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INTERGOVERNMENTAL NEGOTIATING COMMITTEE
FOR A CONVENTION ON BIOLOGICAL DIVERSITY

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Additional financial resources, in the context of the conservation and rational use of biological resources

Note by the secretariat

I. Background

1. Draft articles 18 and 19 of the Second Revised Draft Convention on Biological Diversity seek to establish reciprocal rights and obligations in terms of financial needs and means and financial mechanisms. While all Contracting Parties, consistent with their capabilities, are expected to provide financial support for the Second Revised Draft Convention and sustainable use of their biological diversity in accordance with different articles of the draft Convention, the obligations assumed are to be subject to the following conditions:

(a) The fulfillment of the obligations of the developing countries, Parties to the Convention, shall be subject to the effective provision of additional financial resources and technology transfer;

(b) The developed countries, Parties to the Convention, shall undertake in accordance with their capabilities, to provide additional financial resources on a grant or concessionary basis as appropriate to help them in the conservation and sustainable use of biological diversity in their territories and to ensure their access to the required technology, including biotechnology, to enable them cover the agreed incremental costs;

(c) The Contracting Parties shall, on a regular basis and in accordance with national legislation and policies, examine economic incentives which may operate in an efficient and equitable manner to induce changes contributing to the conservation and sustainable use of biological diversity.

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(d) The Contracting Parties, pursuant to the objectives of the Convention and taking into account the special needs of the developing countries, shall establish financial mechanism(s), to channel the resources that the developing countries need to meet the agreed incremental costs for complying with the provisions of the Convention. The detailed provisions of the financial mechanism shall be determined by the Contracting Parties. The Contracting Parties shall also consider the possibility of strengthening existing (e.g. GEF) or creating new and innovative financial institutions (along the lines of the Montreal Multilateral fund) to provide the necessary financial resources.

2. In another Note (UNEP/Bio.Div/INC.4/4) an attempt has been made to outline the development in different fora of the concepts of "additional", "new" and "adequate" to meet the financial needs of the developing countries in complying with the obligations under the Convention.

3. It is worthwhile to examine first the nature of biological diversity, the financial and technology problems involved in their conservation, and the level of external financing required for the purpose.

II. Nature of biodiversity

4. Biological diversity comprises the diversity of species, genetic material, ecosystems and ecological processes that sustain the biosphere. From the stand point of economic valuation it is necessary to make a distinction between biological resources and the variety of species, genes, and ecosystems because the valuation of the two need not be the same. The importance of arriving at correct economic values lies in the fact that otherwise there may be a serious distortion in the evaluation of conservation projects and land use decisions.

5. Economic value is derived from the direct use of biodiversity in production, consumption and non-consumption activities as well as from their option and existence values. Economists have also attempted to establish an indirect use value of the variety and variability of plant and animal species. In short, the total economic value of biodiversity in a given situation is made up of direct use, indirect use, option and existence values as appropriate. The functional relationship between a change in biodiversity and its economic value depends on both ecological and economic processes. The change caused to ecological processes by a specific shift in the quantum and quality of biodiversity leads to variations in economic activity and thus in economic values generated. In this situation, it is not possible to predict a generalized relationship: only a site - specific, case by case approach is meaningful.

6. The net conclusion is that it is unlikely that policy decisions (relating to budgetary allocations, use of supportive measures or transfer of technology) on the conservation of biodiversity are going to be taken on purely economic grounds. They are more likely to stem from broad political, economic and cultural considerations.

III. Financial resources and technology transfer problems

7. The greatest variety in species is to be found in the "gene-rich" developing countries, and particularly in the tropical moist forests. It is precisely these habitats and countries that face the most pressing current and future problems in the conservation of biodiversity.

8. The financial costs of conservation including the opportunity cost of not proceeding with urgently needed, high priority development projects as well as burdensome maintenance and policing costs and expenditures incurred on research are likely to be high for the developing countries.

9. As well documented, the immediate causes of the loss of biodiversity are (in order of importance) loss and degradation of habitat; pollution; excessive harvesting of certain species; climate change; etc. The loss of habitat is the result of population pressures (which cannot be controlled in the short-term) and pressures for economic growth in the developing countries or rather the placing of a minimum floor of basic human needs for these countries (which cannot also be contained or made "sustainable" in the short- or medium-term). In terms of policy options, this is the cost (the loss of food supplies, of employment opportunities, and of economic and social viability generally) which must be weighed against the loss of biodiversity.

10. The issues that arise in the estimation of needs for financial resources and technology transfer are intrinsically complex. This is due to a variety of reasons. Local values (with greater emphasis on direct use-value) could be different from national values (depending on whether the economy concerned is developed or developing) and international values (where option and existence values play an important role).

