



**CONVENTION ON
BIOLOGICAL DIVERSITY**

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CONVENTION ON BIOLOGICAL DIVERSITY

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Item 8.1 of the provisional agenda

OPTIONS FOR IMPLEMENTING ARTICLE 7 OF THE CONVENTION

Note by the Executive Secretary

1. INTRODUCTION

1. Under decision II/18, the COP included in its medium-term programme of work for 1996-1997 an item on the "identification, monitoring and assessment" of biological diversity, which it may consider at its third meeting. One of the issues that it may consider under this heading is "Options for implementing Article 7 [of the Convention]".

2. Article 7 provides that Parties "shall, as far as possible and as appropriate, in particular for the purposes of Articles 8 to 10:

- (a) Identify components of biological diversity important for its conservation and sustainable use having regard to the indicative list of categories set down in Annex I;
- (b) Monitor, through sampling and other techniques, the components of biological diversity identified pursuant to subparagraph (a) above, paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use;
- (c) Identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity, and monitor their effects through sampling and other techniques; and
- (d) Maintain and organise, by any mechanism, data derived from identification and monitoring activities pursuant to subparagraphs (a), (b) and (c) above".

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3. Implementation of Article 7 is self-evidently central to ensuring that the objectives of the Convention are met. Only by monitoring biological diversity and assessing human impacts on it can it be determined whether biological diversity is being conserved and its components sustainably used.
4. To assist the COP in its consideration of this item, the Executive Secretary has prepared this Note which draws on document UNEP/CBD/SBSTTA/2/3 entitled "Identification, monitoring and assessments of components of biological diversity and processes which have adverse impacts" prepared by the Executive Secretary to assist the second meeting of the SBSTTA in its consideration of the agenda item "Alternative ways and means in which the Conference of the Parties could start the process of identification, monitoring and assessment of components of biological diversity, as well as processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity in accordance with Article 7".
5. The SBSTTA considered in its recommendation II/1 that the document UNEP/CBD/SBSTTA/2/3 contained useful approaches to the subject and also made some specific observations on the contents of the document. This present Note has incorporated these observations and addresses itself directly to the needs of the Conference of the Parties. In considering this issue, the COP may wish to be mindful of the report of the second meeting of the SBSTTA (document UNEP/CBD/COP/3/3) which contains in its recommendation II/1 general advice, priority tasks and proposed specific recommendations concerning indicators, monitoring and assessment of biological diversity.
6. In its recommendation, the SBSTTA advised II/1 that issues of indicators, monitoring and assessment of biological diversity are inextricably interlinked. In considering this item on the provisional agenda, the COP may therefore wish also to be mindful of document UNEP/CBD/COP/3/13, prepared by the Executive Secretary to assist the COP in its consideration of the next item on the provisional agenda, concerning the SBSTTA's review of assessments of biological diversity and methodologies for future assessments.

2. IDENTIFYING THE COMPONENTS OF BIOLOGICAL DIVERSITY

7. With a limited knowledge and understanding of biological diversity and with limited resources, it is clearly not possible to identify, monitor and assess the whole of biological diversity. It is of paramount importance, therefore, that identification, monitoring and assessment be carried out in as efficient and strategic or action-oriented a manner as possible.

8. To be strategic, it is vital that priorities for identification, monitoring and assessment be set. Such priorities should consider the importance of the particular components of biological diversity and the processes and activities affecting them, but may also need to take into account the possibilities or otherwise of implementing actions based on the knowledge gleaned. In the context of the Convention, Article 7 provides the framework within which these priorities are to be identified. Article 7 stresses that identification and monitoring of biological diversity are essentially country-led exercises so that the priorities set will be determined by individual Parties. Nevertheless, some overall guidance is likely to be of value in assisting Parties to carry out this task.

