WITH THE SUPPORT OF
UNESCO REGIONAL BUREAU FOR SCIENCE IN EUROPE

THE MAB PROGRAMME IN THE SOUTH EASTERN
EUROPEAN COUNTRIES

ANALYTICAL REPORT

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<td>AIMS</td>
<td>Acceptance and Implementation of Multilateral Environmental Agreements</td>
</tr>
<tr>
<td>ArabMAB</td>
<td>MAB network for the Arab countries</td>
</tr>
<tr>
<td>B&amp;H</td>
<td>Bosnia and Herzegovina</td>
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<tr>
<td>BDP</td>
<td>Bureau for Development Policy</td>
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<tr>
<td>BERCEN</td>
<td>Balkan Environmental Regulatory Compliance and Enforcement Network</td>
</tr>
<tr>
<td>BRs</td>
<td>Biosphere Reserves</td>
</tr>
<tr>
<td>CBD</td>
<td>Convention on Biological Diversity</td>
</tr>
<tr>
<td>CoE</td>
<td>Council of Europe</td>
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<tr>
<td>CEE</td>
<td>Central and Eastern Europe</td>
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<tr>
<td>CEM</td>
<td>Commission for Ecosystem Management</td>
</tr>
<tr>
<td>CEP</td>
<td>Committee on Environmental Policy</td>
</tr>
<tr>
<td>CIS</td>
<td>Commonwealth of Independent States</td>
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<tr>
<td>EC</td>
<td>European Commission</td>
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<tr>
<td>ECE</td>
<td>Economic Commission for Europe</td>
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<td>ECT</td>
<td>European Community</td>
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<tr>
<td>ECOSOC</td>
<td>(UN) Economic and Social Council</td>
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<td>ECPD</td>
<td>European Center for Peace and Development</td>
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<tr>
<td>EEB</td>
<td>European Environmental Bureau</td>
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<tr>
<td>EPRs</td>
<td>Environmental Performance Reviews</td>
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<td>EuroMAB</td>
<td>MAB network for the European countries</td>
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<td>FAO</td>
<td>Food and Agriculture Organisation</td>
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<td>GMO</td>
<td>Genetic Modified Organisms</td>
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<td>HDRs</td>
<td>Human Development Reports</td>
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<tr>
<td>HQ</td>
<td>Headquarters</td>
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<tr>
<td>HDI</td>
<td>Human Development Index</td>
</tr>
<tr>
<td>IBRD</td>
<td>International Bank of Reconstruction and Development</td>
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<td>ICSID</td>
<td>International Centre for Settlement of Investment Disputes</td>
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<td>IDA</td>
<td>International Development Association</td>
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<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
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<tr>
<td>IGOs</td>
<td>Inter-governamental Organizations</td>
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<tr>
<td>IHP</td>
<td>International Hydrological Programme</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>INCS</td>
<td>Institute for Nature Conservation of Serbia</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>ITF</td>
<td>Italian Trust Fund</td>
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<tr>
<td>IUCN</td>
<td>World Conservation Union (former International Union for Conservation of Nature)</td>
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<tr>
<td>KRAs</td>
<td>Key Result Areas</td>
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<td>NP</td>
<td>National Park</td>
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<tr>
<td>MAB</td>
<td>Man and Biosphere</td>
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<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MIGA</td>
<td>Multilateral Investment Guarantee Agency</td>
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<tr>
<td>MU</td>
<td>Management Unit</td>
</tr>
<tr>
<td>NHDR</td>
<td>National Human Development Report</td>
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<tr>
<td>NGOs</td>
<td>Non Governmental Organizations</td>
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<tr>
<td>ENGOs</td>
<td>Environmental Non Governmental Organizations</td>
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<tr>
<td>OECD</td>
<td>Organization for the Economic Cooperation and Development</td>
</tr>
<tr>
<td>OSCE</td>
<td>Organization for Security and Cooperation in Europe</td>
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<tr>
<td>PEBLDS</td>
<td>Pan-European Biological and Landscape Diversity Strategy</td>
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<tr>
<td>RBEC</td>
<td>Regional Bureau for Europe and the Commonwealth of Independent States</td>
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<td>REReP</td>
<td>Regional Environmental Reconstruction Programme</td>
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<tr>
<td>REC</td>
<td>Regional Environmental Centre</td>
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<tr>
<td>RSC</td>
<td>Regional Support Centre</td>
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<tr>
<td>ROSTE</td>
<td>Regional Office for Science and Technology of UNESCO (in Venice)</td>
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<tr>
<td>SEECs</td>
<td>South Eastern European countries</td>
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<tr>
<td>SEUR</td>
<td>Sub-regional Office for Central and Eastern Europe (of FAO)</td>
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<tr>
<td>SURF</td>
<td>Sub-Regional Resource Facility</td>
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<tr>
<td>TBRs</td>
<td>Trans-boundary Biosphere Reserves</td>
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<tr>
<td>TNCs</td>
<td>Trans-National Corporations</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>UNECD</td>
<td>United Nations Conference on Environment and Development</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environmental Programme</td>
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<tr>
<td>UNESCO</td>
<td>United Nation Educational Scientific and Cultural Organization</td>
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<tr>
<td>UNIDO</td>
<td>United Nation Industrial and Development Organization</td>
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<tr>
<td>WB</td>
<td>World Bank</td>
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<tr>
<td>WCPA</td>
<td>World Commission for Protected Areas</td>
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<td>WWF</td>
<td>(formerly World Wildlife Fund)</td>
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EXECUTIVE SUMMARY

The complex geo-political scenarios offered by the emerging European transition economies is still a very conflicting one, and apparently sensitive to additional ‘elements of rigidity’ in the strategic planning processes.

Particularly for the nation states, natural resources management - in a broad sense - is becoming more and more a strategic issue, both for the domestic socio-economic planning process- in the attempt of reconciling protection issues with urgent development demands - and for the international visibility and related negotiation processes.

Since the collapse of the Soviet Union, the ‘transition’ phase of the South-Easter European countries (SEECs) has been largely supported by the international community, throughout plenty of bi-lateral and multi-lateral specific programmes and projects.

Amongst them, the United Nation (UN) system is very active in the region - mostly through its local offices - implementing different scales projects. UNESCO, in particular, has identified a specific niche of strategic planning and action in the sphere of the scientific and technical cooperation and network revitalisation.

This analytical report intends to consider the specific role played by the Man and Biosphere (MAB) Programme in the SEECs context; in fact, the first findings tend to demonstrate that ‘Biosphere Reserve approach’ - when properly activated by the combination of the different scales’ functions and relations - offers a flexible platform of active territorial negotiation, inducing the adoption of collaborative management approaches and linking then with the emerging environmental debates.

The report aims to pro-actively comment on the recent MAB initiatives in the SEECs and - complementary to the detailed country reports - offers a critical viewpoint on the major ongoing activities that have been promoted by various stakeholders, in the frame of the biodiversity protection and local sustainable development promotion. In doing so, the MAB is analytically contextualised within a wider range of similar activities and projects and in relation with its own recent developments.

The evolution of the Programme and its BR ‘provoking idea’ - serving contemporarily as concept and tool - is synthetically presented in the first chapter. In fact, a recently created detailed BR data-base has been used as a source of facts and information on the level of activities’ implementation in the various SEECs, when compared to the other European trends.

The analysis of the existing potential ‘BR added value’ is closely related to the Programme recent changes, in terms of being an innovative ideas’ incubator, a potential support to the emerging issues (e.g. local sustainable development, biodiversity conservation and eco-tourism), as well as a mean of fostering international geo-political visibility.

Additionally, BRs concept may easily be combined - at the various territorial levels - with the key-issues promoted by such other relevant UNESCO programs as the International Hydrological Programme (IHP) and the World Heritage Programme.

The original concept apparently evolved in different ways, in accordance with the diverse regional circumstances; some specificities emerged as peculiar for the SEE region, in the context of the occurring socio-economic transition.
By adopting an actor-based analytical viewpoint, the second chapter briefly considers the contribution of the other major stakeholders (namely, multilateral institutions, regional initiatives, non-governmental organizations - NGOs - and nation states) which are active in the region; each of them has been briefly presented in accordance with its overall mandate, specific regional projects and, ultimately, commented on its relevance for the MAB Programme.

Chapter III focuses on the already existing initiatives, specifically promoted by the Programme itself. This analysis starts from the results of a specific SEE sub-regional meeting, held in Sinaia, Romania, in December 2001. The occasion was intended to focus on the “identification of the main features and the current status of the environment at national and Balkan region scale as well as main driving forces”. The national reports preparation and the workshop discussion lead to the identification of the key constraints related to sustainable management and development of both environment and socio-economic systems in the SEE Region. The inclusion of all the reports in the chapter is commented by a preliminary section which identifies the main issues emerged: particular attention is given to the existing environmental situations in the SEE countries, with their weaknesses and strengths in terms of legal and institutional frames, international cooperation and specific MAB strategies. The continuation of the debate - occurred on the occasion of the EuroMAB 2002 - stressed, at an even larger scale, the importance of filling the Programme and the BRs with specific projects devoted to the local sustainable development.

Some concluding remarks (reported in chapter IV) attempt at critically synthesizing the specificities of the MAB Programme, when analyzed in this specific geo-political context. The potential advantages and disadvantages of the BR-approach emerged by the confrontation of the national reports with additional specific activities (sub-regional meetings, in-field visits) carried out during this document preparation. The emerging picture intends to offer UNESCO a more specific highlight on the real possibility of the Programme and its related activities, in the SEE context, on the basis of which a more sustainable strategy can be designed.
INTRODUCTION

The complex geo-political scenarios offered by the emerging European transition economies is still very conflicting, and apparently sensitive to additional ‘elements of rigidity’ in the strategic planning processes.

Particularly, natural resources management - in a broad sense - is becoming a strategic issue, both for the domestic socio-economic planning - in the attempt of reconciling protection issues with urgent development needs - and for the international visibility and related negotiation processes.

In fact, the existing intensive debate (promoted by many disciplines simultaneously) on the ‘environmental question’ and ‘sustainable development’ demonstrates once more that these issues are acting as a scientific and public catalysers for many other ones, namely the local development, the social welfare and the rights to the access to basic resources. Ultimately, the “environment may reasonably be held to be also a moral problem, a problem that implies a redefinition or extension of the concepts of duty and responsibility and an alteration of the image humanity has of itself and its relationship with nature”.

Since the collapse of the Soviet Union, the ‘transition’ phase of the SEECs, has been largely ‘supported’ by the international community, via plenty of bi-lateral and multi-lateral specific programmes and projects. More recently, the European Union (EU) access process is very much affecting the domestic economic re-organisation of the eligible countries.

Specific programmes have been designed to addressed the environmental problems, by adopting both specific approaches (e.g. nature conservation and biodiversity protection) and umbrella strategies (e.g. the EU Sixth Framework Programme). Each of the different international stakeholders is apparently assuming an independent viewpoint to support the SEECs economies in transition. At the beneficiary country levels, this is resulting in a ‘puzzle’ of diverse projects’ philosophy - rarely merging each other - and bringing into the various nation states large amount of exogenous resources: the local sustainable development - which is remarked in most of the strategic documents as being the ultimate goal - is still very often neglected at the grassroot level. In fact, innovative mechanisms to favour bottom-up approaches combined with more co-management practices are still very rare.

The UN are active in the region - mostly through their local offices - implementing various projects. UNESCO, in particular, has been identified a specific niche of strategic planning and action in the sphere of the scientific and technical cooperation and network revitalisation. In fact, the key role of the international scientific cooperation in the process of restructuring the SEE has been specifically emphasised since the Round Table of Ministers of Science, when Director-General of UNESCO stressed the fact that for the Organization “it’s a challenge, as well as a natural obligation to address a situation characterised by the disintegration of research networks and scientific cooperation infrastructure during the past

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1 A good recent example was offered by the conference ‘Sviluppo sostenibile: discipline a confronto’ (Sustainable development: confronting disciplinary approaches), organised by the Interdepartmental Center IDEAS and the Enrico Mattei Foundation, held in Venice, Italy, 10-11 February, 2003.


3 held at UNESCO, Paris, on October 24, 2001. Proceedings were made available by the ROSTE Bureau in Venice.
decade. This process has also badly affected scientific productivity that, unless it is brought to a halt rapidly, it may have long term adverse effects on the economic development of the entire region”.

Already on the occasion of the last World Conference on Science, UNESCO organized a meeting of Central and Eastern European science ministers and senior experts in science policies. The participants recognized the importance of regular consultations on science policy-making and stressed the need to bridge the gap between Eastern and Western Europe. Subsequently, a conference on this subject was held at the UNESCO ROSTE, in March 2001. On these very circumstances, it was emphasized the need to “obtain the full cooperation of the Council of Europe and the NATO Science for Peace Programme, as well as various NGOs”.

The role of UNESCO as a platform to catalyze the diverse stakeholders around the same important issues was emphasised. The additional remarks on the specific priority projects to be supported are somehow following the main path. Among them, the MAB plays a key role, as it is clearly an ‘umbrella’ Programme, adopting a very comprehensive concept and flexible implementation tools, the BRs.

This analytical report intends to consider the specific role played by the Man and Biosphere (MAB) Programme in the SEECS; in fact, the first findings tend to demonstrate that ‘Biosphere Reserve approach’ - when properly activated by the combination of the different scales’ functions and their relations - offers a flexible platform of active territorial negotiation, inducing the adoption of collaborative management approaches and linking with the emerging environmental debates.

In fact, in most of the cases, the role of the state authorities is reducing the chances to get the local (at the BRs’) communities actively involved into the decision-making processes; in fact, natural resources are seen as strategic immobile ones, to be one of the only ‘capital’ a national State can rely on and, consequently, being under a strict control. These tendencies are clashing each other within the overall MAB frame; the aim at promoting and supporting the local sustainable development, on one side, and the growing role of the states authorities to keep control over the strategic phases of the natural resources management processes, on the other.

The report aims to pro-actively comment on the recent MAB initiatives in the SEECS and - complementary to the detailed country reports - offers a critical viewpoint on the major ongoing activities that have been promoted by various stakeholders, in the frame of the biodiversity protection and local sustainable development promotion. In doing so, the MAB is analytically contextualised within a wider range of similar activities and projects and in relation with its own recent developments.

The evolution of the Programme and its BR ‘provoking idea’ - serving contemporarily as concept and tool - is synthetically presented in the first chapter. In fact, a recently created detailed BR data-base has been used as a source of facts and information on the level of activities’ implementation in the various SEECS, when compared to the other European trends.

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4 From the Round Table opening speech of Mr. Koïchiro Matsuura, UNESCO Director-General.
6 Venice Conference of Experts, held at ROSTE, 24-27 March, 2001, on the ‘Reconstruction of Scientific Cooperation in South East Europe’; further details and the proceedings are available at the UNESCO web site
7 From the opening speech of Mr. Koïchiro Matsuura, UNESCO Director-General.
The analysis of the existing potential ‘BR added value’ is closely related to the Programme recent changes, in terms of being an innovative ideas’ incubator, a potential support to the emerging issues (e.g. local sustainable development, biodiversity conservation and eco-tourism), as well as a mean of fostering international geo-political visibility. Additionally, BRs concept may easily be combined - at the various territorial levels - with the key-issues promoted by such other relevant UNESCO programs as the *International Hydrological Programme* (IHP) and the *World Heritage Programme*.

The original concept apparently evolved in different ways, in accordance with the diverse regional circumstances; some specificities emerged as peculiar for the SEE region, in the context of the occurring socio-economic transition.

By adopting an actor-based analytical viewpoint, the second chapter briefly considers the contribution of the other major stakeholders (namely, multilateral institutions, regional initiatives, non-governmental organizations - NGOs - and nation states) which are active in the region; each of them has been briefly presented in accordance with its overall mandate, specific regional projects and, ultimately, commented on its relevance for the MAB Programme.

Chapter III focuses on the already existing initiatives, specifically promoted by the Programme itself. This analysis starts from the results of a specific SEE sub-regional meeting, held in Sinaia, Romania, in December 2001. The occasion was intended to focus on the “identification of the main features and the current status of the environment at national and Balkan region scale as well as main driving forces”. The national reports preparation and the workshop discussion lead to the identification of the key constraints related to sustainable management and development of both environment and socio-economic systems in the SEE Region. The inclusion of all the reports in the chapter is commented by a preliminary section which identifies the main issues emerged: particular attention is given to the existing environmental situations in the SEECS, with their weaknesses and strengthens in terms of legal and institutional frames, international cooperation and specific MAB strategies. The continuation of the debate - occurred on the occasion of the EuroMAB 2002 - stressed, at an even larger scale, the importance of filling the Programme and the BRs with specific projects devoted to the local sustainable development.

Some concluding remarks (reported in chapter IV) attempt at critically synthesizing the specificities of the MAB Programme, when analyzed in this specific geo-political context. The potential *vantages* and *disadvantages* of the BR-approach emerged by the confrontation of the national reports with additional specific activities (sub-regional meetings, in-field visits) carried out during this document preparation. The emerging picture intends to offer UNESCO a more specific highlight on the real possibility of the Programme and its related activities, in the SEECS context, on the basis of which a more sustainable strategy can be designed.

These analytical remarks tend to demonstrate that the potential strategic role of the MAB and the BRs in the SEECS is still underestimated, firstly by the self-limiting and biodiversity-centered approach adopted by the majority of the nation states themselves. In fact, the recent developments of the MAB in other world’s regions and sub-regions demonstrate, on the other side, the current vitality of the original BR idea and its flexibility seems to better adapt to the rapidly changing socio-economic scenarios, characteristic of the SEE transition period.
Ultimately, this report intends primarily to serve operative purposes; consequently, it omits in-depth analyses presentation, to favour its use as a discussion paper to further stimulate the inter-organisational dialogue and the strategic BR model placement.
CHAPTER I

DEVELOPMENTS OF THE MAB PROGRAMME AND THE EVOLUTION OF THE BR CONCEPT

“Biosphere Reserves, special places for people and nature”, so goes the slogan formulated on the occasion of the EURO-MAB 2002; it is also the title of a recent UNESCO book, published by the MAB Secretariat, in the framework of the 30th anniversary of the Programme.

In fact, the original idea of the BRs as ‘open space laboratories’ demonstrates to be still valid, and its founders’ vision has been reinforced by the more recent developments of the international community discourses on the sustainable development and its implications at local level.

This first part intends to provide an overview on the main historical steps moved by the Programme since its launch - as synthetically reported in the table included in Annex I - in the attempt to emphasise the main driving forces and the possible specific fields of interventions in the current SEECS circumstances.

1.1. MAB MAIN HISTORICAL STEPS

1.1.1. The emergence of a concept

The original BR concept emerged at the early stages of the UNESCO MAB Programme and since that time, it has always represented an essential element of it. The MAB ‘big-bang’ dates back to 1968, when the Intergovernmental Conference of Experts on the Scientific Basis for Rational Use and Conservation of the Resources of the Biosphere (later on just referred as ‘Biosphere Conference’) was held at UNESCO HQ.

More important, this was the very first large inter-governmental meeting which brought the attention of the international community to the environmental issues and their global relevance. The long-run perspective of the Conference promoters stressed the importance of an interdisciplinary approach to be adopted, in the attempt of reconciling the protection issues with the research and development ones. Within the meeting concluding frame, UNESCO was recommended to launch a specific programme focussed on the research aspects (to be ‘interdisciplinary in character’) and taking into account the peculiar problems of the developing countries.

This soon resulted in the official adoption of the MAB Programme (1970) and the consequent identification of portions of territories to serve a multi-purpose set of ‘roles’, ranging from the protection of the biological diversity to the logistic support to research and educational programmes: the first BRs. The concern of networking these areas at a global level was already present at the early stages of the Programme, as well as the issue of the conservation of natural areas and their genetic pools.

The 1972 UN Conference on Human Environment’s main results were rooted on the outputs of the Biosphere Conference, focussing on the delicate relations between the physical environments and the human populations. On the other side, MAB started to cooperate with
IUCN and the natural resources protection perspective become the most dominant within Programme.

In 1974 a special 'task force' - convened jointly by UNESCO and UNEP - for the first time drew up a set of ‘objectives’ and ‘characteristics’ to be fulfilled by BRs. They define and stress the multiple functions of BRs, covering the three basic above-mentioned needs. In particular, it proposed a simple generalized zoning pattern for BRs, combining a core area, a delineated 'inner buffer zone' and an undelineated 'outer buffer zone', corresponding to what is now known as the 'transition area'.

The first designations (57 in the mid of the 70s) followed soon, most of them primarily focussed on the ‘protection’ role. This is the specific case of the SEECs too, where all the designated BRs were areas already protected, such as national parks or nature reserves, and in most cases the nomination was not adding new land, new regulations or even new functions; in fact, the related research activities were very academic-focussed, with very little or no networking relevance.8

Table 1. BRs designation process (numbers of BRs/year) since the beginning of the MAB

<table>
<thead>
<tr>
<th>Year</th>
<th>number of BRs</th>
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<tbody>
<tr>
<td>1976</td>
<td>5</td>
</tr>
<tr>
<td>1978</td>
<td>10</td>
</tr>
<tr>
<td>1980</td>
<td>7</td>
</tr>
<tr>
<td>1982</td>
<td>4</td>
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<tr>
<td>1984</td>
<td>10</td>
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<tr>
<td>1986</td>
<td>6</td>
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<tr>
<td>1988</td>
<td>4</td>
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<td>1990</td>
<td>5</td>
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<tr>
<td>1992</td>
<td>4</td>
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<tr>
<td>1994</td>
<td>3</td>
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<tr>
<td>1996</td>
<td>2</td>
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<tr>
<td>1998</td>
<td>1</td>
</tr>
<tr>
<td>2000</td>
<td>1</td>
</tr>
<tr>
<td>2002</td>
<td>1</td>
</tr>
</tbody>
</table>

(source: UNESCO BRs’ data-base)

By representing the number of BRs designations in chronological order, table 1 illustrates the nomination process trend, comparing the situation at the European level9 with the more specific SEE10 context. In both the cases, the initial phase (between the mids of the 70s and the mids of the 80s) is characterised by a fast growth, the highest peak being recorded between 1976 and 1978. But the second phase (along the 80s and 90s) is marked by an

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8 The example of Bulgaria is significant: all the 16 BRs were simoultaneously nominated in 1977, reflecting the territories of already existing protected areas; since that time, very little has been done to foster the multi-function role of those BRs and some key feratures (as the research on the socio-economic aspects) are still neglected.

9 By ‘European countries’ it is meant those included within this region by the MAB Programme (Israel included), with the exception of the North American ones.

10 The SEECs are corresponding to the ones listed in this report.
exclusive Western European initiative, that has been continuous, with ups and downs, till the present time. Reversely, the SEECs appear again on the MAB scene only more recently (second half of the 90s), after the initial phases of the newly created states’ independence processes.

1.1.2. Initial evaluation and review

As long as the Programme developed and new BRs were designated, some critics to the original idea emerged; it was argued that it did not bring any real innovation, when compared to other protected area patterns. In fact, in the meanwhile the original idea of the BR zoning approach and the function-driven planning become part of the ordinary procedures in the natural resources management planning. UNESCO MAB Programme was still consider as an additional option to protect selected areas as representative of the world’s ecosystems”. Nevertheless, since the 80s, the underlying philosophy and approaches to the BR concept became more widely appreciated within the broad conservation community, as a “flexible and practicable approach in seeking to reconcile the needs of socio-economic development with those of conservation”. This is an aspect of particular importance for the countries in transition, which apparently are in the need of more flexible planning tools to deal with rapidly changing socio-economic scenarios.

Table 2. Extension of the three different zones (core, buffer and transition) when related to the total BR extension

<table>
<thead>
<tr>
<th>Zones surface related to total area [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone</td>
</tr>
<tr>
<td>0%</td>
</tr>
<tr>
<td>10%</td>
</tr>
<tr>
<td>20%</td>
</tr>
<tr>
<td>30%</td>
</tr>
<tr>
<td>40%</td>
</tr>
<tr>
<td>50%</td>
</tr>
<tr>
<td>60%</td>
</tr>
<tr>
<td>70%</td>
</tr>
<tr>
<td>80%</td>
</tr>
</tbody>
</table>

(source: UNESCO BRs’ data-base)

In fact, the frame that the Programme was assuming at the global level, resembles a mosaic of various ‘territorial interpretations’ of the same original idea; and the BR prototypes were ranging from very mono-function strictly protected areas to some portions of land where the differents BR roles were simultaneously included in the planning process, involving a wide range of stakeholders in the decision-making processes. It is interesting to notice how the

SEECs picture (see table 2) is dominated by BRs with relatively large core areas, when compared to the buffer and transition ones; in most of the times, this is due to the fact that BRs territories were identified in exact correspondence with previously existing protected areas, with little or no modification in terms of surface extensions.

Further contributions emerged on the occasion of the 1981 ‘Ecology in action’ Conference stressed the “complexity of implementing the BRs project in relation to the very diverse situations and concerns occurring in the various parts of the world. They all illustrated the need for a ‘fresh look and the new impetus for the Programme’.

Some of these expectations have been fulfill by the results of the first International Biosphere Reserve Congress, held in Belarus in 1983, jointly organized by UNESCO, IUCN, FAO and UNEP. In particular, on the basis of the Minsk conference, it was possible to draw up a world Action Plan for Biosphere Reserves; the plan was formally endorsed by all the major counterparts for their respective concerns.

The need of a constant scientific independent supervision on the Programme ideas become a relevant driving force to the designation of the Scientific Advisory Panel for Biosphere Reserves. Its 1985 and 1986 meetings lead to stressing the ‘uniqueness’ of the MAB approach in the BRs distinguished features of the combination of the three roles simultaneously: “conservation of genetic resources and ecosystems; an international network of sites acting as a focus and base for research, monitoring, training and information exchange; and linking development to environmental research and education within the UNESCO specific mandate”.

