

Ecosystems and Sustainable Development IV

Volume 1

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The objective of this series is to provide up to date information on basic and applied research and practical applications of a wide range of topics related to Ecology.

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PREFACE

An editorial in *Ecological Economics* [n. 44 (2003)] cites a meeting held at a café in the central square of Siena 13 years ago; the theme of an up-coming conference in Stockholm in 1992 was discussed. The working title of the Conference “Maintaining Natural Capital” did not really capture the essence of the issues to be raised. After intense discussion Herman Daly said, “Let’s use - Investing in Natural Capital - instead”. This approach involves a greater *Gestalt* shift in scientific paradigm, from a mechanistic to an evolutionary approach, introduced, among others, by the Nobel Prize Ilya Prigogine, Honorary President of Fourth International Conference on Ecosystems and Sustainable Development (ECOSUD).

This evolutionary approach is a core objective of the ECOSUD Conference and the contained in this volume.

As complexity is by definition interdisciplinary, the aim of the Conference is to integrate thermodynamics, ecology and economics into “ecodynamics”. The main point is that biodiversity is at the core of sustainability.

These two volumes contain research papers on sustainable development issues, environmental and ecological policies, ecosystems modelling, natural resources management, environmental management, biodiversity erosion and soil management, water resources, wetland and lakustrine issues, landscape forestation and agricultural systems, eco-technologies, brownfields, energy generation and conservation, thermodynamics in ecology, eco-toxicology models, environmental risk, development economics, recovery of damaged areas, conservation and management of endangered areas, mathematical and system modelling.

A special section called *Sustainability studies in the Province of Siena* presents the SPIn-Eco Project, an ambitious research program to assess environmental conditions in the Province of Siena using a wide set of sustainability indicators.

The Editors thank all participants at the Conference, the authors for their contributions published in this volume and the members of the International Advisory Committee for their help in reviewing the papers and promoting the Conference.

The Editors
Siena, 2003

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