9. The Convention implicitly acknowledges the need to set priorities in that Article 7(b) specifies that particular attention should be paid to components of biological diversity in need of urgent conservation action or that offer high potential for sustainable use. Annex I to the Convention gives more detailed indicative guidelines for the components of biological diversity that should be considered, as follows:

- (a) Ecosystems and habitats: containing either high diversity, large numbers of endemic or threatened species, or wilderness; required by migratory species; of social, economic, cultural or scientific importance; or, which are representative, unique or associated with key evolutionary or other biological processes;
- (b) Species and communities that are: threatened; wild relatives of domesticated or cultivated species; of medicinal, agricultural or other economic value; of social, scientific or cultural importance; or of importance for research into the conservation and sustainable use of biological diversity, such as indicator species; and
- (c) Described genomes and genes of social, scientific or economic importance.

10. An important and immediate way in which the COP could start the process of identifying, monitoring and assessing the components of biological diversity in accordance with Article 7 is to consider developing the guidance provided by Annex I so that it might further assist the Parties in developing their own priorities. Although the responsibility for the setting of such priorities rests, of course, with the individual Parties themselves, certain principles and practices have very widespread applicability and are therefore likely to be of wide relevance to the COP.

11. In its recommendation, the SBSTTA II/1 recognised elaboration and further interpretation of the terms in Annex I of the Convention to be an important task in assisting Parties to meet the requirements of Article 7 of the Convention.

2.1 Elaboration of Annex I

2.1.1 Ecosystems or habitats containing high diversity

12. High diversity in this context presumably principally means high species diversity. For most terrestrial ecosystems, such areas can be identified, at least at a coarse scale, using existing knowledge of patterns of diversity (e.g., in general, warmer areas support more species than colder ones, wetter areas more than drier ones; less seasonal areas more than very seasonal ones; and areas with varied topography support more species than uniform ones). A more detailed picture can emerge using the various inventory techniques discussed in the Note to the following item of the provisional agenda (document UNEP/CBD/COP/3/13), including surveys of indicator groups, although these should be interpreted with caution, as diversity in different taxa is not necessarily highly correlated at fine geographical scales. Identifying high-diversity areas does not necessarily require the identification of all component species. The COP may wish to consider developing an indicative overview of high-diversity ecosystems and habitats (e.g., lowland tropical moist forest, coral reefs, Mediterranean climate heathland). The COP may also wish to note that the "high diversity" may be interpreted globally, regionally or nationally. In global terms, some high-latitude or very arid countries may have no high-diversity ecosystems. However, within each country some ecosystems will be much more diverse than others.

2.1.2 Ecosystems or habitats containing large numbers of endemic or threatened species

13. Identifying such areas requires rather more knowledge of the component species than the above. Identification of endemic species requires that the complete distribution of the species in question be known; the identification of threatened species requires that the status of that species has been assessed. The COP may wish to take note of existing assessments of threatened and endemic species, which may assist in the identification of such areas. The term "large numbers" is not defined within Annex I and is open to a range of interpretations, dependent in large measure on the group or groups of organisms being considered. Thus, BirdLife International has carried out a global analysis of Endemic Bird Areas (EBAs) in which an EBA was defined as an area with at least two restricted-range bird species present, while IUCN classified a Centre of Plant Diversity (CPD) as any area with at least 100 endemic plant species. The COP may wish to request further clarification on realistic interpretations of the term "large numbers" in different contexts.

2.1.3 Ecosystems or habitats containing wilderness

14. The concept of wilderness is that of an extensive area where human impact is minimal or non-existent. The concept is problematic in that there are now probably no significant areas on Earth without human impact, at the very least from air- or water-borne pollutants and greenhouse gases. The definition may therefore be modified to that of an extensive area without visible signs of human impact (roads, dwellings, agricultural land). Wilderness is often equated with naturalness, but again this may often not be the case. Many terrestrial areas that are now largely or entirely uninhabited may have been extensively modified by humankind in the past so that the existing landscape is, at least to some extent, anthropogenic. The COP may like to consider whether it would be desirable to develop a more specific

definition of wilderness that takes these factors into account. It may also like to consider whether it is relevant to regard deep-sea regions as wilderness in this context.