The consolidation of the Programme at worldwide level occurred through the 80s, induced UNESCO to appoint an independent Advisory Committee, with the specific task to “to advise the Director-General of UNESCO on the scientific and technical matters concerning the designation, evaluation and management of BRs, as well as the development, operation and monitoring of the international BR network". It is relevant to notice how the Committee stressed the important role that selected BRs should play “as 'tools' for specific problem-oriented programmes, designed for implementation with other UN or NGO organisations”.

1.1.3. Seville Conference and Statutory Framework: the beginning of a new MAB-era

Through its various meetings, the Advisory Committee has played a key role in the planning, convening and follow-up of the International Conference on Biosphere Reserves, convened by UNESCO and hosted by the Spanish authorities in Seville (Spain) in March 1995.

The Conference had two complementary parts. The first part consisted of a stock-taking of the implementation of the 1984 Action Plan for Biosphere Reserves through an overall analysis of field experiences in the form of case studies and posters, undertaken

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13 The conference was organized by UNESCO to celebrate the first ten years of the MAB Programme.
15 In Cancún, Mexico, and La Paz, Bolivia, respectively.
17 The Advisory Committee was adopted by the UNESCO Executive Board in November 1991.
through three concurrent commissions dealing respectively with people and BRs, BR management, and science and conservation in BRs.

The results of this stock-taking and analysis fed into the forward-looking part of the Programme, consisting of a reflection on the context for BRs in the twenty-first century and the elaboration of the 'Seville Strategy', identifying the actions to be taken and the means and actors to be mobilized to realize them. In addition, draft statutes for the World Network of Biosphere Reserves, were examined during the Conference.

With the Seville Strategy and the Statutory Framework, BRs have entered a new phase of development. The philosophy and concepts underpinning BRs have continued to spread into the broader international context, and protected areas are being considered as integral to socio-economic development. 21

If “an outstanding and ongoing challenge is to reinforce the functioning of individual BRs” as recently stressed22 part of this process is discussing and negotiating social contracts between the key partners and stakeholders - including local communities, government bodies at various levels, the private sector, and scientific and educational communities.

Table 3. The main important sectors of research implemented at the BRs level

<table>
<thead>
<tr>
<th>Percentage of BRs undertaking specific research activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>[%]</td>
</tr>
<tr>
<td>abiotic</td>
</tr>
<tr>
<td>biodiversity</td>
</tr>
<tr>
<td>socio-economic</td>
</tr>
<tr>
<td>integrated monitoring</td>
</tr>
</tbody>
</table>

(source: UNESCO BRs’ data-base)

Despite this relevant conceptual evolution of the overall Programme framework, the real situation at the BRs level appears to be still far from the theoretical picture; in fact, as show in table 3, the ‘traditional’ research sectors – mostly focused on the analyses of the bio-physical aspect of the BR territories – are still predominant; on the other side, there’s still a lack of effort in promoting adequate investigations in the socio-economic issues and the integrated monitoring. In fact, these aspects are almost entirely neglected at the SEECs level, thus reducing enormously the BR model potentialities.

21 This approach is reflected, for example, in the Resolution on Biosphere Reserves, adopted at the October 1996 World Conservation Congress.
Nevertheless, the ‘BR added value’ can apparently be made evident only under a specific combination of factors: in fact, the creation of the “better link between scientific concepts and the pressing necessities of conservation and sustainable development”,23 which are by definition linked to the adoption of the BR concept, do not automatically ‘transform’ those territories into ‘special places’.

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CHAPTER II

THE SEECs SCENARIO: MAJOR ACTORS AND STRATEGIES

Since its very beginning, the MAB Programme has been closely linked with the major environmental issues discourses, which later on overbearingly emerged at international level. In particular, on the occasion of the 1992 United Nations Conference on Environment and Development (UNCED), the central idea of the ‘politicised environment’ emerged, so recognizing that “environment problems (e.g. biodiversity protection, desertification, deforestation, just to mention the most commonly known) cannot be understood in isolation from the political and economic contexts within which they are created”.

BRs have always been dealing with one of the “most important questions the world faces toady: how can we reconcile conservation of biodiversity and biological resources with their ‘sustainable use’”? Consequently, any UNESCO policy aiming at fostering the Programme in wherever geo-political context, has had to deal with the different ‘actors’ and their interactions.

This chapter intends to highlights the main institutional and non-institutional actors, which are, at the moment, implementing specific strategies in the SEECs; in fact, on one side it is intended to provide UNESCO with the possibility to identify a specific ‘niche’ of intervention for the further MAB developments and, on the other, satisfactory ways of cooperation with the other national and international stakeholders.

The actor-based analytical approach better reflects the complexity of the cross-relations existing amongst the different ‘traditional’ policy sectors and institutional frames; additionally, it helps to understand the links between the various scales of intervention, ranging from the very local to the global. In fact, “environmental changes are not a neutral process”, as it may appear from a first glimpse “amenable to technical management”. As far as the BR concept comprehensively includes the issues of the local development, its strategic analyses can not neglect the socio-economic variables and the costs and benefits distributed - most of the times on unequal basis - among the various actors.

Starting from the international scales, the major IGOs have been identified, and their strategy profile synthetically presented. In particular, the role of other UN agencies (namely, the World Bank, the Food and Agriculture Organisation, and the United Nation Development Programme) active in the same territories are expected to be relevant to UNESCO. EU is clearly a strong ‘regional’ agency, becoming a focal point for the environmental policies, as the majority of the SEECs are seeking for their inclusion in the Union. The Council of Europe (CoE) - being the only pan-European IGO - attempts to play a platform.

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26 By using the term ‘actor’ it is intended anyone who implement a strategy at any level; in doing so, it interacts with the other actors and constantly adapts its strategy in relation to the others’. Actors may be individuals or collective, private or public, institutionalized or non-institutionalised.
27 Mostly used by some human geography scholars, and, more recently, by the political ecologists.
28 Bryant and Bailey, 1997.
29 Bryant and Bailey, 1997.
role in fostering ‘umbrella’ strategic initiatives to reconcile EU and non-EU states policies. Its recent ‘Environment for Europe’ process, in particular, hosted the growing importance of the eNGOs in lobbying the governments to adopt more environmental-friendly policies; particularly important is the activism originated in the SEECs, where larger is the existing ‘gap’ in terms of public participation and civil rights defending processes.

Ultimately, the changing role of the nation states is considered, as its relevance for the strategic control over the most delicate phases of the natural resources management. In fact, in the rapidly changing geo-political scenario of the SEE, the newly independent countries are actively involved in the definition of their own role, both at the domestic and the international levels.

Being UNESCO a large IGO, national governments are its own main institutional counterparts: thus, the traditional MAB approach is also very much oriented to involve the local states, firstly, especially as far as the BRs nomination process is concerned. The role of the BR managers is growing in importance, as they become active participants in the major Programme meetings (EuroMAB) and promoters of many local initiatives.

The actors’ list presented in the following part is neither a complete nor a comprehensive one; in fact, it mainly aims at defining the general picture and identify the overall strategies, by grouping the most significant examples of the various ‘categories’. Indeed, the huge amount of additional medium- and small-scale programmes and projects, makes it almost impossible to inventory them all in details.

Within this chapter context, UNESCO is considered ‘only’ in relation with the various actors and not independently; in fact, for each of the stakeholders, the possible specific implications for the agency and its MAB Programme are emphasized apart.

2.1. MULTILATERAL INSTITUTIONS

“A key feature in the development of the global capitalist economy in the twentieth century has been the creation of a network of multilateral institutions, whose primarily aim has been to promote social and economic development through the provision of technical and financial assistance. In particular, two main groups may be identified: the ‘financial institutions’, lead by the World Bank (WB) and the International Monetary Fund (IMF) and the ‘technical institutions’, such as the Food and Agriculture Organisation (FAO) and the Industrial Development Organization (UNIDO)”\(^{30}\)

On one side, the growing importance of the multilateralism, after the Second World War, can be seen as a ‘political’ response to the that war, but, on the other, it has always had also a clear ‘ecological’ meaning; in fact, both the ‘financial’ and the ‘technical’ assistances have never been ‘neutral’ and in many occasions at the centre of conflicts, especially in the Third World politicised environment. In fact, strong criticism have been moved to the policies and actions of the main multilateral financial and technical institutions, considered to be frequently part of the problems rather than their solutions, in the Third World’s environmental crises.\(^{31}\)

\(^{30}\) Bryant and Bailey, 1997.

\(^{31}\) The strongest criticisms are coming from the political ecologists. They identify four main negative aspects of the multilateral financial and technical system; namely, (1) the fact that these agencies have been strongly
Similarly to the Thirld World areas, the scenario of the SEECs is populated by all the major multilateral agencies; in particular, UN agencies are active in the region with local offices in most of the countries, coordinated at regional or even subregional scales. This sections considers the most relevant initiatives, in terms of amount of resources invested and potential impact generated in the SEECs; namely, the WB, the FAO and the UNDP.

2.1.1. WORLD BANK

“The World Bank is one of the world's largest sources of development assistance. Its primary focus is on helping the poorest people and the poorest countries” titles the WB Group web page. In fact, since its establishment, the WB – together with the other international financial institutions – has had the greatest overall impact on the development of the Thirld World and transition countries; these same institutions have garnered the lion’s share of the public criticism directed at multilateral institution in recent years. In particular, “profound social and environmental effects have been associated with the International Monetary Fund (IMF) and the WB structural adjustment policies”.

Along with its recent development, the WB tends to define itself “not a bank, but rather a specialized agency”; parallely, it has developed an ‘environmental’ strategy, since the UNECD in 1992. In fact, within its ultimate mandate to alleviate poverty worldwide, the WB recently recognized that “the development process cannot simply be measured in terms of indicators of macroeconomic performance. Although that is a necessary condition, it is not sufficient without appropriate social, environment and human agendas”. The recent WB’s environmental policy documents are stressing the linkages between poverty, development, and environmental degradation at local and global levels. This process tends to reaffirm “the role of the environment as a cornerstone of sustainable development”. In the context of this report, two WB strategy are relevant: firstly, the fact that the agency recognizes that the environmental issues are at all levels – national, regional and global - a “fundamental building block of the world’s economies, by sustaining biodiversity, agriculture, fisheries and climate stability; and secondly, that a “sound environmental management provides benefit at multiple levels, due to the fact that global environmental issues are linked to the local ones”.

contributed to the introduction and dissemination of the capitalist practices around the world; (2) the multilateral institutions have been supportive of the the political position of the Third World states in society, thus contributing to exacerbate the social inequalities; (3) the multilateral institutions are increasingly supportive of business and, ultimately (4) they have pursued policies that have contributed to the marginalization of millions of grassroot actors in the Thirld World. “In so far the vision of capitalist development that these institutions espouse has been predicated on the systematic and widespread enclosure of land and other environmental resources used by the local actors” (Bryant and Bailey, 1997).

32 The World Bank Group is composed by the International Bank of Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA) and the International Centre for Settlement of Investment Disputes (ICSID).
34 Bryant and Bailey, 1997.
36 Ian Johnson, Vice-President, Environmentally and Socially Sustainable Development, the World Bank, May 2000.
37 Ian Johnson, Vice-President, Environmentally and Socially Sustainable Development, the World Bank, May 2000.
Specific initiatives are currently promoted by the WB in the SEECs; namely, the ‘Black Sea and Danube Basin initiative’ (a programme created to respond to the urgent need to recover the natural features of these two important water resources from the recent pollution increase, by activating all the riparian countries), the ‘Social Development Initiative for South East Europe’ (mostly devoted to launch pilot projects to address inter-ethnic tensions and social cohesion issues), and the ‘South East Europe Reconstruction’ (building on the existing collaborative work on a country-by-country basis in the SEE region, the EC and the WB were tasked with the special mandate to lead the coordination effort of all bilateral and multilateral aid to the Balkans). An additional initiative has been launched to support the EU accession process (‘The World Bank Contribution to the EU Accession Process’).

In addition to those large umbrella programmes, the WB has offices in all the SEECs and supports the national governments with specific consultancies (reported in its ‘Country Environmental Analyses’) to set up priorities in fostering initiatives which can combine the economical reconstruction with the environmental conditions amelioration. These national-level actions demonstrated to be relevant to shape the countries’ governmental decisions. In most the cases, they are based on the identification of the main environmental problems and their causes (e.g. deterioration trends in water, sanitation and waste management, air pollution hot spots, energy inefficiencies, weak environmental management system, institutionally and legally). Consequently, the analysis focuses on the main WB recommendations, which are frequently prioritized on the basis of the impacts of the various urgent actions: human health comes first, followed by economy and, lastly, natural ecosystems. The specific advices are, in most the cases, based on the key policy measures to be adopted, the pricing of the main environmental services (water, land, forest) to be activated and the need for a continued institutional reform to be combined with a proper capacity building activities.

**IMPLICATIONS FOR THE MAB PROGRAMME**

UNESCO is very rarely mentioned in the WB environmental reports; in particular, the role of the agency is seen to be limited to the ‘cultural’ and ‘educational’ issues and not relevant for the strategic planning processes; in fact, in most the cases, other UN agencies are taken into a proper account in building up concrete co-operation, namely the UNDP (to develop strategy for energy conservation and promote sector reforms), UNECE (to prepare countries’ Environmental Performance Reviews), UNEP (to set up specific capacity building workshop). Additionally, EU is seen an important partner to provide assistance in the areas of environmental legislation, civil society network and strengthening the municipal institutions.

The under-estimation of the role that UNESCO can play in fostering environmental actions - specifically within its scientific mandate and peculiar programmes - could be compensated by attempting at jointly run project at the regional (SEE) and local (national) levels. In particular, the comprehensive BR network concept may accommodate some initiatives financially supported by the WB, to support the introduction of innovative management practices to stimulate the grassroot actors proposals, with a direct benefit to the local poverty alleviation.

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38 They are part of the ‘Regional initiatives’ in the ‘Europe and Central Asia’ context; further details are available at the WB web-site.

39 These specific issues are taken from the recently presented ‘Serbia and Montenegro. A Country Environmental Analyses’, presented by the WB on the occasion of the Kiev Ministerial Conference on Environment, May 2003.
2.1.2. FAO

This is one of the oldest and largest UN agencies, being established already in 1945, with the primarily objective “to develop world agriculture so to enable the World to feed itself”.\textsuperscript{40} This original very ambitious ultimate goal was expected to be reached by the implementation of a series of measures to ‘modernize’ the agricultural sector, mainly by improving the crop productivity. Consequently, it was almost inevitable that FAO would focus much of its attention on the Thirld World countries and its main action was driven by the idea of transmitting ‘good practices’ rather than transferring funds. Similarly, the agency took care of the other ‘primary sector’ traditional activities, namely forestry and fishery. In fact, its internal structure still reflects the monodisciplinary approach adopted since the beginning of its activities.

Similarly to other major multilateral ‘technical’ institutions, FAO has been strongly criticized for having supported the dissemination of practices based on the intensive use of natural resources, combined with the utilization of fertilizers and chemicals to improve the productivities.\textsuperscript{41}

Nevertheless, FAO has been more recently confronting with the social and environmental implications of its actions; as a result, specific programmes (e.g. ‘Sustainable Agriculture and Rural Development’, ‘People and Forests’, and ‘Forests and Environment’) and internal re-organisation procedures (the creation of the Sustainable Development Department) have been activated. In particular, the initiatives that the agency’s\textit{Land Tenure Service} is promoting are primarily rooted in the need to support the property rights allocation and so, closely related to the overall social dimension of the technical intervention. In fact, innovative interdisciplinary approaches are being adopted, particularly in relation with biosecurity, biotechnology, integrated coastal management and mountain and watershed management.

Within the frame of its decentralization policy, FAO settled five regional offices, to better deal with the local peculiarities. In particular, the Regional Office for Europe activated its sub-regional branch for Central and Eastern Europe (SEUR) to foster several initiatives in favour of the members national governments. These are ranging from the very comprehensive ones (e.g. the ‘Assistance in the Preparation of the National Poverty Reduction Strategy Paper’ in Bosnia-Herzegovina) to the more detailed ones (e.g. the ‘Strengthening active surveillance for Foot-and-Mouth Disease and other exotic diseases in Thrace region’ in Greece, Bulgaria and Turkey).

In anyway, regardless the fact that many of its projects are still mono-sectoral focused, the role that FAO plays in the international arena is politically relevant, as well as environmentally strongly impacting.

\textbf{IMPLICATIONS FOR THE MAB PROGRAMME}

During its initial stage, the MAB Programme got FAO on board, on the occasion of all the major decision-taking meetings. This co-operation got lost somehow and the current situation is characterized by the rare and superficial mutual exchanges.

\textsuperscript{40}Sesmou, 1991.
\textsuperscript{41}In particular, the advent of the ‘Green Revolution’ technologies – to which FAO has been accused to contribute - has always been associated with a growing polarization of rich and poor farmers, in many parts of the world.
Nevertheless, the relevance of the FAO programmes and their practical implementation effects cannot be neglected, as biodiversity preservation and local sustainable development issues are discussed. Many areas of potential cooperation between FAO and UNESCO could be identified; in particular, the most innovative approaches that the agency is trying to introduce in its programmes devoted to the SEECS could be platform of possible mutual arrangements.

2.1.3. UNDP

“UNDP is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life”. The agency - also defined as “the UN development arm” - is on the ground in 166 countries, “working with them” and consulting their governments on their own solutions to global and national development challenges. One of the UNDP’s main concerns is to “develop local capacity”; in doing so, the agency is dealing directly with a wide range of partners, both institutional and non-institutional.

“World leaders have pledged to achieve the Millennium Development Goals (MDGs), including the overarching goal of cutting poverty in half by 2015. UNDP's network links and coordinates global and national efforts to reach these Goals”. In particular, UNDP actions are focused on:

- democratic governance;
- poverty reduction;
- crisis prevention and recovery;
- energy and environment;
- information and communications technology; and
- HIV/AIDS.

Worldwide well known and widely-cited, the UNDP Human Development Reports (HDRs) contain substantive data on most development indicators. The reports rank every country each year in areas such as per capita income, literacy, life expectancy and respect for women's rights”. The goal is to put people back at the centre of the development process”. In fact, the “background philosophy” of the UNDP most strategic document is rooted in the original comprehensive principles of the human development, by assuming its Human Development

42 It is interesting to stress the results of an FAO-SEUR recently organized workshop on the territorial negotiation processes (Budapest, March 2003), which, for the first time, introduced an innovative diagnostic method in the frame of the land tenure and planning process.
48 “The basic purpose of development is to enlarge people's choices. In principle, these choices can be infinite and can change over time. People often value achievements that do not show up at all, or not immediately, in income or growth figures: greater access to knowledge, better nutrition and health services, more secure livelihoods, security against crime and physical violence, satisfying leisure hours, political and cultural freedoms and sense of participation in community activities. The objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives.” (Mahbub ul Haq), from the headlines of the MDG web page (http://hdr.undp.org/hd/default.cfm).
Index (HDI), UNDP HDR analyses the situation in the various member countries and compares their ranks years by years; as a result, the focus of its intervention is primarily addressed to those states which “suffer setbacks in HDI”.49

Since its early years of activities, UNDP adopted a ‘country approach’ in defining the ‘local’ strategies and searching for the better solutions. The National Human Development Report (NHDR) provides a basis for informed local debate about priorities and policies. “These reports also help donor governments to measure the impact of their aid dollars, and to communicate the way in which aid is making a positive difference both to direct beneficiaries and to electorates at home”.50

The agency delocalisation policy resulted in the identification of five macro-regions, namely Africa, Arab States, Asia & the Pacific, Europe & the Commonwealth of Independent States, Latin America & the Caribbean. In particular, “the Regional Bureau for Europe and the Commonwealth of Independent States (RBEC) administers the UNDP’s programmes in Central and Eastern Europe and the Commonwealth of Independent States (CIS), playing an important role in the transition process through empowering people, organizations and governments to promote sustainable human development”. The Programme began the process of establishing offices and programmes in the CIS states in 1992. Today, in the RBEC region, there are 30 UNDP country offices; in fact, all the SEECs are covered.51

Additionally, the RBEC Regional Support Centre (RSC) was established in 1997 in Bratislava,52 which, in addition to administering the country programmes for states where UNDP has no office,53 it provides management support services for all programme countries in the region.

The Sub-Regional Resource Facility (SURF) represents the new organizational structure of UNDP Bureau for Development Policy (BDP); it was launched to reorient BDP towards serving the field, provide policy support to country offices in the region and Regional Bureaux, and outsource expertise to the local level. Policy specialists are clustered in SURFs servicing several country offices and managed by SURF Boards. BDP and Regional Bureaux sign annual Service Agreements to ensure policy relevance and effective support.

In the context of the SEECs, UNDP promotes plenty of specific country-focused projects; most of them are primarily centred on the the local democratic governance process, the crisis prevention and recover and the energy and environment sectors. The latter, in most of the times, is closely related to the MAB fields of action, as linked to the various ‘environmental emergencies’ prioritized by the countries themselves. In particular, the UNDP efforts in supporting the local civil society initiatives (with a specific focus on the gender issues) are affecting the grass-root actors strategies and, in the cases of the natural resources management, empowering innovative bottom-up approaches.

51 In addition, following the Kosovo crisis, in October 1999 a Programme Office was established to facilitate UNDP’s reconstruction and rehabilitation activities in that UN-administered territory.
52 The Slovak Republic capital city.
53 Czech Republic, Hungary, Malta, Slovak Republic, Slovenia and St. Helena.
IMPLICATIONS FOR THE MAB PROGRAMME

UNDP mandate is a very wide and comprehensive and may overlap with other UN agencies’; as the broad “conceptual umbrella” of the human sustainable development can virtually covered any field of intervention, it is most likely occurring that some the Programme activities may resemble UNESCO’s.

In the particular field of action of the MAB programme, such issues as the local communities development, the grass-root actors empowerment, and the energy consumption are closely interlinked with those of biodiversity protection and BR management, as a whole.

In fact, BRs could be easily adopted as ‘experimental areas’ where to jointly test the introduction and implementation of innovative management practices; in particular, the public participation could be strongly supported by the flexible planning tools of the MAB.

So far, the two UN agencies’ apparently different overall mandates, can easily merge at the territorial level of the BRs, thus generating positive sinergies for the international donors’ community, as well as for the local communities.
2.2 REGIONAL INITIATIVES

This chapter intends to focus on the European dimension, by that meaning the continental scale; in fact, the main international IGO initiatives are presented, in order to evaluate their possible role in influencing – directly or indirectly – the MAB activities in the CEECs.

At first, the specific initiatives promoted by the United Nations Economic Commission for Europe (UNECE) are illustrated, as their political and strategic planning relevances are concerned in the environmental policy frame. In particular, the ‘Environment for Europe’ process and its implications for the SEECS is commented, as directly affecting the national policies for biodiversity protection and local resources sustainable use.

Secondly, the Pan-European Biological and Landscape Diversity Strategy (PEBLDS) is commented, as the most relevant continental-wide policy frame adopted with the support of the Council of Europe (CoE); in fact, it is of key relevance for the MAB, as it is rooted in the Convention on Biological Diversity (CBD). 54

In the second part, the focus is “restricted” to the European Union (EU) and its environmental policy; in fact, this is not only affecting the current member states, but also strongly influencing the next accession ones, and the area of “transition” between the Eastern and Western parts of Europe.

Ultimately, some “smaller” but relevant initiatives are considered, in the light of their direct and indirect influences on the UNESCO MAB strategies; namely, the Central European Initiative (CEI) and some of the higher education and research networks.

2.2.1. UNECE

The UNECE was set up in 1947, by the UN Economic and Social Council (ECOSOC), as one of the five regional commissions of the United Nations. 55 “Its primary goal is to encourage greater economic cooperation among its member States”; in doing so, it “focuses on economic analysis, environment and human settlements, statistics, sustainable energy, trade, industry and enterprise development, timber and transport”. 56 UNECE has, at the moment, 55 member States: 57 in particular, all the SEECS are on board. Additionally, over 70 international professional organizations and other NGOs take part regularly in UNECE activities.

Within the context of this report, it is interesting to notice how UNECE’s activities include policy analysis, development of conventions, regulations and standards, as well as technical

54 For further details on the CBD, see its official web-site: http://www.biodiv.org/. It is important to notice that, for the first time in the history of the international treaties, the main objectives to convey on are “the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding” (CBD, art.1).
57 However, all interested UN member States may participate in its work.
assistance. The agency’s operative structure is shaped in accordance with its main branches of activities.58

Particularly relevant for MAB are the activities of the Environment and Human Settlements Division; this operative branch deals with both the “Environmental and Human Settlement Policies” and the “Conventions”; the former aspect is managed by various division branches,59 while the latter is in charge with some key international legal acts.60

“The ECE’s concern with problems of the environment dates back at least to 1971, when the group of Senior Advisors to the ECE governments on environmental issues was created which led into the establishment of the Committee on Environmental Policy (CEP)”.61 The CEP activities62 are based on three main “strategic pillars”: (1) the participation in the two major international cooperative processes, namely the "Environment for Europe" process and the regional promotion of Agenda 21; (2) the development and carrying-out of “Environmental Performance Reviews in the Central and Eastern European countries”; and (3) the increase of the overall effectiveness of environmental conventions and of the exchange of experience on their implementation.

The last two actions are particularly interesting for the MAB in the SEECs context. Initiated on the occasion of the 1991 Dobris Ministerial Conference, the "Environment for Europe" process called for a comprehensive assessment of Europe's environment and envisaged the development of an Environmental Programme for Europe. Throughout the following stages,63 it produced specific documents to be directly addressed to the European countries in transition.64 They stressed the following, as major points:

58 They are: the Environment and Human Settlements Division, the Transport Division, the Statistics Unit, the Economic Analysis Division, the Population Activities Unit, the Industrial Restructuring, the Energy and Enterprise Development Division, the Trade Development and Timber Division, the Timber Committee, the Agricultural Standard Unit, the Coordinating Unit for Operational Activities, and the Transport, Health and Environmental Pan-European Programme.

