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**CHARACTERISTICS SPECIFIC TO BIOLOGICAL DIVERSITY
AND SUGGESTIONS TO FUNDING INSTITUTIONS ON HOW TO MAKE THEIR
ACTIVITIES MORE SUPPORTIVE OF THE CONVENTION**

A Preliminary Consideration

Note by the Executive Secretary

1. MANDATE AND SCOPE

1. In paragraph 9 of decision II/6, the Conference of the Parties requested the Secretariat to, *inter alia*, "study characteristics specific to biological diversity activities to allow the Conference of the Parties to make suggestions to funding institutions on how to make their activities in the area of biological diversity more supportive of the Convention".

2. The report, "Availability of Additional Financial Resources" (UNEP/CBD/COP/3/7), notes that Official Development Assistance for biological diversity projects has been decreasing since 1993. That report notes that one of the reasons for the decline may be the difficulty in designing and implementing successful biological diversity management projects. It was also noted that in the absence of new and additional resources, Parties may wish to consider ways in which the existing funds can be made more supportive of the Convention's objectives.

3. The structure of this note is as follows. Section 2 reviews some of the issues relevant to the financing of biological diversity projects. Section 3 identifies the characteristics specific to biological diversity that differentiate it from more conventional donor-funded projects. Section 4 translates the specific characteristics into a set of principles that can be used as guidelines for the design of biological diversity projects. Section 5 presents recommendations to the COP.

2. BACKGROUND

4. The investment in biological diversity management programmes, whether the focus be on conservation, sustainable use, or the equitable sharing of benefits, must take into consideration several special characteristics that differentiate it from other national assets. The services provided by biological-diversity resources can be conceived of as national assets, and many of their benefits are in the nature of public goods. Within the context of the ecosystem approach to biological diversity management, the ecological functions and ecological resilience provided by biological diversity are examples of such public goods.

5. Conventional infrastructure projects, which receive the majority of foreign assistance are less complex than sustainable biological diversity management projects. The public-good benefits of infrastructure projects are known with greater certainty, are more easily estimated, can be supplied with greater predictability, and are less critical to the functioning of a country. While an infrastructure project will supply a country with, for example, improved transportation, communication, or utilities, biological diversity provides the underlying "life-support system" of a society in the form of its ecological functions, such as hydrological cycles, the mediation of energy flows at different trophic levels, soil and mineral content and quality, and so forth.

6. The maintenance of these ecological functional benefits depends upon the decisions made by numerous individuals and organisations over a wide range of temporal and spatial scales. Thus biological diversity projects may incorporate a wide range of activities for which it is difficult to set priorities for action. For example, the management of natural and biological resources by local communities is potentially as important as either the development of national biological diversity strategies or the introduction of intellectual property rights for genetic resources.

7. Recent experience shows that biological diversity management projects are very difficult to design and implement. Biological-diversity projects involve changing how humans interact with their environment and how they use natural resources. This often requires changing patterns of behaviour and traditions that have emerged over long periods of time, and have, as a result, become enshrined in law or social custom and have the support of powerful groups in society. The modification of human-environment interactions is a long-term process, which puts severe demands upon project design and implementation.

3. CHARACTERISTICS SPECIFIC TO BIOLOGICAL DIVERSITY

8. This section presents a classification of the attributes that differentiate biological diversity from other public goods in order to provide the basis for a set of principles to guide funding institutions.

9. Recent studies and evidence from field projects, donor institutions and recipient governments suggest that biological diversity has the following special characteristics that should inform the design of projects and programs:

3.1 The Time Sensitivity of Ecological Dynamics

10. Ecological processes take place over a wide range of time scales, many of which are extremely long. Thus a single biological-diversity project may involve the management of a number of ecological processes with varying time scales.

3.2 Heterogeneity in the Structure and Function of Biological Diversity

11. Biological diversity includes “overlapping ecosystems, many interdependent ecological functions, millions of species and an even bigger number of genetic attributes”. The provision of ecological functions depends upon the maintenance of “resilience” within ecosystems. This resilience refers to the ability of an ecosystem to absorb stress (as a sink for waste, or as a source of goods and services) and continue to deliver benefits. Present ecological knowledge suggests that resilience depends upon the diversity of organisms and the heterogeneity of ecological functions.

