

# REPORT

*Liaison Group Meeting on  
Ecosystem Approach  
Paris – 15-17<sup>th</sup> September 1999*

*Secretariat of the Convention on Biological Diversity*

Convention on Biological Diversity

## **Report of the Liaison Group on The Ecosystem Approach**

**UNESCO, Paris, 15-17th September 1999**

### **I – Introduction**

Due to the generous support of the Governments of France and United Kingdom and of UNEP, the Secretariat of the Convention on Biological Diversity has convened a liaison group on the ecosystem approach which met at UNESCO Headquarters in Paris, from 15 to 17 September 1999.

On behalf of the Executive Director of the UNESCO, Dr. Peter Bridgwater opened the meeting and welcomed the participants. The debate was initiated by Dr. Peter Bridgwater and the Secretariat which outlined the rationale for the liaison group meeting and the need to develop the ecosystem approach beyond principles into guidance and protocols for action. Specifically the liaison group was requested, in accordance with Decision IV/1.B, to assist SBSTTA:

- To develop principles and other guidance on the ecosystem approach, taking into consideration, *inter alia*, the results of the Malawi workshop;
- To evaluate the current state of scientific and technical knowledge on the ecosystem approach;
- To assess the ways and means to promote activities under the Convention through the primary framework of the ecosystem approach;
- To obtain substantial scientific and technical inputs, clarification and advice on the ecosystem approach;
- To focus on ecosystem functioning and how this relates to economic activities and related social issues.

A background document to the liaison group had been prepared for the Secretariat of the Convention on Biological Diversity by the IUCN - Commission on Ecosystem Management (CEM) (see in Annex)

The Liaison Group adopted Peter Bridgwater as Chair and Dr. Zipangani M. Vokiwa as Rapourter of the meeting.

The Secretariat presented the history of the adoption of the ecosystem approach through the process of the Convention on Biological Diversity and outlined the various decisions and recommendations coming from the Conference of the Parties and the Subsidiary Body for Scientific, Technical and Technological Advice in respect of to the ecosystem approach.

Dr. Horst Korn, Germany, presented a summary of the output of the Vilm workshop on the Ecosystem Approach and its implication for European ecosystems. In discussion it was raised by the group that the outcome of other initiatives on the ecosystem approach such as of the Third Trondheim Conference, October 1999, or of the Intermediate Ministerial Meeting on the North Sea, Oslo 1997, among others should be taken into account in the work of the liaison group.

Dr. Herbert Prins, Wageningen Agricultural University, The Netherlands, presented a summary of the Malawi workshop and subsequent set of principles developed from current thinking on the ecosystem approach. It was stressed that the principles must be viewed holistically and that no one principle should be interpreted without reference to the others.

Prof. Edward Maltby, (IUCN-CEM) Royal Holloway Institute for Environmental Research, presented a summary of the background paper prepared for the liaison group by the IUCN-CEM as requested by the Secretariat. He outlined the need to move on to the operationalisation of the principles taking into account the three objectives of the Convention of Biological Diversity, that there are many ways of implementing the ecosystem approach and that use should be made of the wide range of experience that has already been obtained.

## **II - Discussion on the ecosystem approach**

During the three-day meeting, several themes were developed from the discussion on the ecosystem approach. It was accepted that there would be difficulty in defining the scale and boundaries of the ecosystem approach, although it was acknowledged that these would be set by the problem at hand. For the ecosystem approach to be implemented there should be clear communication both vertically through the global, regional, national and local tiers of coordination, and also horizontally across the many sectors involved. There needs to be clear labelling of responsibility and authority in implementing the ecosystem approach, with clear identification of stakeholders and the creation of an enabling environment in which to operate. The principles of the ecosystem approach are generally accepted and there is now a clear need in implementing the approach for guidance, for drawing from experience and for identifying constraints and processes to overcome them. As the ecosystem approach is now the primary framework for action to be taken under the Convention, more clarity is needed over the approach and its potential relationship with more traditional conservation practices.

The liaison group examined the Malawi Principles in detail. Common themes arising in addition to the general discussion were the need for clear use of terminology for the translation of concepts and ideas into the official CBD language as well as in more understandable way and also a re-emphasizing of the need for information provision at all levels of the decision making process, including as far as possible all of the stakeholders involved in the process.