59 They are: the Committee on Environmental Policy, the Committee on Human Settlements, the Transport, Health and Environmental Pan-European Programme, the Environment Performance Review, and the Environment for Europe.

60 Namely, the Convention on Long-range Transboundary Air Pollution, the Convention on Environmental Impact Assessment in Transboundary Contexts, the Convention on Access to Information, Public Participation in decision-making, and Access to Justice in Environmental Matters (known as the Aarhus Convention) and the Convention on the Protection and Use of the Transboundary Watercourses and International Lakes.


62 “The CEP meets annually; NGOs are invited to participate in those meetings. The Committee provides collective policy direction in the area of environment and sustainable development, prepares ministerial meetings, develops international environmental laws and supports international initiatives in the region. Its main aim is to assess countries’ efforts to reduce its overall pollution burden and manage its natural resources, to integrate environmental and socio-economic policies, to strengthen cooperation with the international community, to harmonize environmental conditions and policies throughout the region and to stimulate greater involvement of the public and environmental discussions and decision-making” (http://www.unece.org/env/cep).

63 The most relevant steps are the following: 1993, Lucerne Conference of Ministries (the document "Elements for a Long-Term Environmental Programme for Europe" was endorsed); the Third Ministerial Conference “Environment for Europe” (1995, Sofia) endorsed the document "Europe's Environment: The Dobris Assessment"; the Aarhus (1998) Ministerial Conference considered the progresses so far and worked on the "Europe’s Environment: The Second Assessment"; lastly, the 5th Conference (Kiev, 2003) focused on the strategic importance of the European countries in transition.

64 In particular, the ‘Recommendations to Governments of ECE countries in transition of the application of economic instruments for better integrating environmental policy with sectoral policies’, resulted from the Arhus 4th Ministerial Conference (1998).
- to take full advantage of the opportunities offered by the economic transition;
- to implement appropriate economic instruments;
- to adopt economic instruments to foster sectoral policy integration (energy, transport, agriculture, etc.);
- to set up proper monitoring and evaluation systems;
- to carefully consider the international implications of the environmental programmes.

A specific “Task Force for the implementation of the Environment Action Programme for Central and Eastern Europe” was nominated, in cooperation with the Organization for the Economic Cooperation and Development (OECD). Its action is concentrated on the following priorities:
- integrating environmental considerations into the process of economic and political reform;
- upgrading institutional and human capacities for the environmental management;
- providing political support for environmental improvement, and
- mobilizing and cost-effective use of financial resources.

Additionally, the “Environmental Performance Reviews (EPRs)” assess “a country’s efforts to reduce its overall pollution burden and manage its natural resources; to integrate environmental and socio-economic policies; to strengthen cooperation with the international community; to harmonize environmental conditions and policies throughout Europe and North America; and, to contribute to sustainable development in the ECE region”.

Ultimately, the overall UNECE supported initiatives impact is very relevant at regional level, both for its political implications (the “Environment for Europe” process is directly linked with the Ministral Conferences) and its indirect “catalyzing” role, in platforming the major international stakeholders and the member states.

**IMPLICATIONS FOR THE MAB PROGRAMME**

Most of the UNECE activities are related to the sensitive environmental issues that are relevant for UNESCO and the MAB Programme. In particular, the role that the Conventions are playing for the member states is influencing their domestic strategies devoted to biodiversity protection and sustainable use of natural resources.

In particular, the “Environment for Europe” process is clearly a strategic platform for any relevant international environmental policy; at the moment, UNESCO is the only UN agency which is absent in the process. This may lead to an under-estimation of the agency’s programmes and projects devoted to the main environmental issues, and, in particular, it reduces the chances for the MAB and the BRs to be properly implemented at the level of the member states.

**2.2.2. THE CoE**

The CoE was established in 1949, when the treaty constituting the *Statute of the Council of Europe* was signed by the ten funding countries. It was signed in Rome, on 4 November 1950 and coming into force on 3 September 1953.65 Its first sessions were held in Strasbourg - which was to become its permanent seat; in the initial “flush of enthusiasm”, the first major convention was drawn up: the *European Convention on Human Rights*.66

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65 Belgium, France, Luxembourg, the Netherlands and the United Kingdom, accompanied by Ireland, Italy, Denmark, Norway and Sweden.

66 It was signed in Rome, on 4 November 1950 and coming into force on 3 September 1953.
“The new organisation satisfied a very wide range of public opinion, which saw in it an instrument through which the various political tendencies, and the essential aspirations of the peoples of Europe, could be expressed”.  

As an intergovernmental organization, the CoE primarily aims:
- to protect human rights, pluralist democracy and the rule of law;
- to promote awareness and encourage the development of Europe’s cultural identity and diversity;
- to seek solutions to problems facing European society (such as discrimination against minorities, xenophobia, intolerance, environmental protection, human cloning, Aids, drugs, and organized crime);
- to help consolidate democratic stability in Europe by backing political, legislative and constitutional reform”.

More specifically, the CoE launched its environment programme in 1961, “to deal with one of the issues now perceived as one of the main challenges that Europe will have to face in the 21st century”. The CoE’s activities in this field focus on the conservation of nature and landscapes. They are now integrated within the Culture and Cultural and Natural Heritage Department, and have three main directions:
(1) The Pan-European Biological and Landscape Diversity Strategy (PEBLDS);
(2) The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention, 1979);
(3) The promotion of awareness on biological and landscape diversity.

In the context of this analysis, it is relevant to take into specific consideration the role played by the PEBLDS, as an European-wide response to support the implementation of the CBD; in fact, the document was set up in 1994, following the Rio Earth Summit. “The principal aim

67 This was indeed the purpose for which it was founded, as clearly stated in Chapter I of its Statute: "The aim of the Council of Europe is to achieve a greater unity between its Members for the purpose of safeguarding and realising the ideals and principles which are their common heritage, and facilitating their economic and social progress."(http://www.coe.int).

68 http://www.coe.int.


70 The Strategy was proposed in the Maastricht Declaration Conserving Europe's Natural Heritage (1993), and builds on the Bern Convention, the European Conservation Strategy (1990), the Dobris and Lucerne Ministerial Conferences (1991, 1993), UNCED (1992), and other existing initiatives and programmes. The Strategy aims to strengthen the application of the Bern Convention in relation to the CBD, following the Monaco Declaration.

71 “An important instrument for the protection of wildlife and natural habitats, the Bern Convention has today 45 Contracting Parties, including 39 CoE member States, the European Community (ECT), Monaco and four African States. It includes help for implementation (technical assistance on legal and scientific issues) and the setting-up of the Emerald Network - a Network of Areas of Special Conservation Interest created in 1998 and compatible with the EU network Natura 2000 - as well as work on monitoring and control of threatened species.” (http://www.coe.int/t/e/Cultural_Co-operation/Environment/Nature_and_biological_diversity/).

72 Information and awareness on environment protection is carried out through the CoE publications; its network of National Agencies also contributes to the promotion of the conservation of biological and landscape diversity.

73 This Strategy was endorsed by the 3rd Ministerial Conference "An Environment for Europe", held in Sofia in 1995. By their work, several groups of specialists - in particular "Transport and Environment", "Agriculture and Environment" - help to implement the Strategy. In particular, the European Diploma for Protected Areas given for five years to sites of exceptional natural value and excellent management continues to reward sites that respect the Strategy's principles. The recently adopted European Landscape Convention (adopted in July 2000 and signed in October 2000 by 18 countries), will help to reinforce the effective implementation of the Strategy.
of the Strategy is to find a consistent response to the decline of biological and landscape diversity in Europe and to ensure the sustainability of the natural environment”.74

Generating from the assumption of the growing “degradation of the biological and landscape diversity” values, the PEBLDS is adopting “an innovative and pro-active approach to reverse this trend. Innovative, because it addresses all biological and landscape initiatives under one European approach. It is proactive, because it promotes the integration of biological and landscape diversity considerations into social and economic sectors. The Strategy reinforces the implementation of existing measures and identifies additional actions that need to be taken over the next two decades. The Strategy also provides a framework to promote a consistent approach and common objectives for national and regional action to implement the CBD”.76

It is relevant to notice that the idea of launching a specific strategy at a large scale - a pan-European effort - originated by the analyses of the exiting gaps in nature conservation initiatives and mechanisms. The promoters considered that, despite all the existing programmes, carried out by the various stakeholders (including the IGOs, the national governments, NGOs, private sectors and individuals), the European biological and landscape diversities are not sufficient and their unique values are not properly included in adequate management plans: “conserving Europe’s natural heritage is a basic necessity for securing sustainable development in the Region and it is also a shared responsibility of all European countries and regions and a task which can only be successfully undertaken in a Pan-European context”. Two additional basic assumptions are offered as justification for the strategy: the decline in Europe's natural environment is seen as a direct consequence of the “economic and social action, and thus the integration of conservation considerations into socio-economic policy is a prerequisite for restoring and maintaining biological and landscape diversity”. Furthermore, a possible amelioration can be obtained “by facilitating local initiatives towards sustainable development, involving all land users, a new balance may be achieved in rural areas between social and economic dynamics and ecological stability”.

The history of the PEBLDS leads to the definition of a strategic vision for the future, which aims at gaining the following results within a 20 years scenario:

- the threats to Europe's biological and landscape diversity are reduced substantially, or where possible removed;
- the resilience of European biological and landscape diversity is increased;
- the ecological coherence of Europe as a whole is strengthened;
- public involvement and awareness concerning biological and landscape diversity issues is increased considerably.

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74 http://www.coe.int/t/e/Cultural%5FCo%2Doperation/Environment/Nature%5Fand%5Fbiological%5Fdiversity/Biodiversity/default.asp#TopOfPage.

75 By biological diversity it is meant “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems (Art.2 of the CBD); the landscape diversity is defined as “the formal expression of the numerous relations existing in a given period between the individual or a society and a topographically defined territory, the appearance of which is the result of the action, over time, of natural and human factors and a combination of both (CoE Draft Recommendation on the Integrated Conservation of Cultural Landscape Areas as part of Landscape Policies).

The long-run perspective of the overall goals is translated into a series of five-years *Action Plans*, to better respond to the urgent needs of the pressing problems. Additionally, the Strategy intends to introduce a “co-ordinating and unifying framework” rather than new legislation or programmes. It is also expected to “more efficiently integrate ecological considerations into all relevant socio-economic sectors and will increase public participation in, and awareness and acceptance of, conservation interests”.

**IMPLICATIONS FOR THE MAB PROGRAMME**

It is relevant to notice that – within the PEBLDS - no specific mention is provided to the MAB Programme and its initiatives, even if most of the items enlightened by the Strategy are very closely related to the ones emerging in the *Seville Strategy* and its implementing consequences at the BRs level.

Furthermore, the innovative elements of the Strategy – namely the pan-European approach - and its pro-active perspective, in combining natural and socio-economic aspect, are not exclusive of this context; indeed, the MAB approach also includes both the large-scale networking perspective and the combination of the natural and socio-economic aspects.

In fact, despite the fact that the PEBLDS and the MAB share the same basic assumptions, they apparently do ignore each other at international level. As both the perspectives seek to foster a ‘regional’ strategy, many common issue could be identified and possible sinergies generated. Additionally, at ‘local’ level, BRs may serve most of the major goals of the PEBLDS; the primary function of biological and landscape diversity protection is very much in line with the priorities stressed by the MAB in the SEEs.

2.2.3. **THE EUROPEAN UNION**

The EU was firstly formed for economic resons and only more recently the member states adopted an environmental policy. In fact, for the first 20 years of common policy making process, the ‘environment’ as such was ignored. The funding *Treaty of Rome* (1957) stated the “accelerating the standard of living” in the signatory countries as the key overall goal and all the acts were designed to remove any possible barrier to the free trade. Only in a second phase (1973-86) the first ‘environmental issues’ began to be specifically addressed, by adopting laws and creating *ad hoc* institutions, committees and action plans. In fact, the first *Environmental Action Plan* was issued in 1973, while the Directorate General XI (Environment) was created in 1981. But only in 1985, the Court of Justice affirmed that environmental protection is one of the “essential objectives” of the ECT. The following phase (1987-92) went in the direction of consolidating the previous decisions by providing a proper legal frame; in fact, in the *Single European Act* (1987), ‘environment’ was recognized as a legal competence of the EC and the Title VII was added to the Treaty of Rome. Consequently, the DG XI began to play a more influential role in defining the Community policy. Nevertheless, the need for an improved level of scientific and technical expertise to support the decision-making processes lead to the commitment to the creation of the *European Environmental Bureau* (EEB). Ultimately, the years following the Earth Summit (Rio, 1992) represented the ‘consolidation phase’ for the EU; in fact, the environmental become a core policy issue. In the Preamble of the EU funding *Treaty of Amsterdam*, it is remarked that ‘a

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77http://www.coe.int/t/e/Cultural%5FCo%2Doperation/Environment/Nature%5Fand%5Fbiological%5Fdiversity/Biodiversity/default.asp#TopOfPage.
harmonious, balanced and sustainable development of the economic activities’ has to be the guiding principle. Nevertheless, significant challenges remained in the integration of the environmental policies into other policy sector, their sound implementation and the resistance of the member states to their adoption.

On the occasion of the launch of the 6th Framework Programme (December 2002), the EU adopted a further developed environmental strategy; “protecting the environment is essential for the quality of life of current and future generations. The challenge is to combine this with continuing economic growth in a way which is sustainable over the long term. EU environment policy is based on the belief that high environmental standards stimulate innovation and business opportunities”. In fact, the Sixth Environment Action Programme - entitled “Environment 2010: Our Future, Our Choice” - was adopted; the “cornerstone of the EU environmental action” covers the period 2001 to 2010, fostering the following priorities:

- tackling climate change and global warming;
- protecting the natural habitat and wildlife;
- addressing environment and health issues;
- preserving natural resources and managing waste.

In particular, two EU Directives represent key reference legal frames in relation to the MAB priority areas of intervention:
- the Bird Directive - adopted in 1979 - is concerned with the long-term protection and management of all birds species living at a wild state on the Community territories and their habitats;
- the Habitat Directive - adopted in 1992 - introduced the obligation to preserve habitat and species of Community interest.

Furthermore, the Natura 2000 network is even more relevant in this context of analysis; in fact, its adoption aimed at including representative samples of all the most relevant habitats of Community interest. Each of the member state is requested to contribute to the network by designating domestic sites of relevance for the Europe-wide partnership. Nevertheless, some specific restrictions have been identified in the frame of the Natura 2000, namely:
- each member state is obliged to ensure a favourable conservation status for the identified relevant sites;
- specific management requirements and necessary restrictions on activities carried out within and around the sites borders vary site by site (theoretically, the Directive allows any activities which does not harm to the specific natural values);
- new activities in Natura 2000 sites can only be implemented after a impact assessment and public participation have been properly activated;
- some of the traditional activities run previously, may be drastically reduced or totally neglected by the introduction of the Natura 2000 regime.

These “elements of rigidity” may result into potential conflicting issues in the phase of the network implementation. In fact, the adopted conservation strategy is very comprehensive,

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but the overall acceptance of the future implementation measures may arise some problems; the following are some examples:  
- many people are still rather ill-informed about the specificities of the Directive;  
- specific management concepts (e.g. the notion of no further deterioration) may lead to skepticism and rejection from farmers, landowners and other stakeholders;  
- landowners may feel that the value of the potential Natura 2000 sites would decline, when compared to similar ‘unlisted’ properties;  
- frequently, local population consider the Directive implementation on their territories as a form of expropriation.

Despite the large efforts the EU is doing in implementing its environmental policy, it is not exempt from strong criticisms; “the Commission - which is well lobbied by large private enterprises - tends to favour standards which require, if they have to be met, substantial investment and technologies, for example in wastewater treatment plants. These investments, however, are beyond the reach of the public sector, thus favouring the entry of private investors and/or operators.”  

These aspects, are particularly relevant in the the SEECS contexts, where, in many cases, the EU environmental policy is seen both as “a motor for state modernization in the accession countries” but also a “strong and hierarchical imposition”.  

Ultimately, most of the proposed actions and strategies are seen as additional elements of rigidity, which are resulting in additional difficulties rather than facilitating the accession process.

**IMPLICATIONS FOR THE MAB PROGRAMME**

The EU environmental policy tends to favour the adoption of standards which are very requiring, in terms of substantial investments and technologies. Consequently, the environmental costs of the accession phase are ‘unsustainable’ for the transition economies of most of the SEECS. Additionally, the top-down approach of the Natura 2000 Directive still lacks a proper bottom-up compensation, by an active public participation support.

Consequently, the flexibility of the MAB may help the next EU accession countries to adopt innovative management practices at local level; in fact, the BR model could favour the adoption of more bottom-up approaches, involving local stakeholders participation in the definition of the most suitable environmental policies to be adopted.

At the SEECS national level, the coexistence of the hierarchical and highly demanding EU driven environmental policy and the flexible MAB approach may generate misunderstandings and conflicting situations; reversively, a possible collaborative perspective on not-mutually-exclusion bases may activate positive synergies.

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79 for further details concerning the impact of the Natura 2000 network, see the paper “Taking a bioregional approach in forest management; moving toward bioregional policy and institutions in Europe”, Pregernig, 2003.


81 A critical overview on the impact of the EU environmental policy on the European countries in transition is offered by the paper “EU accession of Central and Eastern European nations in transition: impact of Environmental policy and sustainable development”, compiled by Viktor Vovk, Worldwatch Institute Research Fellow (2002).
2.2.4. CEI

“Successor to the “Quadrangolare” organisation founded in 1989, the Central European Initiative (CEI) currently comprises 16 members, ranging from central EU countries to the SEECs.”83 “It is a body of international cooperation whose strategic function is to contribute to the economic development of central Europe, broaden opportunities for dialogue over the whole area and prepare non-EU members of the CEI for future membership of the Union”.84

In dedicating specific attention to network the member countries, the Initiative promotes several key-initiatives dedicated to the countries in transition, which are based on specific international working groups; an “Environmental working group” has been recently activated with the scope of focusing on the major issues of interests promoted by the member states.

IMPLICATIONS FOR THE MAB PROGRAMME

Apparently, no direct relations can be found between the CEI and the MAB. In fact, the CEI platform and its working groups may serve the purpose of accommodating the MAB initiatives and give them a larger political relevance. Indeed, the ministries which are regularly participating to the CEI meetings, could be promoter of the BR territorial model within their regular policy actions.

2.2.5. EDUCATION AND RESEARCH INSTITUTIONS NETWORKS

UNESCO’s actions in the SEECs cannot neglect the existence of various small- and medium scale programmes and projects, which are aiming at further networking the scientific and educational institutions.

Some are just the continuation of the former academic regular exchanges; other have been recently launched and supported from outside.

The case of the EU funded TACIS programme is - in this respect - very relevant, in terms of financial and human resources that have been devoted to implement it. Its TEMPUS branch has been particularly designed to support the inter-university short term initiatives promoted by consortia of EU and non-EU higher education institutions. Some of the TEMPUS-TACIS projects are specifically dedicated to the environmental issue and their political and economical implications.

IMPLICATIONS FOR THE MAB PROGRAMME

Regardless the fact that the majority of the research and educational networks are based on short- and medium-term projects, their overall relevance in terms of disseminating innovative results and their impact of the pedagogical aspect deserve a major attention by UNESCO.

In particular, at local level, BRs are expected to play a scientifical significant role, by supporting the in-field research and their results’ networking; in fact, this is still very rarely happening in the SEECs, so neglecting a very important role of the MAB. When properly activated, the higher education and research institutions can act as major stakeholders in

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82 The are: Albania, Austria, Belarus, Bosnia-Herzegovina, Bulgaria, the Czech Republic, Croatia, Hungary, Italy, Macedonia, Moldova, Slovakia, Slovenia, Poland, Romania, and the Ukraine.
strengthening the scientific part of the UNESCO programmes; in fact, the networking project can easily be supportive, once properly linked with the BR management process.
2.3. NGOs

Since the collapse of the Berlin Wall, the role of the so-called spontaneous civil society movements and NGOs has been relevantly growing. In particular, it changed significantly after 1989: in fact, in the time of the centralized governemnts they used to be platforms for strong alternative debates on civil and politically relevant issues; after the independence processes started, they transformed themselves into actors more focussed on stimulating the awares of people about the importance of having proper natural resources management practices.

In the frames of the centralised economies of the socialistic-driven caountries, “the strategy of power has long seemed founded on the apaty of the masses. The more passive they were, the more secure it was. But this logic is only characteristic of the burocratic and centralised phase of power. And it is this that today turns against it: the inertia it has fostered becomes the sign of its own death. That is why it seeks to reverse its strategies: from passively to participation, from silence to speech” 85

As far as “incorporation, rather than exclusion, is often the best means of control”, 86 in this very first phase of the socio-economic transition, state-centered participation processes have often been used to manipulate people, in order to obtain their support (including their free or cheap labour), to implement externally driven initiatives, or to obtain legitimacy for management policies, administrative acts, and operations that have been decided mainly within state organizations. 87

The strong attempts to formalize the participation are occurring both at nationl and local levels and are more critical in the CEECs in transition. The implementation of this top- (mostly state-)controlled procedure has been generating a growing level of insatisfaction, resulted in a diffuse sense on frustration.

In the frame of this analysis, it relevant to underline that NGOs from 26 countries have federated in the pan-European Eco Forum, which has been firstly active in promoting the UN/ECE Convention on Access, Public Participiapation in Decision-making, and Access to Justice in Environmental Matters (Aarhus, 1998). 88 It is important to notice that the Aarhus Convention has been mainly promoted by the NGOs from Eastern European countries, even if it seriously challenges also the Western ones. 89

Additionally, several spontaneous groups from the SEEs region has been playing a very active role in the ‘Environment for Europe’ process, since its beginning. The “green network” - that was created and reinforced since that time - made it possible for many initiatives to become relevant at national and local levels. In fact, the NGOs movements could - and still can - mobilize human and financial resources in relatively fast, cheap and flexible ways,

85 Baudrillard, 1983.
86 White, 1996.
88 For further details, see the Chapter 2.2.1.
89 The Aarhus Convention has been, so far, ratified by 17 countries (amongst which only Denmark and Italy representing the Western European parties) and came into force in October 2001. “The Convention concerns with particular issues related to the installation of industrial plant, energy (including nuclear),mining, chemicals and genetically modified organisms, industrial meat production and waste management facilities that have environmental effects” (Finger-Stich and Finger, 2003).
which is always very difficult for the state agencies, still functioning on the bases of the top-down decision taking processes.

The alliance of the ENGOs and the grass-roots organizations are representing a powerful ‘local’ threat to the national authorities in the processes of managing people and the resources of their territories. Additionally, they jointly promote intensive campaigns to arise the people awareness on the environmental issues, combined with strong lobbying actions at the international level, also thanks to a growing reliance they’re given by the IGOs in setting up agendas. It is worthwhile to notice that the role of the major IGOs has been growing in fostering the definition of suitable criteria to support member states governments actions to facilitate participation processes.

The growing space for participation processes and more integrated or cross-sectoral policy-making that has been created in the past two decades - in particular at the international level - has been to a great extent the result of social and environmental movements’ growing capacity to organize and pressure governments. Yet, these efforts have largely been instrumentalised by more powerful private sector actors to gain entry from themselves into public policy-making processes.

To further analyse ENGOs’ role in the CEECs, the first part of this section synthetically reports on the main activities of the Regional Environmental Centre (REC), as one of the most relevant and active ENGOs in the region; in fact, several medium- and small-scale activities are directly conducted by the REC.

The second part is dedicated to IUCN; in fact, the leading role played by the Union in providing guidelines for the nature conservation policies in the SEECs clearly emerged from all the MAB country reports. Furthermore, IUCN has been involved in the MAB Programme since its very beginning and it activated a specific Biosphere Reserves Task Force and a Biosphere Reserve Specialists Group to reinforce the World Network of BRs.

Ultimately, the role the WWF has been analysed, as one of the world's largest and most respected independent conservation organizations. In fact, some of the projects that the Fund jointly supports in the SEE region in cooperation with other ENGOs are particularly relevant for the MAB Programme.

2.3.1. REC

“The Regional Environmental Center for Central and Eastern Europe (REC) is a non-partisan, non-advocacy, not-for-profit international organization, with a mission to assist in solving environmental problems in Central and Eastern Europe (CEE). The center fulfills this mission by promoting cooperation among non-governmental organisations, governments, businesses and other environmental stakeholders, and by supporting the free exchange of information and public participation in environmental decision-making.” The REC - established in 1990 by

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90 For example, the work of FAO/ECE/ILO Team on Participation in Forestry shows that many processes have developed across Europe and North America in relation to forestry as a strategic resource.


92 http://www.rec.org/
the United States, the EC and Hungary - is today legally based on a Charter\textsuperscript{93} signed by the governments of 28 countries and the EC, and on an international agreement with the government of Hungary. It is important to remark that its 15 beneficiary countries\textsuperscript{94} are mostly located in the CEE region.

Most of the regular REC activities are primarily supported by the Italian Trust Funds\textsuperscript{95} and the Japanese Special Fund.\textsuperscript{96} Other donors\textsuperscript{97} have been recently supported the Centre’s activities.

