO	Assessment of genetic diversity within and between plants
Wellbeing of Nations	IUCN	Assessment method linking the conditions of people and the ecosystem with project and institutional assessment
World Resources Report	WRI	Comprehensive assessment of status of ecosystems
World Water Development Report	Commission on Sustainable Development	State of freshwater resources, management of freshwater resources for sustainable development

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