11. Another contributing factor relates to significant market distortions for biodiveristy. Such distortions result because of large secondary and indirect effects of the loss of species, ecosystems, etc. These effects can be both spatial and temporal in nature. Secondly, in a large measure the derivatives from biodiversity are public and not private property and the market in them is not competitive.

12. The recent development of biotechnologies has led to the emergence of a number of issues, including farmers' rights to wild material and intellectual and international property rights of far reaching importance. These will need to be equitably and efficiently resolved in terms of the proposed Convention.

13. To complicate matters further much of the present biodiversity of the Planet is located not in the low-income countries, but in certain middle income countries, notably, Brazil, Indonesia, Mexico, Malaysia and Zaire. The predilection of bilateral aid agencies or multilateral financing institutions is to look for maximum impact on the needy which is in the poorest countries and for projects that yield early returns. In reality, the countries with the highest conservation needs of biodiversity (which need not necessarily meet the two priority requirements of external financing) have to incur very large costs for which resources cannot be made available internally and are not forthcoming externally.

14. Finally, there is considerable scientific and economic uncertainty as to the present and projected value of biodiversity. On the supply side it is not clear from scientific prognosis what species and genes could be available at different times in the future. Nor is it possible from economic analysis to identify items and services that will have high value in future years. There is thus considerable uncertainty on both the supply and demand sides.

15. For these reasons, the cost curve for the conservation of biodiversity continues to be elusive. There can only be an attempt to establish broad orders of magnitude based on regional and country case studies.

IV. Level of financing required

16. Various estimates have been made from time to time of the financing cost of biodiversity conservation. Furtado (1990) estimated a total world-wide cost of $10 billion per year. An earlier study by WRI (1989) had placed the cost figure between $20 and $50 billion annually. Other estimates place the figure between $500 million and $1 billion. In reality the expenditures currently undertaken are conspicuously less. The US expenditures on biodiversity amounted to $63 million in 1989 which was in itself an increase from $37 million in 1989 as cited by Abramowitz (1989 and 1991). The United Kingdom spent a total of Sterling Pounds 12.9 million for 1990.

17. Nevertheless, the economic value of biodiversity is substantial. Although the world's food and fibre supply may not be vulnerable, the current rate of extinction of species and losses of natural ecosystems can change forcefully hydrological and nutrients cycles, lessen agricultural productivity and possibly impact on climate change. In this connection, it must be noted that most of the changes will be taking place in the Third World countries which are the least able to cope with the financing burden.

18. In order to develop a rigorous theory of ecosystems, it is necessary to identify the relationship between biological complexity and ecosystem stability, the characteristics of an ecosystems that make it resilient or vulnerable to changes and the meaning of species diversity for ecosystems functioning and stability. These tasks require additional funding.

19. At the same time the objective conditions that face developing countries are becoming less and less promising. Inspite of the fact that the debt burden of $1.3 trillion on economies which are based largely on natural resources has led to a more rapid and dangerous rate of resource exploitation than would have otherwise been the case, very little has been done in an effective manner during the past several years to deal with the debt crisis. The net effect of existing trade patterns has also been inimical to world's biodiversity. Strong pressures are generated on countries which function under un-equal terms of trade to exploit their natural resources. When trade barriers on processed and semi-processed goods are erected by industrial countries the role of the Third World as suppliers of biotic resources is strengthened. Additionally, without international legal protection for genetic resources important for agriculture, medicine and industry, the biodiversity existing in the developing countries tend to become an "open access" resource.

20. Biodiversity problems may be transboundary in nature or involve endangered species or sites where national financing is not available nor expected or a need for support for sites/areas other than protected areas (including mangroves, agriculture and marine systems, fisheries, and production and protection forests). Financing will be also needed for support services (e.g. training, institutional strengthening, development and enforcement of legislation, policing and field surveys). Such services are essential for effective conservation purposes. It is necessary to build upon the complementarity that exists between them and field projects. The entire area of ex-situ conservation comprising botanical gardens, zoological parks, germplasm storage in seed and pollen banks etc is highly expensive at today's costs but a meaningful and wholly necessary part of a conservation strategy. As routine projects none of these are likely to receive adequate funding. They must be linked to new and special programmes and funds.

21. Apart from these general considerations, there are specific areas which need additional funding. One of these is the urgently needed financing for research, training and data gathering. Similarly, there is a need for the development of procedures (e.g. through the identification of a variety of indices) for conservation planning.

22. A particular problem of funding is that biodiversity is often conserved and developed by indigeneous peoples and local farmers, who rightly should be beneficiaries. On the other hand, biodiversity should be paid for by the commercial enterprises who benefit from it, i.e. industrial and agroindustrial corporations. Understandably there are enormous difficulties in measuring on both sides, but any arrangement for a financing mechanism should be considered incomplete until it starts to reflect these principles. This perspective should not be lost while a practicable arrangement is sought.