The REC implements its environmental projects within nine basic organisational units called 'programmes';\textsuperscript{98} namely, (1) Business and Environment Programme, to assists in improving the environmental performance of companies in CEE; (2) the Capacity Building Programme, to increases the individual capacity of present and future environmental leaders and supports the development of institutions and programmes for environmental capacity building in CEE; (3) the Climate Change Programme, focused on assisting CEE countries in identifying policies and measures to comply with and respond to opportunities created by the Framework Convention on Climate Change and the Kyoto Protocol; (4) the Environmental Law Programme, which intends to contribute to environmental protection and sustainable development through the progressive development of international and domestic environmental law and through support to legal communities in the CEECs, including independent environmental lawyers, judges, prosecutors and others; (5) the Environmental Policy Programme, contributing to the CEE and global environmental policy processes through innovative policy solutions, such as the use of strategic environmental assessment, closer integration of environmental and economic policies, through effective use of economic instruments, and drafting and implementation of national and international legal instruments; (6) the Information Programme, which provides free access to information and assists others in improving access to information; it also promotes cooperation between environmental stakeholders and encourages greater environmental responsibility among diverse target groups; (7) the Local Initiatives Programme to provide support to local authorities and other concerned stakeholders in environmental capacity building; (8) the NGO Support Programme, which enhances the development of civil society in the CEE region, by supporting the development and activities of environmental NGOs; (9) the Public Participation Programme, which is involved in project activities resulting in policy analysis, surveys, publications, training materials, workshops and capacity building events concerning the implementation of the Aarhus Convention and best practices of public participation.

\textsuperscript{93} for details, see http://www.rec.org/REC/Introduction/whatis.html.

\textsuperscript{94} Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, FYR Macedonia, Poland, Romania, Serbia and Montenegro, Slovakia and Slovenia.

\textsuperscript{95} The Italian Trust Fund (ITF) was established in 2001 as a targeted contribution of the Italian Ministry for the Environment and Territory to the REC’s regular activities. The ITF operates within the framework of environmental improvement and cooperation in the countries of CEE. Its activities are consistent with the REC’s mission and complementary to other REC programmes -- sharing the same ambition to strive for a solution of environmental problems afflicting the CEE region.

\textsuperscript{96} The Japan Special Fund of the REC, established in 1993, is a mechanism through which the Government of Japan supports the REC in its efforts to solve the environmental problems of the CEE region. Currently, the priority areas of the Japan Special Fund are: (1) to support the implementation of the Kyoto Protocol, (2) to support the Regional Cooperative Programs, and (3) to provide technical support to countries in the CEE region.

\textsuperscript{97} They are: the EC and the governments of Albania, Austria, Belgium, Bosnia and Herzegovina, Canada, Croatia, the Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Italy, Japan, Latvia, Lithuania, FYR Macedonia, the Netherlands, Norway, Poland, Serbia and Montenegro, Slovenia, Sweden, Switzerland, the United Kingdom, and the United States, as well as other inter-governmental and private institutions.

\textsuperscript{98} http://www.rec.org/REC/Programs/Programs.html.
Within the frame of the possible implication for MAB, it is relevant to mention a group of REC projects specifically dedicated to SEECs; they are the AIMS (Support for Acceptance and Implementation of Multilateral Environmental Agreements), the Development of National Environmental Information Systems), the REReP (Regional Environmental Reconstruction Programme), the Directory of REReP projects, the Balkan Bytes (an ENGOs and Electronic Networking), the Transboundary Cooperation Through the Management of Shared Natural Resources, the BERCEN (Balkan Environmental Regulatory Compliance and Enforcement Network), and the Balkan Information Service.

**IMPLICATIONS FOR THE MAB PROGRAMME**

It is evident how most of the REC’s activities are very close to the MAB’s ones. In particular, the direct action the Centre performs in supporting and actively networking the ENGOs in the SEECs makes it very relevant for the possible results at the grass-root level. Additionally, the specific initiatives promoted to support the transboundary cooperation in the region are very aligned with the potentials of the BR model, to act as a transnational tools for biodiversity preservation and sustainable development promotion. Ultimately, the REC is well positioned in relation to the major IGOs, acting at the regional level (EU, Stability Pact and nation states) and its activities are well reputed for being effective and efficient.

So far, no official cooperation has been launched between the UN agencies and REC; the MAB programme and, in particular, the BRs could be territories of possible joint activities. In particular, the role of the local ENGOs demonstrated to be of crucial importance for the national governments to implement the projects’ ideas; on the contrary, without their support, the current difficult socio-economic conditions may neglect the possibility for BRs to properly function.

**2.3.2. IUCN**

The relevance of the World Conservation Union (IUCN) as a leading organization in providing guidelines for the nature conservation policies in the SEECs clearly emerged from all the MAB country reports; in fact, since its foundation, the “Union has served as a “Green Web” of partnerships, generating environmental conventions, global standards, scientific knowledge and innovative leadership”. Its network includes “members from some 140 countries, encompassing over 70 states, 100 government agencies, and 750-plus NGOs. More than 10 000 internationally-recognised scientists and experts from more than 180 countries volunteer their services to its six global commissions. Its 1000 staff members in offices around the world are working on some 500 projects”. It is relevant to notice that in 1999 the UN member states accorded IUCN the status of “Observer” at the General Assembly.

IUCN’s “philosophy” of intervention is rooted in “a sound ecosystem management to demonstrate how this is the only way to sustainable livelihoods for those directly dependent

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99 The acronym originally stooded for the International Union for Conservation of Nature; its full name was recently changed into World Conservation Union.
100 for further details, see the chapter III of this report.
on natural resources". 103 Indeed, the great effort that the Union has always been posing to identify and possibly codifying the natural systems management procedures has become a cornerstone in most the national and international environmental policy-making processes. The IUCN protected areas categories, their definition and implementation, as well as the endangered species lists (the “Red Books”) become soon very “popular” amongst the specialists. On the other sie, its definitions and categories have been recently the objective of some sound criticisms, especially in the frame of biodiversity degradation researches. 104

Recently, IUCN activities are more and more concentrated on networking (the “green web”) the various stakeholders that are active in the frame of the natural resources management; in particular, it intends to act as a “web of partnerships, between institutions and people to manage and restore ecosystems and protect threatened species; a web of knowledge, providing society with the information and tools it needs to secure a sustainable future; a web of innovations, harnessing economic incentives and social power for sustainability; and a web of action to promote the sharing of costs and benefits of conservation and the sustainable use of nature and natural resources”. 105 Its Programme is structured on the bases of an overall “vision” (“a just world that values and conserves nature”), a related “mission” (“to influence, encourage and assist societies throughout the world, to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable”) and two “conservation goals” (“facing the extinction crisis and restoring and maintaining ecosystem integrity”) to be achieved by acting in seven “key result areas (KRAs)”, namely (1) effective management and restoration of ecosystems; (2) key institutions, agreements, processes and policies; (3) incentives and finance; (4) equitable sharing of costs and benefits; (5) assessment of biodiversity and of related social and economic factors; (6) information management and communication systems; (7) effective, efficient, and accountable governance and management of the Union. Operatively, IUCN identified 14 “global thematic programmes”; 106 the related activities are co-ordinated by six “commissions” and geographically structured into nine “regional programmes”.

In the context of this report, the activities of the IUCN Regional Office for Europe (ROfE) are more relevant; the ROfE mandate is quite vast 107 and most of the specific activites are jointly run with several partner organizations. It is relevant to notice that the UN system is represented (with FAO and UNEP), but UNESCO - and its MAB Programme - are not mentioned.

More specifically, the IUCN Office for Central Europe deals with their members 108 in the SEE region: they are Bulgaria, Croatia, Greece, Moldavia, Romania, Serbia and Turkey. Two main projects are the focus of the Office activities: the Natura 2000 and the Agenda 2007; the former dealing with the most crucial aspects of the EU Directive (such as the socio-economic benefits, the biodiversity strategies, the financial aspects and the integration into the rural development plans).

107 (1) assisting the European members of IUCN; (2) representing the global IUCN to the EU; (3) developing and implementing a pan-European programme for the conservation and sustainable use of nature and natural resources; and (4) providing the global IUCN network with policy information and analysis.
108 IUCN members are classified in accordance to their status, as: national NGOs, international NGOs, states and affiliates.
IMPLICATIONS FOR THE MAB PROGRAMME

It is important to remember how close was the cooperation between IUCN and the MAB in the initial phases of the UNESCO’ Programme. At the moment, the relations are still active at the top level; in particular, UNESCO is involved in the cooperation with the Commission for Ecosystem Management (CEM) and the World Commission for Protected Areas (WCPA). Both the World Heritage Programme and the MAB are formally part of the WCPA activities; in fact, a specific Biosphere Reserves Task Force has been activated and a Biosphere Reserve Specialists Group created to reinforce the World Network of BRs, in conformity with the objectives of the Seville Strategy; they stressed that within the worldwide conservation strategies, “the characteristic that distinguishes BRs is the combination of functions of conservation and development, inside a unique conceptual framework, with individual sites connected through an international network”.[109]

Ultimately, in the SEECs the local BRs’ managers and the national MAB Committees are in frequently referring to the IUCN categories, as the zoning is being implemented. A reinforcement of the co-operation with IUCN could bring positive aspects, especially at the BR level; in fact, rather than the theoretical approach, the practical implementation of the Seville Strategy could serve as a common platform to activate small-and medium-scale projects to be implemented in the various BRs.

2.3.3. WWF

“Over 40 years of conservation successes .. and counting” titles the WWF’s (formerly known as the World Wildlife Fund) web-page.[110] In fact, in just over four decades, WWF has become one of the world's largest and most respected independent conservation organizations. “With almost five million supporters distributed throughout five continents, WWF has a global network active in over 90 countries and can safely claim to have played a major role in the evolution of the international conservation movement”. [111]

The major areas of intervention are corresponding to the six WWF “global issues”: (1) the Climate Change Programme; (2) the Forest for Life Programme; (3) the Living Waters Programme; (4) the Endangered Seas Programme; (5) the Species Programme and (6) the Toxics Programme.

WWF has national focal points in many countries and implement region-wide programmes; in fact, in the case of Europe, there are 8 specific programmes: (1) the European Policy Office; (2) the Freshwater Programme; (3) the Danube-Carpathian Programme; (4) the Caucasus Programme; (5) the Mediterranean Programme; (6) the European Forest Programme; (7) the European Endangered Species Programme; and (8) the Cota Doñana Project Office.

It is relevant to notice how “increasingly WWF and its partners need to work on a large scale, focusing on a large region with nature of especially high value”. The bioregional assessment is becoming more and more urgent in those contexts where the human impact is estimated to be higher. “The Ecoregion Conservation approach allows to cooperate with a whole range of

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partners in a large region: government officials and aid agencies, community workers and scientists, business managers and NGOs, politicians and internet activists”. In the specific case of Europe, for instance, WWF identified several locations to implement this approach; namely, the Lower Danube, its tributaries and its delta; the Alps, the Carpathian Mountains; the Mediterranean; the Caucasus; and the Russian Far East. Ultimately, WWF cooperation with a well-spread network of other local, national and international ENGOs, makes its lobbying actions more effective. In the specific context of the SEECs, some relevant international projects have been jointly activated.

**IMPLICATIONS FOR THE MAB PROGRAMME**

There are only rare references to the MAB Programme and BRs in WWF activities; in fact, at the on-the-ground level, some initiatives are run in cooperation with BRs managers (e.g. the project in Argania and thuya woodlands, Morocco, in cooperation with the MAB initiatives). In the specific context of the SEECs, the example of the proposal to establish a TBR Danube-Drava-Mura - developed in cooperation with Euronatur - is one of the most relevant. This is rooted on the joint protest action promoted by several ENGOs - the Drava League, Zelena Akcija (Friends of the Earth), DOPPS (Birdlife Slovenia), Euronatur, and WWF - to called on the Croatian and Slovenian governments to take action to save the Drava river, which they claim has been given a death sentence under current gravel extraction works being carried out by the Croatian Waters Company.

The possible mutual cooperation between WWF and the other related ENGOs is most probably more significant at the very local level, whre the BR concept can easily accommodate most of the bioregional issues promoted by the counterparts; at the same time, the UNESCO status gives the areas an international relevance and recognition, which may further support the implementation of the ecosystem approach.

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112 http://www.panda.org/about_wwf/where_we_work/europe/where/ecoregions.cfm.
113 www.euronatur.org.
Within the frame of the geo-political actors’ game, the role of nation states - and their institutions - is still relevant, even if it has been largely impacted by the growing movements in the globalized scenarios.

In fact, in their attempt at maintaining the full control over the strategic phases of the natural resources management, states are nowadays ‘squeezed’ by the simultaneous effect of combined top- and bottom-driven actions. The former being promoted by the large transnational corporations (TNCs) and the major inter-governamental organizations (IGOs), fostering policies which tend to liberalise the natural resources (e.g. water, forest, biodiversity resources) markets and to increasingly delegate the private sector the control over some of their management phases (very often the most profitable ones). The bottom-up approach, on the other side, is strongly promoted by the various NGOs; their relevance is largerly growing parallelly to their demand for more transparent and efficient public administration mechanisms to be implemented.

Historically the “state involvement in natural resources management has been a process of growing institutionalization and bureaucratization”, both in Europe and in the countries subject to colonial rule. The control over the territories and their ‘immobile’ resources (e.g. waters, forests, minerals, and biodiversity) has always had an important geo-political role. The recent technological developments tend to improve the ‘competitive advantage’ of the natural resources and their uses (real and potential). This results on of a growing strategic importance of the control over their major management phases; consequently, states tend to maintain the monopoly over the key aspect of the decision-taking process, leaving to the public participation a mere ‘consultancy’ role and leasing to the private sector some operational steps.

The issue of public participation is becoming more and more important; citizens are asking to be involved (via the means of their associated forms and, ultimately, on individual basis) in the decision-making processes on the use of their states’ resources. The traditional democratic forms of delegation to the political parties are facing a strong decline in most of the countries and ‘new’ forms of NGOs are growing in importance. In most of the cases they are lobbying at both the domestic and international levels, to have larger recognition in the different phases of the decision-making processes.

On the other side, countries tend to perpetuate state-centric strategies, thus ‘instrumentalising’ people participation for their own legitimacy purposes.

Conversely, states are needed in order to secure tenure rights and the effectiveness of their regulatory role resides, however, precisely in its capacity to guarantee stability; this results into a reinforcement of their institutional frames to ‘resist’ social changes. The issues of property rights and land tenure regimes are of particular importance in the SEECs, where the security on the land and its possible uses are the preconditions for people to be actively involved in the promotion of their development. In fact, after the collapse of the centralized states, the overall processes of privatization include land restitution and de-nationalisations as milestone initial steps.

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Many critics have been formulated to the state authorities as their incapacity to address effectively environmental problems at any scale;\textsuperscript{115} one of the most frequently used arguments is related to the fact that states are actors ‘too small’ to mitigate regional and global environmental problems or ‘too big’ to deal with local environmental issues.\textsuperscript{116}

Additionally, the inappropriate state-centred approach to natural resources management\textsuperscript{117} has to be combined with the growing importance of the bio-regional assessment\textsuperscript{118} to generate more suitable scaling and instruments to support the management processes. In fact, a growing domestic institutional conflict is occurring in all the newly independent SEECs, as the traditional governmental agencies dealing with the natural resources management (namely the agriculture, forestry, fishery and mining departments) have been placed side by side with the recently established environmental agencies (or departments); the latter intended to implement specific comprehensive steward tools towards resources protection and sustainable use. The lack of intersectoral ‘dialogue’\textsuperscript{119} leads to the failure of most of the strategy designed to reconcile the development issues with a given level of nature protection. Not surprisingly, environment departments and agencies have rarely emerged victorious from this conflict with their ‘traditional’ counterparts, and have habitually relegated to a secondary role within the state’s decision-making hierarchy.

Ultimately, a ‘tragedy of the common scenario’\textsuperscript{120} may exist at international level, as the result of the states acting ‘individually’ in the pursuit of their own national interests. It is clear that large part of the current environmental degradation is the result of the fact that states tend to create and shape their environmental policies within their borders, neglecting the role that the implementation of these strategies goes well beyond the territories in question. And, consequently, international environmental degradation is also associated with the policies and the practices that each state is acting deliberatively outside its territories. The general unwillingness of states to surrender sovereignty nonetheless remains a perennial stumbling block to conflict resolution over environmental management issues at the global scale.\textsuperscript{121} The recent history of the international agreements dealing with environmental issues since the Rio Earth Summit emphasizes the fact that “there’s a marked preference for non-binding targets/guidelines which states are free to implement at whatever pace they see fit rather than the acceptance of firm and unambiguous obligations”.\textsuperscript{122}

Nevertheless, nation state are call to play a un-replaceable role in the globlised scenario: they are the only actors in a position to mediate between the competing pressures of ‘globalisation’ and ‘localisation’ as they come to bear in a given territory. Particularly in the SEE context, states remain indispensable in addressing the urgent need to re-negotiate forms of mutual understanding and dialogue amongst the various sources of legitimacy in the participation processes, as an integral part of any strategies which really aim to foster the local sustainable development.

\textsuperscript{115} Bryant and Bailey, 1997.
\textsuperscript{116} Mann, 1994.
\textsuperscript{117} Finger, 2003.
\textsuperscript{118} Shannon, 2002.
\textsuperscript{119} Andrian, Secco and Pettenella, 2002.
\textsuperscript{120} Bryant and Bailey, 1997.
\textsuperscript{121} Johnston, 1992.
\textsuperscript{122} Hurrel, 1994.
IMPLICATIONS FOR THE MAB PROGRAMME

1: Being MAB a Programme run by an IGO, the role of the member states is (very) relevant. In fact, BRs nomination is under governmental process and the designated areas remains under the jurisdiction of the country/ies of belonging.

2: Only the harmonious development of a necessary continuous ‘dialogue’ (exchange of information) between the diverse scales (southern, national, national and local) may result into a real fostering of the local sustainable development and all the related ‘statutory’ activities (roles/functions).

3: In geo-political areas characterized by a high level of conflicts and in socio-economic transitions (the case of the SEEs) the role of UNESCO should be the one of the ‘honest broker’, facilitating the negotiation of innovative co-management process, involving traditional institutional actors and the emerging new components of the ‘civil society’.

4: The traditional ‘flexibility’ of the BR approach is less binding for countries which are facing rapidly socio-economic changes; by adopting the MAB principles, each of the member state can further adapt it to its domestic conditions.
CHAPTER III

SINAIA AND ROME MEETINGS OUTPUTS:
IDENTIFICATION OF THE MAIN MAB DRIVING FORCES

3.1. THE MAB-PARIS VISION: A SEECs BACKGROUND STRATEGY

Since the beginning of the economic transition – that followed the collapse of the Soviet Union - most of the major international programmes have been re-designed in accordance with the transformed geo-political scenario.

The MAB Programme headquarter in Paris prepared a ‘Formulation and implementation of a regional co-operation strategy in the SEECs, for sustainable management and conservation of biodiversity’,123 which starting from some basic statements, evolved a possible future scenario for the Programme. In particular, the starting point of the analysis is given by the assumption that the Balkans is one of the “world’s richest areas in terms of biodiversity”. But at the same time, the region is also “very much under the threat from natural and anthropogenic changes” which calls for a “coordinated strategy for sustainable management and conservation of biodiversity among countries, which UNESCO can help to define and develop”. It is interesting to notice how this strategy is expected to be focused on the “already existing initiatives and joint-inventories, conservation measures, common ecological research and specific activities in shared ecosystem”. This clearly underlines the role that MAB HQ predicted for the further Programme development in the SEECs, mostly focused on the biodiversity protection and ecological research issues.

The strategy document continued by affirming that “the region is also rich in terms of cultural/natural landscapes, where traditional agriculture has contributed to the maintenance of biodiversity. There are strong links between natural and cultural diversity in the Balkans, and a need for a well-coordinated programme of inventory, research and monitoring”. Once more the focus is on the preservation role that BRs can play in maintaining the traditional cultural diversity; by doing so, they are expected to contribute to the biological diversity preservation, too.

On the other side, there is no mention to the possible role of BRs as ‘open space laboratories’ to test innovative projects and practices to promote the local sustainable development.

The second section of the MAB document is devoted to define “goals and objectives of the proposed project” which is direct to “promote the conservation of biodiversity and sustainable use of natural resources in the SEE region”. Once again, the definition of the project goals is clearly mono-focussed, centred only on the issues of conservation and sustainable use of the existing biological resources; in fact, this perspective totally neglects the logistic as well as the sustainable development potentialities of the BRs.

A list of the specific objectives is given in the document, namely:
- to complete a survey of the region, in order to define the most important areas for biodiversity and cultural/natural landscape;
- to identify those areas which, inside the country and across the boundaries, should constitute a priority for conservation and sustainable management of resources;

123 The document referred here is an internal draft of the strategy for the SEECs, which was not published.
- to support the establishment of national and transboundary BRs in this selected areas;
- to create a sub-regional network that would facilitate exchange of scientific data, experiences, training and general information.

In fact, these specific sub-objectives are delineating a networking strategy, which is one the funding element of the MAB since its first implementation phase.

3.2. SINAIA 2001: MEETING OBJECTIVES AND OUTPUTS

The 2001 Venice meeting\(^{124}\) stressed the relevance of the MAB Programme in supporting the UNESCO policy in favour of the scientific and cultural cooperation with the SEECs; this gave an additional input to initiate a specific medium-term action in the region, with the support of the ROSTE.\(^{125}\) In fact, a preparatory phase was designed to launch an overall strategy to be presented and discussed on the occasion of the EuroMAB 2002. It was decided to dedicate a specific meeting,\(^{126}\) serving the purpose to gather the MAB delegates from all the SEECs to discuss the specific regional issues to be presented in Rome.

The main objectives of the workshop were clearly defined in advance, as the following ones:

- identification of the main features of the existing environment situation, to be developed both at national and regional scales;
- identification of the key-constraints related to natural resources management implementation policies, in relation with the specific SEECs socio-economic conditions;
- evaluation on the concrete possibilities to improve the existing network of protected areas, in general, and BRs, in particular;
- identification of potential new areas to be managed accordingly to the BR-model, with a particular focus on the transboundary ininitives;
- improvement of BR role as ‘pilot regions’ to foster the adoption of innovative practices to support the local socio-economic development;
- establishment of a long-term cooperation frame among the SEECs to strengthen the biodiversity conservation policies (in accordance with the CBD) as well as the sustainable development (to be based on the MAB principles of the ecosystem approach);
- formulation of a set of potential joint initiatives to be launched in the SEE region, to be submitted on the occasion of the EuroMAB 2002 for further consideration and support.

It is evident how the Sinaia meeting expectations were more ambitious than the previous MAB ones; and, most of all, they comprehensively included other important aspects related to the adoption of the BR approach, namely the innovative management practices adoption and

\(^{124}\) Venice Conference of Experts, held at ROSTE 24-27 March, 2001) on the ‘Reconstruction of Scientific Cooperation in South East Europe’; further details and the proceedings are available at the UNESCO web site.

\(^{125}\) The Round Table recognized also that specific priority measures should be taken in the following fields: life sciences, environmental sciences, computer sciences and information technologies, materials science, and selected aspects of social sciences. Complementary actions on research infrastructure and in favour of young scientists were also considered as essential prerequisites of this large-scale action, to enhance human capacities and benefit the social and economic development in the region in the medium and long-term.

\(^{126}\) The meeting occured in December 2001, from the 7\(^{th}\) to the 10\(^{th}\).
the local socio-economic sustainable development implementation. In fact, the possible role that BRs can play as ‘open space laboratories’ was emerging since the pre-meeting phase.

For theen participants, representing ten diverse countries gathered in the Romanin mountain village of Sinaia and worked for two days to fulfil the previously mentioned expectations. The first part of the reunion was dedicated to the country case studies presentations, attempting to emphasise the environmental situation of the various SEECS and to evaluate the state of the biodiversity conservation initiatives, the major obstacles to the national protected areas policies development and, ultimately, to identify the possible niches of further MAB Programme development. The BR concept was used to possibly assess the potentialities of those territories to serve the purpose of stimulating local socio-economic initiatives. The proposed actions to be taken were grouped into three major categories; namely:

- **Institutional building**
  A common need emerged to foster the inter-state communication on the relevant MAB issues. The idea of creating a web-based tool to support information exchange was strongly supported, as it could favour the exchange of innovative issues to be tested at domestic levels. Many potential sites (12) to establish BRs and transboundary protected areas were identified; in order to possibly implement them, an external technical and financial support was asked, to be supported by the adoption of common tools for information share (e.g. GIS).

- **Thematic issues**
  Participants agreed on the importance of the cooperative research, to be reinforced in the MAB frame; in particular, the socio-economic aspects are in strong need to be further investigated. Innovative mechanisms to involve a larger public participation in the resources management at the BRs level was indicated as a strategic issue to be strongly promoted. Specific fields of investigation (e.g. MAB-lebelling, quality economy, river basin management) can be included in the regular activities of the Programme.

- **Training and educational issues**
  The country delegates converged on the importance of reinforcing the activities dedicated to the management aspects, to be experimentally developed within the BR scheme: in particular, the need to develop specific modules on conflict resolution, communication strategies and environmental auditing was stressed. Researchers and officers mobility – both domestically and internationally – were indicated as facilitating initiatives to be supported by UNESCO.

The meeting (was) concluded by stressing the importance of having a specific session during the EuroMAB 2002, to be dedicated to the SEECS; in facts, the relevant Sinaia outcomes were expected to be integrated into a larger MAB policy, at the conditions to respect the regional peculiarities: the richness in biological and cultural diversity, on one side, and the specific transition socio-economic context, on the other. The MAB was ultimately considered a strategic programme to reconcile both the aspects in an overall strategy, to be specifically implemented at the very local levels.

### 3.2. EuroMAB 2002: THE SEECS SESSIONS

The European wide meeting was held in Rome, October 7-11, 2002, attended by 70 participants from 28 different countries; additionally, many (40) Italian observers and delegates from related organisations (e.g. CoE, European Science Foundation, ArabMAB) participated, extending the dimension of the event to a large one. The meeting had the introductory and
concluding sessions in the plenary and eight different workshops, each of them focussed on one of the specific aspects of the recent MAB development.\textsuperscript{127}

The rationale of the workshop on ‘Cooperation in South East Europe’ incorporate the outputs of the Sinaia meeting; in particular the uniqueness of the SEECs - in terms of biological and cultural diversity - was stressed once more, in combination with the need to define strategies of cooperation for the re-launching the Programme in the area, as a possible suitable instrument to foster the biodiversity conservation and the local sustainable development.