3.3 Uncertainty as to the Status, Trends and Values of Biological Diversity

12. The ecological functions of the different components of biological diversity are highly uncertain, particularly in light of the fact that perhaps only 10% of the species on earth have been identified. It is not well known how biological diversity responds to human-induced changes in the biosphere, including the effects of beneficial investments. Further, the values of biological diversity cannot be estimated with certainty (UNEP/CBD/SBSTTA/2/13), providing little basis for an investment strategy. As a result, projects for biological diversity management must be made in an environment of great uncertainty with respect to potential returns and ecological impact.

3.4 The Irreversibility of Biological Diversity Losses

13. Once past a specific, though usually unknown, threshold, the loss of biological diversity is irreversible. A threshold event could lead to an irreversible change in ecosystem resilience, having negative implications for the carrying capacity of the Earth, a reduction of options open to future generations, and increased uncertainty associated with the environmental effects of economic activities.

3.5 The Complexity of Causes and Processes Leading to the Degradation and Loss of Biological Diversity

14. The degradation of biological diversity resources comes from highly diffuse sources, involving a multitude of decisions by individuals and organisations. The proximate causes of biological diversity loss are often categorised into over-exploitation (hunting and harvesting), the introduction of exotic competitor species, and habitat destruction, or combinations thereof (see UNEP/CBD/COP/3/12). However, the driving forces, or underlying causes, of biological diversity loss are a subject of debate, and may include a wide range of economic and demographic factors. As a result, remediation or mitigation measures and investments are difficult to accurately target to the underlying causes of loss.

15. Though this list is not an exhaustive accounting of the characteristics of biological diversity that differentiate it from conventional projects, it gives an indication of the complexity of the issues that should be taken into account when designing and implementing biological-diversity projects.

16. The incorporation of these special characteristics into guidelines for biological diversity management projects will be a difficult process that can only be improved through experience, evaluation, experimentation and the sharing of results. The next section proposes a set of preliminary principles the COP may wish to incorporate or build upon in their preparation of suggested guidelines for funding agencies on ways to make their activities more supportive of the Convention.

4. PRINCIPLES TO GUIDE FUNDING INSTITUTIONS

17. The effectiveness of financial support for biological diversity will depend upon the extent to which donor institutions can incorporate the special characteristics noted above into their investment decisions. The following principles for the design of biological diversity projects apply equally to all of the funding institutions, including bi-lateral and multi-lateral institutions, the Global Environment Facility, and NGOs.

18. Articles 20 and 21 provide the framework within which Parties undertake to provide financial resources to enable developing-country Parties to meet the agreed-upon full incremental costs to them of implementing measures which fulfil the obligations of the Convention. In particular, Article 21, paragraph 4, provides that "the contracting Parties shall consider strengthening existing financial institutions to provide financial resources for the conservation and sustainable use of biological diversity". Article 20 not only calls upon developed-country Parties to provide additional financial resources, but identifies a number of key terms that are meant to guide Parties in the manner in which they fulfil their obligations under the Convention, namely that these commitments shall take into account the need for, *inter alia*: (a) adequacy, predictability, and the timely flow of funds; (b) that economic and social development and the eradication of poverty are the first and overriding priorities recipients; and (c) that projects should take into account the special conditions resulting from the dependence on, distribution and location of, biological diversity within developing-country Parties, in particular small island states. Each of these key terms, when applied to the specific characteristics of biological diversity, can be translated into several specific guidelines. These principles or guidelines can therefore be considered as providing greater definition and meaning to the concepts expressed in Article 20.

19. Table 1 shows the relationship of the following principles to each of the special characteristics of biological diversity:

Table 1
Suggested Principles for Project Design Based on Biological Diversity □ Special Characteristics

Characteristics	Principles
Time Sensitivity of ecological dynamics	<ul style="list-style-type: none"> • Adequacy, predictability, timelines • Long project duration • Project cycle adjustment
Heterogeneity of biological diversity assets	<ul style="list-style-type: none"> • Multi-criteria evaluation of benefits/objectives • Integration with other projects & national or regional strategies • Appropriate size to address multiple objectives
Uncertainty regarding status, trends, and values of biological diversity	<ul style="list-style-type: none"> • Acceptance of higher risk in project returns • Long project duration • Project cycle adjustment
Complexity of threats facing biological diversity	<ul style="list-style-type: none"> • Involvement of stakeholders in project implementation and design • Training and capacity building component in projects
Irreversibility of threshold events due loss or degradation of biological diversity	<ul style="list-style-type: none"> • Precautionary approach • Adequacy, timelines, predictability of funds

4.1 Adequacy, Timelines and the Predictability of Funds (Article 20, paragraph 2):

4.1.1 Longer duration

20. The gestation period for projects based on the functioning of biological cycles may well be longer than for more conventional projects. The time sensitive nature of ecological processes and uncertainty over ecosystem dynamics demand that biological-diversity projects be given long gestation periods. Also, biological-diversity projects involve the management of heterogeneous assets (species, functions, etc.) under a complex set of threats, so rapid success is unlikely. A successful biological diversity management project will likely require time for “adaptive management”.