2.14 Ecosystems required by migratory species

15. The COP may wish to adopt the definition of migratory species used by the Convention on Migratory Species (the Bonn Convention or CMS). It may also wish to consider using the appendices to the CMS as the most suitable available starting point for lists of migratory species. Most non-aquatic migratory species are birds, a large proportion of which use wetlands at one or more stages of their migratory cycle. A notable proportion of wetlands of international importance has been identified under the Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (the Ramsar Convention), although many others remain to be identified, most obviously those in states not Party to the Ramsar Convention. The COP may wish to consider using Ramsar sites as a starting point for identifying ecosystems required by migratory species. This would be particularly pertinent in light of the existing Memoranda of Cooperation that exist between the Convention on Biological Diversity and both the CMS and Ramsar Conventions (see documents UNEP/CBD/COP/3/28 and UNEP/CBD/COP/3/29).

2.1.5 Ecosystems and habitats of social, economic, cultural or scientific importance

16. Ecosystems of economic importance may be defined as those that provide goods and services of economic value to humankind. These may be ecosystems of which components are directly exploited through fisheries or other forms of consumptive harvest, that is, which have direct use value, or they may provide services or indirect values (e.g., watershed protection, carbon sequestration). The former are generally easier to quantify and characterise than the latter. The COP may wish to consider identifying the former in some detail, concentrating in particular on ecosystems and habitats that are of importance for fisheries, timber, non-fisheries wild foods, and medicines. The COP may also wish to consider initiating a review of methodologies for the assessment of indirect values or ecosystem services. To date, there has been relatively little success in this field.

17. Many ecosystems and habitats of social and cultural importance are likely also to be of economic importance in the sense outlined above. Others, however, will not. Of particular note are areas of religious or sacred significance (e.g., Kaya forests in East Africa, Tapu forests in Polynesia). Some of these are not only of great cultural importance, but they are often also important for the maintenance of threatened and endemic species. The COP might like to consider initiating a global review of these and assessing their current state of protection. Elsewhere, ecosystems and habitats may be of considerable recreational importance, which may also be considered a form of economic importance. These are often parks or other protected areas. Conflicts may arise in these cases between management priorities for recreation and those for the conservation and maintenance of biological diversity. The COP might like to suggest that existing literature on this be reviewed, with a view to developing guidelines for the resolution of such conflicts. Resolution might involve harnessing some of the value associated with recreational use for the purposes of maintaining biological diversity. Such a review, if widely circulated, would contribute greatly to the sharing of experience among Parties, playing an important role in implementing Articles 6 and 8, as discussed under item 7.1 of the provisional agenda to this meeting.

18. Many ecosystems and habitats of scientific importance will be also of importance under one or more of the other criteria discussed here. That is, they are likely to be unique, or representative, or have important numbers of threatened or endemic species, or have high diversity. In addition, areas of ecosystem or habitat that have been the subject of long-term study are of great scientific value even if they do not necessarily meet the other criteria above. Such areas are capable of providing insights into ecosystem and habitat changes over time and are thus extremely important for monitoring and assessment. The COP might like to consider recommending

the development of a register of such long-term study sites for the global monitoring of biological diversity. The COP will be mindful of initiatives in this regard currently being undertaken by, *inter alia*, the UNESCO Man and the Biosphere Programme and the Smithsonian Institution.

2.1.6 Ecosystems and habitats that are representativ

19. The identification of representative ecosystems and habitats requires a standardised classification system. Problems with this are elaborated on in the Note to item 8.2 on the provisional agenda (document UNEP/CBD/COP/3/13). The COP might wish to seek further advice on the choice of such a standardised system, and also on which components should be considered in determining whether a given ecosystem or habitat is indeed representative. The COP might also wish to consider existing regional or global reviews of ecosystems or habitats that have assessed whether representative samples of ecosystems are being protected, such as the IUCN Reviews of the Protected Areas Systems in Oceania, the Afrotropical and Indomalayan Realms.

2.1.7 Ecosystems and habitats that are uniqu

20. The identification of unique ecosystems or habitats requires careful considerations of scale. This is because the more detailed a classification system (i.e., the more fine-scaled), the more likely a given area of ecosystem or habitat is to be different from any other in its physical and biotic characteristics, and therefore to be classifiable as unique. The COP may wish to seek further advice on what are realistic scales on which to consider the uniqueness of habitats and ecosystems. It may also wish to consider whether a unique habitat or ecosystem may be best defined on the basis of having a significant number of endemic species, therefore qualifying for consideration under the first category of ecosystems and habitats above.

