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in

Heywood V.H. (ed.), Skoula M. (ed.).
Identification of wild food and non-food plants of the Mediterranean region

Chania : CIHEAM
Cahiers Options Méditerranéennes; n. 23

1997
pages 7-9

Article available on line / Article disponible en ligne à l'adresse :

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http://om.ciheam.org/article.php?IDPDF=CI011056

To cite this article / Pour citer cet article

Heywood V.H. **Global biodiversity assessment.** In : Heywood V.H. (ed.), Skoula M. (ed.). *Identification of wild food and non-food plants of the Mediterranean region.* Chania : CIHEAM, 1997. p. 7-9 (Cahiers Options Méditerranéennes; n. 23)

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GLOBAL BIODIVERSITY ASSESSMENT

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KEY-WORDS:
UNEP, BIODIVERSITY, NATURE CONSERVATION, ENVIRONMENTS, POLICIES

MOTS-CLES:
PNUE, BIODIVERSITE, CONSERVATION DE LA NATURE, ENVIRONNEMENT, POLITIQUE

The Convention on Biological Diversity which was signed at the Rio Summit (UNCED) in 1992 and which came into effect at the end of 1993 is one of the most significant and far-reaching environmental treaties ever to have been developed. As it states in the preamble the Contracting Parties 'are *aware* of the general lack of information and knowledge regarding biological diversity and of the urgent need to develop scientific, technical and institutional capacities to provide the basic understanding on which to plan and implement appropriate measures.'

It was this recognition that led to the decision by UNEP to commission an independent, critical peer-reviewed, scientific analysis of all the current issues, theories and views regarding biodiversity, viewed from a global perspective. This study, known as the *Global Biodiversity Assessment* was initiated in May 1993 and published for UNEP by Cambridge University Press in November 1995 (Heywood 1995) with a formal launch at the second Conference of the Parties held that month in Jakarta, Indonesia. It was largely financed by the Global Environment Facility (GEF) and was also supported from UNEP's Environment Fund.

The Assessment was written by thirteen teams of experts involving some 300 authors from over 50 countries; in addition several hundred scientists from more than 80 countries and covering many different disciplines in the biological, economic and social sciences peer-reviewed various parts of the text. The Assessment is divided into the following sections:

- Introduction
- Characterization of biodiversity
- Magnitude and distribution of biodiversity
- Generation, maintenance and loss of biodiversity
- Biodiversity and ecosystem function – basic principles
- Biodiversity and ecosystem function – biome analyses
- Inventorying and monitoring of biodiversity
- The resource basis for biodiversity assessments
- Data and information management and communication

- Biotechnology
- Human influences on biodiversity
- Economic values of biodiversity
- Measures for conservation of biodiversity and sustainable use of its components

It is important to note that the GBA, as it is widely known is not, however, formally linked to the Convention and does not represent an official statement on biodiversity. Rather it is the considered view by the world's scientific community of the state-of-the art in our knowledge and understanding of all the multitude of issues involved in this highly complex subject.

In addition to the GBA itself a short Summary for Policy-Makers (Watson *et al.* 1995). has also been produced, highlighting the main points that are likely to have significance for those formulating policy.

TABLE 1. THE COMPOSITION AND LEVELS OF BIODIVERSITY (HEYWOOD, 1995)

Ecological diversity		**Organismal diversity**
		kingdoms
biomes		phyla
bioregions		families
landscapes		genera
ecosystems		species
habitats	**Genetic diversity**	subspecies
populations	populations	populations
	individuals	
	chromosomes	
	genes	
	nucleotides	
Cultural diversity and human interactions at all levels		

The definition of biodiversity is a subject of considerable discussion. A broad view of biodiversity is taken in the GBA which treats it as having four major components -- ecological, organismic, genetic and cultural diversity (Table 1).

Although the GBA does not make policy recommendations as such, it does draw attention to the policy implications of its major findings, and to gaps in our knowledge or capacity. Indeed one of the findings is the very limited knowledge that we possess about the various components of biodiversity.

It notes that the main underlying causes of the loss and degradation of biodiversity are demographic, economic, institutional and technological factors. For example, there are increasing demands on biological resources due to population growth and economic development. Our current market systems fail to value biodiversity adequately and economic markets do not apply globally derived values of biodiversity at local level. The result is a continuing loss and degradation of habitats or their conversion to other uses, the overexploitation of biological resources, loss of species and genetic diversity, pollution and climatic change.

The GBA concludes that unless we take immediate effective steps to stem the loss and degradation of biodiversity, we will forego for ever the opportunities of deriving its full potential benefit for humankind. We need to improve our knowledge base, correct past economic policy failures, and ensure that the conservation and sustainable use of resources and equitable sharing of the benefits derived from them form part of our social and economic system.

The GBA is large and complex document containing a vast amount of information and analysis. It will provide a compendium of knowledge for the benefit of all those who are involved in the

implementation of the Convention on Biological Diversity. It should also serve as a useful reference work for the scientific community interested in any aspects of biodiversity.

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