

Chapter 15

A Governance and Ecosystems Management Approach to the Conservation of Biodiversity

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ABSTRACT

This chapter reports the main results of GEM-CON-BIO (Governance and Ecosystems Management for the Conservation of Biodiversity), a FP6 funded project under Priority - Citizens and Governance in a knowledge-based society and highlights the path drawn by the currently ongoing FP7 project TESS (Transactional Environmental Support System).

GEM-CON-BIO ran for two years and three months bringing together 12 partners, 9 from 7 European countries, plus partners from the United States, Iran, Indonesia, and Bolivia. Its strategic objective was to explore the interactions between governance modes and sustainable development objectives in view of identifying what governance processes and institutions can best contribute to the conservation of biodiversity.

Twenty seven case study reports were synthesized and a governance matrix derived, out of which policy conclusions and recommendations were formed. Research draws conclusions on the strengths, weaknesses, and impact the governance structures had in each case. Variables from the Capacity-Objectives-Processes-Impacts framework were then subject to staged multivariate analyses.

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The findings indicate that a dual approach for conservation, of protection complemented by sustainable use of biodiversity, will benefit from great care in objective-setting and framing regulations. Strong findings on adaptive management and devolved governance endorse recent CBD (UN Convention on Biological Diversity) guidelines for sustainable use within an ecosystem approach and favour community-based or policy-network governance. There is probably much scope to exploit the strength of benefit from institutional leadership, especially for guiding local decisions.

Finally, this chapter highlights the path drawn by the currently ongoing TESS project (Transactional Environmental Support System) to put some of the conclusions of the GEM-CON-BIO project in practice.

INTRODUCTION

The research in the framework of GEM-CON-BIO has been based on the common acceptance that in Europe we face a number of serious challenges regarding the protection of our natural heritage and the sustainable use of our natural resources. These challenges are evident in our everyday life and require an urgent and effective solution. It is a widely spread phenomenon in Europe the existence of an extensive network of protected areas, though the vast majority of biodiversity is found outside them. As a result, in the last few years we have witnessed massive declines in biodiversity and equivalent declines in the ability of ecosystems to provide the necessary services for our communities. In order to restore this balance, the active participation of all stakeholders is required. It is certain that we have to become increasingly clever in how we integrate environmental concerns into all sectors of resource use. Our research was initiated in order to contribute to that direction by identifying the different ways in which we can sustainably manage our natural resources.

In order to achieve our strategic objective, we investigated the different types and modes of governance which are related to biodiversity conservation and sustainable development, has identified critical characteristics and threshold factors, which exist in the environment of an ecosystem management authority (environmental, social and

economic factors), and has conducted research on a range of case studies on biodiversity governance. Lessons have been drawn from community and private sector experiences, from region-specific practices and conditions and from efforts to link ecosystems in order to achieve a broad management and governance level (regional, national and global). Co-management approaches, currently flourishing all over the world, have also been an important focus of discussion (Arampatzis et al 2006, Manos and Papathanasiou 2008, Edge and McAllister, 2009).

OBJECTIVES OF THE RESEARCH

The strategic objective of our research was to explore the interactions between governance modes and sustainable development objectives in view of identifying what governance processes and institutions can best contribute to the conservation of biodiversity.

In order to meet this strategic objective, we had the following operational objectives:

- Identify existing governance types and their modes and processes in relation to conservation of biodiversity.
- Identify critical ecosystem management characteristics.

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