To avoid the creation of a ‘ghetto’ effect, with the countries in transition excluded from the next EU accession process, the tranbopundary cooperation is expected to play a crucial role; for this reason, the identification of possible sites to establishe new TBRs was mentioned by all the SEECs delegates as a key-action to be soon implemented.

After completing the presentation of the missing country reports, specific needs emerged from the discussion, that namely are:

- Networking, at the sub-regional level, and link it with other relevant international initiatives; basically, countries committed themselves to re-launch the Programme and favoour additional BRs nomination;
- invest in the process of TBRs establishment, as a key instrument to reinforce the international cooperation;
- activate educational process (e.g. environmental education), to both extend the weak public participation and offer chanche of refreshment course for the already operative institutions officials;
- implementing integrated territorial management tools, more holistic and flexible;
- conduct specific workshop on conflict resolution and management;
- strengthening capacity building initiatives;
- foster the original ‘experimental approach’ of the BR model;
- reconsidering the active role to be played by the academic community in supporting all the above-mentioned inititives;
- launching of innovative planning procedures (e.g. eco-hidrology, co-management) within the BRs;
- monitoring all these initiatives on regular basis.

The two-sessions workshop concluded by formulating a set of recommendations addressed to UNESCO. The MAB Programme is invited to:

- support the process of reinforcing the MAB network at the sub-regional level and link it to the other branches of the MAB;

\textsuperscript{127} The titles of the workshop were the following: (1) Handling biodiversity data and BRIM; (2) World Heritage sites and Biosphere Reserves; (3) Urban ecosystems and Biosphere Reserves; (4) Ecotourism; (5) Legal and management issues (including Transboundary Biosphere Reserves; (6) Cooperation in South East Europe; (7) Coastal marine Biosphere Reserves; (8) Quality economies in Biosphere Reserves.
• favour the strengthening the existing frame of cooperation;
• facilitate the creation of an information focal point to be run to exchange information at the sub-regional level (web-site);
• complete and publish the country’s reports (as agreed during the Sinaia meeting) by the end of the year 2002;
• disseminate the experience and exchanges of views inside and outside the area, by providing an appropriate visibility to the specific activities;
• draft the project proposal to be addressed to the coming Donors’ Conference, based on the identified needs;
• to help each sub-region’s country to identify a focal point to serve as constant basis for information exchanges and updating.

It is interesting to notice how the concluding remarks of the workshop’s participants moved relevant steps forward, when compared to the what the SEECs assessed in their official reports;128 in particular, the latter are mostly focused on the BR protection role, to preserve bio-and cultural diversity, while the former are shifting the more innovative practices that can be implemented within the frame of the flexible MAB planning instrument. The possible role of the BRs as places to experiment new forms of public participation and conflict resolution, as well as their potentialities as locations where to experiment new patterns in land use planning.

The combination of the workshop results and the EuroMAB recommendations with the critical analysis of the country reports provide a more comprehensive picture to re-assess the MAB strategy in the SEECs.

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128 For further details, see the chapter 3.3 of this report.
3.3. COUNTRY REPORTS: THE SEEs MOSAIC

In this chapter, the SEECs MAB assessment is analysed, mainly by considering the country reports, as presented on the occasions of the Sinaia meeting and the EuroMAB 2002. Even if not being a fully comprehensive list - in fact, some countries are not included in this first round\textsuperscript{129} - this group of states is highly representative of the situation of the Programme in that specific geo-political area. The intent of this session is to extract some key information from the full reports on the main identified areas of analysis.\textsuperscript{130}

Firstly, a socio-economic overall picture is presented, to evaluate - by adopting synthetic indicators - the diversities and the similarities among the various countries. The second picture is about the bio-physical description, as a sound basis to estimate the real value of the biological and cultural resources available. The main environmental threats - as marked by the country reports - are presented. Thirdly, the legal and institutional frames are considered, as important instrumental factors in this very transition socio-economic phase. Lastly, a table illustrating the common needs and the concrete possibilities for further cooperation is given; in fact, they represent possible milestones for the future strategic development of the Programme in the area.

Ultimately, the resulting overall picture resembles the complex mosaic of the diverse countries situation and the various national approaches to the MAB Programme.

3.3.1. SOCIO-ECONOMIC PICTURE

The picture emerging from a first analysis of the main socio-economic indicators – as presented in table 3.1 - is the one of a ‘mosaic’ of different transition situations. In fact, countries differ very much in terms of populations dynamics and economic conditions; in particular, the gap existing between the only EU member state (Greece) and its counterparts is very evident. In particular, the very different population density in the various areas results in diverse human impacts on the environmental resources.

The topics of poverty and education are always mentioned as the crucial ones to analyse for any sound environmental policy implementation. In fact, the national GDPs vary very much and, consequently, the yearly income per capita fluctuates dramatically within the region, ranging from a 258 ($ per capita) of Moldavia to a 12.157 of Greece. On the other side, the illiteracy level is at a low level everywhere, with the exception of Turkey (18,9%).

\begin{itemize}
  \item In particular, Bosnia-Herzegovina (which, indeed, was presenting the country report during EuroMAB 2002 workshop but it did not submit any written form of it afterwards), Macedonia and Slovenia; the latter - which was present in Rome with an official delegation – is in anyway active at the SEE level, by organizing dedicated events. Additionally, the Julian Alps BR nomination from Slovenian government has recently been approved at the \textit{International Co-ordinating Council of UNESCO's MAB Programme} (meeting on July 8-11, 2003, UNESCO Headquarters, Paris).
  \item SEECs reports were originally prepared for the Sinaia meeting and further completed on the occasion of the EuroMAB 2002; in fact, simple guidelines were proposed to the authors to be followed in presenting the domestic situation. The structure includes the following sections: (1) overview on the current environmental conditions (with a focus on existing biodiversity conditions); (2) institutional and legal frameworks; (3) the role of the MAB and the BRs; (4) common needs and future cooperation.
\end{itemize}
### Table 3.1. Main socio-economic indicators

<table>
<thead>
<tr>
<th>countries</th>
<th>population (.000)</th>
<th>surface (km²)</th>
<th>population density (inh/km²)</th>
<th>income per capita ($)</th>
<th>inflation rate</th>
<th>illiteracy level (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>3.490.435</td>
<td>28.748</td>
<td>121,2</td>
<td>1.185</td>
<td>1.03%</td>
<td>5%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>8.385.000</td>
<td>110.994</td>
<td>75,5</td>
<td>1.478</td>
<td>11,4%</td>
<td>4%</td>
</tr>
<tr>
<td>Croatia</td>
<td>4.282.216</td>
<td>56.538</td>
<td>84</td>
<td>4.693</td>
<td>4.5%</td>
<td>3%</td>
</tr>
<tr>
<td>Greece</td>
<td>10.939.771</td>
<td>131.597</td>
<td>83</td>
<td>12.157</td>
<td>2.7%</td>
<td>5%</td>
</tr>
<tr>
<td>Moldavia</td>
<td>4.493.000</td>
<td>33.843</td>
<td>132,7</td>
<td>258</td>
<td>18%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Serbia and Montenegro</td>
<td>10.570.000</td>
<td>102.173</td>
<td>103,4</td>
<td>633</td>
<td>14%</td>
<td>7%</td>
</tr>
<tr>
<td>Turkey</td>
<td>62.870.300</td>
<td>780.580</td>
<td>80,5</td>
<td>3.387</td>
<td>39%</td>
<td>18.9%</td>
</tr>
</tbody>
</table>

(Source: Guida ai paesi dell’Europa Centrale, Orientale e Balcanica (2002))

### 3.3.2. BIO-PHYSICAL FEATURES

The apparent common bio-physical features do not correspond to the real picture, as illustrated in table 3.2. In fact, the combination of different geological origins and the various ethnic evolutions resulted in plenty of diversified localisms. This generated the richness in terms of biological and cultural diversity, as stressed by all the reports. In fact, the number of endemic species is always very high, when compared to other European situations.

### Table 3.2. Main bio-physical indicators

<table>
<thead>
<tr>
<th>countries</th>
<th>surface (km²)</th>
<th>geo-morphology</th>
<th>hydrology</th>
<th>protected area</th>
<th>protected area pro-capita (m²/inh)</th>
<th>catalogued endemic species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>28.148</td>
<td>mainly mountainous</td>
<td>rich in lakes, rivers and wetlands (for a total of 150 km²)</td>
<td>5,8 %</td>
<td>467</td>
<td>27 (flora)</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>110.994</td>
<td>mainly law-lands and hills</td>
<td>rich in terms of diverse habitats</td>
<td>4,5 %</td>
<td>585</td>
<td>175 (flora)</td>
</tr>
<tr>
<td>Croatia</td>
<td>56.538</td>
<td>mainly law-lands and hills</td>
<td>very rich; long coastline</td>
<td>9,9 %</td>
<td>1.307</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>131.597</td>
<td>mountainous and rich of islands</td>
<td>very long and relevant coastline (14.000 Km)</td>
<td>0,3 %</td>
<td>360</td>
<td>-</td>
</tr>
<tr>
<td>Moldavia</td>
<td>33.843</td>
<td>mainly hilly</td>
<td>well developed network</td>
<td>1,2 %</td>
<td>90</td>
<td>160 (flora) 125 (fauna)</td>
</tr>
<tr>
<td>Serbia and Montenegro</td>
<td>102.173</td>
<td>mainly hilly and mountainous</td>
<td>rich in rivers and water basins</td>
<td>7 %</td>
<td>676</td>
<td>-</td>
</tr>
<tr>
<td>Turkey</td>
<td>780.580</td>
<td>mainly hilly and mountainous</td>
<td>long coastline</td>
<td>1,3%</td>
<td>161,4</td>
<td>3.000 (flora and fauna)</td>
</tr>
</tbody>
</table>

(Source: MAB country reports)
The share of the national territory that are legally protected vary very much, ranging from an irrelevant 0.3% of Greece to a robust 9.9% of Croatia: indeed, the data presented should be confronted with the criteria which were effectively used in considering the protected areas extensions. Nevertheless, all the country reports equally emphasized the strategic importance of extending the current protected areas, in order to limit most of the current environmental threats.

Table 3.3. Main environmental threats

<table>
<thead>
<tr>
<th>countries</th>
<th>soil erosion</th>
<th>land privatization</th>
<th>deforestation</th>
<th>fish exploitation</th>
<th>water resources degradation</th>
<th>impacting industrialization</th>
<th>urban sprawl</th>
<th>tourism</th>
<th>legal and adm. frame s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Croatia</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Moldavia</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serbia and Montenegro</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>0</td>
</tr>
</tbody>
</table>

(Source: MAB country reports)

These are synthetically reported in table 3.3, that shows how some issues similarly emerged from all the reports: in particular, the growing impact of the human activities (industries, tourism, urbanization) is presented as the major obstacle for appropriate environmental policies to be adopted. The peculiarities of the transition period are negatively reflecting on the MAB approach adoption, mainly due to the slow legal and institutional changes occurring.

3.3.3. THE LEGAL AND INSTITUTIONAL FRAMEWORKS

In a globalized scenario, the strategic value of the richness in species - in particular of endemic species still naturally perpetuating - is increasing and, consequently, the role of the state authorities to foster their protections and valorization in a perspective of international visibility.

Table 3.4. Main institutional and legal frameworks

<table>
<thead>
<tr>
<th>countries</th>
<th>Ministry of Environment</th>
<th>biodiversity strategy</th>
<th>CBD</th>
<th>MAB Committee</th>
<th>BRs</th>
<th>NGO involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>Y</td>
<td>Y</td>
<td>R</td>
<td>EX</td>
<td>0</td>
<td>L</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Y</td>
<td>Y</td>
<td>S &amp; R</td>
<td>OP</td>
<td>16</td>
<td>NM</td>
</tr>
<tr>
<td>Croatia</td>
<td>Y</td>
<td>Y</td>
<td>S &amp; R</td>
<td>OP</td>
<td>1</td>
<td>RE</td>
</tr>
<tr>
<td>Greece</td>
<td>Y</td>
<td>Y</td>
<td>S &amp; R</td>
<td>OP</td>
<td>2</td>
<td>RE</td>
</tr>
<tr>
<td>Moldavia</td>
<td>Y</td>
<td>N</td>
<td>S &amp; R</td>
<td>N</td>
<td>0</td>
<td>N</td>
</tr>
<tr>
<td>Serbia and Montenegro</td>
<td>Y</td>
<td>Y</td>
<td>S</td>
<td>OP</td>
<td>2</td>
<td>L</td>
</tr>
<tr>
<td>Turkey</td>
<td>Y</td>
<td>N</td>
<td>S &amp; R</td>
<td>EX</td>
<td>0</td>
<td>L</td>
</tr>
</tbody>
</table>

(Source: MAB country reports)

Y = yes; N = no; OP = operative; RE = relevant; L = little; EX = existing; NM = no mention; S = signed; R = ratified.

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Nevertheless, the legal and institutional frameworks presented in the country reports reflect the existence of poor operational conditions of most of the public administrations. In fact, in most of the cases, the ministries of environment have been only recently created (after the countries’ independences) and are still lacking a proper ‘location’ within the overall institutional frames; in particular, mandates’ overlapping and lack of cross-sectoral coordination generate conflicting situations in most of the countries.

All the reports stressed the importance to have a modern and interdisciplinary biodiversity strategy, but only in few cases this step is properly supported by the domestic relevant policy-making processes.

It is particularly interesting to notice the huge differences existing among the countries, within the specific frame of the MAB Programme. The BR implementation ranges from the 16 territories (all nominated in 1977) in Bulgaria to the total absence in Albania, Moldavia and Turkey. This picture clashes against the statements emerging from the texts of the reports, all stressing the crucial importance of the “flexibility” of the MAB approach, when compared to the more “rigid” nature protection schemes.

3.3.4. COMMON NEEDS AND FUTURE COOPERATION

The last part of the reports were dedicated to highlight the most common needs and the areas of possible future cooperation.

In table 3.5, the most frequently mention actions are reported; for the majority of the SEECs, the important needs are related to the environmental quality recovery actions, to be promoted domestically but with the technical and financial support from the international community.

Table 3.5. Main common needs and future co-operation

<table>
<thead>
<tr>
<th>Country</th>
<th>Environmental quality</th>
<th>Biodiversity protection</th>
<th>Research</th>
<th>BR approach</th>
<th>transboundary co-operation</th>
<th>Public participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>UR</td>
<td>IM</td>
<td></td>
<td>UR</td>
<td>VI (TBRs proposal)</td>
<td>-</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>IM</td>
<td>-</td>
</tr>
<tr>
<td>Croatia</td>
<td>IM</td>
<td>IM</td>
<td>VI</td>
<td>FI</td>
<td>IM</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>-</td>
<td>-</td>
<td>VI</td>
<td>VI</td>
<td>VI</td>
<td>VI</td>
</tr>
<tr>
<td>Moldavia</td>
<td>I</td>
<td>I</td>
<td>-</td>
<td>-</td>
<td>VI</td>
<td>-</td>
</tr>
<tr>
<td>Serbia and Montenegro</td>
<td>VI</td>
<td>VI</td>
<td>VI</td>
<td>VI</td>
<td>VI</td>
<td>I</td>
</tr>
<tr>
<td>Turkey</td>
<td>-</td>
<td>VI</td>
<td>VI</td>
<td>I</td>
<td>VI</td>
<td></td>
</tr>
</tbody>
</table>

(Source: MAB country reports)

UR = urgent; VI = very important; IM = important; FI = further implementation.

It is interesting to notice how the BR approach is appreciated in most the cases, as a possible platform to activate innovative management practices, that are not feasible in the existing rigid public institutional frames. A particular emphasis is given, in accordance with the results of the Sinaia and Rome meetings, to the transboundary initiatives. Many sites are already indicated as suitable location to activate international cooperation in the frame of the MAB Programme.

Ultimately, the importance of activating appropriate mechanisms to facilitate the still missing public participation is mentioned only rarely; similarly, the need to reinforce the research on specific issues related to biological and cultural diversities are not considered of top priority.
The following session reports individual synthetic picture of the SEECs,\textsuperscript{131} assuming as data bases the full country reports. Their location and the major socio-economic and bio-physical aspects are presented in boxes; a critical revision of the various internal paragraphs is given country by country, aiming at providing a synthetic picture to better assess the potential development of the MAB Programme in the area.

\textsuperscript{131} They are listed in alphabetical order.
3.3.1. ALBANIA

MAIN SOCIO-ECONOMIC INDICATORS
population: 3,490,435
population density: 114 inh/m²
administrative subdivision: 36 districts
demographic rate: 19.47%
schooling rate: 95%
ethnic groups: Albanian (95%); Greek (3%); others (2%)
religions: Muslim (70%); orthodox (20%); Catholics (10%)
GDP: 523 billion Lek (145 Lek = 1 $)
income per capita: 1185 $
inflation rate: 1.03%
(sources: Bank of Albania, Transition Report)

3.3.1.1. OVERALL ENVIRONMENTAL FRAME

Synthetic bio-geographical description

Albania is a small country situated in the South-Eastern part of the Balkan peninsula stretched between mountains and Adriatic and Ionian Sea. It has a surface of 28.148 km² and a population of 3,490,435 inhabitants, mostly concentrated in rural areas (nearly 58%).

Albanian geo-morphology is mostly hilly and mountainous, with a wide diversity of geological formations and slopes (most of the relieves were formed during the Pliocene Period). Almost three-quarter of the country territory altitude ranges between 100m and 2000m above sea level (average altitude: 708m) and is is part of the Mediterranean Alps in the Dinarido-Albanido-Helenid line, characterized by a diversity of rock formations.

132 The report from Albania has been prepared and presented by Mr. Ilia Mikerezi, Ministry of Environment, Tirana, and Albanian MAB Committee.
Albania is considered a Mediterranean country, with a coastline of 476 km and its climate is very diversified, encompassing four major climatic zones and 13 sub zones; all of them contribute to the country’s rich biological diversity. Additionally, the country is well known for its rich and complex hydro geographic network (covering a total area of 150 km²), composed of rivers, lakes (247 natural and a large amount of artificial basins) lakes, wetlands, groundwater and seas; in particular, the transboundary lakes of Shkodra, Ohrid and Prespa (the largest ones in the Balkans) have an international significance.

Albania’s territories are relevant for their high diversity of ecosystems and habitats, ranging from the typical maritime ecosystems of the coastal zones, to the inner lakes, rivers and various vegetation types (evergreen and broadleaf bushes, broadleaf forests, pine forests, alpine and subalpine pastures and meadows and high mountain ecosystems) are all present in the relative small country dimensions. Of particular relevance for the rural economy are forests (nearly 36% of country’s territory) and pastures (15% of the territory, 60% of which are alpine and subalpine).

The diversity of landscapes present in Albania are the result of the combination of its natural features and the human activity; in particular, traditional agriculture and stockbreeding largely contributed to shaping the Albanian rural territories.

Even if the survey on biodiversity in Albanian territories are still uncomplete (the existing data are including the description of 3250 and 756 species of flora and fauna respectively), it is estimated that approximately 30% of the European plants are present in the country. In fact, forest and marine habitats are the richest in terms of absolute and relative numbers. In particular, about 450 Albanian plant species are peculiar of the Balkan area and 27 are endemic of Albania. While fauna components are less well studied, apart from some specific locations.

Albanian fauna is less known and investigated if it is compared with flora. It is rich of a considerable number of endemic and ancient species. Ohrid lake is the most known ecosystem in the country in terms of fauna endemism: over 40 mollusk species and two fish species are endemic. On the other side, the insects are represented by 16 species (11 species of Hemiptera and 5 species of butterflies). Other investigations in Albanian fauna and especially biospeological ones will help to find other endemic species in the country.

In the context of the MAB Programme, it is relevant to notice that the Albanian inland and marine site are considered important components of the Mediterranean and Balkan natural ecosystems. In particular, the transboundary lakes of Shkodra, Ohrid and Prespa are corridors of floristic and faunistic exchange with other Balkan countries. In fact, different species migrate through the rivers and the highest peaks of the Albanian mountains from their native habitats in Greece, Macedonia and Yugoslavia. The coastal wetlands and numerous lakes in Albania are particularly important sites for the wintering of different migratory species. At least four areas (Karavasta, Narta, Shkodra and Ohrid lakes) are considered as sites of international importance for waterfowls (Important Bird Areas - IBAs); additionally, Karavasta is listed in the RAMSAR Convention.

**Main environmental threats**

The overall economic development occurring in Albania during the last fifty years resulted in a strong impact on the biological and landscape diversity within the country. It is mainly considered the consequence of the implementation of unsustainable practices in agriculture,
forestry, fishing, industry and urbanization; on the other side, the scarce impact of the tourism and transport sectors could not compensate these negative trends. Amongst them, agriculture is considered the most environmentally impacting sector; in particular, drainage needs and swamps reclamation (nearly 250,000 ha), deforestation for new arable land, terracing and plantations settings, subalpine and alpine pastures intensive use had all adverse consequences on the environmental conditions.

Impacting human activities resulted in an overall land degradation process: in particular the soil erosion is estimated being more rapidly expanding, when compared to other neighbouring countries, as well as coastal floods are becoming more frequent; both the unproductive areas (from 235,500 ha in 1950 to 703,516 ha nowadays) and the abandoned and deserted lands (about 160,000 ha at the moment) have been expanding.

Additionally, uncontrolled exploitation of inland lakes’ water for irrigation purposes has contributed to severe ecological damages; similar negative consequences are very visible along the main rivers. Although the total quantities of fertilizers used in Albanian agriculture is not that high, their concentration in specific areas of intensive cultivation are accompanied by adverse consequences on the quality of land and flora and fauna composition.

The industrial development - very necessary to recover the country’s socio-economic conditions - has unfortunately been accompanied by highly impacting activities with little respect for the environmental conditions; in particular, gas, liquid and solid emissions of the industrial activities are largely uncontrolled and the procedures haven’t changed much since the economic transition began.

Uncontrolled natural resources exploitation (mainly illegal cutting and fishing) spread since the beginning of the 90s, mainly due to the lack of a clear perspective and alternative fuel and food resources. It is estimated that nearly 22% of the total forest cover was lost (including portions of protected areas), mainly at the expenses of the fir and pine stands, while the frequent use of explosives and poison materials have damaged the water biodiversity.

All the above mentioned impacting activities contributed to impoverish Albanian biological and landscape diversity, thus considerably reducing its potentials for tourism and related economic activities development.

Lastly, the impact of the combined demographic and socio-economic factors - exacerbated by the uncontrolled people mobility in the last 11 years - resulted in such very negative environmental effects as the following ones:

- urban sprawl extending along the seaside;
- degradation of the previous landscape features;
- increase of urban waste disposals;
- abandonment of agricultural land, resulted in slope erosion and degradation;
- overexploitation of forest resources and pastures degradation.
3.3.1.2. NATURE PROTECTION MANAGEMENT
LEGAL AND INSTITUTIONAL FRAMES

The policy recently adopted by the country tends to favour the expansion of the existing surface of the protected areas (5.8% of the country’s territory) in order to create significant additional zones aiming at a larger Albania’s Ecological Network; this is expected to raise up to approximately 14% of national surface, encompassing the best preserved ecosystems, habitats and landscapes. A step further will be the creation of large biocorridors to link the existing protected areas with each other; in fact, the long-term objective of this process is that of expanding the overall protected area to 25% of the country’s territory, by the year 2020. At that purpose, various action plans are being prepared in cooperation with different stakeholders.

In fact, the entire process is considered of top priority for the overall country development, rather than just for nature protection purposes. At the moment only few management plans are available for protected areas and it is very urgent to integrate them in a larger territorial planning scheme.

The direct responsible public authorities will be involved but also the scientific and research institutions, as well as the major NGOs.

Since 1991, Albanian Parliament has approved several laws that – directly or indirectly – address to environmental issues, within the overall aim of nature conservation and landscape protection. These acts range from land distribution and compensation to environment protection, physical planning, forestry police organization, wildlife and hunting, tourism zoning and water protection.

The milestone Law on Nature and Biodiversity Protection – drafted by Albania’s Committee for Environment Protection, with the support of various NGO experts – was proposed to the Council of Ministers in 1997 and further approved. By entering into force, it amended the existing laws and modified the traditional natural protection institutional frame. This was replaced by a long-term national strategy on nature conservation and biodiversity.

On that occasion, other relevant regulations were prepared, including the Coastal Zone Management Law and the Law on the Environmental Fund.

Nevertheless, the proper enforcement of the legal frame represents the bottleneck of the system; the lack of trained staff and proper information and educational campaigns are the basic constraints.

Several state agencies are responsible for managing Albania’s environment and natural resources, with the consultancy of a network of research institutions and NGOs; in fact, the different branches of the public administration share the executive power over development, planning, management, exploitations, protection and conservation of natural resources, with little cross-sectoral ‘dialogue’. The Prime Minister represents the highest state authority while the superior consultative body for spatial planning is the Council of Territory Adjustment (CTA); at the district level, it is sub-divided into operative branches.

Additionally, other ministries have responsibilities related to the environment and natural resources. In fact, very recently, the Ministry for Environment was created, with the aim of having an overall policy-making guidance role.

Additionally, the main research institutions are constantly involved in inventory and monitoring activities. From the beginning of the transition period (first half of the 90s), a wide process of democratization started, supported by the active role played by the various NGOs. In particular, their effectiveness is growing in the environmental matters, acting as catalysts of technical and financial supports from foreign donors. Some of them are very involved in
transnational nature protection projects (e.g. the Brown Bear Conservation Network and the Protection and Management of Ohrid and Prespa lakes). Ultimately, their further involvement requires an improvement in the flexibility of the administrative procedures to be properly implemented.