Ecosystems and habitats associated with key evolutionary or other biological processes

21. The association with key evolutionary processes is a very problematic concept. Far too little is known about the mechanisms of long-term evolution to enable particular ecosystems and habitats to be singled out with confidence as being of importance. Any attempts to identify such areas will by their nature take the form of essentially untestable hypotheses. The COP may wish to seek further advice on such hypotheses to determine whether the concept can be made operational. The COP may also wish to seek further elaboration on the concept of key biological processes other than evolutionary ones.

2.1.9 Species and communities that are threatened

22. The term "community" is undefined, but presumably means assemblages of species that commonly occur together. Methodologies for identifying threatened species were reviewed at the first meeting of the SBSTTA, having been discussed at some length in UNEP/CBD/SBSTTA/1/4. Decision II/8 of the COP specifically encouraged Parties to identify priority issues related to those components of biological diversity under threat in preparing their first national report. The COP may wish to recommend to Parties that as much use as possible be made of existing global assessments of threatened species, in particular the IUCN Red List of Threatened Animals and the IUCN Red List of Threatened Plants, as the preliminary basis for identifying threatened species.

2.1.10 Wild relatives of domestic or cultivated species

23. These may be of importance as potential new domesticates, and also because they may have genes of value in improving already existing domesticates. It is important to consider how closely related a wild species or population must be in order to be considered important. The COP may wish to consider the concept of primary, secondary and tertiary gene pools as the most appropriate framework for this. The primary gene pool consists of wild populations of the domesticated species; the secondary gene pool consists of wild species that may be easily hybridised with the domesticated species and are almost always in the same genus; the tertiary gene pool consists of wild species generally in the same family, or section of the family, that may be hybridised with some difficulty. The COP may wish to advise that only primary and secondary gene pools be considered in most cases, if this concept is adopted. The COP may also wish to consider the likely impact that new technologies for gene transfer will have on the whole concept of a gene pool. In its consideration of this issue with regard to the wild relatives of cultivated plants, the COP may wish to take into account the work of the FAO Global System for the Conservation and Utilization of Plant Genetic Resources for Food and Agriculture. This topic is included as item 9.2 on the provisional agenda to this meeting, supported by document UNEP/CBD/COP/3/15.

24. The COP may wish to consider recommending to Parties the use of the tables of wild relatives of domestic stock and wild relatives of domestic crops provided in the *Biodiversity Data Sourcebook* (WCMC, 1994) as a basis for identifying priority species and groups of species.

2.1.11 Species and communities that are of medicinal, agricultural or other economic value

25. This is presumably intended to mean all wild and domesticated species that have a direct economic value. This value may be obtained from consumptive or non-consumptive use. With regard to wild species, the most important aspects of consumptive use in economic terms are fisheries and the use of timber and other woody products from trees. However, a very wide range of other animal and plant species is also used, for a variety of purposes. The most important uses are food and medicine, but clothing, ornaments, pets, recreation, and a host of minor products such as dyes and wax may also be significant. The COP may wish to establish some priorities for identifying and monitoring economically important species. Such priorities should consider both the importance to humankind of the use, and the impact such use has on the target species and the habitats and ecosystems in which it occurs. These two factors are not necessarily correlated. The COP may wish to consider how the assessment of species of economic importance undertaken under the Convention may best be coordinated with the activities of the FAO in reporting on fisheries and forestry and with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

2.1.12 Species and communities which are of social, scientific or cultural importance

26. Many species of social, scientific or cultural importance may also be expected to have economic importance, and therefore to be included above. However, some may not. Determining the social or cultural importance of a species requires an understanding of prevailing cultural mores, which may change greatly from place to place, even in quite small geographical areas. Gaining such an understanding is usually a laborious, time-consuming process, and relies on the knowledge of indigenous peoples.