The outputs of the meeting were divided between general statements on the principles themselves and more specific detail on the wording of the principles and their rationale. (These are contained in Annex 2). Among the themes discussed, the main are as following:

- There is a need for the adequate definition of boundaries to address the problem at hand.
- The ecosystem approach should be an iterative process making full use of adaptive management techniques.
- Information should be provided in a fair and open way to all stakeholders involved in the process.
- There is the need for capacity building among all stakeholders in the process.
- Full use should be made of proper and accurate evaluation of biodiversity if economic incentives are to be successful in balancing development with conservation.
- Perverse incentives and market distortions need to be re-adjusted.
- Clear terminology is needed to be better understood by all relevant stakeholders.
- The precautionary principle should be part of the ecosystem approach.
- Traditional conservation practice forms part of the ecosystem approach, not a separate approach.
- Contracting Parties should create an enabling environment in which to develop the ecosystem approach.
- Population growth and production/consumption patterns form a major constraint to the development of the ecosystem approach.
- There is a need for a long-term view of research, management and funding requirements balanced with short term projects aimed at showing the benefits of the ecosystem approach.
- Information from case studies where aspects of the ecosystem approach had been successfully used in practice should be given importance
- Conflict resolution mechanisms should form part of the adaptive management.
- Cultural diversity should be discussed alongside biodiversity.
- Transparency of decision making and management processes at all levels should be part of the ecosystem approach.

The liaison group finalised a description of the ecosystem approach as following:

“The ecosystem approach is a strategy for management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

The aim of an ecosystem approach is to reach a balance of the three objectives of the Convention on Biological Diversity: conservation, sustainable use, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

An ecosystem approach is based on the application of appropriate scientific methodologies focused on levels of biological organisation which encompass the essential processes, functions and interactions among organisms and their environment, and among ecosystems. It recognizes that humans, with their cultural diversity, are an integral component of ecosystems.

The Liaison Group concluded its work by proposing next steps in the development of the ecosystem approach. It was agreed that there was a need for identification of case studies and the need for the development of guidance for Contracting Parties and that this experience should be disseminated to other contracting parties through mechanisms such as the Clearing House Mechanism. Pilot projects should also be developed to test the ecosystem approach and feed into best practice guidance. Finally, capacity should be built-up in the Convention on Biological Diversity process and with Contracting Parties to apply the ecosystem approach.

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## ANNEX 2: PRINCIPLES AND OTHER GUIDANCE

The liaison group suggested that the twelve principles developed by the Malawi workshop should form the core of the ecosystem approach, while relevant findings of other initiatives should also be taken into account, as appropriate. The liaison group developed a description of the ecosystem approach and proposed actions aimed at implementing each principle and other guidance on such an approach.

The liaison group stressed that the ecosystem approach should include a system of accountability that addresses performance of managers and decision-makers, and achievement of management objectives.

The liaison group proposed that, although some principles might have precedence over others, they need to be read as a whole and in conjunction with each other, as they are all complementary and interlinked. Together they characterize the ecosystem approach. The liaison group was aware further of the variation in country circumstances which may impede implementation and necessitate specific operational requirements.

**Principle 1:           The objectives of management of land, water and living resources are a matter of societal choice.**

Rationale:           Different sectors of society view ecosystems in terms of their own economic, cultural and societal needs. Indigenous peoples and other local communities living on the land are important stakeholders and their rights and interests should be recognized. Both cultural and biological diversity are central components of the ecosystem approach, and management should take this into account. Ultimately, all ecosystems should be managed for the benefits of humans - whether that benefit is consumptive or non-consumptive.

**Principle 2:           Management should be decentralized to the lowest appropriate level.**

Rationale:           Decentralized systems can lead to greater efficiency, effectiveness and equity. The closer management is to the ecosystem, the greater the responsibility, accountability, participation, and use of local knowledge.

**Principle 3:           Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems.**

Rationale:           Management interventions in ecosystems often have unknown or unpredictable effects on other ecosystems; therefore, possible impacts need careful consideration and analysis. This may require new arrangements or ways of organization for institutions involved in decision-making to make if necessary appropriate compromises.

**Principle 4:           Recognizing potential gains from management, there is a need to understand the ecosystem in an economic context. Any ecosystem management programme should:**

- (a)     Reduce those market distortions that adversely affect biological diversity;
- (b)     Align incentives to promote biodiversity conservation and sustainable use;
- (c)     Internalize costs and benefits in the given ecosystem to the extent feasible.

Rationale:           Management interventions in ecosystems often have unknown or unpredictable effects on other ecosystems and therefore need careful consideration and



analysis. This may require institutions for decision-making that lead to appropriate compromises and trade-offs.

**Principle 5: A key feature of the ecosystem approach includes conservation of ecosystem structure and functioning.**

Rationale: Ecosystem functioning and resilience depends on a dynamic relationship within species, among species and between species and their abiotic environment, as well as the physical and chemical interactions within the environment. The conservation and, where appropriate, restoration of these interactions and processes is of greater significance for the long-term maintenance of biological diversity than simply protection of species.

**Principle 6: Ecosystems must be managed within the limits of their functioning.**

Rationale: In considering the likelihood or ease of attaining the management objectives, attention should be given to the environmental conditions that limit natural productivity, ecosystem structure and functioning. The limits to ecosystem functioning may be affected to different degrees by temporary, unpredictable or artificially maintained conditions and, accordingly, management should be appropriately cautious.