3.3.1.3. BIOSPHRE RESERVES

At the moment, no BR has been created within the territories of Albania. On the other side, many of the preliminary steps were moved in this direction, the most relevant of which was the establishment of a MAB Committee. Their representatives took part in the Sinaia meeting, thus demonstrating a clear interest in being actively included in the Programme’s activities.

In particular, the proposal of establishing a TBR, including the territories around the Ohrid and Prespa lakes is being discussed with the neighbouring counterparts (Macedonia and Greece).

3.3.1.4. COMMON NEEDS AND FUTURE COOPERATION

The country reports do not include a specific session on the identification of the common needs and possible future cooperation. Nevertheless, some issues may be extracted by the previous chapters.

Firstly, the importance of the external support (both technical and financial) is considered of crucial to any further development of the natural resources management policies. In particular, the need of proper training and institutional building processes to be implemented is one of the priorities stressed by the report.

Secondly, the relevance of the transboundary cooperation is emphasized by mentioning the already existing successful international programmes; in particular, the area of the Ohrid and Prespa lakes is seen as one of the richest, in terms of biodiversity, and one of the most strategic for the joint nature conservation programmes.
3.3.2. OVERALL ENVIRONMENTAL FRAME

*Synthetic bio-geographical description*

Bulgaria occupies the North-Eastern part of the Balkan peninsula, stretching between 22°21’ - 28°36’ E and 41°14’ - 44°13’ N, with a total surface of 110 993 km² (Yordanova & Donchev, 1997).

Its relief is extremely heterogeneous, as a result of complex and long paleo-geographic development (most of it originating during the Neogen and Quaterner eras). Four main ‘altitude belts’ can be distinguished on the territory of Bulgaria: lowland (0-200 m - 31% of the total country territory), hilly lands (200-600 m - 41%), semi-mountainous (600-1000 - 15%) and mountainous (above 1000 m - 12,5%). Five climatic zones are present in the country (temperate, transitional, sub-Mediterranean, Black sea region and mountainous region), resulting from the combination of the geographical position (the country falls into the region of transition between the temperate and subtropical climates) and the atmospheric circulation (the influence of Atlantic cyclones during the warm half of the year prevails, as well as the influence of the Mediterranean cyclones during the cold part of the year).

There is a rich and complex hydrographic system of rivers and lakes, riverside, coastal and internal wet zones - including the Black Sea and the River Danube - that contributes to the formation of diverse habitats. About 700 different types of habitats (according to the

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133 The country report for Bulgaria has been prepared and presented by Mrs. Ana Petrova, Institute of Botany, Bulgarian Academy of Sciences and Chairman, Bulgarian MAB Committee.
Palearctic classification) can be found in the country. Because of the various relief, basic rocks, and different phytoclimates, Bulgaria has rich flora and fauna.

The most recent surveys estimated in about 3,900 vascular plants, 694 mosses, and more than 6,500 nonvascular plants and fungi species the total biodiversity of Bulgaria; the degree of rarity varies significantly among the taxonomic groups. It is relevant to notice that 175 species (and 90 subspecies) from 31 families have been identified as Bulgarian endemics, representing 4.48% of the total. When the Balkan endemism are included, the percentage rises up to 11.6, one the highest when compared with the other European countries. Forests cover more that 3.3 million hectares (30% of the country’s area) and 67% of them are indigenous. Additionally, the diversity of animal species is estimated to be amongst the highest in Europe (Aladzhem, 2000). A particular stress is given to the bird species (many of the them are listed amongst the globally endangered by IUCN) as Bulgarian territories are an important wintering area for many of them.

When compared to other European areas, the country is particularly rich in terms of plant and animal communities, as well as habitat types (e.g. highly valuable alpine and subalpine coniferous forests, meadows, peat bogs, and lakes, mature coniferous and beach forests, oak woodlands, caves and mountain georges, Mediterranean and sub-Mediterranean plant communities, step grasslands, riparian shrubs and forest vegetation along the Danube and smaller rivers, important inland and coastal wetlands, sand dunes, coastal limestone communities and other unique habitats along the Black Sea coast and the pelagic, littoral, sublittoral, and benthic communities of the Black Sea).

**Main environmental threats**

As a result of the recent anthropogenic pressure several Bulgarian species diminished, approaching their extinction. In fact, from an economic point of view, many of them represent valuable commercial goods, rather than biological resources.

The impact of human activities is seen as the highest threat for the biodiversity and the environmental conditions; this effect is more evident in such industrial, agricultural and strongly urbanised regions as the Black Sea coast, the Northeast Bulgaria, the Danube Plain and the Thracian Lowlands. Particularly significant is considered the loss of specific terrestrial and aquatic habitats; the latter being considered among the most endangered.

Specific commercial and industrial activities are reputed to be very hazardous: the ‘unsustainable’ picking and exporting of edible mushrooms, medicinal plants, snails, reptiles and amphibians, as well as the over-fishing of commercial species in the Black Sea coastal waters and in the open sea.

An additional environmentally dangerous activity is the deliberate introduction of alien breeds and species of fish, game animals, and trees, mainly driven by mere economic purposes. For the same reason, large parts of the native forests are being clearcutted, resulting in a loss of non-renewable unique ecosystems.

Lastly, the process of land restitution – initiated after the fall of the centralized regimes – is considered of having a high negative impact on the adoption of ecosystem approach-based

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**MAIN BIO-PHYSICAL INDICATORS**

| country area: 110,994 km² |
| share of protected area: 4.5% |
| protected area per capita (m²): 585 |
| geo-morphology: mostly lowlands and hills |
| hydrology: rich in habitats |
| Biosphere Reserves: 16 |

(source: MAB country report)
management plans; the privatization is seen as a serious obstacle to the establishment of a proper protected areas system.

### 3.3.2.2. NATURE PROTECTION MANAGEMENT; LEGAL AND INSTITUTIONAL FRAMES

The Bulgaria’s strictly protected areas network extends for 80 000 ha, with 29 reserves exceeding 1 000 ha; all together, this ranks the country at third European position, as the nature protection area is concerned (Aladzhem, 2000). It is notwithstanding to remark how the protected areas increased in the last 50 years, from less than 1% to the current 4.5% of the country’s area. A large part (86%) of the Bulgarian protected areas are included in the UN List of National Parks and Reserves, for a total of 50 sites (430 000 ha).

Due to the specific bio-geographic and climatic features, Bulgaria has only few and small natural wetlands; they cover 11 000 ha (Kochev and Yordanov, 1981), corresponding to 0.1% of the country’s area. Consequently, their preservation is of special relevance in the frame of the overall country nature protection strategy. Several sites are included in the ‘Important Habitats Project’ of the International Council for Protection of Birds and a National Wetland Protection plan was developed in 1992-93.

The concept of environmental protection is firmly established in the Article 15 of the Constitution of the country. Additionally, Bulgaria signed and ratified several international agreements on biodiversity conservation.

The existing legal framework is based on the following major ‘environmental’ laws:

- **The Environment Protection Act.** Adopted in 1992, it defines the framework for the government’s environmental policy and management. The Act takes into consideration the hierarchy between the international and domestic norms, thus specifying roles for each of the interested authorities, both local and national;

- **The Nature Protection Act.** It entered into force in 1967 - during the socialist centralized government period - with the aim to meet the main international legal requirements for protected area management. It provides guidelines for protection as well as for sustainable use, improvement and amelioration of natural resources;

- **The Protected Area Act.** Recently adopted (1998), it is the first modern and specialized nature conservation law. It defines the relationships between the institutions responsible for protected areas and guarantees more efficient management of nature in combination with the protection of local interests. The Act introduces a modern protected area classification, aligned with the international norms, based on reserve, national park, maintained reserve, nature park and protected site categories.

Innovative management’s plans have been also introduced by this law, which are expected to define specific activities for each protected area; the planning processes is based on both scientific and socio-economic expertise, combining data from the traditional statistics with the indigenous knowledge. It is important to emphasise that the Act allows the creation of economic initiatives and mechanisms for local residents, such as development of ecotourism, restoration and local crafts and traditional production to be planned in the frame of the conservation strategies.

An additional number of 11 laws are in process of being adopted by the National Assembly, concerning biodiversity conservation and sustainable use, including the Forest Act, the Fishing Act, the Clean Air Act and the Water Act.
In addition to the above-mentioned legal frames, important action plans and strategies have been recently developed. In particular:

- The National Action Plan for the Conservation of the Most Important Wetlands, prepared in 1993. Consequently, the management plans of two National Parks (Rila and Central Balkan) were adopted;
- In 1994 the National Biological Diversity Conservation Strategy was issued, as a result of a three-year long joint effort of Bulgarian scientists, representatives of governmental institutions in charge and NGOs members. It is reputed to be the first to be developed in CEE region;
- The National Biodiversity Conservation Plan is the most recent document (2000), aiming harmonizing and coordinating the conservation efforts of the various ministries and agencies.

The biodiversity conservation and natural resources management institutional frame is complex, being several public authorities in charge. Namely, they are:

- The Ministry of Environment and Water (MOEW). It develops and implements state environmental conservation policy, including biodiversity conservation. The National Nature Protection Service (established in 1994) is its specialized department created for the management, control and protection of biodiversity in protected areas. Additionally, the National Center for Environment and Sustainable Development is the MOEW environmental monitoring agency. In 1999, three Directorates were established (at the Rila, the Pirin and the Central Balkan national parks, respectively), acting as regional MOEW branches.
- The Ministry of Agriculture, Forests and Agrarian Reform (MAFAR). It addresses the state policy for agriculture, forestry, hunting and fishing, and agrarian reform. In particular, through the National Department of Forests (NDF), the MAFAR manages and controls the protection, maintenance, restoration and use of protected areas within the state forests. In fact, the Regional Forest Departments and the State Forest Boards are under the supervision of the NDF;
- The Ministry of Regional Development and Public Works;
- The Regional and Municipal Councils and the Local Self-administration Authorities. They develop more specific and concrete environmental programs, establishing environment pollution norms and standards in accordance with the government guidelines.

3.3.2.3. BIOSPHERE RESERVES

Bulgaria is the SEE country with the highest number of BRs; they are 16 (all established in 1977), 3 of which are wetlands of international importance (under the Ramsar Convention). Regardless the numerosity, scarce specific activities have been carried on within the MAB approach, thus resulting in a warning from the Programme headquarters concerning the possible cancellation of the 'non-active' sites.

Nevertheless, it is important to mention that four of the Bulgarina BRs have been jointly mentioned in the neighbouring countries reports, as potential sites to establish TBRs; they are: Srebarna (bordering with Romania), Choupren e (near Serbia), Slavjanka (sharing the territories with Greece) and Lopoushna (nearby Turkey).

The national report stressed that recently (2001), a management plan has been approved by the Ministry of Environment for Srebarna BR to be implemented in combination with
additional monitoring actions. It seems that similar initiatives will be soon taken for the other BRs.

3.3.2.4. COMMON NEEDS AND FUTURE COOPERATION

The country report does not mention these aspects; indeed, a recent workshop was jointly organized by the Bulgarian MAB Commission and the ROSTE officer in charge, in order to evaluate the possibilities to improve the current situation. The country demonstrated interest to regenerate the Programme and to further develop the existing BRs by launching new partnership programmes.
3.3.3. CROATIA

MAIN SOCIO-ECONOMIC INDICATORS
population: 4,282,216
population density: 84 inh/km²
administrative subdivision: 20 counties
demographic rate: 0,93%
schooling rate: 97%
ethnic groups: Croats (78,1%); Serbs (12%); Muslims (0,9%)
religions: catholic (76,5 %); Orthodox (11%); Muslims (0,9%); others (11,6%)
GDP: 20,1 bilion $
income per capita: 4.693 $
inflation rate: 4,5 %
(source: Guida ai paesi dell’Europa centrale, orientale e balcanica)

3.3.3.1. OVERALL ENVIRONMENTAL FRAME

Synthetic bio-geographical description

The country stretches for 56,538 km², with a large share of its territories being coastlines (summing up to 5,835 kms, islands included). Consequently, water resource are considered as the most strategic within the frame of the natural resources management. In fact, the national report stresses how the Adriatic sea and freshwater resources - consisting of rivers, flood zones, lakes, ponds, wetlands and groundwater, particularly in karts areas - represent the major Croatian values of Mediterranean relevance. Four of them are included in the Ramsar list (Lonjsko poljke and Mokro polje, Lopacki rit, Lower Neretva River and Crna mlaka). Additionally, green corridors along rivers and natural wetland areas represent habitats for rich biological diversity. But, on the other side, wetlands and waters represent the most threatened ecological systems in Croatia (Radovic, 2000), opposite to forest stands, that are considered to be among the wealthiest Mediterranean woodlands.

The Croatian great diversity in ecological systems and habitats is emphasized by the report; this richness results in great diversity of plant, fungi and animal species. The consequent

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134 The country report for Croatia has been prepared and presented by Prof. Dr. Drasko Serman University of Zagreb Medical School, Department of Biology, Croatian MAB Committee.
biodiversity value is even greater, when compared to the relatively small dimension of the country in the European context (Radovic, 2000).

This large variety of natural systems supports the presence of many endemic species of plants, freshwater fish, water birds and reptiles. The report, once more, stresses the strategic importance of the marine biological diversity for the national socio-economic development. A draft estimation is reported, valuing that the Adriatic Sea may support the life to some 6,000 to 7,000 plant and animal species (Radovic, 2000) and it is to note that central Adriatic Sea displays the highest species diversity among green (Chlorophyta), brown (Phaeophyta) and red (Rhodophyta) algae. A detailed picture is offered as the number and features of both the invertebrate sea species and the internal fresh water fish species are concerned.

All together, the biodiversity - in terms of both wild species and traditional animal breeds - represents important natural food; in fact, the proper management of natural resources within a policy promoting the healthy ‘Mediterranean diet’, emerged clearly from many strategic government documents.

It is relevant to notice how the descriptive part of the country report includes specific mention to the ‘historical resources’ (namely the Mediterranean cities of Dubrovnik, Split, Trogir, Porec, Vis and Solin), the ‘cultural resources’ of the various traditional landscapes (Mediterranean, Panonian, Central European, maritime and continental, lowland and highland) and the ‘economic resources’ given by tourism, agriculture, forestry and industry; their overall relevance is related to the current socio-economic transition phase.

**Main environmental threats**

Three main causes of negative environmental impact are emphasized in the report, namely:

- the growing urbanization phenomena, which is seen as the most important driving force, influencing the changes in land use patterns. In particular, the depletion of the traditional agricultural practices is seen as one of the most negative effects.

- the rapidly growing concentration of human settlements and activities along the coastline (‘littoralization’) is considered the second strongest negative phenomenon, inducing people to leave the hinterland and islands, thus exerting even stronger pressure on the narrow coastal strips.

- pollution of the land, groundwater and open waters, mainly caused by urban, industrial and rural activities is the third most serious environmental threat; it endangers the freshwater resources, particularly in the karsts area, and finally the coastal waters of the Adriatic Sea, particularly in the bays.

Additionally, more specific areas of existing and potential hazards have been identified in the following ones:

- coastal and small island marine ecosystems are suffering from land based pollution, resulting in eutrophication processes in the Mediterranean and the Adriatic Sea;

- proper urban and industrial wastewater treatment systems are urgently needed in the the Karts area, both for the city settlements and for rural and agricultural purposes;
• land-mine decontamination has to be urgently completed, to give a proper asses to the agricultural and forest lands;
• Karst mountain ecosystems must be specifically protected, to conserve the underground water resources;
• prevention of forest fires and improvement in their management units are urgent, especially along the Adriatic coast and in the islands. Reforestation programmes should follow in the most damaged areas.
• drastic reduction of the industrial-scale intensive agricultural plants (e.g. large pig and chicken farms).

3.3.3.2. NATURE PROTECTION MANAGEMENT; LEGAL AND INSTITUTIONAL FRAMES

Apparently the Croatian network of protected areas is so well-developed that the country defines itself as an ‘Eco-Park of Southern Europe’; most of the protection focus is concentrated on the litoral and island territories, which have the highest tourism potentials. In fact, with a declared 9.9% of the national territory to be under protection regimes, Croatia ranks one of the highest positions in the SEE region.

The legal frame regulating these territories is structured into two main different levels:
• National Parks: they are 8, under a strict state protection, with the main purpose to “preserve biodiversity, ensure research, education, tourism and recreation”;
• Nature Parks: they are 10 with a less rigid state control regime, with the purpose “to protect biological and landscape diversity in order to foster sustainable development of the local human settlements and mostly traditional communities, mainly by means of sustainable tourism and recreation”.

It is important to mention that the only existing Croatian BR (the ‘Velebit Mountain’) has been nominated on the territories of the previously existing nature park. The most internationally-know protected area (the National Park of Plitvice Lakes) is a World Heritage Natural Site.

All the protected area are under the state jurisdiction and their management units are public enterprises.

A conflicting picture emerged by the report, as the public institutional frames are concerned; in fact, the national level seems well structured and operative - both in relation to the main international conventions ratification and to the the consequent domestic legal frames - while the enforcement - especially at local level - represents the bottleneck of the natural resources management process.

3.3.3.3. BIOSPHIRE RESERVES

This part includes the report on the only one Croatian BRs: the Velebit Mountain, in Central Highland area of Croatia, linking the Northern Adriatic Sea, its islands and Coastline with Continental Highlands of Lika, and the North-Western mountains of Gorski Kotar and the lowlands of Slavonia with the South-Eastern coastal areas, the Middle and Southern Adriatic Sea territorial waters and Croatian islands Archipelago.

While the descriptive part closely reflects the general information available at the MAB web page, it is interesting to mention that the BR was established already in 1977 (as part of this early stage BR designation process, as described above) on an area of about 200.000 ha, including the territories of the omonimus nature park.
In fact, the traditional conservation-focussed BR approach is reflected in the limited zoning effort: only the core (21,868 ha) and buffer (178,132 ha) zones were defined, while the transition area is still absent. Nevertheless, several research activities are in progress, dealing with various aspects, ranging from general aspects (climate, geomorphology, flora/fauna) to more specific issues (black pine forest succession, forest management, and environmental protection of Paklenica). Ultimately, the role of the BRs as proper locations to test environmental education initiatives and to activate innovative collaborative management practices involving the local communities is stressed by the national report.

The administrative authority depends from the Ministry of Environmental Protection and Physical Planning, Department for Protected Areas. The entire public ownership and management frame is considered to be “favourable for its conservation and protection”.

Lastly, it is interesting to notice that a public awareness campaign has been promoted to support the Nature Park Velebit Mountain protection role: the ‘SOS Velebit’ campaign is proving to be well organized and effective in lobbying against potential threats to the park (Serman and Bulic, 1999).

3.3.3.4. COMMON NEEDS AND FUTURE COOPERATION

The country case study reports a list of ‘opportunities for biodiversity conservation’ as the most relevant common needs; they are:

- the establishment of new BRs in the country, as of fundamental importance (e.g. Kopacki Rit wetlands);
- the “redefinition of the existing Velebit Mountains BR”, in terms of defining its transition zone, establishing a specific management authority, reinforcing its legal frame and involving local populations in the decision making processes fostering sustainable development;
- to strengthen marine and fresh water biodiversity research, monitoring and conservation initiatives (Adriatic, Ionian, Aegean and Black Sea), with a particular attention to the educational aspects and the conflict resolution;
- to foster the biodiversity education and public awareness (BEPA) campaigns, stepping out from schools into the communities;
- to support the adoption of the so-called “Mediterranean Nutritional Culture”, based on traditional edible plants and animals from land and sea, as an opportunity to support the educational awareness campaigns.

Additionally, a specific part of the report is dedicated to “environmental quality recovery”, in the frame of the “sustainable socio-economic development”. It stresses the importance of valorizing the “traditional knowledge and practices to sustain livelihood of surviving rural communities in mountains and islands”. In particular, the education programs on organic agriculture and PERMACULTURE (PERMANent agriCULTURE) are considered very beneficial for the rural communities and the Croatian MAB Committee has just supported the establishment of the NGO “Croatian Permaculture”, at the Medical School University of Zagreb, mainly serving this purpose.

The further development of eco-tourism initiatives is considered a good remedy strategy to reverse the negative trend of Adriatic islands abandonment; all the activities should be included in a proper “Gear Sustainable Development Plans”, specifically designed to benefit the local communities.
The long-term cooperation actions should reflect – accordingly to the Croatian priorities – the strategic importance of the “Environmental Education for Sustainable Development” initiatives, to be especially promoted within the MAB frame.

The transboundary projects are considered of vital importance for the international country development. In particular, the establishment of a second BR should be the proper occasion to activate the first “Transboundary Riverrine BR” along the rivers Dunav, Drava and Mura, including the Nature Park “Kopacki Rit” as important Ramsar site.

Ultimately, future cooperation should be focused on the conservation of coastal marine ecosystems and *Posidonia oceanica* beds against the alien alga *Caulerpa taxifolia*. Marine biodiversity of the Mediterranean and Black Sea is highly endangered and “most urgent action against further devaluation of riverrine and coastal ecosystems is needed using Integrated Coastal Area and River Basin Management (ICARM)”.

3.3.4. GREECE

**MAIN SOCIO-ECONOMIC INDICATORS**

- **Population:** 10,939,771
- **Population density:** 83 inh/km²
- **Administrative subdivision:** 51 counties (nomoi) and 147 provinces (eparchie)
- **Demographic rate:** 0.3%
- **Schooling rate:** 95%
- **Ethnic groups:** Greek (98%); Turkish (2%)
- **Religions:** Christian Greek-Orthodox (97.6%); Muslim (1.3%); Catholics (0.4%)
- **GDP ($):** 133 billion
- **Income per capita ($):** 12,157
- **Inflation rate:** 2.7%

*Sources: Guida ai paesi dell’Europa Centrale, Orientale e Balcanica (2001)*

### 3.3.4.1. OVERALL ENVIRONMENTAL FRAME

**Synthetic bio-geographical description**

Greece is located in the South-Eastern part of Europe - at the end of the Balkan peninsula - enclosing Mediterranean Sea with a coast line of approximately 14,000 km (5% of which belongs to ecologically sensitive wetlands of international importance).

It is relevant to notice that most of the country’s important urban centers are coastal and almost all the tourist infrastructure is distributed between the coastal mainland and the various islands. The latter represent 20% of the territory (2,000 at all, 170 of which are peopled).

Greece extends over a total surface of about 132,000 km², with a population of 10,939,771 inhabitants (refugees and emigrant counting from 500,000 to 800,000).

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**MAIN BIO-PHYSICAL INDICATORS**

- **Country area:** 131,597 km²
- **Share of protected area:** 0.3%
- **Protected area per capita:** 360 m²/inh
- **Geomorphology:** montaneous and rich of islands
- **Hydrology:** very long and relevant coastline (14,000 Km)
- **Biosphere Reserves:** 2

*Source: MAB country report*

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135 The report has been jointly prepared by Mr Irini THEODOSSIOU-DRANDAKI, Institute of Geology and Mineral Exploration, Department of Geology and Geological Mapping, Athens, Greece and Georgia KOSTOPÓULOU, Ministry of Environment-Planning-Public Works, General Direction of Environment, Department of Natural Environment Management, Athens, Greece.
From a natural resources viewpoint, it is important to stress how Greek territories have a dual geo-morphological feature: a rich set of islands combined with a ‘mountaneous nature’, that reflects their geotectonic position at the convergence zone of two lithosphere plates, the Eurasian and the African ones. The geotectonic evolution results in the creation of the Hellenic orogenetic arc accompanied by its volcanic arc; consequently, the majority of the geological formations of Greece belong to the alpine sequences, with a Mesozoic age, from Triassic onwards.

The mountainous nature of the mainland reflects on the variety of microclimates, which - in combination with the variety of bedrocks - generate various local micro-environments favourable to the isolation and endemism; the numerous islands are accentuating this effect.

Climate is mainly Mediterranean with hot summers and usually mild, wet winters, while in some areas is mild, like in mountains (cold winter, rainy summer). In fact, a wide range of climate types, from the purely Mediterranean (continental and maritime) to semi-desert Mediterranean and to transitional Central European and continental are present within the country.

The hydrography is rich and diversified: 0.5% of Greece’s area is of natural lakes (40), while 30% of the surface waters originate in or are shared with the neighboring countries.

In addition to a rich biological diversity, Greece has undoubtedly one of the most outstanding ethno-cultural diversity in Europe. In all the country’s descriptions, nature is combined with mythology, poetry and literature.

The historical heritage of Greece, its “turbulent history through prehistoric, classic, hellenistic, ottoman times” left a “great volume of cultural interest features and diversity”.

**Main environmental threats**

The century-long human presence in Greece has resulted in a growing impact on the natural resources, with an ‘unsustainable’ recent accelerated rate.

The report firstly mention the uncomplete inventory of the national resources, which leads to dangerous misleading of some importants sites still unprotected. Additionally, although certain sites have been designated as protected areas, management measures are not properly implemented, thus enabling a lot of threats. An alarming ‘general suffer’ of the institutional and management systems is clearly stated.

More specifically, some key ‘driving forces’ have been identified by the authors as the main reasons for the overall ‘environmental degradation’.

On of the latter being the recently growing people concentration in few big cities, with a parallel abandonment of countryside. Urban settlements are very rarely properly developing: their lack of ‘natural spaces’, the waste disposals problems, pollution of waters and sea, (mainly due to house sewage), the growing ‘cementification’ of the water basins combined with illegal building, abuses of mining activities and road constructions are all together generating growing management difficulties.

A second serious threat is linked to the land privatisation process, which in combination with the large use of chemicals, deteriorate larger portions of productive soils, thus accleratign the natural erosion.

The introduction of exogenous species, both in the water basins and in many forests, is considered a third relevant hazard for the proper implementation of ecosystem management practices in Greece.

Ultimately, the gaps and malfunctionings of the existing legal and institutional frames are considered having an additional negative impact on the natural resources management; “what is missing is effective management, awareness, and training”, the authors reported.

