



The mission of the European Platform for Biodiversity Research Strategy (EPBRs) is to ensure that research contributes to halting the loss of biodiversity by 2010.

RECOMMENDATIONS OF THE WORKING GROUP ON ECOSYSTEM APPROACH: GUIDELINES FOR IMPLEMENTATION

EUROPEAN PLATFORM FOR BIODIVERSITY RESEARCH STRATEGY

Meeting under the Greek Presidency of the EU

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To make the Ecosystem Approach of the CBD contribute more effectively to the 2010 targets of the EU and the WSSD Summit, the working group places high priority on research to:

1. apply the principles of the Ecosystem Approach of the CBD to the implementation of relevant European legislation and policy (European Water Directive, the FFH Directive, the Birds directive, the implementation of the NATURA 2000 and the Emerald Networks, the European Community Biodiversity Strategy and its Biodiversity Action Plans, and the Pan-European Biological and Landscape Diversity Strategy);
2. improve stakeholder involvement when applying the Ecosystem Approach through equal access to information and capacity building;
3. improve the application of the guiding principles of the Ecosystem Approach in solving trans-boundary conflicts over natural resources which impact on biodiversity, taking into account that there needs to be a willingness of all stakeholders to solve conflicts peacefully;
4. understand how governments, business, communities, users and conservers of natural resources and other stakeholders view and value biodiversity, the goods and services provided by ecosystems and how this affects decision making;
5. develop cost and benefit sharing arrangements concerning the conservation and use of biodiversity that could be applied within the Ecosystem Approach;
6. improve, communicate and implement the Ecosystem Approach in the various ecological, cultural, social and economical contexts.

To provide scientific support to the implementation of the Ecosystem Approach, the working group places high priority on research to:

7. develop case studies that apply the Ecosystem Approach in different situations and different scales, evaluate its effectiveness in comparison to other approaches and propose improvements to the Ecosystem Approach;
8. improve understanding of ecosystem structure and functioning, including increased knowledge of the component species and their role in the ecosystem;
9. be able to detect when ecosystems are approaching the limits of their natural functioning or productive capacity;
10. develop integrated monitoring programmes for biodiversity and other ecosystem components to assess effects of management practices.

The above research priorities stemmed in particular from the following elements of the CBD ecosystem approach:

1. The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. The application of the ecosystem approach will help to reach a balance of the three objectives of the Convention: conservation; sustainable use; and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.
2. An ecosystem approach is based on the application of appropriate scientific methodologies focused on levels of biological organisation, which encompass the essential structure, processes, functions and interactions among organisms and their environment. It recognises that humans, with their cultural diversity, are an integral component of many ecosystems.
3. This focus on structure, processes, functions and interactions is consistent with the definition of 'ecosystem' provided in Article 2 of the Convention on Biological Diversity: "‘Ecosystem’ means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit." This definition does not specify any particular spatial unit or scale, in contrast to the Convention definition of 'habitat'. Thus the term 'ecosystem' does not necessarily correspond to the terms 'biome' or 'ecological zone', but can refer to any functioning unit at any scale. Indeed, the scale of analysis and action should be determined by the problem being addressed. It could, for example, be a grain of soil, a pond, a forest, a biome or the entire biosphere.
4. The ecosystem approach requires adaptive management to deal with the complex and dynamic nature of ecosystems and the absence of complete knowledge or understanding of their functioning. Ecosystem processes are often non-linear, and the outcome of such processes often shows time-lags. The result is discontinuities, leading to surprise and uncertainty. Management must be adaptive in order to be able to respond to such uncertainties and contain elements of 'learning-by-doing' or research feedback. Measures may need to be taken even when some cause-and-effect relationships are not yet fully established scientifically.
5. The ecosystem approach does not preclude other management and conservation approaches, such as biosphere reserves, protected areas, and single-species conservation programmes, as well as other approaches carried out under existing national policy and legislative frameworks, but could, rather, integrate all these approaches and other methodologies to deal with complex situations. There is no 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 in practice.