27. Species and communities of scientific importance may include those that show unique or unusual biological properties, those that have been or are in the process of being intensively studied, and those that occupy a unique or unusual systematic position (e.g., species with no known close living relatives, or species apparently intermediate between two higher taxa). The COP may wish to consider recommending the drawing up a set of criteria of scientific importance, with indicative species.

2.1.13 Species and communities that are of importance for research into the conservation and sustainable use of biological diversity, such as indicator species

28. In general, most species of importance for research into the conservation and sustainable use of biological diversity may be expected to be included in one or other of the categories above (notably threatened species and economically important species). Indicator species or communities, which are essentially surrogates for wider measures of biological diversity, may be an exception to this. Although a wide range of species and higher taxa have been proposed as indicators, very few satisfactory indicator species have yet been identified, chiefly because each species responds to changes in its environment in a unique way. The COP may wish to refer to Annex II of document UNEP/CBD/COP/ 3/13 which contains a detailed discussion of the theory and practice of indicators of biological diversity.

2.1.14 Described genomes and genes of social, scientific or economic importance

29. No persuasive paradigms have yet been established for interpreting or assessing the social, scientific or economic importance of genes or genomes. This is largely because of the importance of genes and is effectively only felt when they are phenotypically expressed in some way; attempts may be made to evaluate the latter (i.e., the phenotypic expression), but there is no clear way of relating this directly to the gene or genome itself. The COP may wish to seek further advice on this issue.

3. IDENTIFYING, MONITORING AND ASSESSING PROCESSES AND CATEGORIES OF ACTIVITIES THAT HAVE OR ARE LIKELY TO HAVE SIGNIFICANT ADVERSE IMPACTS ON BIOLOGICAL DIVERSITY

30. The COP may also wish for further guidance as to how Parties might start the process of identifying activities that have or are likely to have an adverse impact on biological diversity in order to fulfil their obligations under Article 7. While recognising that many such activities are dependent upon local conditions, it seems that the Parties would nonetheless benefit from some general guidance as to what types of activities are generally acknowledged as falling within the meaning of Article 7(c), so as to begin the process of identification, monitoring and assessment in a manner that allows them to contribute more effectively to the aims of the Convention.

31. In order to meet the aims of the Convention with limited resources, the Parties will again need to set priorities. For this reason, the Parties will need an understanding of the relative importance of the different activities that have or may have an adverse impact on biological diversity. In this light, the present Note outlines

some well-accepted processes and activities, and some of the issues involved in assessing and monitoring these processes.

32. We use the term "threats" as a shorthand for processes and categories of activities that are or are likely to have significant adverse impacts on biological diversity.

33. Biological diversity losses that are above the background rates are the result of a wide range of proximate causes. Identifying these causes is relatively straightforward, and there is widespread agreement on the major categories, which include conversion of habitat, over-exploitation, pollution and the effects of introduced species. For a range of reasons, assessing the impacts of these different causes is, in contrast, very problematic in the great majority of cases. First, assessment requires monitoring through time of both the presumed stressor and the species or ecosystem that is being affected. Relatively little such monitoring has been carried out to date, particularly for time periods long enough to permit the detection of significant trends. Second, it is often very difficult to disentangle natural variations -- for example, in the population and distribution of species -- from those caused by human activities. Third, virtually all species and ecosystems are affected by a range of human influences that interact in complex and often ill-understood ways.

34. Constructing a taxonomy of threats is similarly problematic. This is because virtually all human activities impinge on biological diversity in one way or another, and also because one activity can have a wide range of different impacts. For example, the harvest of wild trees directly affects populations of the tree species concerned; it also structurally affects the habitat of other species that live in or on the trees; it may affect the water-retaining ability of the land in which the trees grow; it is also likely to have an impact on the local microclimate; and it will have a (slowly cumulative) effect on carbon sequestration with concomitant impacts on global climate. Impacts may be locally and immediately felt, may be long-term, or may be experienced far from their point of origin.