**Principle 7: The ecosystem approach should be undertaken at the appropriate scales.**

Rationale: The approach should be bounded by spatial and temporal scales that are appropriate to the objectives. Boundaries for management will be defined operationally by users, managers, and scientists. The ecosystem approach is based upon the hierarchical nature of biological diversity characterized by the interaction and integration of genes, species and ecosystems.

**Principle 8: Recognizing the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for the long term.**

Rationale: Ecosystem processes are characterized by varying temporal scales and lag-effects. This inherently conflicts with the tendency of humans to favour short-term gains and immediate benefits over future ones.

**Principle 9: Management must recognize that change is inevitable.**

Rationale: Ecosystems change hence management should adapt to the changes. Apart from their inherent dynamics of change, ecosystems are beset by a complex of uncertainties and potential "surprises" in the human, biological and environmental realms. The ecosystem approach must utilize adaptive management in order to anticipate and cater for such changes and events and should be cautious in making any decision with may foreclose options.

- Principle 10:**      **The ecosystem approach should seek the appropriate balance between conservation and use of biological diversity.**
- Rationale:        Biological diversity is critical both for its intrinsic value and because of the key role it plays in providing the ecosystem and other services upon which we all ultimately depend. There has been a tendency in the past to manage components of biological diversity either as protected or non-protected. There is a need for a shift to more flexible situations, where conservation and use are seen in context and the full range of measures is applied in a continuum from strictly protected to human-made ecosystems.
- Principle 11:**      **The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices.**
- Rationale:        Information from all sources is critical to arriving at effective ecosystem management strategies. All relevant information from any concerned area should be shared with all stakeholders and actors, taking into account, *inter alia*, any decision to be taken under Article 8(j) of the Convention on Biological Diversity.
- Principle 12:**      **The ecosystem approach should involve all relevant sectors of society and scientific disciplines.**
- Rationale:        Most problems of biological-diversity management are complex, with many interactions, side-effects and implications, and therefore should involve the necessary expertise and stakeholders at the local, national, regional and international level, as appropriate.

## **General Guidance**

The ecosystem approach does not preclude other management and conservation approaches, such as Biosphere Reserves, traditional protected areas, single species conservation programmes, but should be seen as “a process” that integrates these and other approaches to deal with complex situations. There is not a single way to implement the ecosystem approach as it depends on local, provincial, national, regional or global conditions. Indeed there are many ways in which ecosystem approaches may be used as the framework for delivering the objectives of the Convention on the ground. The importance of the use and application of adaptive management in the implementation of the ecosystem approach should be stressed. The approach should be applied in all development activities.

An effective implementation of the ecosystem approach will allow for a balance between the three objectives of the Convention (conservation, sustainable use and benefit sharing). The balance will depend on the specific activities/problems dealt with. Governments should carefully analyze case studies on the ecosystem approach that take into account the three objectives of the Convention.

Ecosystem approach principles are of a multi-fold nature: substance, process, guidance, overarching, operational. For example, some of the principles stemming from the Malawi workshop are providing guidance for the implementation of the ecosystem approach and others are processes in themselves. However, in implementing the principles on the ground all principles should be considered as a whole. Common sense is a key element in the implementation of the ecosystem approach. The precautionary principle should also be applied to all ecosystem approach principles.

As the primary framework for action to be taken under the Convention, the ecosystem approach principles should be fully taken into account in the process of reviewing National Biodiversity Strategies and Action Plans and into all sectoral programmes and policies to be developed and implemented. To be able to implement the ecosystem approach it is of paramount importance to

define new mechanisms that allow for coordinated decision making processes instead of the traditional sectoral approach.

Parties should create an enabling environment, if necessary by modifying legislation, procedures and practices at the national, provincial and/or local levels (as appropriate) to ensure that decisions on the use and management of land, water and living resources are made in accordance with the ecosystem approach principles. Such an enabling environment should allow, inter alia, for conflict prevention and solution.

Accountability aspects regarding implementation of the ecosystem approach is a top priority and reporting mechanisms as well as dissemination of information should be considered.

To implement the ecosystem approach, Governments should conduct focused and targeted research. Raising awareness of all stakeholders on all principles is a key issue, and to build the local and national capacities to carry out the ecosystem approach will require long-term efforts and commitments.

Production and consumption patterns and choice of technology; great uncertainties; lack of ability to use knowledge; lack of capacity. They are all obstacles to do appropriate management, which should be taken into account when adopting management objectives. As these factors would act as fundamental constraints to the application of the ecosystem approach, mechanisms and specific ways have to be set to deal with these issues. Priority should be given to the following action areas:

- institutional strengthening;
- enabling governance in all relevant levels/stakeholders;
- dissemination of information;
- education;
- training;
- targeted research;
- translation of data and knowledge into user friendly information.