Contemporarily, some possible solutions are offered, namely:
A. the completion of the state cadastral system, recently initiated. In fact, a clear and well-defined land tenure inventory is presumed to be the first step for any territorial intervention.

B. the rapid adoption and implementation of the overall strategy for natural resources management, as is preparation at the Ministry of Environment. This is expected to deal with such most relevant issues as the regulatory and institutional frame definition, the promotion of integrated management plans, the attention to the local consensus and the support of the local authorities and other stakeholders and the fostering of the environmental impact assessment studies.

3.3.4.2. NATURE PROTECTION MANAGEMENT:
LEGAL AND INSTITUTIONAL FRAMES

Within the SEECs, Greece represents the only EU member, at the moment. Thus it is particularly interesting to analyse how the process of the Community legal frame adoption is being included in the traditional country’s procedures. For the MAB perspective it is relevant to briefly present the legal and institutional frames that are supporting the current process of natural resources management.

Historically, the first legal acts to be implemented in the frame of nature protection were part of the ‘Forest Legislation’, issued at the beginning of the last century. The further development of the national legislation for nature protection was firstly marked by 1969 ‘Forest Code’ and its later amending decree (no. 996/1971), which established two additional protected areas categories: the ‘Aesthetic Forests’ and the ‘Natural Monuments’. ‘Natural environment protection’ became in 1975 - a constitutional right. Ultimately, the Ministry for the Environment and Physical Planning was established (law 1032/1980), renamed in 1985 as Ministry for the Environment, Physical Planning and Public Works. The current legal framework for the environment protection derived from the law no. 1650/1986, introduction five new distinctive protection categories (1. Areas of absolute protection; 2. Nature protection areas; 3. National Parks; 4. Natural formations, landscapes and landscape elements; 5. Areas of eco-development).

Ultimately, Greece has signed and ratified the majority of the international environmental conventions (the UNESCO ‘Convention for the Protection of the World Cultural and Natural Heritage’, the ‘Treaty for Wetlands of International Interest’, the ‘Protocol for the Protected Areas of Mediterranean’, the ‘Convention for the preservation of Wildlife and Natural Environment of Europe’, the ‘Convention on The Migratory Birds’, the ‘Convention ‘for the international trade of threaten species’, the ‘Convention on Biodiversity’); additionally, the country participates in the ‘European network of Biogenetic Reserves’ (15 areas) and its National Park of Samaria was awarded with the first degree diploma from the CoE.

Large part of the reports deals with the inclusion of the EU main directives in the national legislation processes; in particular, the effects of the directive for the conservation of wildlife birds (79/409) and the directive concerning the natural habitats (92/43/EEC) are analysed. Additionally, having Greece ratified the Convention on Biodiversity (Law 2204/94), the country is challenged to conserve its rich flora and fauna and the great diversity of its landscapes and ecosystems. An “extensive exercise for the preservation of nature has been triggered by the EU-promoted Natura 2000 initiative”; the total designated area covers about 20% of the country territory.
It was stressed by the authors the intensive research and monitoring activities derived by the activation of the first phase of the European network programme, which demonstrates to be very resources-requiring to be fulfil. This resulted in the definition of the current ‘National List’, including 270 areas; some are defined as Special Protection Areas (SPA) for birds fauna (accordingly to 79/409/EEC directive).

Lastly, the ultimate goal of improving the existing legally protected area, from the current 0.3% to 20% of the state territory, in accordance with the EU requirements, seems to be very ambitious.

The nature protection and management institutional frame is complex; in fact, various organs and bodies are involved in different aspects, sometimes without the proper coordination. It is relevant to notice that the Forestry Service (a branch of the Ministry of Agriculture) has historically been given the major responsibility for the protection and management of the natural sites. In addition to that, the Ministry of Culture is in charge for the protection of historical sites, with its Archeological Service responsible for caves management. Ultimately, the responsibility for the protection of the ‘Landscapes of Special Natural Beauty’ and the coordination of the general policy for the environment resource is in the hands of the Ministry of Environment, Physical Planning and Public Works; in the year 2000, the National Center for the Environment and Sustainable Development was added, to manage some of the aspects of natural environment conservation and protection.

The report states that there’s an urgent need to better co-ordinate all the above mentioned institutions and organs, in order to avoid the existing overalapping and facilitate the adoption of the most suitable procedures. More transparent and participative mechanisms are also to become part of the regular ministrial procedures.

At the level of the protected areas, the different categories are presented, distinguishing the ‘national’ and the ‘regional’ regimes; additionally, some of them are relevant to the international treaties. Despite the high number of area protected in accordance with the various regimes, some serious weakness are presented: they mostly derive from the lack of proper preparation of the technical staff and the consequent malfunctioning of the management planning procedures; a higher degree of effectiveness is expected to be implemented. The missing public participation in the decision-making processes is considered a relevant gap to be properly fulfil very soon; in fact, the rare cases of the NGOs involvement demonstrate to be very beneficial.

Nevertheless, the most recent (1999) public efforts in the direction of adopting integrated management planning procedures are described as the most promising initiatives taken in the direction of a sustainable development.

3.3.4.3. BIOSPHERE RESERVES

At the moment, there are two BRs in Greece; the Olympos mountain and the Samaria Gorge. Both of them were designated in 1981, when the MAB Programme was firstly adopted by the country and the core areas of the BRs correspond to the already existing protected ares.

An additional area, the Dadia forest, is being studied to be soon nominated as the third BR.
Although both the BRs are detailed described as their biological and cultural richness are concerned, the most serious threats are presented alongside.

In the case of the Mount Olympos (the first National Park, established in 1938), the combination of its naturalistic and cultural uniqueness attract an ‘unsustainable’ amount of tourists. Unfortunately, the protected area covers only a limited part of the mountain, leaving large portions open to the high impact of human activities (both for productive and leisure issues). The lack of a properly enforced managerial unit result in the impossibility to properly enforce the protection acts.

On the other side, the Samaria Gorge (an isolated mountain region in the southwestern coast of Crete with several spectacular gorges) BR is negatively affected by all the intensive nearby tourism-related activities (illegal woodcutting, pillaging of flora species, urbanization activities, climbing, genetic pollution, hunting, illegal grazing, fires and construction of new roads).

The Dadia forest has been identified as a suitable location for establishing the next BR, mainly due to its high importance as a site for protection of birds of prey and herpetofauna. The site consists of a mixture of pine and oak stands, and is characterized by a mosaic of ecosystems including open areas, streams, creeks, densely forested patches and rocky outcrops; its diversity of species is considered as one of the rarest in Europe. Additionally, Dadia forest (protected as a game reserve since 1980) is reported as a good practices example, in which sustainable development management procedures are successfully implemented, thanks to the EU funding and WWF cooperation; women cooperative establishment and involvement has been played an important economic role, as well as ecotourism, in fostering local people quality of life.

3.3.4.4. COMMON NEEDS AND FUTURE COOPERATION

The overall picture offered by the national report is one of a fragmented evolution in the natural resource management, both at the legal and institutional levels and on the “randomly chose’ of the areas to be protected; “a great number of areas requiring protection are not recorded and even the areas listed for protection are not yet properly protected and managed”. Nevertheless, the recent developments (especially after the inclusion in the EU) are slowly guiding the country to a better organizational structure.

It is particularly interesting to notice that the adoption of a ‘systematic approach’ by the public agencies is considered the most innovative item in the current process of state authorities amelioration. In fact, in the frame of a general “environment rehabilitation” process, the most recently adopted initiatives tend to stress the important fact that “every kind of heritage (biological, cultural etc) has to be obligatorily defined within its geo-environment and that physical features are often those regarded as fundamental to the character of landscapes and scenery; therefore their detailed study and protection constitute a fundamental parameter for an integral conservation-protection within an ecosystem approach”. The report emphasises the key role possibly played by the ‘Geo-parks’ initiative (supported also by the UNESCO Earth Science Division), as fostering the “value of conserving the “environment memory inscribed in the rocks and landscapes”, in sites which combine features of geological importance with natural beauty and great archeological and historical value.

A specific report part follows, mentioning the strategic role that the UNESCO initiatives - and, in particular, the ones within the MAB Programme (which are expected to be properly supported by the National Commission) - can play in fostering the domestic and international policies in favour of biodiversity conservation and local sustainable development. In
particular, the MAB Committee “should provide any kind of support to the BR local managerial bodies”, in combination to the “national and local governments funding campaigns”.

It is important to notice how “encouraging traditional works and activities and - in particular - women cooperatives, should be taken seriously into consideration in management plans” in accordance with the previously mentioned good practises; furthermore, “specific attention should be given to increase the people awareness, by launching training, education, and promotion campaigns addressed to all levels of schools’curricula and environmental education programs”.

The “establishment of TBRs is emphasised by the report as a key tool to foster regional cooperation for sustainable socio-economic development”. In the particular case of Greece, the two Prespa lakes are already objects of a “trilateral agreement for the creation of a Balkan Natural Park”. It is expected that “national governments, MAB UNESCO, UNESCO National Commissions and MAB National Committees should jointly support the international activities in these respects, as well as the human and technological network implementation, functioning and maintenance”.

The medium- and long-term cooperation should be firstly focussed on activating “common researches (e.g. on bio-geo-indicators, transboundary pollution, contamination and preventing measures, information flow, common DataBase design, GIS development and maps compilation)”. Additionally, the “exploration of all existing values in BRs will serve to promote solutions to reconcile the conservation of biodiversity with its sustainable use”.

All the necessary means to support the identified initiatives are expected to be jontly raised domestically and internationally.
3.3.5. THE REPUBLIC OF MOLDOVA

**MAIN SOCIO-ECONOMIC INDICATORS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>4,493,000</td>
</tr>
<tr>
<td>Population density</td>
<td>132.7</td>
</tr>
<tr>
<td>Administrative subdivision</td>
<td>10 județe, 1 municipality (Chisinau), 2 regions</td>
</tr>
<tr>
<td>Demographic rate</td>
<td>0 %</td>
</tr>
<tr>
<td>Schooling rate</td>
<td>96.4 %</td>
</tr>
<tr>
<td>Ethnic groups</td>
<td>Moldavian (64.5%); Ukrainian (13.8%); Russian (13%); others (8.7%)</td>
</tr>
<tr>
<td>Religions</td>
<td>Orthodox (98.5%); Juish (1.5%)</td>
</tr>
<tr>
<td>GDP ($)</td>
<td>1,162 billion</td>
</tr>
<tr>
<td>Income per capita</td>
<td>258</td>
</tr>
<tr>
<td>Inflation rate</td>
<td>18 %</td>
</tr>
</tbody>
</table>

*(source: Guida ai paesi dell’Europa centrale, orientale e balcanica)*

3.3.5.1. OVERALL ENVIRONMENTAL FRAME

Synthetic bio-geographical description

The Republic of Moldova is situated in the Central-Eastern part of Europe, ranging between the latitude of 48°45' N and the longitude of 26°30' E, stretching over a total surface of 33,843 km²; regardless its internal position, it has direct access to the Lower Danube and the Black Sea.

The country’s territory has a hilly profile, slightly inclined from north-west to south-east (gradually descending from 400 to 150 m of altitudes); the prevailing soil type is *chernozems* - the fertile balck soil - that covers about 75% of the total area.

The hydro-geographical network is very well developed, consisting of 34,260 rivers and streams, with a total length of more than 16,000 km. The main rivers are the Danube, Nistru, Prut, Răut, Bâc and Botna, all draining to the Black Sea. Additionally, 3,532 lakes and water reservoirs (with a total surface of 333 km²) can be found.

More than a half (55%) of its current population (4,493,000 inhabitants) lives in rural areas, and the average density is about 127 persons/km². The administrative sub-division of the country is represented by 10 districts, one autonomous territorial unity, two territorial units, 61 cities and 925 villages.

The report’s authors stressed that the socio-economic development of Moldavia is based on the intense use of natural resources, which has been accelerated by the transition period,
“characterized by profound reforms and a sudden decline of economic activities in all the sectors of the national economy”.

A very large initial part of the country report is dedicated to the description of the biological and landscape diversity occurring within the country’s territories; this reachness is firstly conditioned by Moldovia geographical position - at the convergence of three biogeographical zones (the Central-European, the Eurasian and the Mediterranean). Three major landscape features are distinguished: forest, forest steppe and steppe; they accommodate five main relevant eco-types (forest, steppes, meadow, petrophyte and aquatic).

A specific attention is given to the forest ecosystems, which surface (National Forest Fund) represents a relevant portion (394,400 ha). The socio-economic role played by the forest areas emerged in several passages of the report; in particular, the “phenomenon of forest degradation is also confirmed by the considerable number of vulnerable and endangered species”.

The detailed description of the diverse ecosystems identified in the report takes most of the authors’ attention; in fact, the various categories are listed (steppe, meadow, petrophyte, water basins and marshes, and agriculture) are further illustrated.

A specific emphasis is given to the water ecosystems (covering a total of 2.8% of the Republic territories); they are “distributed differently and are characterized by a vast variety of ecological, physico-geographical, hydro-chemical and hydro-biological peculiarities”. 160 flora and 125 fauna (vertebrates) species have been counted as the endemic of Moldavia.

**Main environmental threats**

A critical analytical part is added, concentrated on the role that agriculture has been playing, as one of the major economic sectors and, at the same time, one of the most environmentally impacting activities. The productive rural area sums up to 75.6% of the country’s territory and it includes zones devoted to various crops’ cultivation (cereals, fruits, grapes, horticulture).

It is relevant to notice that the reports tends to identify the possible “correlations between the ‘natural’ and ‘anthropogenic’ eco-systems”: in fact, it is estimated the former represents only 18% of the Moldavian territories; the loss of natural system and their intrinsic capacity of recovering a relatively high number of native species is considered very dangerous.

Due to this intensive human pressure on the natural systems, the “share of endangered biota is rather high; 26 species of plants were introduced in the first edition of the “Red book” (1978), and the 2001 edition includes 117 plant, 9 fungi and 116 animal species”. All together this is considered a “serious process of degradation”. The introduction of invasive species is considered an additional threat to the indigenous environment.

Illegal cutting is given as one of the most hazardous human activities, as the forestry sector is considered one of the most relevant within the Moldavian economy; in fact, it resulted in a double-negative effect, reducing also very much the natural biodiversity. Additionally, hunting activities (jointly regulated by the Ministry of Environment and Territorial...
Development, the State Forestry Service and the Association of Hunters) seem to be very impacting too, as well as the illegal capturing of frogs and snails. The level of fish productivity in aquatic basins (the aquaculture sector is also an important one) has declined considerably in the last years, as a consequence of the worsening in the overall socio-economic conditions.

The public authorities are attempting to compensate this growing loss in biodiversity, by establishing specific research institutions dealing with the genetic resources preservation and maintenance.

Other activities are considered even more dangerous to the environment: the growing rate of ‘cementification’ of the open areas, the extensive farming by transforming the natural areas original patterns, the drainage of wetlands, the modification of small rivers, the abuse of pesticide and fertilizers and the continuous disturbance of the animal during their reproductive periods. The situation “is worsening because of the lack of ecological knowledge combined with the ineffectiveness of economic and legislative instruments designed to stimulate the environment protection activities”. Due to “the destruction and landscapes fragmentation, the consequences of natural calamities intensified; torrential rainfalls and landslide processes led to the destruction of thousands of dwellings and constructions”.

Environment pollution in general, and water pollution, in particular, are becoming more and more aggressive. Both the urban settlements residuals and the agriculture disposals are negatively influencing, at a growing rate, the Moldavian territories. Apparently, the expanding human settlements and activities rates are not based on an appropriate level of scientific and technical knowledge on the possible consequences.

### 3.3.5.2. NATURE PROTECTION MANAGEMENT; LEGAL AND INSTITUTIONAL FRAMES

The reports says little about the structure and functioning of both the legal and institutional frames.

Natural resources are entirely public owned and they all form the so-called ‘Environmental Fund’; at the moment, 331 natural sites are listed within it, covering a total surface of 41,200 ha; consequently, about 1,2% of the country’s territory is legally protected, positioning Moldavia at the bottom of the list of the European countries.

After its independence (1991), the Republic of Moldavia attempted to reformulate entirely its environmental policy, based on a completely “new legislative system and the extension of the fund of natural protected areas”.

In fact, the recently enforced laws on environmental protection (1993) and on the establishment of the natural protected areas fund (1998) are rooted in a “new concept of environmental protection, based on a territorial system of ecological stability, which is adjusted to the national and international requirements”.

The current policy of favouring the *in situ* genetic diversity conservation resulted in a re-organisation of the protected areas system; it currently includes 12 types (8 of which correspond to the IUCN criteria), all specifically mentioned in the recent legislation. The
willingness of the country was recently expressed in favour of expanding the total protected area up to 80,000 ha (2.36% of the territory), by the year 2015.

It is interesting to notice how the protected areas constitute a network, specifically designed “for the conservation of biological resources and genetic variety”. Its main units are the ‘scientific reserves’ (29.4% of the total protected area) and the ‘landscape reserves’ (51.5%). The relevance of the forestry sector in the Moldavian natural resource management is given by the very high rate of protected area which belong to the Forestry Fund (92.4%).

3.3.5.3. BIOSPHRE RESERVES

No specific mention is given to the MAB programme in the report and BRs are not mentioned at all as possible tools to be used in the frame of the country biodiversity strategy development. Nevertheless, the clear willingness of the Republic of Moldavia to participate in the SEE MAB activities and its interest in fostering the ecosystem approach through a specific network of protected areas, tends to demonstrate the country’s desire to adopt the Programme approach in the nearest future.

3.3.5.4. COMMON NEEDS AND FUTURE COOPERATION

The concluding part of the national report supports the idea of the creation of a National Ecological Network (NEN), mainly to compensate the above mentioned negative effects. In the intention of the planning document (‘Strategic Directions for Social and Economic Development of the Republic of Moldova till 2005’) the NEN is expected “to cover the network of state protected areas, the existing geosystems and ecosystems that are present in the different regions”.

The funding concept of NEN was presented already in 1991, within the Republic of Moldova Complex Territorial Scheme on Natural Protection.

The basic NEN structural elements are the following:

- natural sites, representative of the various ecosphere/biosphere composition (forming the cores);
- ecological migration and dispersion corridors;
- reorganized ecological belts (oases of spontaneous vegetation and protection strips of agrocnoses).

With the objective of networking areas with self-regenerating capacities, the NEN intends to apply a strict management regime to an overall area of 33% of the country’s territory, 19% of which is expected to be forests covered.

It is interesting to remark how the analysis made prior to the adoption of the NEN, stressed the main “drawbacks” and the needs to compensate them; in synthesis they are:

1. the unbalanced ratio between urbanized and natural sites, mainly due to the expanding cities over the rural territories;
2. the inadequacy of the existing network of protected areas, due the lack of a secure legal frame and appropriate management scheme;
3. the unbalanced distribution of the “naturally stabilizing areas” in the overall territory; recent calculations estimated its ideal extension being of 17.5% of the country’s surface.
4. the lack of connection between the domestic initiatives (in particular, the NEN) and foreign programmes (e.g. the European Ecological Network). A specific protection strategy for the meadows of the Nistru, Prut and other rivers is missing, resulting in very dangerous situation for the main migratory bird species.

The last aspects have been presented in the national report as possible areas of transnational cooperation, thus fostering a European strategy and reinforcing the domestic protection policy.
3.3.6. SERBIA AND MONTENEGRO

MAIN SOCIO-ECONOMIC INDICATORS

population: 10,570,000
population density: 103.4
administrative subdivision: 2 republics and 2 autonomous provinces
demographic rate: 0.1 %
schooling rate: 93 %
ethnic groups: Serbs (63 %); Albanian (17 %); Hungarian (3 %); others (17 %)
religions: Orthodox (65 %); Muslims (19 %); Catholics (4 %)
GDP: 6.7 bilions
income per capita: 633
inflation rate: 14 %
(source: Guida ai paesi dell’Europa centrale, orientale e balcanica)

3.3.6.1. OVERALL ENVIRONMENTAL FRAME

Synthetic bio-geographical description

Serbia and Montenegro union currently encompasses the Republic of Serbia, in the north, and the Republic of Montenegro, in the southern part. The former is subdivided into two autonomous provinces, Vojvodina, and Kosovo and Metohija; since June 1999, Kosovo and Metohija are under the civil authority of the UN Interim Administration mission in Kosovo (UNMIK). In fact, the country report was structured into two distinctive parts, in accordance with the two republic sovereignties.

Serbia is situated in the central part of the Balkan Peninsula, Stretching between 41° 53' and 46° 11' North and 18° 49' and 23° 00' East; it includes the far-eastern parts of the Dinaric Mountains, the southern part of the Pannonian plain, the western parts of the Carpathian-
Balkan mountain range and of the Rhodope Mountains, as well as the valley along the river Morava, an important traffic corridor. With a surface of 88,361 km² (1.5% of total surface in Europe) it counts 9.8 million inhabitants (60% of which live in rural areas).

Montenegro is compressed between 41°39’ and 43°33’ North and 18°26’ and 20°21’ East, for about 13,812 km² (inside water counts for 4,800 km²), with a population of 616,552 inhabitants (1991), 60% of which is concentrated along the coast.

Both the republics territories are quite mountainous; Serbia is mainly characterized by hilly and mountainous regions, with narrow or wide river valleys and some rare isolated ravines, and a plain to the north of the rivers Sava and Danube. The report distinguishes its territories into three “differentiated regional areas”:

- the low-laying tracts (about 1/3 of the territory), in the southeast part of the Pannonian Plain – Vojvodina;
- the peri-Pannonian areal body, along the river Sava, part of the Drina, part of the Morava, Stig, the Mlava valley up to Petrovac; and
- the central Balkan region, low-laying-mountainous and mountainous-ravin regional entities of the Carpathian-Balkan, Rhodopean, Scardopindic and Dinaric mountain range.

Montenegro, as part of the Dinaric Mountains, represents geologically the bordering space between the old Rhodopic massif, in the northeast, and the old Adriatic mass, as part of the African geotectonic complex, in the south and southwest. Montenegrin relief is very dynamic and complex. Its basic characteristic is an abrupt change of altitudes within short distances, ranging from the region of the deep karst to the the high plateaux area; ultimately, the coastline is the most densely populated area. In fact, both the mountaneous and the coastal ecosystems are considered to be the richest and the most valuable within the frame of the domestic natural resources management.

According to the IUCN-WCPA criteria, the territories of Serbia and Montenegro represent one of the six European centres of floristic diversity out of a total of 153 worldwide. In both the republics, most of the endemic species are concentrated on the mountainous and alpine ecosystems. On the other side, “the rich and heterogeneous flora of Serbia and Montenegro and the Balkan Peninsula is extremely fragile and vulnerable with respect to the extent of negative anthropo-zoogenic influences”. The reports presents a list of “hot-spots for biodiversity conservation”:

- high-mountain regions with preserved oroclimatic ecosystems;
- gorges and canyons, as the most important refuge centres for relict and endemic species;
- steppes, sands, marshes and ponds in the region of Vojvodina (including 3 of 4 Ramsar sites in Serbia and Montenegro), and some other wetland habitats;
- mountain bogs around peaks and glacial lakes;
- various preserved forest communities;
- karst regions (mostly in Montenegro and sparcely in Serbia) with numerous caves and pits.
Main environmental threats

These reach ecosystems are all endangered by several human activities, which are well listed by both the national reports, as the following ones:
- excessive exploitation of forest, game and fishing resources, which are permitted on the basis of a lack of proper ecological knowledge;
- expansion of the arable lands, mostly at the expenses of the forests (in Vojvodina and the Montenegro flatlands);
- drainage of ponds, bogs and marshes;
- urbanization sprawl;
- development of traffic infrastructure (fragmenting the natural ecosystems and habitats), impacting hydraulic interventions (e.g. the construction of water accumulation in ravins, which are refugium habitats of relict and endemic species);
- fires, floods, accidental pollutions with noxious matters originating in industry or transportation;
- tourism booming in the most attractive areas (mountaineous valleys and coastlines) with no impact assessments.

Consequently, the most delicate ecosystems - namely the fragile aquatic areas, the marginal and high elevation ones - are constantly under serious threat.

It is interesting to notice how both the reports stress the relevance of the damages caused to the forests; in fact, traditionally both the republics have been socio-economically very dependent from the forestry resources, supplying wood products and public services simultaneously.

The concluding part of the descriptive sessions are dedicated to the ethno-diversity aspects; the geographical position of the two countries historically influenced very much the human settlements, from both Eastern and Western influences; scientists have currently identified 15 different ethnic groups living only in Serbia. On the other side, the coastline of Montenegro registers the highest European density of cultural relevant sites.

3.3.6.2. NATURE PROTECTION MANAGEMENT:
LEGAL AND INSTITUTIONAL FRAMES

Both the legal and the institutional frames of the two republics do no differ very much; in fact, they originated from the same former Yugoslavia centralized public administration structure. Indeed, some differences may be identified in the most recent developments of the implementation phases of the national environmental policies.

Similarly, the most relevant state bodies in charge with environmental protection are:
1. the Ministries for the Protection of Natural Resources and Environment
2. the Ministries for Agriculture, Forestry, and Water Economy.

In fact, in both (the) cases, a public agency (the Institute for Nature Protection) is the official scientific and technical consultant for the government, dealing with planning and procedures implementation, both domestically and internationally. Almost the same share of territorial resource are devoted to nature protection purposes in the two republics: 7% in Serbia (corresponding to 600,000 ha) and 7,14 % in Montenegro (98,570 ha). The creation, maintainace and expansion of the protected areas network represent - in both cases - the core of the conservation strategies.
In particular, the Serbian report critically emphasizes the lack of a proper biodiversity strategy to be implemented at national level, listing the current principles guiding the domestic nature protection policy, as following:

- the rational use and protection of natural resources (water, agricultural land, forests, flora and fauna species);
- the existing conditions of the various environment and ecosystems represents an essential limiting factor in the economic activities planning processes;
- the protection and promotion of the valuable natural and cultural heritage sites and the preservation of regions with relevance for the bio-diversity, geo-diversity, and quality of life.