3.1 Factors affecting ecosystems

35. Assessing factors that adversely affect ecosystems is usually more problematic than assessing those that affect individual species. Currently much attention is focused on the concept of ecosystem "health" (resilience), which is defined as the system's ability to maintain its structure (organisation) and function (vigour) over time in the face of external stress. Negative factors are those that adversely affect health. Here, less importance is attached to the maintenance of individual elements of an ecosystem (species and populations) as long as health is not impaired.

36. It is generally admitted that, as is the case with human and societal health, goals and definitions with respect to ecosystem health will be determined socially as much as scientifically. Furthermore, many ecological processes operate over decades or longer, and therefore require long-term data series (i.e., on this time-scale) before it will be possible to begin to understand them. Even then, the analysis of data available will at best generate hypotheses (often several competing ones) which need to be tested, preferably by experimental manipulation, again over time periods of the same order as those of th

processes being studied. However, activities affecting the environment and policy decisions controlling those activities have impacts over far shorter time-scales.

3.2 Factors affecting species

37. Quite simply, any factor that causes a sustained and continuing decline in the population of a species is a threat to that species, as it will eventually lead to its extinction. These factors may operate by causing either increased mortality or decreased reproductive success. Factors are often categorised as either *direct* or *indirect*. The former affect the population of the species directly (e.g., overexploitation, predation by introduced species); the latter affect its habitat (e.g., deforestation, canalisation of rivers).

38. At present, the Convention provides little explicit guidance for identifying activities and processes that have or are believed to have an adverse effect on biological diversity. The COP may wish to consider the following as a useful preliminary framework for categorising these. This framework is based on that provided in the document UNEP/CBD/SBSTTA/2/3, which was reviewed by the SBSTTA at its second meeting and found to be a useful approach. The present document incorporates specific suggestions for modification made at that meeting. The SBSTTA also noted in its recommendation II/1, in the context of this framework, that consumptive use of wild species could be a contribution to conservation.

3.3 Proximate threats

39. The following factors may have a direct effect on biological diversity:

- (a) Overharvest or overkill of wild species;
- (b) Introduced species as competitors, predators, carriers of disease, or habitat disruptors;
- (c) Habitat destruction or deterioration through conversion, fragmentation, or changing habitat quality;
- (d) Pollution by toxins (e.g., heavy metals, radioactive contaminants), changing nutrient balances (e.g., eutrophication, acid rain), or physical contaminants (e.g., sedimentation and/or siltation); and
- (e) Climate change, either locally or globally.

3.4 Categories of activities leading to these threats

40. The following categories of human activity may lead to the proximate threats listed above:

- (a) unmanaged harvest of wild species for consumption;
- (b) killing of wild species as pests or weeds;
- (c) deliberate introduction of exotic species;
- (d) accidental introduction of exotic species;
- (e) conversion of land to settled agriculture;
- (f) improper management of land;
- (g) shifting cultivation on too short a cycle;
- (h) overstocking by domestic livestock;
- (i) accidental or deliberate burning, or change in natural fire regime;
- (j) mining/dredging;

- (k) dam construction;
- (l) canalisation;
- (m) road construction;
- (n) urbanisation;
- (o) overuse for recreational reasons;
- (p) drainage of wetlands;
- (q) burning of fossil fuels;
- (r) use of potentially polluting chemicals in agriculture;
- (s) use of potentially polluting chemicals in industrial processes;
- (t) production of polluting chemicals as a by-product of industrial processes; and
- (u) production of human effluent and other domestic waste products.

3.5 Ultimate causes of these threats

41. Within the context of human society, most of these threats can ultimately be attributed to six main factors:

- (a) land tenure;
- (b) population change
- (c) cost-benefit imbalances;
- (d) cultural factors;
- (e) misdirected economic incentives; and
- (f) national policy failure.

3.6 Monitoring processes and categories of activities that have or may have an adverse effect on biological diversity

42. Monitoring the threats to biological diversity identified above is not a straightforward task, chiefly because many threats operate over a very wide area and because, as described above, impacts may be experienced far distant from the source of the threat, as in the case of air- and water-borne pollutants. The complementary approaches may be adopted to deal with this: extensive monitoring, usually using remote sensing or aerial photography; detailed sampling of particular sites; and the use of pressure indicators to predict areas or ecosystems that may be expected to be under adverse influence.