4.1.2 Project cycle adjustment

21. Project cycles should be adjusted to disburse less funds up front, more downstream, and over a longer period of time. This structure of disbursements would allow for adaptive changes as more is learned about the project’s effects on human-ecological interactions. Because of the uncertainty of ecosystem processes and the complexity of managing human-ecological interactions, projects must have the financial capability to implement lessons learned from experience.

4.1.3 Appropriate size

22. A sustainable biological diversity project will address many components of the economic-ecological system. As a result of the multi-dimensional nature of biological diversity management, large projects need to be flexible enough to incorporate many separate but interlinked components. Small projects need to be integrated with larger projects and regional and national strategies. No general prescription for optimal project size can be asserted other than that projects need to be multi-dimensional, and able to address (either alone or in cooperation with other initiatives) the variety of human and ecological aspects of sustainable biological diversity management.

4.1.4 Multi-criteria evaluation

23. The heterogeneity of biological-diversity assets and the complexity of threats means that successful projects will need to meet multiple objectives. Achieving sustainable biological diversity management in a given area requires that a suite of different threats to a range of biological assets are addressed simultaneously. Furthermore, a successful biological diversity management project needs to have success at two or more levels: success for the people affected, and success for the biological assets under management. And success itself can have many attributes, particularly with regard to the evaluation of human or social conditions.

4.2 Economic and Social Development and the Eradication of Poverty as the First and Overriding Priorities of the Developing-country Parties (Article 20, paragraph 4)

4.2.1 Integration with national strategies

24. Since the degradation and loss of biological diversity is driven by a number of underlying causes, some local in scale, others national and international, biological-diversity projects need to be integrated with other relevant conservation and sustainable use initiatives to ensure effectiveness. In this regard, donor institutions should seek to incorporate the national-level biological diversity management objectives into their biological-diversity financing programmes.

4.2.2 Training and capacity-buildi

25. Since the sustainability of biological diversity management programmes ultimately depends upon the decisions of people who live in an area and use its resources, donor institutions should be advised to incorporate a significant element of local training and capacity-building into projects.

4.3 Special Conditions Resulting from the Dependence on, Distribution and Location of Biological Diversity within Developing-country Parties (Article 20, paragraph 6)

4.3.1 A precautionary approach

26. Because of the extent of scientific uncertainty and the potential for irreversible losses, funding institutions should incorporate a precautionary approach to the allocation of funds to biological-diversity projects. A precautionary approach includes responding to perceived threats in a timely and adequate manner. Again, this requires both considerable information flows on areas of threat and a means of setting priorities for action.

4.3.2 Risk tolerance

27. Biological diversity management projects will have highly uncertain returns because of unknown ecosystem dynamics and the complexity of threats. Donor institutions should not impose stringent requirements for financial or social returns on biological diversity projects. Although most biological-diversity assistance is based on grants or concessional loans, donor agencies require some measurement or indicator of success. In the case of biological-diversity projects, short-term indicators of success may be hard to obtain, leading to assumptions that projects are unsuccessful or offer poor (social) returns. Donor institutions should be encouraged to take on greater risks with regard to the expected returns on their investments, and should be willing to wait longer for results.

4.3.3 Implementation issues

28. Projects may be well designed for changing human-ecological interactions in a way more favourable to the sustainable management of biological resources, but implementation presents a separate set of issues. Recent experience from the implementation of biological diversity management projects provides a set of emerging lessons. Some of the requirements for successful project implementation include a supportive policy environment at the national level, the involvement of stakeholders in project design and implementation, and on-going monitoring and evaluation (World Bank 1995).

5. RECOMMENDATIONS

29. In its continuing efforts to assist funding institutions in making their activities more supportive of the Convention, the COP may wish to:

- (a) recommend a set of principles along the lines of those outlined in this Note to assist funding institutions in their activities relating to biological diversity;
- (b) compile information on innovative approaches and projects that successfully incorporate the special characteristics of biological diversity; and
- (c) request that the Executive Secretary to further elaborate on these characteristics and principles in collaboration with the funding institutions and other relevant organisations.