The major critics are formulated towards the lack of proper scientific foundations to the planning processes, resulting in a non-functional group of various ‘strategies’ and ‘areas’ with no rational correspondences.

In fact, both the republics have very complex and detailed legal frames, regarding the definition and designation of protected areas.

The identification of regions, units, ecosystems, species and other natural resources to be protected, as well as the gene, species and ecosystem biodiversity represent the funding principle adopted by the Serbian government for its environmental protection strategy.

In both the countries, the administrative units dealing with the management of the protected areas are public enterprises, local branches of the Park or Forestry Services. Additional specific laws are regulating other detailed aspects (hunting, fishing, forestry, etc.). Inspection services in forestry, hunting, fishing, and in protected natural areas are organized as parts of various departments of the competent ministries. At local level, institutional conflicts often emerge, mostly between the park services and their forestry counterparts, the latter used to be the ‘monopolists’ in natural resources management.

The Serbian report stresses the importance of the public participation in the policy-making process; in fact, the traditional top-down approach demonstrates to be limited and, in many locations, resulted in very conflicting situations. A strong improvement is expected to be implemented very soon in the introduction of innovative co-management practices. By specifically mentioning these aspects, Serbia is moving steps forward a more strategic use of the MAB Programme, as catalyst of innovative practices.

3.3.6.3. BIOSPHIRE RESERVES

In addition to the already existing wide range of protected areas (both the countries are attempting at harmonising the domestic systems with the international frames), the two republics designated one BR each.

The ‘Golija’ Nature Park - originally established as a “protected natural estate of extraordinary significance” - become in 2001 the first Serbian BR, named ‘Golija-Studenica’. It is important to notice how, along this designation process, the two management plans have been harmonized, in order to get only “a single set of rules”. In fact, the site is a “complex mosaic of different ecological systems (lake, water basins, meadow, shrub, forest), forming a unified entity of closely related habitats, communities, populations, ecological systems, and numerous transitional types”. Indeed, local populations have always been playing an active role in managing the territorial resources within the area and their involvement is a crucial
factor of success in the entire process.

The report clearly stresses the importance of the BR in the frame of the biodiversity protection national policy; nevertheless, a specific set of regulations has been defined to keep the overall management procedures as more flexible as possible. The MAB report and the national documents mark the importance of the “additional value” given by the BR nomination, when compared to the ‘traditional’ protected area schemes; in fact, the new status “gives the area an international visibility which is very important to support the survival of a diverse and abundant vegetative and animal life, in serious danger of extinction in this area as in other European locations”. The BR management unit is under the supervision of the National Forest Service (‘Srbijašume’) and the representative of the local municipalities are involved in the board; in fact, since the beginning of 2002, the Serbian Government appointed a coordinating committee to supervise all the BR major activities. As a result, a “BR Regulation – dealing with the research activities, visits natural resources exploitation, land use tenure and infrastructure development – the Regulation on Wardens and Control Regimes and a specific Decree on Taxes and Contributions – to regulate the commercial aspects of the BR activities – and the mid-term revision management plan have been developed, as well as the local Agenda 21 process activated.

In Montenegro, part of the Tara Water basin was included in the BR, as an additional step to the already existing protected area regimes (national park and UNESCO World Heritage). In fact, the Tara Canyon was placed under protection as part of the NP Durmitor in 1952 and nominated as a BR in 1977. Also in this case, the management unit is in public hands, being part of the National Park Service.

3.3.6.4. COMMON NEEDS AND FUTURE COOPERATION

Within the frame of the identified common needs, both the countries list similar priorities: the overall “environmental quality” is very poor, due to the recent adverse events occurring in the area and an urgent action has to be taken to recover the most delicate ecosystems, namely the water and forest ones. The lack of an appropriate level of research and implementation of the most innovative practices in natural resources management is indicated as a big disadvantage to be soon compensated with a strong international cooperation. Ultimately, the institutional and legal frameworks have both to be reinforced to facilitate the entire transition phase.

Facing a growing rate of human activities impact (due to such common factors as non-treated industrial sewerage and urban waters, drainage waters from the arable lands, polluted by fertilizers and other chemicals, large number of municipal trash damps, surface and underwater excavations of mineral raw materials, anthropogenic alteration of autochthonous marsh and forest ecosystems, just to mention the most relevant ones), the reports identify a set of recommendations (addressed to both the national and international institutions) “for the biodiversity related legislative and managerial practice”: in synthesis, they are related to:

A) the harmonization of the domestic legal frames regarding biodiversity conservation and socio-economic development with the international standards, in order to include:
   - the full adoption and implementation of the major conventions, declarations and agreements;
an internal lagal harmonization, particularly regarding the conflicting competence of various government, administrative, expert and management institutions and decision-making bodies;

B) the creation of comprehensive national biodiversity policies, including:
- the development of national strategies and action plans for the conservation and sustainable use of biological diversity and genetical resources;
- the updating of the environmental laws, with the integration of biodiversity conservation issues into relevant sectoral or cross-sectoral plans, programmes and policies (particularly urgent in forestry, fisheries and agricultural sectors);
- the rennovation of the management systems;
- the development of socio-economic instruments to be included in national biodiversity policy and biodiversity funding programmes;
- the further expansion and strengthening of the protected area network and related legal and institutional frames;
- the reinforcement of the reforestation programmes and the restoration of wetlands of particular importance to biodiversity conservation;
- the consolidation of the MAB programme, especially to support the public participation in environmental protection and sustainable development-related decision-making procedures.

The Serbian report, in particular, stresses the key role played by the local authorities in fostering the sustainable practices; the BR-model seems to better accommodate innovative co-management practices, to be developed in accordance with the national legislation.

“Protected natural resources represent a potential for further sustainable development of the society and its economy, and especially of ecological and hunting tourism, production of biologically high-quality food and medicinal and aromatic plants, as well as collection of forest fruits and wild plant and animal species”.

It is relevant to notice how both the reports stressed the crucial importance of the further development of the MAB Programme and, most of all, of the TBRs as strategic implementation tools to foster the international cooperation. In particular, it is recommended to take into specific consideration the role of the TBRs in “supporting, designing, and implementing the local environmental action plans, as tools for involving public and local municipalities in biodiversity conservation and protection“.

A list of potential suitable sites for TBRs nomination is already included in the reports, namely:

1. Tara NP (Serbia), to be developed in cooperation with Republika Srpska, Bosnia and Herzegovina;
2. Stara planina (Balkan Mt.) Nature Park (Serbia), to be developed in cooperation with Bulgaria;
3. Djerdap NP (Serbia), to be developed in cooperation with Romania;
4. Gornje Podunavlje (Serbia), to be developed in cooperation with Hungary and Croatia, within the frame of the project ‘European Biosphere Reserve Drava-Mura’, extending towards the Danube region (EURONATUR);
5. river Cijevna canyon (Montenegro), to be included into a special protection regime, in cooperation with an Albanian NGO.
Ultimately, the two republics' reports mentioned the strategic role of combining policies supporting the further research of the socio-economic aspects of the local sustainable development with the reinforcement of the international cooperation; along this delicate process, the role that IGOs - in general - and UNESCO - in particular - is mentioned as of crucial importance.
3.3.7. TURKEY\textsuperscript{137}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{turkey_map}
\caption{Map of Turkey}
\end{figure}

**MAIN SOCIO-ECONOMIC INDICATORS**
- Population: 62.870.300
- Population density: 80,5
- Administrative subdivision: demographic rate: 1.65 \%
- Schooling rate: 81,1 \%
- Ethnic groups: Turkish (80\%); Kurds (20\%)
- Religions: Muslims (99.8\%); others (0.2\%)
- GDP: 213 billions
- Income per capita: 3.387
- Inflation rate: 39\%

(source: Guida ai paesi dell’Europa centrale, orientale e balcanica)

\textsuperscript{137} This report has been jointly prepared by Prof. Dr Türker ALTAN, Çukurova University, Faculty of Agriculture, Department of Landscape Architecture and Assoc. Prof. Dr. Nilgün KARADENİZ, Ankara University, Faculty of Agriculture, Department of Landscape Architecture.

3.3.7.1. OVERALL ENVIRONMENTAL FRAME

*Synthetic bio-geographical description*

Turkey is situated at the junction of three continents: Europe, Asia and Africa. It stretches between 36\° and 42\° North and 25\° 40’ and 44° 48’ East. Its rectangular shape extends for a total surface of 814.578 km\textsuperscript{2}, including 790.200 km\textsuperscript{2} of the part located at the Anatolian Peninsula (called as ‘Little Asia’) and the 24.378 km\textsuperscript{2} of the Thrace region; the coastline are 8.272 km long. Seven major geographical regions are distinguished by the country report, each of them characterized by diverse climatic and topographic condition, resulting in a variety of habitats. Accordingly to the last census, the 62.8 millions population is slowly declining and tend to concentrate in the rich and developed Marmara Region.

Turkey is mainly a mountainous country, with valleys, plateaus, undulating plains and various other types of plains with own special characteristics. Mountain chains are separated by wide plain areas, which are at the central parts of Anatolia; the highest peaks are mostly located in the Eastern parts of the country, 90\% of which are of recent origins. This results in the predominance of young soils, rich in limestone and nitrogens and poor in potassium and organic matter.
In the report, Turkey’s rich biological diversity is associated with different forest, steppe, wetland and marine ecosystems; this “richness is due to a number of favourable conditions including Turkey’s varied climate, topography, and geomorphology”. In particular, the recent (1999) jointly Ministry of Forestry-World Bank/GEF report focused on forests as natural resources of crucial importance for the country; they are estimated to extend over 20.7 million hectares, containing a significant part of the country’s biodiversity and the world’s largest cedar natural stands.

Additionally, the Turkish wetlands (the Burdur Lake area, in particular) are of crucial importance for many breeding bird species (e.g. the Dalmatian pelican and the White-headed duck). In fact, out of a total amount of 250 wetlands, many sites have an internationally recognized significance, despite the serious threats caused by the different human activities impacts (pollution, illegal fishing, excessive use of water for agricultural purposes, dam construction).

Country reports states that Turkey’s flora is the richest in Europe, both in terms of the overall plant diversity and in the level endemisms; it is estimated that 75% of the 12,000 European plant species are present and one third of the country’s flora is endemic. A similarly richness is also present in fauna, with over 80,000 species surveyed.

**Main environmental threats**

The report stresses how the Turkish Government is “aware of both the importance of indigenous biodiversity and the significant threats to its sustainable management, which include a variety of unsustainable land and natural resource practices, that are increasingly impacting all country’s ecosystems”.

The main reasons of the fact that “nearly 80% of Turkey’s land area is estimated to be suffering from various levels of erosion and unsustainable land use” are listed in the report. Firstly, the six-fold increase in population, registered at country level over the last six decades; the most negative impacts of that are evident in terms of overgrazing and other unsustainable agricultural practices, conversion of wetlands and other sensitive habitats to agricultural areas or other land uses, interference with the hydrological regime of wetlands for agriculture, municipal and industrial application of water, pollution, hunting and excessive harvesting of wild plants and tubers. In particular, since 1940, over three million hectares of forest lands have been shifted to other forms of land use, and more than one third of Turkish wetlands have been lost in the last four decades.

Secondly, the lack of proper governmental policies for land use adversely affected biodiversity; in fact, the lack of effective institutional and legal supporting mechanisms to prevent environmental degradation “lead to potential massive losses of natural habitat is a significant threat to biodiversity”. Additionally, land speculation processes – mostly occurring in the coastal regions of the Aegean and Mediterranean seas – resulted in the second houses booming. Significant incentives have been given the tourism business since 1980s, generating large scale infrastructures construction in previously undisturbed sites (e.g. in the areas of the marine turtles and Mediterranean monk seals).
3.3.7.2. NATURE PROTECTION MANAGEMENT: LEGAL AND INSTITUTIONAL FRAMES

The report mainly focuses on the activities of the Ministry of Forestry, as directly related to in-situ conservation country’s strategy; this is based on the network of protected areas (namely, NPs, Nature Parks, Nature Reserves, Natural Monuments, Wildlife Reserve Areas, and Forest Recreational Areas, that are all under the responsibility of the General Directorate of National Parks and Wildlife Conservation).

The preparation of a ‘National In-situ Conservation Plan’ is currently in progress within the co-ordination of the recently established Ministry of Environment. In fact, it jointly executed the GEF-funded “In-situ Conservation of Genetic Resources Project”, with its counterparts from the Forestry, Agriculture and Rural Affair ministries. The strategy stressed the importance for NPs to include “the different ecosystems in their territories devoted to strictly protection aims”.

3.3.7.3. BIOSPHRE RESERVES

Regardless the current absence of BRs within the Turkey’s territories, the country joined the MAB Programme since its initial phase; in particular, the national UNESCO Commission in cooperation with the Ministry of Forestry, prepared a feasibility study to implement the BR model in some territories since the 1970s. Additionally, the MAB ‘Scientific Meeting on Mediterranean Biosphere Reserves’ was held in Antalya; during the workshops, the Turkish MAB Committee identified 14 areas as possible candidates to become BRs. In fact, only one concrete proposal evolved, regarding the Köprülű Kanyon NP area, which was submitted for the nomination in 1987. Several reasons lead to fruitless follow ups and since that year no further initiative have been promoted.

More recently (1999), a new Technical Committee was established within the UNESCO National Commission. Nevertheless, it is relevant to notice that the Turkish MAB Committee “has participated and contributed several studies related to BRs at different levels”. Apparently, there are still major institutional constraints to be solved in order to fully launch the Programme at the domestic level; in particular, the report stresses “the overlapping and confused jurisdiction, which tends to generate conflicts rather than favourign cooperation between related ministries, the lack of clear policy for protection of biodiversity values and the missing political and institutional support to activate proper funding mechanisms, as well as public awareness and involvement”.

3.3.7.4. COMMON NEEDS AND FUTURE COOPERATION

The willingness to further develop the national approach to biodiversity conservation clearly emerged in the report; the next necessary steps to move are synthetically summarized as the following ones:

• to develop the legal frame: the existing legal frame in natural resources management is under revision. In particular, the MAB frame and its recent developmmt are mentioned as favourable precondition to be adopted domestically in order to stimulate a further evolution. The definition of the technical, legal, and administrative structures appropriate to the BR management are considered the basic needs;
• to prepare the National Guide for Biosphere Reserves: this is expected to serve as a basic strategic document to develop more concrete implementation steps, “with the support of the national and international technical and financial supports”.
• to define a wide range of stakeholders: this is considered to be preliminary to the implementation of any innovative management practice within the MAB strategy.
• to establish the first BRs: accordingly to the MAB National Committee, the establishing of the first BRs is the essential action to be taken in a short term span, “to ensure more efficient conservation of Turkey’s natural and cultural wealth”.

CHAPTER IV
CONCLUDING REMARKS AND STRATEGIC GUIDELINES

The multi-scales\textsuperscript{138} and multi-actors analyses, which was briefly presented in the previous pages, supports some tentative concluding remarks. Two main levels may be identified, to better distinguish the practical implications for the SEECs, on one side, and the possible relevance for UNESCO and its MAB Programme, on the other.

A first group of issues is devoted to comment on the role of the MAB in the SEECs, as following:

- most of the relevant issues stressed by the various international agencies, devoted to nature protection and sustainable development, are in line with the basic concepts of the MAB, and with the particular features of the BRs. Consequently, the Programme - where properly implemented - seems to properly serve the current strategic international guidelines to foster the biodiversity preservation and the local sustainable development;

- in the specific context of the economies in transition, elements of flexibility seem to better accommodate changing patterns in resources management; on the other side, to properly operate they strongly need ‘human operational skills’ which are not common in countries coming from a strongly centralized government tradition. The prevailing role of the latter aspect, results in the poor picture that the Programme offers in many of the SEECs;

- when compared to other regions or sub-regions, the SEECs seem to be at a very early stage of the MAB development, apparently due to the following reasons:
  1. high level of bureaucratic interference in all the steps, from the nomination to the revision and implementation of additional projects (e.g. the periodic review offered by Croatia, which is expressively mentioning the lack of political support to reinforce the critical situation at the BR);
  2. MAB is mostly seen as an instrument adopted to support the international visibility of the countries and their governments, rather than an alternative tool to promote the local sustainable development;
  3. the ‘logo’ effect in the identification of a given area as a UNESCO BR is still playing a key role as driving force; ‘the more the better’ seems to be one of the most relevant determining factors (e.g. the exceptionally high number of BRs listed in Bulgaria - all of them activated in the same year and never further evolved - demonstrates the situation of a country which is not properly interpreting the concept of the Programme; consequently, UNESCO Advisory Committee considered it as a ‘priority country’, “since the continued listing of these 16 sites undermines the credibility of the World Network”);
  4. ‘biodiversity protection’ is evidently considered to be the main reason for establishing a BR; the large majority of them is located in remote and mostly unhabitated areas;

\textsuperscript{138} along time and space coordinates.
5. the role of the BRs as possible promoters of local sustainable development initiatives is given a marginal role; no specific activities are mentioned as implementation factors of the comprehensive BR approach;

6. no territorial extension has been recorded so far in the SEECs, showing that BRs are still seen as ‘static’ planning instruments (to protect given areas mostly by ‘fencing’ them from the rest of the territory) rather than flexible planning instruments to negotiate possible ‘territorial pacts’ (as foreseen in the Seville Strategy);

7. the logistic function is only rarely advocated and, in most of the cases, it means to use BRs as places to carry on traditional mono-disciplinary academic researches;

8. very little importance is given to the potential role of platforms for environmental education in a broad sense, as well as possible incubators of innovative land use practices;

9. the involvement of the local population in the process of designation and implementation of a BR is almost absent: in fact, no real public participatory mechanisms are activated along with the recently established BRs (e.g. the case of Goljia - Studenica in Serbia);

10. ultimately, the potentialities offered by the MAB Programme and its BRs seem to require a ‘mature’ socio-economic context to be properly developed; the understanding of the challenges behind the ‘provoking idea’ is largely rooted in self-promoting attitudes,\(^\text{139}\) which seems to be far from being present in most of the SEECs.

By the confrontation with other international programmes, the role of the MAB in the specific SEE context seems closely linked with the visibility of UNESCO as a whole. Also in this case, some remarks can be listed, as it follows:

- from the other actors’ perspective, UNESCO is apparently seen as ‘the’ UN agency devoted mostly to ‘cultural’ issues and very rarely considered a solid partner for the definition of the environmental and development policies. In the case of comprehensive programmes – such as the MAB - this ‘limited consideration’ within the main international stakeholders community may result in a reduction of the strategic capacities of BRs approach to be properly implemented;

- paradoxically, even if its ‘S’ stands for ‘Scientific’ and regardless the fact that many relevant scientific programs have been initiated by UNESCO, it rarely appears in the list of the relevant international actors, when the environmental policies are designed. The case of the ‘Environment for Europe’ process - the current most relevant pan-European initiative, specifically devoted to environment and development issues - is indeed very meaningful; since its very beginning, many international organizations were already adequately represented (UNDP, UNEP, ECE, WHO, OECD and the CoE, as one of the promoter) except for UNESCO;

- the MAB Programme and the role of the BRs are very rarely mentioned in other relevant international ENGOs’ reports concerning the SEE context; this aspect may

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\(^{139}\) “The original concept of BR is a tool-kit and the success or the failure of a BR is mostly based on the ‘hands’ into which it is driven; the ultimate skills required by a talented BR manager is the imagination and creativity!” (Bernd von Droste-Hülshoff, 2003).
lead to conclude that the brilliant and innovative thirty-years-old-idea of the MAB and BR is losing much of its original relevance;

- the potential MAB ‘added value’ is clearly related to the role the different stakeholders are playing at the various scales (local, national and regional) and the way they relate each other; having all of them a proper pertinence, any missing link can generate inappropriate mechanisms of implementation. The double face of the BR approach – offering the advantage of a flexible tool and the limit of a non-legally binding and low-financed programme - is even more evident in the SEE region;

- the MAB implementation in the SEECs emphasises the ‘internal contradiction’ of the UN agencies; they are, at the same time, IGOs - supported and financed by the member states’ governments - and promoters of programmes with highly ‘revolutionary’ contents, in terms of facilitating the public participation, supporting local sustainable development initiative and fostering the adoption of innovative co-management practices. In many cases, it generates conflicting situations: in fact, states are still very much tending to maintain a strong control over the strategic phases of their territorial management processes;

- being UNESCO one of the oldest and wider developed UN agency dealing with the promotion of the cultural and scientific progress worldwide, its action is subject to the same critics faced by all the major multilateral institutions: firstly, to support the constant growing of the international meetings and projects (called ‘talking shops’) which are characterized by a proportional diminishing in effectiveness, in a world characterised by the highly unequal power relations that multilateral institution themselves embody. Secondly, by promoting development within the existing political and economic order, multilateral institutions are supportive, in practice, of precisely those social and economic inequalities that they are committed to eradicate in theory (by their mandates). In few words, the recent development of the multilateralism is mostly seen as part of the problem, rather that of the solution.140

Driven by the above listed concluding remarks, some strategic guidelines for the future development of the MAB Programme in the SEECs can be traced:

1. the original concepts of the MAB Programme and the BRs are still valid, even if most the ‘philosophy’ behind them has been already incorporated by other similar international initiatives. Consequently, the ‘uniquenesses’ of the UNESCO approach have to be better emphasised;

2. the information of the proper features of the MAB Programme and the BR approach is the aspect which can make the difference between a successful implementation and a total failure; UNESCO is expected to further promote the basic concept of its approaches through the activation of information and educational campaigns at the various levels, from the global to the local.

3. the number of the international actors which are dealing - institutionally and non institutionally - with the issues of the biodiversity protection and promotion of local sustainable development in the SEECs is growing and UNESCO is apparently missing its proper place. The ‘strategic’ role of the sound implementation of the BR features should be more and better disseminated among the various counterparts, with a particular emphasis on the possible areas of cooperation;

140 Bryant and Bailey, 1997.
4. the ‘local dimension of both the protection and the development issues is growing in importance; the World Network of BRs can properly serve the scope of implementing innovative management practices, jointly shared by the various stakeholders;

5. the multi-scale dimension of the MAB Programme is one of the key aspects of the UNESCO approach; consequently, its major role would be the one of the ‘honest broker’, facilitating the proactive participation of all the levels involved in the processes of natural resources management: the member states - on one side - which role should be more focused on defining broad policies and their regulatory frameworks; and the local communities - on the other - to be supported in being actively included in co-management practices as primary stakeholders;

6. co-ordination and co-management are the key aspects to be further developed in the SEE context; the MAB Programme has the potentials to act as a catalyst for innovative practices to be introduced and tested; in particular, BRs are expected to play their founding role of ‘open-space laboratories’, territories where new strategies and approaches can be accommodated, linking the global issues to the local scale;

7. the pioneering spirit of the MAB founders was very rooted in a solid multidisciplinary scientific approach, which seems to get lost in the recent time; to reinforce the very innovative features of the MAB Programme, UNESCO should constantly be focused on the research aspects. BRs are expected to be the places where the most innovative in-field investigations are carried out and the results immediately converse into inputs for the amelioration of the management practice. The contact and exchange of results between UNESCO and the research institutions - operating at the SEECs levels - has to be constantly updated; furthermore, a specific task-force could be activated at international level to monitor and process the results obtained at local level (e.g. a specific MAB study center);

8. ultimately, the regional and sub-regional dimensions of the worldwide MAB perspective are essential to better focus on the specific issues emerging from a peculiar geo-political context; the case of the SEECs is emblematic of the key importance of the ROSTE office and its networking activities, as a catalyst of specific contributions to the Programme ameliorations, which has to be further reinforced in the frame of a better visibility and effectiveness of UNESCO at the regional level.

Biosphere Reserves can become “special places for people and nature”, at the condition that all the above mentioned factors are properly activated, in the frame of a real commonly shared exercise toward further co-operation.
# ANNEXES

## ANNEX I – MAIN EVENTS IN THE MAB HISTORY

<table>
<thead>
<tr>
<th>DATE AND PLACE</th>
<th>EVENT (DENOMINATION)</th>
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<tbody>
<tr>
<td>1971, UNESCO, Paris</td>
<td>International Co-ordinating Council for the MAB Programme (First session)</td>
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<td>1973, UNESCO, Paris</td>
<td>Expert Panel on MAB Project 8 on ‘Conservation of Natural Areas and the Genetic Material they Contain’</td>
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<td>1976, Moscow, USSR</td>
<td>First BRs designated by MAB Bureau. USA-USSR Symposium on Biosphere Reserves</td>
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<td>1977</td>
<td>Regional workshop on BRs in the Mediterranean region</td>
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<td>1983, Minsk, USSR</td>
<td>International Congress on Biosphere Reserves</td>
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<td>1985, Cancún, Mexico</td>
<td>Scientific Advisory Panel for Biosphere Reserves (first meeting)</td>
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<td>1986, La Paz, Boliva</td>
<td>Scientific Advisory Panel for Biosphere Reserves (second meeting)</td>
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<td>1989, San Francisco, USA</td>
<td>International workshops on application of BR concept to coastal areas</td>
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<td>1989, Moscow, USSR</td>
<td>International workshops on remote sensing technologies for BRs</td>
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<td>1990, UNESCO, Paris</td>
<td>Folding World Map of Biosphere Reserves. MAB Digest 6 on debt for nature exchanges and biosphere reserves</td>
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<td>Year</td>
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<tr>
<td>1992</td>
<td>UNESCO, Paris</td>
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<td>1992</td>
<td>Caracas, Venezuela</td>
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<td>1994</td>
<td>China</td>
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<td>1995</td>
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<td>2002</td>
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