43. Remote sensing can be used to monitor extensive areas, but at present has limitations in terms of the environmental parameters it can record. It is, for example, extremely useful for monitoring the clearance and fragmentation of forest cover, but is much less useful for monitoring changes in forest quality or in species composition within forests. Similarly, it may be able to give some indication of sediment loads in rivers, but cannot generally register soluble pollutants.

44. Sampling particular sites may give a much more accurate local picture, but extrapolation to a more general picture is often based on questionable assumptions. For example, the intensity of hunting and its effect on wildlife populations has been found to be highly variable over quite short distances among communities in the Amazon basin.

45. The use of pressure indicators -- for example, proximity to urban or industrial centres, or roads

-- may allow broad indications of threat, but because of local variability, these require ground-truthing before they can be used with confidence. The subject of pressure indicators is discussed in some detail in Annex II to document UNEP/CBD/COP/3/13.

46. The COP might like to consider recommending a more detailed review of these methods of monitoring pressures. Such a review might include recommendations of ways in which their use can be integrated.

3.7 Assessing processes and categories of activities that have or may have an adverse effect on biological diversity

47. With some notable exceptions, such as intensive hunting pressure and the influence of a few introduced species on oceanic islands, our understanding of the impacts of the activities outlined above on biological diversity is still limited. There is an urgent need to assemble those case studies that do exist on this and also to develop a programme of further study directly linking pressures to the assessment of the state of biological diversity. The COP might like to recommend a review of existing studies and outline some priorities for further study.

48. Of particular importance is the need to link the ultimate causes of threats to biological diversity outlined above far more closely to the proximate threats. One of the major aspects of this is an understanding of the socio-economic issues surrounding the use of biological diversity. The COP might like to recommend a review of existing methodologies for this.

4. CONCLUSIONS AND RECOMMENDATIONS

49. In implementing Article 7, the COP might like to consider recommending to Parties a step-wise approach, which would begin with implementation of Article 7(a) and the first part of Article 7(c), concerning identification of components of biological diversity and the processes and categories of activities which have or are likely to have significant adverse impact. Such an approach should not, of course, preclude the monitoring and assessment, or implementation of Articles 6 and 8, with respect to those components of biological diversity which have been identified.

50. The COP might like to recommend that Parties undertake the process of identifying the components of biological diversity making use of the elaboration above of the terms in Annex I of the Convention.

51. The COP might additionally like to recommend that the results of such a process should form the basis of national biological diversity strategies, plans or programmes, as required under Article 6, and should be an integral part of national reports as required under Article 26.

52. The COP might also like to suggest that the results of such a process should form the basis of implementation of relevant parts of Article 8, particularly paragraphs (a) to (d) and (k).

53. The COP might wish to be mindful of the role of taxonomy as the basis for identification of the components of biological diversity and might therefore consider endorsing all or part of the recommendation II/2 of the SBSTTA concerning capacity-building for taxonomy.

54. The COP might further wish to consider the financial implications of the capacity-building required to allow all Parties to fulfil their obligations under Article 7.

55. The COP might wish to consider ways and means by which cooperation with other Conventions and international processes concerned with biological diversity might expedite implementation of Article 7.

56. The COP might wish to consider commending the provisional framework outlined in paragraphs 39-41 to Parties in their consideration of Article 7 and Article 8 (l). Alternatively, it might wish to consider requesting the SBSTTA for further advice concerning the elaboration of such a framework.
57. The COP might also wish to consider seeking advice from the SBSTTA on desirable further elaboration of the terms used in Annex I of the Convention.
58. The COP might further wish to consider which parts of recommendation II/1 of the SBSTT concerning, *inter alia*, identification, monitoring and assessment of components of biological diversity and of processes that have adverse impacts, it might wish to endorse.
59. In view of the central importance of Article 7 to the Convention, the COP might like to consider reviewing at its next meeting progress in the implementation of Article 7 and of any specific recommendations it may make concerning this.